

KANSAS SECTION OF THE KANSAS FARM PRESS

Cop. 2

KANSAS FARMER and MAIL AND BREEZE

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Correct TRACTOR LUBRICATION

How to read the Chart

The four grades of Gargoyle Mobiloils for tractor lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "BB"
Gargoyle Mobiloil Arctic

In the Chart below, the letter opposite the tractor indicates the grade of Gargoyle Mobiloils that should be used. This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Tractor Lubrication.

	1910 March	1912 March	1917 March	1918 March	1919 March
TRACTORS					
Albion-Dover (Square Turn)	BB	A	BB	A	A
Alfa Chalmers	BB	A	BB	A	A
(General Purpose)					
All Work	BB	B	BB	A	A
Applon	BB	B	BB	A	A
Ashman-Taylor	BB	B	BB	A	A
" (18-30)	BB	B	BB	A	A
" (32-40)	BB	B	BB	A	A
" (19-30) (Waukegan)	BB	B	BB	A	A
Avon	A	A	B	A	B
" (5-10 H.P.)	A	A	B	A	B
" (Louisville)	A	A	B	A	B
Beck Steel Mfg.	B	A	B	B	B
Beck Track-Pull	B	A	B	B	B
Big Bull	B	A	B	B	B
Buckley (Ohio)	B	A	B	B	B
" (9-18)	B	A	B	B	B
" (10-20)	B	A	B	B	B
" (12-30)	B	A	B	B	B
" (20-40)	B	A	B	B	B
Cleveland	BB	B	BB	A	B
Coleman	BB	A	BB	A	B
Common Sense	BB	A	BB	A	B
C. O. D.	BB	A	BB	A	B
Craig	BB	A	BB	A	B
Crawling Grip	BB	A	BB	A	B
Emerson-Brantingham (EB)-16	BB	A	BB	A	B
" (EB)	BB	A	BB	A	B
" (Model 18)	BB	A	BB	A	B
" (Raven)	BB	A	BB	A	B
Flour City	B	A	B	A	B
(Heavy Duty)					
Fordson	A	A	B	A	B
Gas Pull (Rumely Co.)	A	A	B	A	B
Grain Pull	BB	A	B	B	A
Hagerty Farm	BB	A	B	B	A
" (Model B)	BB	A	B	B	A
Hart Parr	B	A	B	A	B
Holder	B	A	B	A	B
Hession	B	A	B	A	B
Hollis	B	A	B	A	B
Holt Caterpillar	BB	A	BB	A	B
" (Model 45)	BB	A	BB	A	B
" (Model 48)	BB	A	BB	A	B
Illinoi	BB	A	BB	A	B
Indian	A	A	B	A	B
K. C. Prairie Dog	A	A	B	A	B
Kincaid	B	A	B	A	B
Le Cross	B	A	B	A	B
Lauson	B	A	B	A	B
Liberty	B	A	B	A	B
Lightfoot	B	A	B	A	B
Minnesota	B	A	B	A	B
Mogul (I. H. Co.)	BB	A	BB	A	B
" (1-16) (I. H. Co.)	BB	A	BB	A	B
Moine Universal	BB	A	BB	A	B
National	BB	A	BB	A	B
Neverslip	BB	A	BB	A	B
" (20-12)	BB	A	BB	A	B
" (14-20, 10-30)	BB	A	BB	A	B
New Age	BB	A	BB	A	B
Niles	BB	A	BB	A	B
Oil Pull (14-20, 10-30) (Rumely)	BB	A	BB	A	B
" (Co.)	BB	A	BB	A	B
" (20-40) (Rumely Co.)	BB	A	BB	A	B
" (12-20, 16-30) (Rumely)	BB	A	BB	A	B
" (Co.)	BB	A	BB	A	B
" (Rumely Co.)	BB	A	BB	A	B
Paretti	B	A	B	A	B
Pioneer	B	A	B	A	B
Play Boy	B	A	B	A	B
Plow Man	BB	A	BB	A	B
Port Huron	BB	A	BB	A	B
Royer	B	A	B	A	B
Rumely	B	A	B	A	B
" (5-16)	B	A	B	A	B
Russell	BB	B	BB	A	B
" (Giant)	BB	B	BB	A	B
Sandusky	B	A	B	A	B
Titan (I. H. Co.)	BB	A	BB	A	B
Townsend	B	A	B	A	B
Turner	B	A	B	A	B
Transax	BB	A	BB	A	B
Twin City	B	A	B	A	B
" (Model 18)	B	A	B	A	B
" (Model 16, 10)	BB	A	BB	A	B
" (Model 12-30)	BB	A	BB	A	B
Velle	B	A	B	A	B
Vallio Cub	B	A	B	A	B
" (Junior)	BB	A	BB	A	B
Watson Boy	B	A	B	A	B
Whitney	BB	A	BB	A	B

Only One oil can be Best for your tractor or automobile

Are you using it?

"IT is cheaper to wear out oil than machinery"—is an axiom among automotive engineers. For this purpose the best oil is the cheapest. Only by using the correct oil can you be certain that your machinery is not getting unnecessary wear.

Tractor manufacturers in steadily increasing numbers are recommending Gargoyle Mobiloils for use in their tractors. In many cases the tractors carry a plate recommending the use of the grade of Gargoyle Mobiloils specified by the Chart of Recommendations. And in some cases a supply of Gargoyle Mobiloils of the correct grade is packed with the tractor when it leaves the factory.

These manufacturers want you to get engine results. They know that



Mobil oils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safer to purchase in original packages. Look for the red Gargoyle on the container.

by using the correct grade of
Gargoyle Mobiloils *you will.*

The same reasoning applies with equal force to your automobile. Oil which breaks down under the intense heat of service, and whose body does not provide a proper seal for your piston rings, will not protect your engine from the costly wear that shortens its life and curtails its efficiency. In other words, such an oil does not give engine results.

The charts shown here specify the correct grades of Gargoyle Mobiloils for your automobile and your tractor. These Charts are recognized

the world over as
authoritative
guides to scientific
lubrication. Make
them your guides.

Correct AUTOMOBILE LUBRICATION

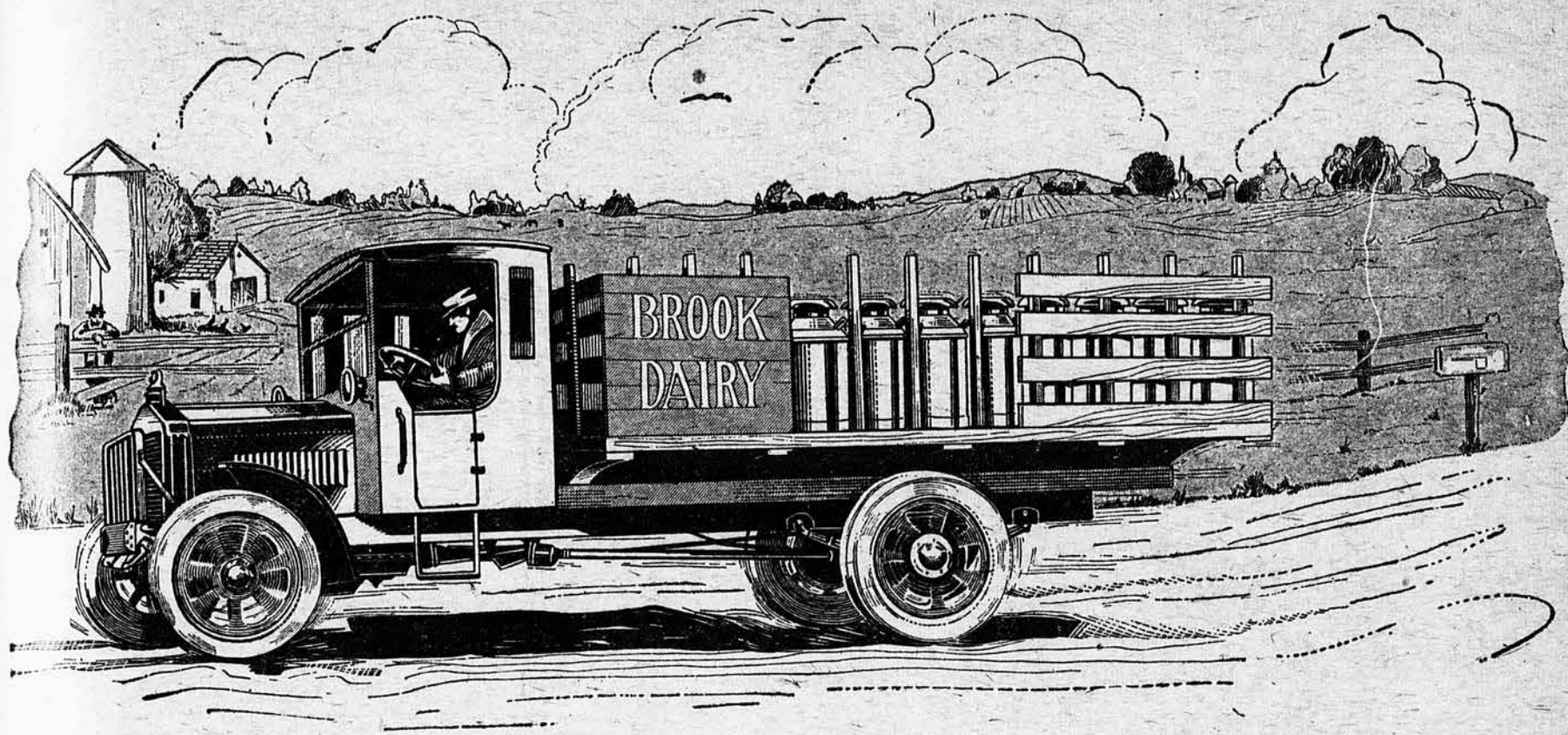
How to read the Chart

The four grades of Gargoyle Mobilolils, for engine lubrication, purified to remove free carbon, are

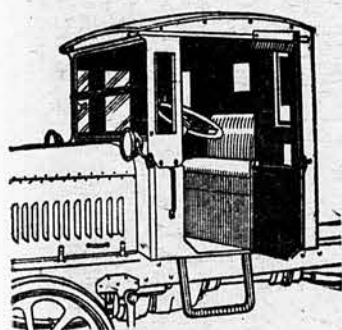
Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil Arctic

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobil oils that should be used. For example "A" means Gargoyle Mobiloil "A." "Arc" means Gargoyle Mobiloil Arctic, etc. The recommendations cover all models of both passenger and commercial vehicles unless otherwise noted. This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

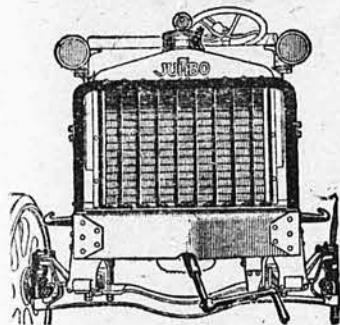
AUTOMOBILES	1916 Models		1916 Models		1917 Models		1918 Models		1919 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Allen	A	A	A	A	A	A	A	A	A	A
Auburn (4 cyl.)	A	A	A	A	A	A	A	A	A	A
Auburn (6-8)	A	A	A	A	A	A	A	A	A	A
Auburn (6-90) (Testor-H)	A	A	A	A	A	A	A	A	A	A
Birco	A	A	A	A	A	A	A	A	A	A
Buick	A	A	A	A	A	A	A	A	A	A
Cadillac (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Chalmers	A	A	A	A	A	A	A	A	A	A
" (6-90)	A	A	A	A	A	A	A	A	A	A
Chandler Six	A	A	A	A	A	A	A	A	A	A
Chrysler	A	A	A	A	A	A	A	A	A	A
" (F.A.)	A	A	A	A	A	A	A	A	A	A
Cole	A	A	A	A	A	A	A	A	A	A
Cunningham	A	A	A	A	A	A	A	A	A	A
Dart	A	A	A	A	A	A	A	A	A	A
" (1 and 3 1/2 ton)	A	A	A	A	A	A	A	A	A	A
Dodge Brothers	A	A	A	A	A	A	A	A	A	A
Dort	A	A	A	A	A	A	A	A	A	A
Federal	A	A	A	A	A	A	A	A	A	A
Federal (Special S-X)	A	A	A	A	A	A	A	A	A	A
Fiat	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	A
Grant	A	A	A	A	A	A	A	A	A	A
" Com'l	A	A	A	A	A	A	A	A	A	A
" (Model 12)	A	A	A	A	A	A	A	A	A	A
Haynes	A	A	A	A	A	A	A	A	A	A
" (12 cyl.)	A	A	A	A	A	A	A	A	A	A
Hudson	A	A	A	A	A	A	A	A	A	A
" Super Six	A	A	A	A	A	A	A	A	A	A
Hupmobile	A	A	A	A	A	A	A	A	A	A
Kelly Springfield	A	A	A	A	A	A	A	A	A	A
Kin	A	A	A	A	A	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
" Commercial	A	A	A	A	A	A	A	A	A	A
Kluge K	A	A	A	A	A	A	A	A	A	A
" (Model 40)	A	A	A	A	A	A	A	A	A	A
" (12 cyl.)	A	A	A	A	A	A	A	A	A	A
Lezington	A	A	A	A	A	A	A	A	A	A
Lippard Six	A	A	A	A	A	A	A	A	A	A
" (Mod.M)	A	A	A	A	A	A	A	A	A	A
" (Mod.M)	A	A	A	A	A	A	A	A	A	A
Locomobile	A	A	A	A	A	A	A	A	A	A
Madison	A	A	A	A	A	A	A	A	A	A
Madison	A	A	A	A	A	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Marmion	A	A	A	A	A	A	A	A	A	A
Mercer	A	A	A	A	A	A	A	A	A	A
" (30-70)	A	A	A	A	A	A	A	A	A	A
Mitchell	A	A	A	A	A	A	A	A	A	A
" 8 cyl	A	A	A	A	A	A	A	A	A	A
Moline-Knight	B	B	B	B	B	B	B	B	B	B
Monroe	A	A	A	A	A	A	A	A	A	A
" (Mod. M)	A	A	A	A	A	A	A	A	A	A
" (Mod. S.)	A	A	A	A	A	A	A	A	A	A
Moon	A	A	A	A	A	A	A	A	A	A
Nash	A	A	A	A	A	A	A	A	A	A
" (Mod. 675)	A	A	A	A	A	A	A	A	A	A
" (Quad)	A	A	A	A	A	A	A	A	A	A
National	A	A	A	A	A	A	A	A	A	A
" (12 cyl.)	A	A	A	A	A	A	A	A	A	A
Nelson	A	A	A	A	A	A	A	A	A	A
Oakland	A	A	A	A	A	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Oldsmobile (6 cyl.)	A	A	A	A	A	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Overland	A	A	A	A	A	A	A	A	A	A
Packard	A	A	A	A	A	A	A	A	A	A
" (12 cyl.)	A	A	A	A	A	A	A	A	A	A
" Commercial	A	A	A	A	A	A	A	A	A	A
Pais	A	A	A	A	A	A	A	A	A	A
" (4 cyl.)	A	A	A	A	A	A	A	A	A	A
" (6-10)	A	A	A	A	A	A	A	A	A	A
" (6-10)	A	A	A	A	A	A	A	A	A	A
" (6-18-30)	A	A	A	A	A	A	A	A	A	A
" (6-40)	A	A	A	A	A	A	A	A	A	A
Pais	A	A	A	A	A	A	A	A	A	A
Patterson	A	A	A	A	A	A	A	A	A	A
Peerless	A	A	A	A	A	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Pierce Arrow	A	A	A	A	A	A	A	A	A	A
" Com'l.	A	A	A	A	A	A	A	A	A	A
Premier	A	A	A	A	A	A	A	A	A	A
Regal	A	A	A	A	A	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Renault (French)	A	A	A	A	A	A	A	A	A	A
Reo	A	A	A	A	A	A	A	A	A	A
Riker	A	A	A	A	A	A	A	A	A	A
Saxon	A	A	A	A	A	A	A	A	A	A
Selden	A	A	A	A	A	A	A	A	A	A
" (4 ton)	A	A	A	A	A	A	A	A	A	A
Simplex Crane	B	B	B	B	B	B	B	B	B	B
Stearns-Knight	A	A	A	A	A	A	A	A	A	A
Studebaker	A	A	A	A	A	A	A	A	A	A
Strut	A	A	A	A	A	A	A	A	A	A
Vale	A	A	A	A	A	A	A	A	A	A
" (4 cyl.)	A	A	A	A	A	A	A	A	A	A
" (6 cyl.)	A	A	A	A	A	A	A	A	A	A
" (2 and 3 1/2 ton)	A	A	A	A	A	A	A	A	A	A
" (4 ton)	A	A	A	A	A	A	A	A	A	A
Westcott	A	A	A	A	A	A	A	A	A	A
White	A	A	A	A	A	A	A	A	A	A
" (Sixteen Valve)	A	A	A	A	A	A	A	A	A	A
White (1 ton)	A	A	A	A	A	A	A	A	A	A
Willys-Knight	A	A	A	A	A	A	A	A	A	A
Willys Six	A	A	A	A	A	A	A	A	A	A



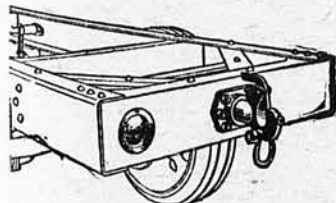
JUMBO—The Complete Truck



Steel cab with three-man seat, fore doors and sliding sash curtains.



Radiator guard, shutters, pig-tail towing hooks, over-size ball thrust in steering knuckle.



Reinforced frame, tail light mounted flush with frame, spring draw bar for trailers.

WHEN you buy a Jumbo, you get a *complete* truck. There are no extras to buy except the body most suitable to your particular business.

Jumbo trucks are built stronger than other trucks to give you more years of steady, dependable service at lowest possible upkeep cost. All equipment that makes for efficient operation is *standard* on Jumbo trucks.

This generous provision in the matter of equipment, listed on this page, is typical of Jumbo construction throughout. Jumbo trucks *must* give you unusual service ---that's the idea around which our business is built.

Standard Jumbo Equipment

Includes steel cab with four doors, windshield, sliding sash curtains opening with doors, electric lights, storage battery, generator, ammeter, radiator shutters, motor, fan shroud, radiator guard, extended frame forming bumper, hub-odometer, pig-tail tow hooks, spring drawbar, and 14 other big features.

Space won't permit description of design features that positively assure longer life and lower upkeep cost than any other truck built today.

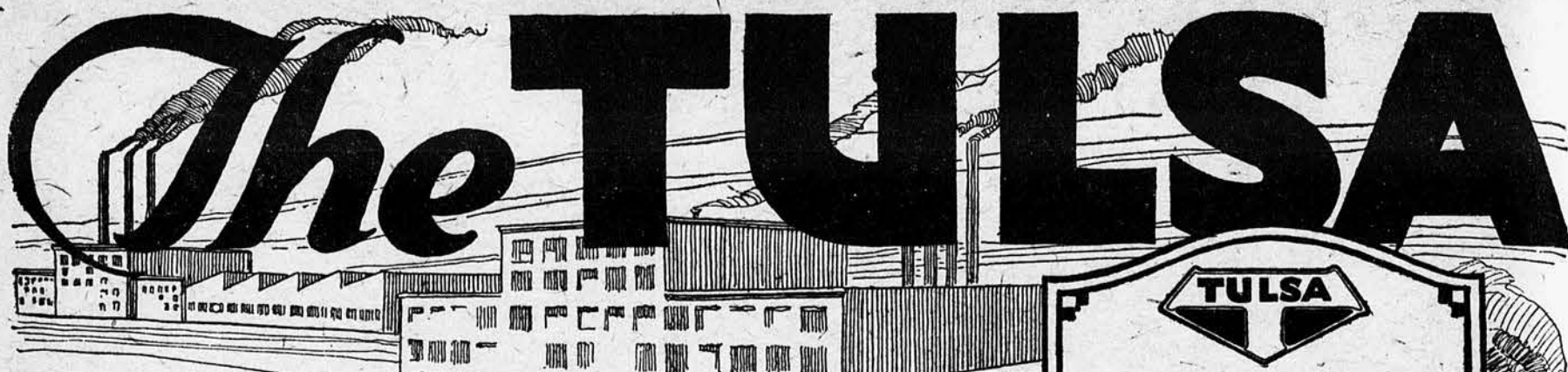
*Jumbo Trucks are ideal for farm haulage.
Write for full information showing why.*

NELSON MOTOR TRUCK COMPANY
SAGINAW, MICH.

We Also Make the Famous Jumbo Farm Engine

Wichita Automobile Co.
Wichita, Kansas
Distributors





The Masterpiece of Combined Factories

**A Score of Great Makers—Each Foremost
in his Line, Produce Some Part of the TULSA**

No single automobile factory on earth, compares in size with the combined factories which produce the various units in the TULSA. Each maker to his chosen specialty; concentrating capital, brains, experience and efficiency on one individual automobile part, has produced a masterpiece in that particular part.

The makers of the TULSA with rare judgment and engineering ability, have combined these parts into a car that has astounded the industry in points and performance. In value they have amazed the country. Every important part in the TULSA is identical with that in some car costing \$2,000 or more.

First built to the specifications of wealthy oil men, with a special body for oil field use, they are now answering the demand of the motor world with touring car and roadster models, built over the same chassis. They have lines of unusual beauty, and comfort features unsurpassed. They are cars that anyone would be proud to drive on any boulevard in America.

Check the specifications to the right. Note the stuff that is in this car. Note that each unit is recognized as the best, or among the best made—then compare it with any car selling for less than \$2,000.

Write for detail specifications and the name of your nearest dealer.

Touring Car Roadster Oil Field Special
Price \$1445 F. O. B. Factory

TULSA AUTO MANUFACTURING CO.
Tulsa, Oklahoma

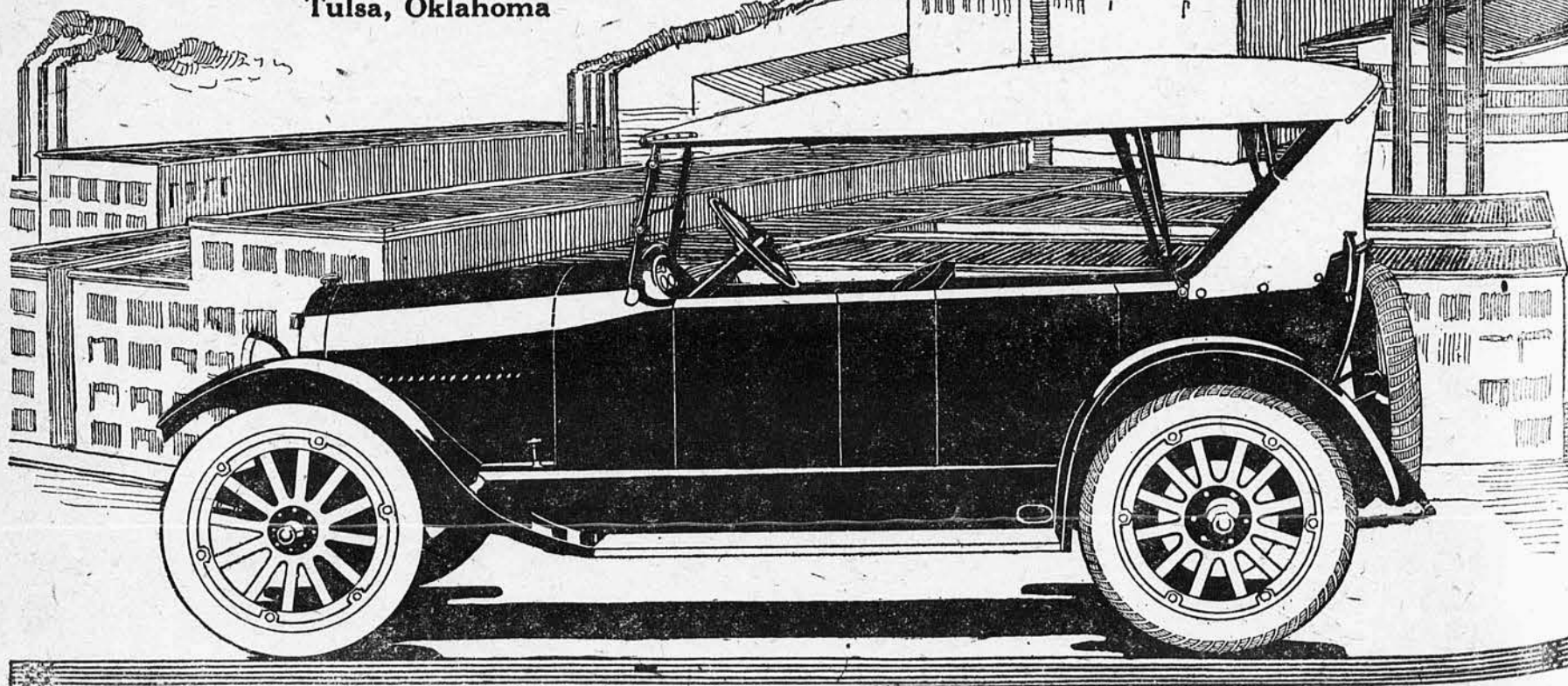


SPECIFICATIONS

**Check These Features
One By One**

Lycoming Motor, 4 cyl.
Connecticut Ignition
Dyneto Starting and Lighting
Exide Storage Battery
Muncie Transmission
Borg & Beck Clutch
Jamestown Radiator
Timken Roller Bearings
New Departure Ball Bearings
Brown-Lipe-Chapin &
Warner Gears
Salsbury Wheels & Axles
Miller Carburetor
C. A. S. Steering Gear
Standard Universal Joints
Stewart Vacuum and
Speedometer
Hotchkiss drive
Firestone 33x4 tires
Frame, heavy pressed steel.

**Dealers Desired in
Territory Not
Previously Allotted**



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A Modern Home at Geneseo

By Ida Migliario

THAT six good sized windows in a kitchen need not make it impossible for one to have plenty of cupboard room is well demonstrated in the home of Mr. and Mrs. C. S. Newkirk, who live on a farm $6\frac{1}{2}$ miles from Geneseo, Kan. The kitchen is on the southeast corner of the house and naturally gets sunlight the year around. On the south side of the room are three half-length windows and around these is a very unique cupboard arrangement which serves many purposes.

Above the windows the space is taken up with three "catch all" cupboards. By having them built to the ceiling there is no chance for dust to collect on top. These roomy cupboards provide a place for keeping wrapping paper, twine, hammer, nails, tacks, and the many, many small things that are so necessary about a house.

Cupboards for Supplies

On each side of the windows cupboards were built for such supplies as spices, salt, pepper, corn starch, soda, baking powder, cocoa, chocolate and cream tartar. Beneath the windows and connecting these two cupboards one finds a mixing table. This table has a thick glass top so it is not necessary for Mrs. Newkirk to bother with bread and pastry boards, for the glass makes an excellent kneading board and it is easily cleaned whenever it is necessary to do this.

Underneath the mixing table and extending on down to the floor is more well planned cupboard space. At each end and corresponding with the supply cupboards at the sides one finds a place for the children's playthings. One excellent feature is the fact that the two little Newkirk girls—even tho Francis is only 4 years old and Margery 16 months—know that these cupboards were built for their use, and when they have finished playing with their toys they take them back to the cupboards and put them away. In the space between these two floor cupboards are two doors which, when opened, swing out bins which have been fastened to the inside. A large flour bin opens on the right side and a sugar bin on the left.

And so these three windows are simply encased by cupboards and if one stops to analyze the contents of the supply shelves he realizes that Mrs. Newkirk has right at her finger tips all the ingredients necessary in combining recipes. An equally interesting plan is found on the east side of the room where three more half-length windows have excellent cupboard space beneath them. The table under these windows, which is built for general use, is of such a width as to allow two kitchen sinks to be placed side by side in the center of the table space. This arrangement was chosen so that by using a stopper plug—such as one finds in a bath tub—in place of the usual sink drain, Mrs. Newkirk could wash her dishes in one sink and rinse and drain them in the other without having to bother with dish pans. On each

side of these sinks one finds more work table space, the glass top being again used. Underneath the table and at each side are large utensil cupboards, as well as cutlery and kitchen linen drawers. The space just below the sinks was not enclosed for it was felt that some place was needed in which the children could keep their "Kiddie Kars," doll buggies and the like and so in this open space one sees the little girls storing their larger playthings.

On the north side of the kitchen is the food cupboard which is really a cold storage cupboard. A small opening was made which extends to the outside of the house, and a screen was placed over the opening so cold air can enter the cupboard. There is no danger of food spoiling, and Mrs. Newkirk says this cooling window cuts down her ice bill. Of course in extremely cold weather this opening can be

closed. Next to the food cupboard and near the dining room door is the china closet. The west end of this closet is used as a place for the "built in" ironing board. This board is set on hinges so it can be swung up into the cupboard and the door closed. The socket for the electric iron also is built in this iron board closet. On the north side of the kitchen is a large coal range and also a kerosene range. Mrs. Newkirk says the coal range is not used very much for she finds the oil range answers her needs unless she has an unusually large number of hired men to cook for, and then she often uses both stoves. Mrs. Newkirk also finds that the glass door in the oven of her oil range is an excellent feature for it does away with her having to open the oven door to watch her foods bake. One also finds a good sized cleaning closet on the north side of the kitchen, and in this closet a small shelf near the top offers a place for keeping furniture and stove polish, as well as dust cloths. Beneath the shelf there is plenty of room for keeping the broom, dustless floor polisher, weighted wax mop, carpet sweeper and dust pan.

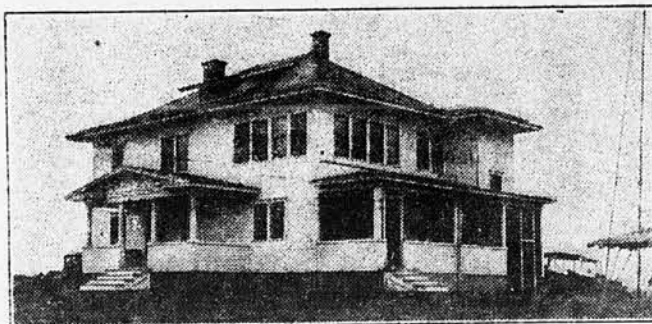
The kitchen is very attractive because of the natural finish of the hard wood floors, which are like those found in the other rooms in the house. Opening off the kitchen one finds a large store room equipped with shelves and cupboard space. The cupboard is built so it extends thru

to the food cupboard on the kitchen side. Mrs. Newkirk can store her canned fruits and vegetables in this place for it, too, is kept cold by the cooling window. Excellent home management is shown by the complete equipment of an emergency shelf in this store room. Mrs. Newkirk says that because she cannot run across the street to the grocery store she feels it necessary to keep her emergency shelf well supplied with canned cheese, salmon, canned dried beef, canned oysters, peas, beans, rice, crackers and so on, for then she is always ready for company. The clothes chute which extends from the upstairs to the basement passes thru this store room and is very convenient.

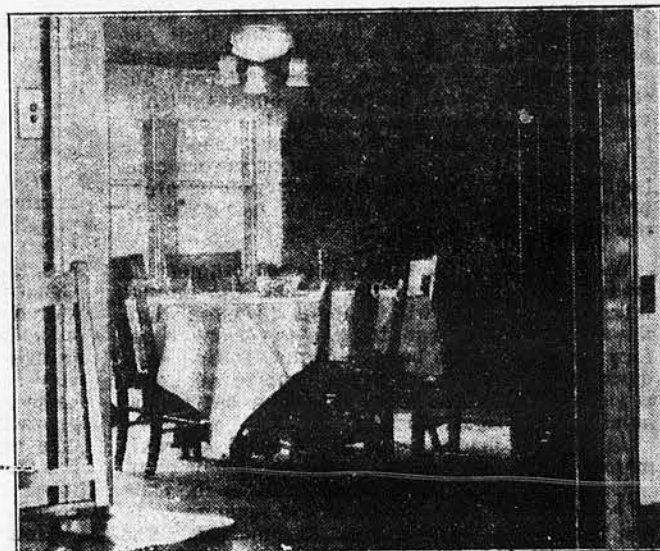
The Men's Wash Room

Because it is necessary for the Newkirks to have many hired men it was thought wise to have the stairway easily accessible from the outside. One can go from the store room upstairs or out of doors, but it is not necessary to pass thru the store room to reach the stairway. A door leads from the dining room to the stairway, also. At this particular point where the outside door, the store room and stairway door are to be found, a wash room has been built for use of the men.

It is not necessary for them to enter the main part of the house to wash. This room has an outside entrance, a cement floor and is equipped with lavatory, mirror and towel racks. One also can reach the basement from the wash room. The basement extends under the entire house and it is divided into rooms. The laundry has not been equipped as yet but the room set aside for this purpose is very large and offers plenty of space for a drying room. Mr. and Mrs. Newkirk expect to install an electric washer and laundry stove soon. Until the laundry is finished Mrs. Newkirk has solved the problem of carrying water with which to wash by attaching the garden hose to the pump and taking it into the washing machine; the windmill does the rest. She likewise fills her reservoir in this manner, and the dirty water is drained from the washing machine by using the (Continued on Page 18.)



The Modern Home of Mr. and Mrs. C. S. Newkirk.



The Attractive Dining Room is an Interesting Feature.

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Kansas Farmer and Mail and Breeze

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 Member Audit Bureau of Circulation.

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ARTHUR CAPPER, Publisher
 F. B. NICHOLS, Managing Editor
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Passing Comment—By T. A. McNeal

THE GERMAN mark has an exchange value of 1 cent in American money. The American soldier in Germany exchanges his month's pay for 3,300 marks, which prior to the war would have been worth \$425 in our money. That means that the present German government is practically without credit. In other words Germany is bankrupt.

The French franc is not worth more than 7 cents. In pre-war times it was worth almost 20 cents. The Italian lira worth at par practically the same as the French franc, is now worth in our money approximately 6 cents and seems to be going lower. The English pound sterling, worth at par \$4.86 is now worth only \$3.43. The money of Austria is worth practically nothing. Russian Bolshevik money is worth possibly a little less than the paper it is printed on.

All of this seems to spell bankruptcy for Europe. Loaded down with a war indebtedness of 200 billion dollars, the indications are that the people of those countries can never carry the load. And suppose Europe goes thru bankruptcy, what of it? What will be the result so far as the world in general is concerned and so far as the United States is concerned? The first result in all probability would be to precipitate a panic in all the money and stock markets of the world. But it is my candid conviction that not only would the final result be beneficial to the world in general and to Europe in particular, but that it is necessary to preserve the world from revolution and anarchy.

The sources of wealth have not been destroyed by war. There has been considerable damage done it is true and it would be a considerable time before industrial production could be restored, but with the load of debt lifted from the backs of the wealth producers, within 10 or 15 years the world would be a richer world and a vastly better world to live in than it ever has been. It would mean of course that the allied nations might have to forego a part of the indemnity demanded from Germany. It would also mean that the United States would lose the money amounting to several billions lent to France, Italy and England, but it would also mean that the wealth producers would not be weighed down with intolerable burdens of debt, on which they are not able to pay the interest to say nothing of the principal.

It would also impress a valuable lesson on all classes showing the futility and destructiveness of war. In war the nation calls on its sons to go out and risk their lives and in many cases lose them. It takes them from their business and compels them to sacrifice not only their time but the opportunities for accumulating property while they are in the service. There is no promise that they will be recompensed for this loss. On the contrary, unless they happen to be disabled, in which case they are granted pensions, very small in most nations, they get nothing at all, except the meager monthly wage.

Those who lend money to the governments in time of war, however, while claiming great credit, demand that the government shall not only give them a first lien on the government revenues and pay them a liberal interest, but that the bonds shall be paid in dollars with a vastly greater purchasing value than the dollars with which the bonds were purchased. As a result of this policy the value of government bonds increases in value in proportion as other property decreases in value as measured by the dollar.

As a result of the war this government is loaded up with an enormous debt, the annual interest on which will amount to more than the entire cost of running the government before the war. These bonds are now selling at a discount varying from 2 per cent to about 11 per cent. They are rapidly passing out of the hands of the small owners.

At present prices these bonds yield approximately 5 per cent and are entirely exempt from taxes of any description except that in the case of some of the bond issues, if the revenue from bonds exceeds \$5,000 a year, income tax must be paid on the excess. That means that the holder may have \$125,000 in bonds entirely free from taxation. While these bonds are bought

with money of greatly reduced purchasing power, the bond holder will demand that they be paid in full with the best money in the world.

What this government should do is to take up all of these interest-bearing bonds, redeem them with non-interest-bearing bonds payable in from one year to 10 years and then provide for revenue sufficient to pay off one-tenth of the total indebtedness each year until all is paid. This would insure the bond holder of getting back all he puts in and more, because he will be paid par for what he can purchase at a discount and in money of greater purchasing power than the money he paid for the bonds. The holder would also have the privilege at any time of exchanging his bonds for currency. The result of this would be to save the people of the United States in 10 years nearly 15 billion dollars interest. It would also force the holder of the non-interest-bearing bond to exchange it for productive capital and invest in some productive enterprise, which would employ labor and add to the improvements and wealth of the country. There is no doubt whatever that this would benefit the country, but heretofore the interest gatherers have been able to control Congress and, perhaps, will do so again.

If so we are due for another period of discontent vastly more widespread and dangerous to the peace of the country than that which occurred a few years after the Civil War. The reasons why the discontent will be greater and more dangerous is that the debt is greater even in proportion to the entire wealth of the country, than was the Civil War debt and the second reason is that while formerly the government revenue was largely derived from indirect taxation, at present the greater part is derived from direct taxation.

Under the old Mosaic code every 50th year was set aside as a year of jubilee, when all debts were wiped out, bondmen set free and the people permitted to start even. It would in my opinion be a benefit to the world if there was a general year of jubilee declared, the old national debts wiped out and the producers of the world permitted to start on a new era of wealth creation unhampered by national debts.

Value of a Government

ONE OF OUR readers, Joseph L. Patrick of Keystone, Okla., quotes from an editorial of mine in which I said: "The only government worth preserving is that which affords equal justice and equal protection to all of its citizens however humble." Then Mr. Patrick continues:

"If what you say is true our government is not worth preserving. Why then have you so much to say about Bolsheviks and that they should be sent out of the country? According to your theory they have a God-given right to destroy the government and try some other which might be for the worse or might be for the best. I deny that such is the case. While there is great dissatisfaction as to the way the present Administration is doing things, I deny that there is any excuse for destroying the government. We yet have the Constitution and I hope we will still continue to keep it as a sacred instrument. I deem the Constitution as perfect as a God could make."

Well that is going some. I think the Constitution was a very remarkable instrument, but the people of the United States thru their legislatures have seen fit to amend it 18 times and are about to add the 19th amendment. This Constitution which Mr. Patrick regards as inspired and the perfection of divine wisdom, permitted the institution of human slavery; it contained within itself the seeds of an irrepressible conflict and while in the great and bloody strife prevailed, the fact that such a bloody conflict was necessary to settle the compromise which the Constitution permitted, certainly shows that it was not as perfect a work as an all-wise God could devise.

However, my own statement quoted by Mr. Patrick is undoubtedly subject to criticism, in that it was made without qualifications, which I assumed but did not express. When we speak

of a just government of course we mean relatively just, because government, being human, is necessarily imperfect. No government has yet been devised that does afford exactly equal justice and protection to each of its citizens. If we demand that perfect government we cannot find it and probably never will achieve it and if my statement is to be taken literally then no government is worth preserving and none can be devised by imperfect men that will be worth preserving. What I mean to say is this; that no government which deliberately pursues a policy of injustice toward any part of its citizens should be preserved. That does not mean however that even a government which does not undertake to do justice to all of its citizens, however humble, should be destroyed. The government of the United States prior to the Civil War protected the institution of human slavery, a monstrous wrong and injustice, yet the loyal North organized and equipped vast armies for the purpose of preserving that government. That was right. It was the duty of the freedom-loving citizens of this country to change their government and rectify the great wrong. I will say that a government which protected this inhuman institution and persisted in it would not be worth preserving, but our citizens have the means of changing their form of government to make it a more just and equitable government.

My objection to the Bolsheviks and anarchists is that they are not willing to undertake to change the form of government thru the channels provided by our Constitution and our laws. They propose to overthrow it by violence and they propose also to rule by the minority and not by the majority.

And here comes W. H. Bibler of Garden City who writes: "I have been reading the Kansas Farmer and Mail and Breeze all winter, reading and thinking." I may say that is a most admirable course to pursue, provided the reader reads with an open mind and thinks sanely, but to quote further from Mr. Bibler: "I have come to the conclusion this old United States of ours is in bad and all the remedies offered by the editor, fellow readers and Congress do not appeal to me as offering a cure."

That of course lets me out, but then I seem to be in distinguished company. However, out of his mental processes Mr. Bibler has reached some conclusions on his own account concerning the proper remedies and here they are:

1. Stop foreign immigration of labor and take care of our own laborers; business institutions are costing the public too much.
2. Deport all the foreign element which is not satisfied with our government.
3. Have the greatest book of the ages, the Holy Bible, taught in our public schools. No wonder conditions are as they are with the prevailing ignorance of the Bible.
4. Enforce education. I know that we have a compulsory educational law but it is not enforced. Do not stop with the grades but enforce a high school education. We are spending millions to police the United States. Why not educate?
5. Put a lid on Sunday amusements and business. Force people to attend church and Sabbath school.
6. Teach people to have more reverence for our Lord and Master and they will soon have more for their fellow men. Our government talks nothing but force, force, force and leaves Christ entirely out.

Force alone will not make good citizens. You must include love. We do not desire military training. We fought Germany to do away with militarism. We proved to the world that our untrained soldiers made better soldiers in the last war than military made ones.

Do I wish to send my boy to a military camp, from a pure life to the temptations, vice and wickedness that will be set before him there? No.

7. Leave the declaration of war to a vote of the people. That will form the best League of Nations, for the masses are the ones who sacrifice life, blood, homes and their loved ones and then live slaves themselves to the debt created by war.

No, we do not desire militarism. I am a Republican bred and born. My father went with Sherman to the sea, but I will never vote for a Presidential candidate who stands for military training.

Now there is a letter which seems to me to be a rather strange mixture of idealism and intolerance. The writer would compel everybody to go to church and Sabbath school. He would compel the observance of Sunday and forbid all Sunday recreation. This is reverting to Puri-

tanism and the blue laws with a vengeance. Religious liberty is the corner stone of our republic and to attempt at this time to enforce a religious rule upon the people would not only be subversive of our liberty, but would be impossible. To undertake it would most certainly precipitate a revolution.

Love of Christ cannot be created in the human heart by human law, and right here Mr. Bibler contradicts himself; after demanding that men and women shall be forced to attend church; forced to go to Sunday school; forced to refrain from Sunday amusements; forced to get not only a grade but a high school education, he then decries force and criticises the government for employing force, instead of love. The hearts and minds of men cannot be turned to the teachings of the Nazarene by Puritanical laws and intolerant enactments. That has been tried and always has failed and always will fail. Mr. Bibler's views on militarism meet with my approval.

J. F. Shughart of Winchester, Kan., writes me advising that I back up on my suggestion that Henry Allen might be a good candidate for President. He commends Governor Allen highly for what he has done in the coal strike, but recalls that he made a speech before the convention of governors a little over a year ago in which he said that Kansas would be in favor of compulsory military training and then a little later had it arranged that General Leonard Wood should address the legislature.

Continuing Mr. Shughart says, "For fear you may not yet know just where I stand on this military question, I will say that I am first, last and all the time always positively opposed to it and will not knowingly help any one who advocates it. The accomplishments of the American army have easily and ably refuted any charges made of unfitness for service because of insufficient training. Kaiser William made the mistake of his life in thinking that it was necessary to make machines out of men. You will remember how he insultingly remarked that advent of America into the war was of little or no significance by reason of her unpreparedness. Well, did he get his props knocked from under him? We think he did. We were in active war work for about one and a half years and I don't expect to live long enough to see the evil effects entirely erased. There is plenty of the military spirit in both the leading parties; let us weed it out. People everywhere are anxious to see normal conditions restored. Let us help restore them."

If I believed that Henry Allen if elected President would favor the enactment of a compulsory military training law I certainly would not support him. I have talked with him and do not believe that he would favor such a policy. He has favored the nomination of Wood and seems to have a notion that Wood is not in favor of militarism. In that he is badly off and I have been trying to make him see that under no circumstances should Wood be nominated.

I may say that I am getting letters from all parts of the state and talking with farmers from all parts of the state. The opinion of these men from the country is practically unanimous against compulsory training and against Wood as a candidate. In the cities and towns General Wood seems to have considerable support among the politicians who do not know what the sentiment of the country is. But while I am entirely satisfied that a large number of the Kansas Republicans are not for Wood, he may get the delegation because of the lack of organization among the voters who are opposed to militarism.

If General Wood is nominated the only thing that will make it possible for him to carry the state of Kansas is the general disgust among the voters caused by the reckless extravagance of the present National Administration. Were it not for that, if the Democratic party nominates a reasonably able and acceptable candidate and Wood is the Republican candidate the Democrats will carry the state as Wilson carried it in 1916.

Do not labor under any delusions concerning the Kansas voters. They are no longer tied to party. They will not hesitate to scratch their tickets if their candidates do not suit them. Old time party slogans do not greatly impress them any longer. They know perfectly well that fundamentally there is very little difference between the two old parties and they are going to vote for the candidates they think will come nearest carrying out the policies they wish carried out.

Just now a majority of them are sore on the Democratic Administration, because they think it has been a profligate Administration. The expenses of the government used to be paid almost entirely by indirect taxation and the individual citizen did not know when he paid his share. In fact he had a kind of delusion that the general government did not cost him individually anything. It is not so any more. Com-

paratively little of the national income is raised now by indirect taxation. The individual citizen is soaked for some kind of federal tax at every turn. He knows now that his government is not only costing him something but it is costing him a whale of a lot and he yells when the shoe pinches and the government collector calls on him to dig up.

He is running short of saliva from licking revenue stamps and spends many anxious hours trying to figure out how much income tax he must pay. His natural disposition is to vote against the Democratic party next election, but he also understands that a large part of this enormous expense is the result of the war and he is in no humor to keep on supporting a vast military organization. Neither does the lad who did his bit in the Great War and did it well feel kindly toward the compulsory military training idea. He knows what it is to be compelled to "kow tow" to shoulder straps and have to take orders from some commissioned officer who is not worthy to tie his shoes. When he thinks of it he boils over and is against any candidate who represents that idea. The leaders of the Republican party must not hug the delusion that they can win with anybody or that they can put a militaristic policy across for they cannot do it.

Compulsory Military Training

KEEP up the fight against compulsory military training." So writes Mrs. C. V. Simpson of Minneapolis, Kan. I might quote from dozens of similar letters from men and women in Kansas and Oklahoma. The advocates of compulsory military training do not understand the spirit of the American people. They keep reiterating the tiresome claim that military training will develop the young men of the country in a physical way and teach them respect for authority. The best citizen, in fact the only kind of a citizen worth having in a republic like this, is one who has an intelligent respect for proper and lawful authority but at the same time feels himself the equal of any other man no matter what position of authority the other may hold.

For instance, the ideal citizen has a high respect for the office of President of the United States and for the office of governor. He recognizes the right of either the President or the governor under certain conditions to call on him to leave his business and give his time and services to the general government or state, but at the same time he expects to meet either the governor or the President as his social equal. If he were required every time he went into the office of the governor to stand at attention, click his heels together, give a military salute and then wait until given permission to speak, he would have a feeling of hatred toward the governor or the President.

Our military system has been handed down to us from the time of the Prussian Von Steuben. It has all the faults of the Prussian system. It creates a military caste. Some years ago I was visiting Fort Riley. A cavalry officer was riding out over the reservation. Behind him at regulation distance rode his aide. Why did the regulations require the aide to ride so many paces to the rear? The natural place for the aide would seem to be at the officer's side where he could be addressed easily. The reason of course was to show that the aide was an inferior person. He must not presume to ride in company with his commanding officer. At that the aide had many more privileges than the common soldier, who must hold communications with his commanding officer thru the medium of some noncommissioned officer designated by the army regulations. For the soldier to approach his commanding officer as the citizen would approach the governor would subject him to severe punishment. Is it any wonder that the common soldiers came home from France sore on their officers? Is it any wonder that these men who served in the ranks are almost universally opposed to compulsory military training? It is this abominable system which the advocates of compulsory training wish to foist upon this country. As Senator Borah has well said: It is the very tap root of militarism against which the world war was supposed to be waged. There is a systematic propaganda being spread thru the country. The paid agents of the organization back of this propaganda have been traveling over the country for the past three years at least. I have been visited by several of these agents; well groomed and well fed; they have their arguments learned by rote as parrots learn to speak certain sentences. Who pays these men?

Evidently there is money and abundance of it behind the movement. I confess that when I see one of these traveling distributors of military propaganda or when I read some of their literature it has a tendency to make me see red. I say now, as I have said before, I will not knowingly support any man for either President or Congress who favors compulsory military training.

Europe's Greatest Confidence Game

A PERSON may be a large taxpayer and not own an inch of real estate. For this reason I believe all the people are vitally concerned at this moment in the stupendous scheme to saddle this country with a so-called international loan of 35 billions of dollars that would scarcely be worth the paper on which it was written. I have said something about this before but find it difficult to do the subject justice. As a people we have learned one lesson so thoroly this last year that we have got it by heart, as the boys say. It is that business passes its taxes to the consumer by adding the cost of them to the price of the goods and that every time we buy anything we are paying some of these taxes.

It can be imagined what such a gigantic loan to England and to Europe as 35 billions would mean to this people, who already have lent Europe 10 billions of dollars on which not a cent of interest has yet been paid.

The Secretary of the Treasury enumerates, that since the armistice the Treasury has made direct cash advances of \$2,380,891,000 to the allies, with \$736,481,000 additional thru purchase of their currencies to cover United States expenditures in Europe; and has sold them on credit 658 millions in supplies; has expended 100 million dollars in relief, and has allowed \$324,211,000 in unpaid interest to accrue.

It is now very plain that Europe has long intended to make this nation responsible for the war debts of the allies. This, it now appears, was to take the form of another and more gigantic loan with no real obligation to repay. It was the original plan to execute this "loan" thru the League of Nations. But the Treaty was not ratified and now it will not be except with reservations.

This sack was to contain the financial burden of the larger part of the allies' war debts and include a virtual taking over of Great Britain's huge war obligations. The aid of some of our big bankers has been enlisted in this scheme. The recent demand that this country go back to war rations and squeeze every nickel for a year or more to pile up funds to "finance" Europe and so help our sorely pressed profiteers to "keep it up" a little longer, came from this source.

Other evidence comes from across the Atlantic. A few weeks ago, Lloyd George significantly announced in Parliament that arrangements for a large international loan were necessary and "that the United States should contribute in dollars that part of the expenditure which is to be incurred." A member of the French Chamber of Deputies declared this country had made money during the war and should now be required to pay "its share" of the allies' war debt.

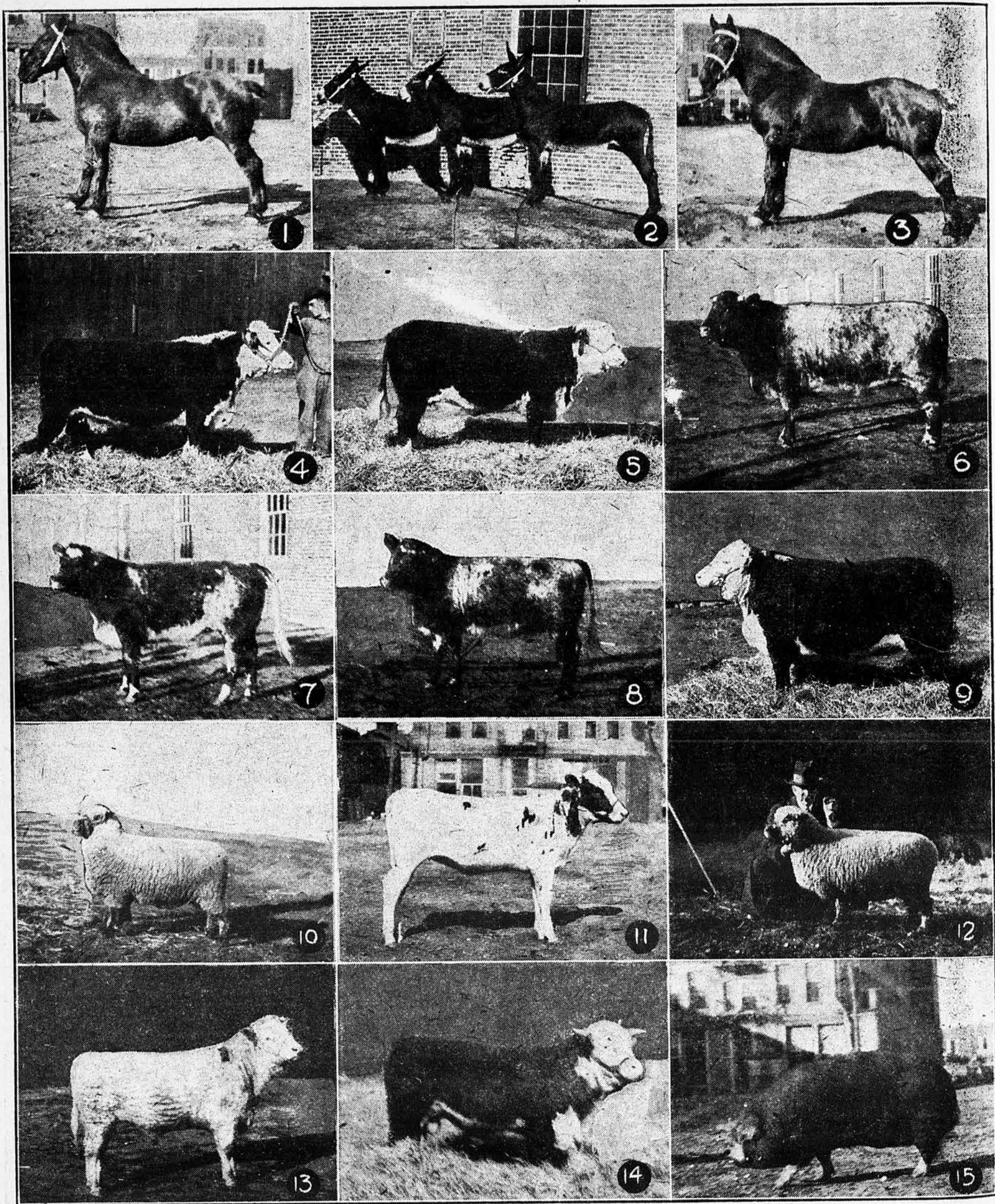
Accompanying this there has been much propaganda for the purpose of having us cancel the 10 billion dollar debt the allies owe us. Think of canceling a debt of 10 billions, then lending the creditors 35 billions more and becoming the endorser on the creditors' note! Never before has such a gigantic confidence game ever been dreamed of or attempted. And Uncle Sam is expected to fall for it. These manifestations have been followed by a visit to New York and Washington by Viscount Grey and Sir George Paish. It was Sir George who really spilled the beans. In a newspaper interview in which he gave details and figures, he declared his mission here was to conclude a loan which would stagger the world.

The British government hastily disclaimed Paish had any official connection with it—a diplomatic expedient not uncommonly resorted to when a missionary blunders—but the matter has now been so plainly disclosed there can be no denying it. The outgoing Secretary of the Treasury has made it plain what he thinks of the proposition to shift upon our shoulders the bulk of the world's war debt in addition to the 30 billions of our own—a staggering total not far surpassed by the greatest of the allies in four years of war. Not to mention the 5½ billion dollar deficit.

What Europe needs most is to go to work. Nothing else will so quickly restore it to health and reason and end its present ills. When Europe finds nothing further is to be gained by playing the mendicant and passing the hat, I predict it will go to work. We can show it no greater kindness at this time. In the same way we must buckle down to our home problems which demand our utmost efforts and all the hard-headed good sense of which we are capable.

Arthur Capper
Washington, D. C.

Winners in Kansas' Greatest Livestock Show



Kansas Owned Animals Which Won in the Kansas National Livestock Show, Wichita

1—Carmet, 5th prize Percheron 2-year-old stallion, H. G. Eshelman, Harvey County. 2—From left to right, Cecil Boy, 1st prize aged and grand champion jack, W. B. Smith, Washington County; Gov. Wood, 1st prize 3-year-old jack, W. C. Ellidge, Bourbon County; Legal Tender, 1st prize, 2-year-old jack, J. M. Godman, Bourbon County. 3—Castillo, yearling Percheron stallion, Ira Rusk, Sumner County. 4—Echo Lass 111th, 3rd prize Hereford 2-year-old heifer, V. O. Johnson, Marion County. 5—Buleen 3rd, junior champion Hereford heifer, R. H. Hazlett, Butler County. 6—Lady Supreme, grand champion Shorthorn cow (junior yearling), Park Salter, Sedgwick County. 7—Supreme Clipper, 2nd prize Shorthorn senior heifer calf, H. B. Gaeddert, Reno County. 8—Lady Marigold, 2nd prize Shorthorn junior heifer calf, Tomson Bros., Osage County. 9—Echo Lass 162nd, 2nd prize Hereford junior yearling heifer and top female in the Hereford sale, Carl Miller, Wabaunsee County. 10—Second prize Shropshire ewe, Gilmore & Haig, Marion County. 11—Miss Paul Fobes Johanna, Victor Stuewe, Wabaunsee County. 12—Champion Shropshire ewe, Gilmorelands, Wilson County. 13—Village Viscount, 7th prize Shorthorn senior bull calf, Fremont Leidy, Butler County. 14—Beau Onward 86th, 6th prize Hereford senior bull calf, Klaus Bros., Doniphan County. 15—Liberty Belle 1st, grand champion Poland sow, Deming Ranch, Labette County.

For Larger Crops of Timber

The Yields of Lumber From the Farm Woodlots of Eastern Kansas Can be Increased Greatly by Good Management

By F. B. Nichols

FARM WOODLOTS contain perhaps the most neglected crop in Kansas. With the increasing prices required for lumber, posts and fuel it is of the greatest importance that the timber of this state should be used to a better advantage. The value of almost all of the woodlots of Kansas can be increased by improvement cuttings. This is especially true along the streams in Eastern Kansas, where the stand has been allowed to decline in many cases until it consists of 60 per cent or more of White elm.

The ideal is to get as valuable a crop as possible from the timber. This requires a selection, of course, for there are more than 70 trees native to Kansas. About 40 of these grow below the 1,000-foot line, and only six above the 3,000-foot line. Forest specialists divide Kansas into six belts, depending on the rainfall and the altitude. This state offers very complex problems in forestry; the difference in altitude and the variation in rainfall, which is from 40 to less than 20 inches, makes the selection of varieties largely a matter of local experimental work. You can get the results of the experimental work of the Kansas State Agricultural college if you will write to Albert Dickens at Manhattan. The state is growing millions of trees adapted to planting in Kansas at the Fort Hays Experiment station; you can get a circular in regard to these if you will write to Charles R. Weeks, of Hays, the superintendent.

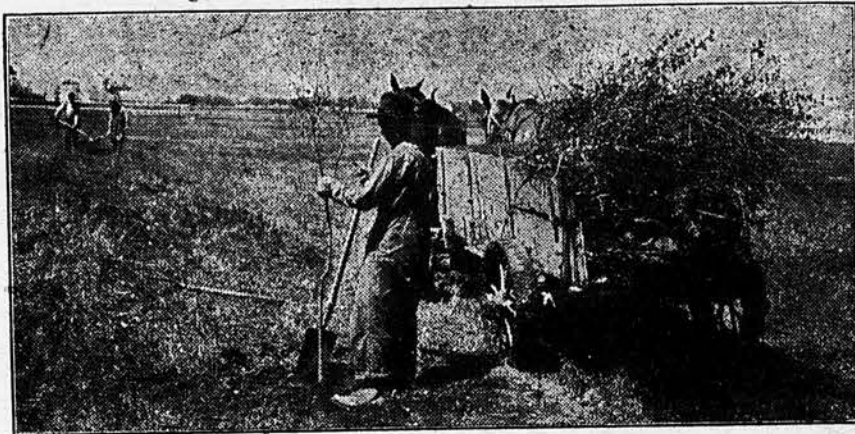
Then Elms Arrived

The trees in the woodlots of Eastern Kansas are much inferior on an average to the first stand. The growth found by the early settlers consisted largely of oak, walnut and cottonwood. The walnuts and oaks were first cut by the home builders. This growth was followed by elms; these trees do well in their earlier years in partial shade, and as the more valuable growth was removed they came in to occupy the ground. Elms produce a dense shade that prohibits anything except the more tolerant species from gaining a foothold. Thus the value of the stands has declined.

To improve the stand the owner of the land must practice selective cutting. He must eliminate the more undesirable species and the poor trees of the better varieties. Especially must an effort be made in fighting the "weed" trees, of which the blackjacks near Toronto are perhaps the best example.

F. L. Kenoyer of Montgomery county, who has had an opportunity to study the woodlot problems of Eastern Kansas, believes that a considerable planting campaign is in order. "On nearly every farm," said Mr. Kenoyer, "there is some land that is difficult to cultivate and yet well suited to growing trees. Much of our rocky fields, stripped coal lands, washy places, breaks along the draws and irregular shaped and odd corners could be made highly profitable by utilizing such lands for the growing of trees. Aside from the value of the poles, posts, fuel and lumber produced by these plantings they will serve as windbreaks for the farm buildings, shelter the farmer's livestock, prevent the washing of valuable soil into the streams, enrich the soil by adding humus and they will add 25 per cent to the cash value of the farms they occupy.

The most rapidly growing trees should be planted for quick returns to meet the increasing demands for lumber. The humble cottonwood is one of the best trees to plant for future profit. It will grow anywhere in Kansas. It will make a sawlog quicker than any other tree you can plant. It is not particular what kind of soil you plant it on. It grows readily from either seeds or cuttings and is easily transplanted. It requires little cultivation and this adapts it to lands that are difficult to cultivate. It is easily worked into firewood and makes excellent cookstove fuel and fairly good fuel for the heating stove or furnace.



Setting Trees Near Hays: a Big Revival in Forest Planting Probably Will Take Place This Year in Western Kansas.

It makes excellent frame timbers, sheathing and boxing boards, and is one of the best timbers for barrel, box and crate materials. When it is treated with a preservative it can be used for posts and telephone poles. A ready market is sure to be found for the products of a tree that has so many uses as the cottonwood. The demand for cottonwood is already so great that the pulp manufacturers have had their agents traversing our state and counting the cottonwood trees along our streams to locate the future supply of material for their products.

"The catalpa is a profitable tree for the farm woodlot. While this wood has generally been used almost exclusively for fence posts it is a beautifully grained wood and is well adapted for furniture and cabinet work, and for either exterior or interior finish. Its lasting quality when exposed to soil or weather is well known. The catalpa grows readily either from seed or when transplanted from the nursery row. It is easily worked and makes a good grade of firewood. The Osage orange and Black and Honey locusts are satisfactory trees to plant for posts.

"United States Forest Service specialists have estimated that Kansas needs 1,700,000 acres of planted forests. There has been set and is now growing only 175,000 acres of our quota, which leaves 1½ million acres yet to be planted. There are approximately 187,000 farms in this state. Of these farms probably two-thirds contain land adapted to growing trees. To come up to our apportionment of timber 1 acre in every 20 acres of suitable land should be planted to forest trees, or 8 acres to every quarter-section farm."

The end of our natural forests is in sight. We are importing large quantities of lumber from Canada and the West Indies. We also are importing 1½ billion pounds of wood pulp annually for the manufacture of print paper. Outside the government timber reserves, which comprise only one-fourth the present timber lands of the nation, the best trees have been cut,

and what remain standing are only the culls, the greater part of which are fit only for firewood. The demand for lumber is rapidly on the increase, while the supply is more rapidly on the decrease. The price of lumber has mounted up higher and higher until the timber lands of our country have assumed a commercial value and importance entirely unlooked for a few years ago, and until every man who has a few acres of good timber on his farm feels himself fortunate indeed. He is not numbered with those who suffered from the fuel shortage of the last two years and neither is he worrying about the prospect of a fuel famine in his household during the present winter. Personally he is not concerned about the coal strike, the car shortage and the high freight rates as he has the principal item in the high cost of living reduced to the minimum.

The coal shortage during and since the war caused an unprecedented demand for firewood, the best coal substitute. About 85 million cords of firewood were consumed by farmers in the United States in 1917. This was increased to 100 million cords in 1918, and probably will reach 125 million this year. From present indications half the fuel supply of the country for this winter will have to come from the farm woodlots.

Doubtless there is more interest in the growing of catalpas than in any other species. One-year-old seedlings are the most satisfactory for extensive plantings. At this age the seedlings are strong enough to establish themselves readily in their new location, and to make a good growth the first season. They also can be planted at a much less expense at this age than at the age of 2 years. The catalpa is transplanted readily, and with proper care a full stand is easily secured.

In buying or grading seedlings, it is a safe policy to accept only the best. By the best are meant the largest and strongest plants of whatever age is under consideration. In nursery prac-

tice the 1-year-old seedlings are sorted into three grades according to their size. Grade No. 1 includes the plants ranging in height from 18 to 30 inches and upwards. Grade No. 2 includes the plants that are from 12 to 18 inches in height. Grade No. 3 includes all plants under 12 inches in height. The difference in price between the different grades is from \$1 to \$3 a thousand. The No. 1 grade of trees is by far the most desirable and satisfactory. Grade No. 2 is quite satisfactory and altogether acceptable for extensive plantings. Grade No. 3 is the culls of the entire lot and should never be accepted in a purchase. In grading home-grown stock they should be rejected, also.

Many of the failures in attempts to grow catalpa trees are due to the planting of cull seedlings. A large per cent of the small-sized seedlings die the first year they are out. The small-sized trees also require more cultivation and care than the larger plants.

The hardy catalpa is exacting in its demands upon the soil. It grows naturally in deep, rich soil along creeks and rivers. Consequently, it reaches its best development in rich, well-drained bottom soils.

It is a safe proposition to plant catalpa trees in any soil that will produce a good corn crop. Catalpa will not make a satisfactory growth in gumbo, poorly drained, or high, dry soils. In selecting a site, all such soils should be avoided.

Spacing Catalpas

The distance that catalpa trees should be spaced is a point on which few planters agree. The character of the soil, the annual rainfall, and the care and cultivation that the trees will receive are factors that must determine the distance of spacing. Six by 6 feet is the spacing generally recommended. This spacing is quite satisfactory when all of the trees in the plantation are to grow until they are 16 or 18 years old. However, if some of the trees are to be cut for posts or other purposes as soon as they are large enough, and these cut promiscuously throughout the plantation, the stand is left so open that grass and weeds soon gain a footing and the trees around the opening develop heavy limbs instead of tall, straight trunks.

Dr. Bradford Knapp Resigns

Dr. Bradford Knapp, chief of the Office of Extension Work in the South, has resigned to accept the position of dean of the college of agriculture and director of the Arkansas Experiment station. His resignation became effective January 15.

Dr. Knapp has been with the United States Department of Agriculture for a little more than 10 years—since November, 1909. He was, at first, assistant to his father, Dr. Seaman A. Knapp, the originator of demonstration work directly with farmers. When the elder Knapp died about two years later, his son succeeded him as director of co-operative demonstration work, then a part of the Bureau of Plant Industry. When it was transferred to the States Relations Service, in 1914, Dr. Bradford Knapp was made chief of the Office of Extension Work in the South. The manner in which he has discharged his duties is indicated by a letter written to him by Secretary Houston.

Exterminating Muskrats

The popularity of what is known as "Hudson seal" fur, which brings a high price when made into a neckpiece, muff or coat, has led to a great demand for the little animal known as muskrat. "He must be saved from destruction," says A. P. Naylor, of Boise, Idaho, "or he will go the way of the pigeon that once covered the country in its flights." The price of the muskrat skin has risen from 8 cents, a few years ago, to \$3 for the better sort now.



Good Care Will Pay Well in the Farm Woodlots for the Timber Crop Is Becoming Increasingly Valuable in This State.

For a Real Country Church

A Minister Must Have a Vision of Real Service and Try to Win the United Support of the Members of a Community

By C. O. Gill and Gifford Pinchot

THE ROOTS of the religious and moral life of the nation are chiefly in the country church. The low and sordid moral atmosphere found in some rural villages and communities is altogether unnecessary. It constitutes a challenge to the church which can no longer go unheeded. Obviously, whatever reforms in methods and policies may be required to enable it efficiently to perform its task must be made.

One of the chief underlying causes of the present condition of the churches is an imperfect conception of their function. We recognize that the effective proclaiming of the Gospel is the essential if not the greatest and most important task of the churches, but the impression is still widespread in the churches that to preach it from pulpit and platform is almost their only task. That this is not enough to bring the churches to their full effectiveness has been conclusively proved by the experience of foreign missionaries during the last hundred years. In proportion to the number of their missionaries, the missionary societies which have believed that proclaiming the Christian message is the only function of the church have not made as many converts nor built up as strong churches as those which engage also in the work of healing the sick and teaching. The most successful missionary organizations teach not only Christian life and theology, but all that makes for what is best in our Christian civilization.

A Better Manhood

The welfare of a man's soul may be increased by promoting the welfare of the rest of him, and the aim of the church should be to bring every man to the highest possible development of all his powers. In seeking to do so it will not only be more effective in creating a higher manhood and womanhood, but also will make its message better understood and secure a greater number of church members and adherents.

For our city churches also this is as true as for the foreign missionary field, altho perhaps less obviously so. The equipment of so large a number of modern city churches for various forms of social service is a strong indication that those who control their policies recognize the necessity of a more diversified field of work.

The success and growth of the Y. M. C. A. is another indication of the truth for which we are contending. This institution, which is a branch or arm of the Christian church, has declared its aim to be the development of "soul, mind and body." As a result of this policy it is now engaged in many kinds of work which should also be done more widely and generally and so on a greater scale thruout the church. It receives large contributions of money from members of churches, and it rightly undertakes and successfully carries out large enterprises where other church organizations fail to see their duties and opportunities and lag behind or remain idle.

Service for the People

Still another reason for believing in a larger function and mission of the church is found in the fact that every strikingly successful country church is found to be deeply concerned with the needs of the community, and is carrying out a broad and comprehensive program of service.

Finally and conclusively, it may be added that the broader program was instituted and carried out by the founder of the Christian religion and was by Him enjoined upon His followers.

What the new program for the local country church should be is no longer a matter of conjecture. Country ministers in many widely separated parishes of the United States have worked it out independently in trying to meet the needs of their communities, and have everywhere reached substantially the same conclusion. The program is

essentially the same in all places where the most successful country church work is done. It has found an embodiment in the mass of country church literature which has been published during the last eight years, and it has been studied, tried, and proved to meet the need of large numbers of country pastors in many states.

To carry out the better program for the local country church requires an educated ministry. Very imperfectly equipped ministers, and unsound, ignorant men cannot meet the requirements of the new program. Doubtless the educational requirements of the discipline of many of the denominations are set too low, but even so, if the rules of the discipline were strictly obeyed, a large proportion of the present ministers would be eliminated. The new program requires trained men.

To get better men, better opportunity and pay must be supplied. Fields of service must be created large enough, yet sufficiently compact and free from competing rivals, to make good work possible. The farmers must be convinced that a better support of the ministry is essential in their own interest. At the same time the best young

men, if strictly necessary, he must spend a large proportion of his working hours in driving to the widely separated points of his various parishes, crossing and recrossing as he goes the lines of travel of other ministers engaged in the same territory on the same work. That the country minister should be called on to waste so large a part of his life in this way is shameful because it is bad and inefficient organization, and carries with it an utterly needless loss.

To understand the significance of pastoral calling in a rural community it must be remembered that isolation is as characteristic of the country as congestion is of the cities. A large proportion of rural families look upon a minister who calls frequently as a personal asset of great value. He supplies opportunities not otherwise available for the discussion of matters of general interest or of deep personal concern. He calls attention to the things otherwise forgotten, and brings, or should bring with him, the inestimable advantage of intimate contact with a wise and well-trained mind. Moreover, a man full of good will to all going from house to house, sym-

his efforts are commonly divided among several communities and thus are spread too thin to produce results. Add to that the fact that in each community the people whom he serves are intermingled with the parishioners of ministers of other denominations. Under these circumstances how can he become efficient in community service, and how can he get to know the people of his charge? Ordinarily he does not even attempt it. Under present conditions the country minister who does, generally accomplishes little and becomes discouraged.

The old circuit system under which many of the denominations developed their work was of undoubted value in the beginning of their work in pioneer days. But like many other efficient methods of early times it has ceased to be the best method for present needs, in the form in which we now find it at work. This is true except in a few instances where it appears in such a modified form as to be adaptable to present conditions.

Low Pay for Ministers

Under the circuit system it has often been accepted as a policy by church officials that every church must have a minister and every minister a church. The advantages accruing both to the churches and ministers from a reasonably cautious and not too consistent application of such a rule are obvious. But failure to use such caution and too great insistence on its universal application too often have resulted in the employment of unequipped and uneducated ministers and sometimes even of men whose character was questionable; this in turn has helped to bring about a low standard of pay for the minister. The pay of the skilled has fallen to that of the unskilled, and the result has been to cheapen the ministry. The standard among farmers for the support of both church and minister, therefore, has fallen low. We must have a greatly modified system before the ministry can be better paid.

Under the circuit system the churches too often provide for but little else than preaching. Even the Sunday school, one of the most hopeful and valuable kinds of church work, is hampered by it, for this work needs the leadership of a trained ministry, which the present circuit system tends to prevent. The minister with a circuit can rarely attend the services of his Sunday schools, and the task of promoting the Sunday school work during the week in the several communities of his charge usually is too arduous for him.

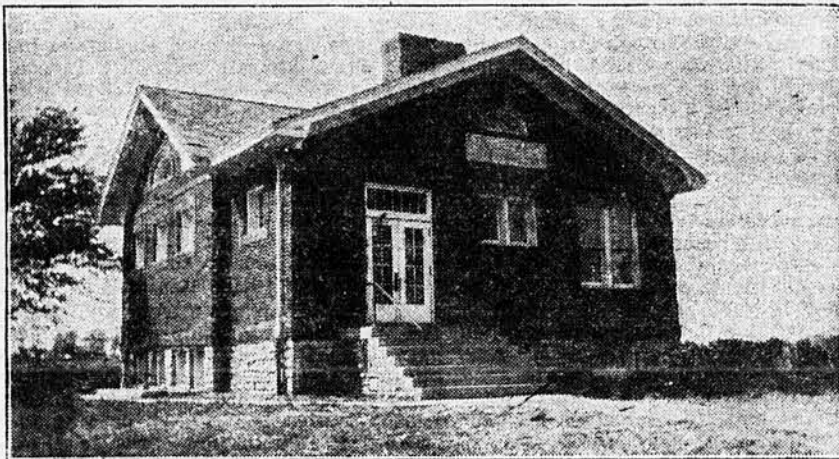
The Circuit System

In times past it has been held commendable for a denomination to establish one of its churches in every community, regardless of the number of churches already there. By making use of the present circuit system, it has been possible to establish and after a fashion to maintain a church almost anywhere. Hence the present unfortunate multiplication of churches.

When rural communities are over-churches competition between them necessarily results not in the survival of the fit, but in the continued existence of an excessive number of bloodless, moribund churches, whose energies are almost entirely exhausted in the mere effort to keep alive.

When the circuit system is adopted by more than one competing denomination in a field it helps to perpetuate interchurch competition. When one adopts it all others must also do so, or retire from the field. It cannot be held that the resulting competition helps to make more Christians, or that it tends to develop character or community life. On the contrary, it reduces both the power of the church as a whole and the influence of the individual churches for personal righteousness and community welfare.

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men of the churches must be assured that the new program offers a field so promising as to make it worth their while to enter the ministry. The churches are wise enough and strong enough to do all this if they will address themselves to the situation and take it seriously.

Most farmers are able and ready to multiply the amount of money they now contribute for the support of the churches. When it is made clear to them that better pay will bring a better minister, increased support will be given cheerfully. But the farmers will not give more money either for the support of an inferior minister, or to carry out the old program. They will demand their money's worth, and this the present methods do not, in general, supply.

But it must be remembered that increased support will not be given by the farmers unless the need for it, and what it will bring, is brought forcefully to their attention. This the individual minister cannot do, for to attempt it lays him open to the charge of feathering his own nest. It should be done by a state federation of churches, or by a rural life association acting thru its own institutes and the farmers' institutes, thru the circulation of its literature, and thru the formation of organizations for this purpose in the churches of the different counties. No matter how good work a minister may do, ordinarily he will not be adequately supported unless some special agency does this work.

The present system of circuits entails upon the country minister an enormous waste of time. If a man tries to do the pastoral work which is

pathetically trying to help and understand, will inevitably modify the uncharitable and unjust public opinion which either exists or is believed to exist in most rural communities.

Equally effective are the incidental contacts of a minister engaged in community service, such as work with boys, or the promotion of welfare enterprises. Thus engaged he will inevitably get in touch with his parishioners, and supply the needs of individuals and of the community, at least as fully as the minister who devotes most of his working hours to pastoral calls. In such work less time is spent in the long drives or walks between houses which are necessary in systematic calling, while the minister gets to know the men better and bothers them less.

Without pastoral calling and community welfare work, the country minister's service is sure to be ineffective. But as a matter of fact, country ministers do little of either. The country people, as a rule, receive few pastoral calls, according to the almost universal testimony of the country ministers themselves as well as that of other persons who live in the country. From the reports of 18 pastors in one denominational district it appeared that on an average each one made only six calls a year upon non-church members, altho these were more than 60 per cent of the people. "Our minister does not know the people of this community" is common testimony everywhere in the country parishes.

The country minister's influence is still further reduced because his term of service is short—usually but a year or two, rarely three years. Moreover,



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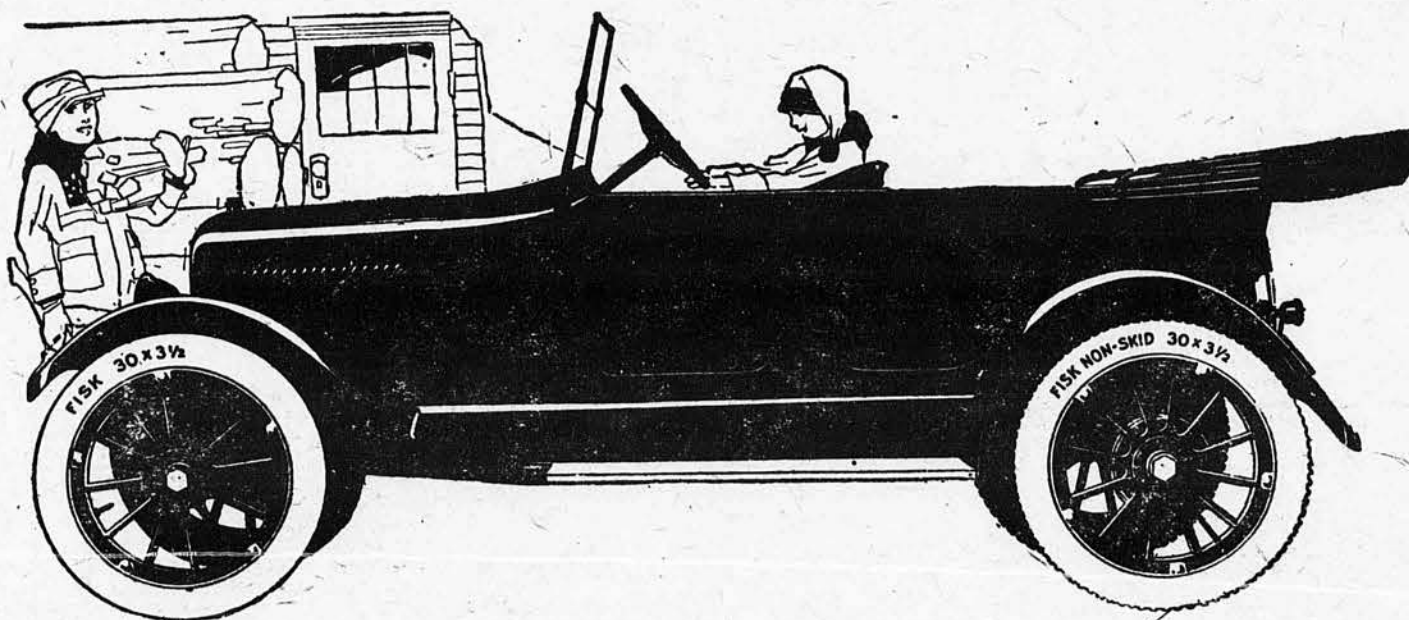
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Use Only the Best Seed

Crop Yields Always Can be Increased Greatly if You Will Use Proper Care in Getting a Real Stand on the Fields

By F. D. Farrell

EVERY YEAR the farmers of Kansas plant about 20 million acres to field crops. Whether these crops produce satisfactory yields and reasonable profits depends on many factors. Some of these factors are beyond our control, as drouth, frost and torrential rains. Others are partly controllable, as certain plant diseases and insects. Still others are wholly within the control of the farmer, as cultural operations, crop varieties and seed.

The history of Kansas agriculture is largely a history of the Kansas farmers' dealings with these factors. Kansas agriculture has advanced chiefly thru the use of constantly improving methods, developed as a result of experiment and observation, and involving closer and closer government of controllable conditions.

Small Profit Margins

Margins between satisfactory yields and crop failure frequently are very narrow. It may be a few days' delay in the coming of a drouth; a slightly better crop variety; somewhat better preparation of the seedbed; or some other factor which considered by itself may appear of small importance. And the margin between profitable yields and unprofitable ones usually is not large. The production of a field crop requires the expenditure of certain fixed sums, irrespective of yield.

In the case of wheat, for example, approximately 50 per cent of the average cost of production must be expended whether the crop fails or succeeds. The more the value of the crop exceeds the fixed expense, the greater the profit. Neglect of any one factor may mean a loss. Attention to it may mean a gain. Profitable crop production is the result of giving adequate attention to many details, all of which are important.

The character of the seed is one of the important details. It has been demonstrated that in the hard wheat belt of Kansas the use of pure Kanred seed will increase the yield of wheat approximately 3 bushels an acre on the average. In many instances increases

decidedly greater than this have been obtained. These increases are secured without any additional expense for land preparation, seed treatment, interest and taxes on land and equipment, or any of the other common fixed expenses involved in wheat production. If, thru the use of the common variety, a farmer obtains a yield, the value of which exactly equals the cost of production, and if he can get 3 bushels an acre more thru the use of Kanred seed, this increase is practically all profit. This illustrates strikingly the importance of seed.

The difference in cost, a pound or bushel, between superior seed and low grade seed sometimes seems large. When the difference is spread out over several acres, however, the cost of seed is comparatively slight. From this point of view, there probably is no other single factor in crop production which will give as large returns for the money expended as can be secured from superior seed. For example, Orange sorghum seed now costs about 7½ cents a pound, whereas seed of Black Amber sorghum can be secured for about 3 cents a pound, or half the cost of seed of the Orange variety. This difference probably causes many farmers to buy Black Amber in preference to Orange. Orange sorghum seed at present prices costs about 60 cents an acre, and Black Amber 24 cents an acre. But the experiments made by the agricultural college with the two varieties show that Orange will

yield about 12 tons an acre when Black Amber will yield 8 tons. It is thus clear that the difference in the cost of seed in this instance is quite negligible. There are numerous other instances of the same thing.

To seed 20 million acres of Kansas land every year requires about 16 million bushels of seed. Eleven million bushels of this seed are produced on the farms where it is used. Two and one-half million bushels are obtained from other farmers, and 2.6 million bushels are purchased from dealers. The dealers supply a large proportion of the seed for grasses and legumes, and a relatively small proportion of the seed for other crops. It is not necessary to emphasize that a small percentage increase in the value of the seed used on these 20 million acres would mean much, both to individual farmers and to the agriculture of the state.

The introduction and use of the Turkey type of wheat by the Mennonites of Kansas in 1873 was one of the most important factors contributed to what success the wheat industry of the state has had. It now seems likely that the substitution of Kanred, an improved strain of the Turkey type, may prove equally valuable to our wheat industry. There is no reason to suppose that correspondingly valuable improvements cannot be made thru the introduction of superior strains of other crops. When we consider these facts together with the fact that the cost of good seed is so slight in proportion to its value,

we can readily appreciate the importance of seed as a detail in crop work.

For several years the Kansas State Agricultural college, thru the operation of its seed laboratory and otherwise, has secured information bearing on the seed supply situation in the state. Speaking generally, the problems of the situation, as observed by the college, include the introduction of new crops and of improved strains of crops we now have; unsatisfactory germination, the presence in field crop seed of weeds and other impurities; and problems involving both quality and quantity of seed resulting from unfavorable weather conditions, or, in other words, uncertainty regarding the seed supply.

During the year ending June 30, 1918, when because of the war there was special anxiety regarding crop production, the college seed laboratory examined 16,819 samples of seed for germination.

Germination Tests

Of the 16,819 samples tested, 16,536 came from farmers, and 283 from dealers. The number of samples below the standard of germination was 7,457, or 43 per cent of the total. With the exception of barley, oats and wheat the average germination of the samples of all the crops was below standard. The range in the percentage of germination was interesting. Samples of each of seven crops ranged in germination from less than 10 per cent to 100 per cent. Some of the samples of all the crops showed very low germinating power.

We do not know what proportion of the seed planted every year by Kansas farmers is tested for germination. It probably is not large. Neither do we know to what extent the samples submitted to the college for testing in the year ending June 30, 1918, represented the seed used by Kansas farmers in general that year. There is no doubt, however, that much seed of unknown germinating power is seeded every year, nor that much of this seed is of low germination. It seems certain that the use of seed of unknown germination is responsible for many of the unsatisfactory stands often obtained.



Fruit For the Farm Homes

Orchards Have an Important Place on the Farms in Kansas and the Planting of Leading Varieties Should be Increased

MOST LOCALITIES in Kansas can be made to produce apples of high quality and attractive appearance if the proper care and attention are given to the trees. Although there are great opportunities in the state for the commercial orchardist, there is and probably always will be a large proportion of farmers who are not interested in fruit growing as a commercial, money making proposition. Many of these farmers, although primarily grain-growers, or stockmen or dairymen, wish to maintain a small home orchard as an adjunct to their main lines of work to provide a home supply of good fruit. There is a proper place for such home orcharding as well as for the more strictly commercial aspects of horticulture, and the encouragement and development of the home orchards is one of the most important problems to be solved in connection with the horticultural resources of the state.

That there are many non-professional fruit growers interested in having a home supply of apples is proved by a day's journey of observation in any well settled portion of the state. The old apple orchard is an ever recurring feature of the landscape. It is significant of a wrong condition of affairs, however, that so many of the home orchards are old and that of the number that are young, so few have the thrifty, vigorous appearance which would indi-

cate that they are receiving some care and attention.

A small home orchard should yield an important part of the diet of every country family in the state. Such a general supply of home grown fruit would not affect the market for the commercial man, for the professional fruit grower still has the city consumer to supply. The country population is not a fruit buying population except thru necessity. It ought to, and may produce plenty of fruit for the home consumption.

Instead of a well cared for, producing orchard as an indispensable part of the equipment of every farm, what do we see? We find a large proportion of the orchards failing to justify their existence. This condition is generally

deplored, and the majority of the neglected home orchards are in their present unsightly and unprofitable condition on account of a lack of definite knowledge as to how the present conditions can be easily and cheaply remedied.

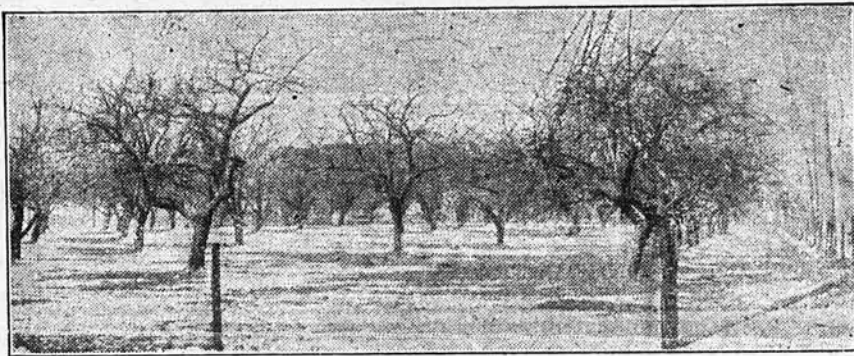
The first question that comes to the mind of an amateur who is contemplating the planting of fruit trees is the selection of the site. This is a problem that is confronted but once, but future success depends in a great measure on its wise solution. It is not necessary that the location be ideal, but one should do the best in the matter of location that he can.

Drainage and elevation are two of the important considerations. Apples do not do well on poorly drained soil

where water is likely to stand on the surface or about the roots of the trees. Good drainage is essential. For this reason the higher parts of the farm usually are better for orchards. On hilly land it is not necessary that the trees be on the very tops of the hills, but they should not be set in the pockets. On land which is nearly flat or gently rolling, the highest land is best adapted for orchard fruits. This is due partly to another factor than soil drainage. Low flat lands can be drained so surplus water is conveyed quickly away from the surface, but such lands may be unfit for orchard fruits, notwithstanding.

Air drainage is as important a consideration in fruit growing as soil drainage. On the still nights of spring, the cold air settles away from the slopes. It flows down hill and collects in the low, flat pockets. Doubtless everyone has noticed this phenomenon while driving on still evenings. Often when the air above is relatively warm and dry, one passes into a depression and feels the chill damp air strike in at once. The difference in temperature between the low areas and the knolls often is great enough at some time during the spring, at the season of expanding buds and opening blossoms, to mean the difference between a killing frost and uninjured flower buds.

A body of water exerts a modifying
(Continued on Page 22.)



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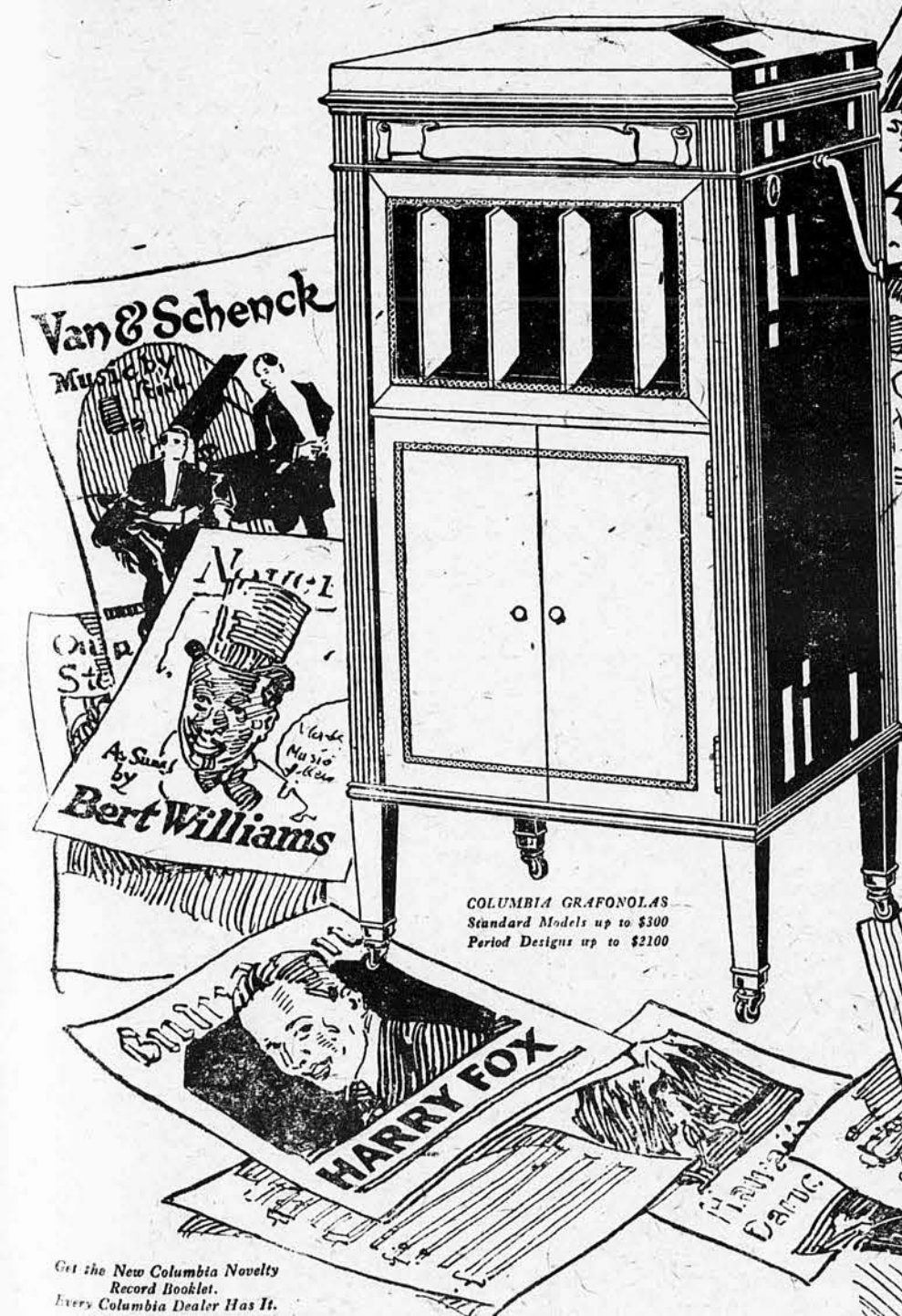
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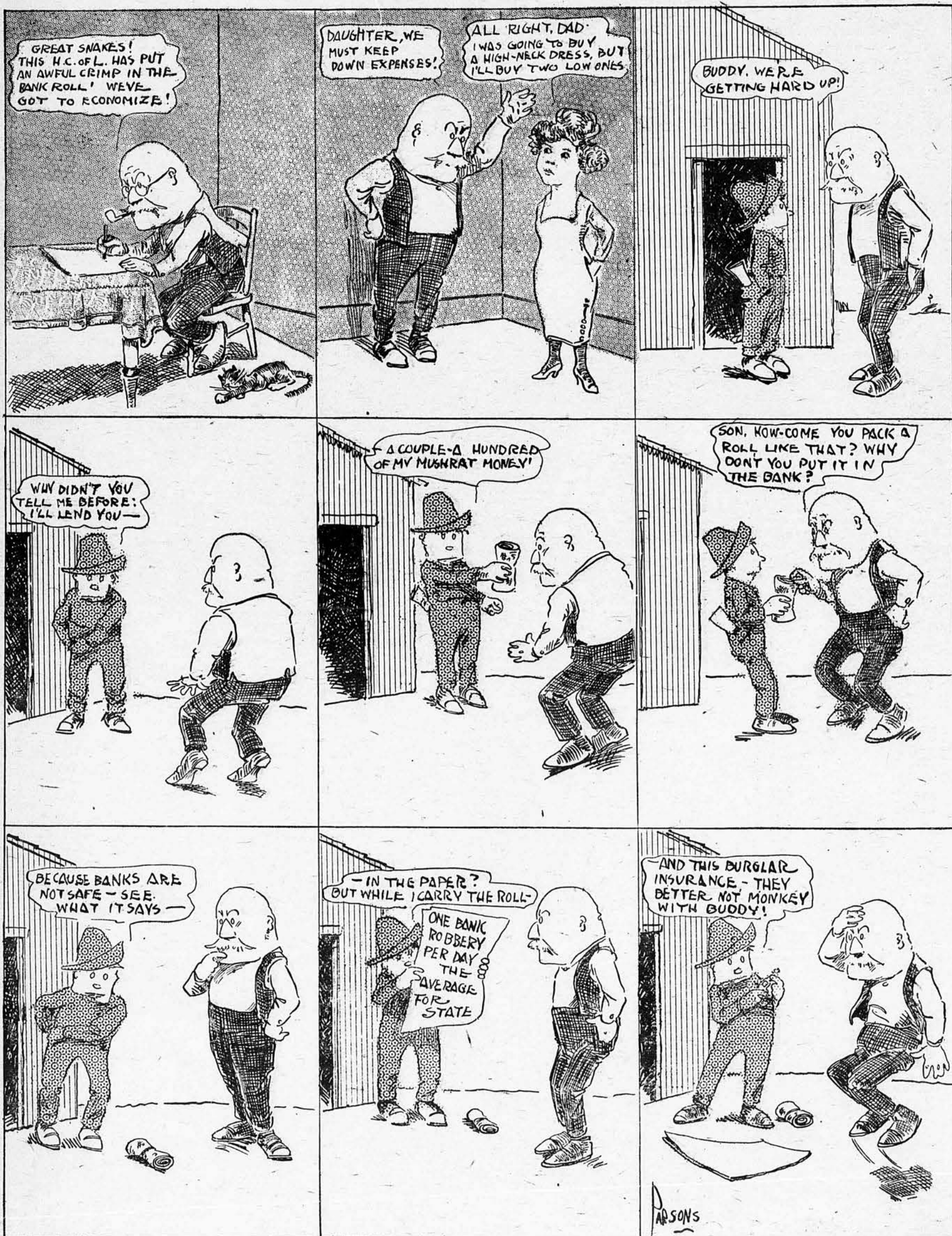


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Senator Capper's Washington Comment

FROM the Atchison Chamber of Commerce I have just received a telegram asking me to vote for larger appropriations for river and harbor improvement. I am unable to comply with this request. It may interest the people of Kansas to know my reasons for opposing these appropriations. My reply to the Atchison, Kan., telegram was as follows: "Replying to your telegram of January 24 urging me to support the Newton Bill and to work for increased appropriations in the annual Rivers and Harbors Bill, permit me to say that my information is, with reference to the particular bill mentioned in your telegram, the House committee has no intention of reporting that measure to the House. As to the request that I should 'work for increased appropriations in the annual Rivers and Harbors Bill,' I feel that I should tell you frankly at the outset that I cannot comply with your request. I am in hearty sympathy with the action of the House in passing a Rivers and Harbors Bill carrying the smallest appropriation by many millions in years and I shall use my influence in the Senate to see that the amount appropriated in the bill when it passes the Senate is likewise kept down to a minimum. There has been too much 'pork barrel' legislation in connection with River and Harbor appropriation bills in times past."

A Word of Explanation

"I do not need to tell you, I think, that if the government were to enter on a nation-wide program of river and harbor improvement, I should favor liberal appropriations for the improvement of the Missouri River and such appropriations as conditions seemed to warrant for the entire Mississippi Valley. But I am opposed to the government entering on such a program at this time, and I am in favor of the strictest economy compatible with the genuine needs of the public in the appropriations to be made by this Congress."

"The war has left the nation enormously in debt. So great is the debt that the interest on it alone equals annually the amount required to run the government prior to the war. Nor did the stupendous outlays of our government in loans to foreign nations stop with the ending of hostilities. Even since the armistice this government has advanced in money and commodities to European nations, the huge sum of \$1,226,584,688.41, according to the recent report of the Secretary of the Treasury. It is true that approximately 15 billions of the 40 billions expended since our entrance into the war is owed us by foreign nations, and presumably this amount will some day come back to us, but how slow the return of this money will be is indicated by the fact that the unpaid accrued interest on allied government obligations up to January 1, 1920, was a third of a billion dollars. Indeed, instead of any of this money coming back to us at this time, it is now proposed by the President that we make a still further advance of 150 million dollars for relief in Europe, in addition to the 4 1/4 billions already advanced to them since the armistice began."

Taxes Abnormally High

"With such drains being made on our treasury, with taxes already abnormally high, with many of the war expenses still going on, owing to the failure of the Administration to discontinue a number of its war activities, with the cessation of hostilities and the demobilization of our military and naval forces, with a huge total of expenses that are unavoidable until we are back fully on a peace basis, it is a poor time to spend government funds for anything except the most imperative government needs."

"It is a well known fact that the rivers and harbors bills of the past along with the public building bills, have been one of the most convenient lodgments for 'pork barrels.' I am opposed to any appropriations for such

purposes without the utmost scrutiny. The way to economize is to economize; the way to save money is not to spend it. I believe that most of the proposals with reference to so-called improvements of rivers and harbors can very well wait. When we have brought public expenditures back to somewhere near public income, it will be time enough to consider what can be done for the further development of river and harbor projects."

Rigid Economy Necessary

"For these reasons I heartily approve of the action of the House in passing a Rivers and Harbors Bill carrying the lowest amount of any bill in recent years—\$12,400,000—which is a scaling down of the department estimate of \$42,841,565 by more than 30 million dollars, and which is more than 20 million dollars less than was appropriated for rivers and harbors by the last Congress. That is the kind of retrenchment legislation I believe in and that I shall support in the Senate."

"The watchword of Congress for some time to come must be rigid economy. The people are demanding and they have a right to demand the very utmost in the direction of scaling down public expenditures. I shall do everything in my power to see that our government shall receive a dollar's worth of value and service for every dollar expended, so far as that is possible, and that as few dollars are appropriated as can be, consistent with the public interest. Our country must begin paying its debts, not piling them higher and higher and this cannot be done without the most vigorous retrenchment."

Big Railroad Deficits

The Railroad Administration still continues to be the rathole into which Uncle Sam is pouring millions. Not only does the last annual report of Director General Hines show a loss of more than 700 million dollars in the two years of government operation ending January 1 last, but in addition to the very generous government rental paid the companies, claims for special compensation have been filed by 124 of the 232 companies under government control for nearly 100 million dollars more, which, if allowed, will bring the total loss above 800 million dollars for the two years, or more than a million dollars a day.

Mr. Hines lays the failure of the roads to earn enough to make a substantial reduction in the deficit during last November and December to the adverse effect of the steel strike last fall and to the nation-wide coal strike during those two months, and he figures out that if it had not been for these two great strikes and if the companies had enjoyed the 25 to 50 per cent advances in freight and passenger rates during the whole period of government operation instead of but a part of that time the deficit would have been reduced so that it probably would not have exceeded 100 million dollars. This is but another way of saying that if the shippers of the country, who of course pass along the freight charges to the consumer in increased price of commodities, had paid out the 800 million dollars in freight and passenger charges they would not have had to pay it out of the public treasury. Rather cold comfort to the public.

Government Control Should Cease

All this presents to my mind another convincing argument for the return at the earliest date practicable of the railroads to their owners. Any fair-minded observer must admit that the interests of the shipper were very much better protected under private than under government ownership. It may be that some time the people of this country will learn enough about the science and practice of government in practical operations to enable them to operate the railroads and other great public utilities economically and satisfactorily. Theoretically these great public service corporations should be

government owned and operated, but practically government operation has proved a failure. We are as yet incapable of operating the railroads economically and efficiently thru the government.

Recognition of the fact that one of the effective means of combating high-cost living is thru co-operative buying and selling is becoming more general. It is generally conceded that the cost of distribution under present system is entirely too great. The railroad brotherhoods have inaugurated a plan to sell food and clothing to their members at prices far below those charged by the retail stores. One organization of railroad men already is selling horsehide gloves to its members for \$1.41 a pair for which \$2.50 is charged at retail, and overalls at \$2.79 instead of \$4. Not only is this organization taking steps to eliminate the profiteering retailer but they are entering the realm of the profiteering manufacturer as well. They have already purchased and are operating a glove factory and underwear factories and are negotiating for other mills. This plan of fighting the mounting cost of living is much better than strikes. Some of the national labor leaders have openly taken the position that it is impossible to meet the high-cost living problem by a mounting scale of wages and are taking such steps to eliminate as far as possible profits of the various middlemen. When the farmer learns to co-operate in selling and finds a way to sell as directly as possible to these big distributing associations, high-cost living will receive a real jolt that may topple him off his high horse.

Arthur Capper
Washington, D. C.

A negro was brought up before a mayor a short time since, for stealing chickens.

"Well, Toby," said His Honor, "what have you to say for yourself?"
"Nuffin, but dis boss, I was as crazy as a bed bug when I stole dat ar' pullet 'coz I might hab stole de big rooster, and I neber done it. Dat shows 'clusively to my mind dat I was laboring under de delirium tremendous."—Boys' Magazine.

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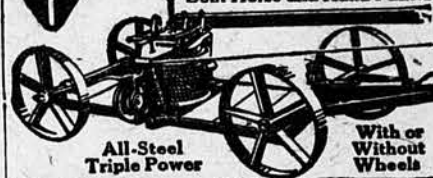
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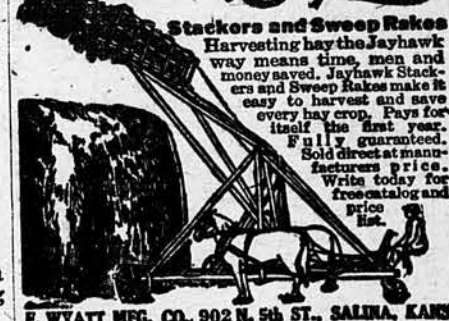
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Letters Fresh From the Field



Farmers Discuss Militarism, Growing Crops, Using Tractors, Raising Poultry, Spreading Straw, Profiteering and Other Subjects

Editorials by Rural Correspondents

SENATOR CAPPER'S splendid speech in the United States Senate in regard to curbing the profiteering evil has just been read by me and I wish to thank him as our Senator for his good work. Bolshevism and other radicalisms feed and thrive more today on the glaring examples of price gouging that is going on in the commodities of life today, than any and all other causes. In fact these examples of greed are the main cause of the great unrest of the country.

R. A. Anderson.

R. 5, Clyde, Kan.

Uses Tractor Constantly

Tractors have come to stay. They do not supplant horse power entirely, but lessen the number of horses a farmer is compelled to keep on the farm. On the average farm a farmer can dispense with one-half the number of horses kept for draft purposes if he runs a tractor successfully.

We use the tractor for many things, such as plowing, disking, harrowing, seeding, harvesting, grinding feed, filling silos, threshing, pulling hedge, sawing wood, shelling corn, grading roads and hauling grain to market. Some persons pump water with a tractor but I believe it pays to have a small gasoline engine for this purpose, as well as for churning, running the washing machine and so forth, as the tractor uses too much fuel and oil to make these light jobs profitable. There is a very short time during the year that a tractor cannot be used to good advantage on the farm.

Seneca, Kan. G. M. Funkhouser.

Opposes Militarism

I wish to thank Senator Capper for the stand he has taken against the profiteers. I would like to see him take the same stand in regard to the Mexican Intervention question, also the universal military training bill that is up for passage. We do not need our farm boys for soldiers to fight for moneyed interests in Mexico or any other country. What we need most of all is to get down to living conditions, that are normal, and let other countries do the same. I do not see how a Senator or Congressman from Kansas could vote for such measures as these and have a clear conscience.

McCune, Kan. C. G. Boore.

Likes Chickens

I am very fond of raising poultry, and have found that it takes a great deal of time to make a success of it. We try to hatch out lots of chickens but do not take care of them, and in three or four weeks we do not have half of them left. We let them hunt their own living and wonder why we don't have success raising chickens. We cannot go visiting every day or sit idle while the poor mother hen is trying to find food for her little flock. We must stay and help her do it. We cannot feed them nothing but wet feed and think we can sell them when they are 8 weeks old. We make another mistake when we let mice and lice get on them. I have raised chickens for 25 years and find that raising chickens to keep up the table pays the farmer as part of the family living.

Lenexa, Kan.

Bertha Huston.

Tractor Pays for Itself

I have a Mogul 10-20 horse power which paid for itself the first season. This summer was very dry in the cottonwood bottom and the soil is mostly gumbo. Had it not been for the tractor I would not have gotten in the wheat this fall. It plowed all the ground, then it was so cloddy I disked and harrowed it, using tractor instead of horse power, cut ensilage for myself

and neighbors, baled hay, pulled the wheat binder, operated the shredder, pulled up hedge trees, sawed wood, and operated a well drilling outfit. In fact it will do almost anything and when not in use it does not have to be fed. I consider it most valuable in plowing as it pulls four plows at one time and for the wheat binder it is far better than horses as it is a steady power.

Saffordville, Kan. J. C. Stone.

Americans Pleased With Capper

While I do not know Senator Capper personally, I enjoyed reading what he had to say with reference to profiteers on page 457 of the Congressional Record of December 12, and I think that every true American citizen will applaud him to the echo. I hope that these remarks will take root and grow and results will be obtained. While Senator Capper does not represent Oregon I know he is speaking from a desire to represent the whole people.

Portland, Ore. F. D. Hunt.

A Democrat's Opinion

I enjoyed reading Senator Capper's speech in the Senate regarding high

prices and wish to thank him for it. He is the only man so far who has the nerve to state real facts. He is respected and much talked about by the real people, the voters, strange as it looks and reads. Our state legislature is trying to frame and pass a law to put the workmen in jail for striking. Why all this? What is to become of our great country? Thousands of independent voters will sustain Senator Capper for helping to enforce law. I have always voted the Democratic ticket; now I am in the deep sea.

R. 3, Chanute, Kan. Miss Mabel Hansen.

Nation Needs Men of Courage

I thank God that the United States has one man that has the courage to tell the leaders of the government where the trouble lies.

I hope Senator Capper will soon be President. I wish there were more men like him.

Eli P. Thomasson.

Tupelo, Ark.

Nebraskan Indorses Capper's Stand

I have just read Senator Capper's address "demanding that the President curb the profiteering gang." This is so near my views that I am sending you these few lines. I wish to thank Senator Capper for the manly stand he took in this address, as well as a number of others he has delivered since taking his seat in the Senate. Why cannot the American people send more men like him to make our laws and provide for our peace and greater

A Need for More Silos

OUR DOMESTIC animals never go on a strike. They are patient, mute toilers for us. They do all they can and they can do only as we supply them with raw material. No man ever saved money by starving his cattle. You cannot get something for nothing and the wise feeder knows that to feed his animals well and cheaply means the greatest profit.

For 30 years the silo has been demonstrated to be the greatest economic means known in scientific feeding. It saves all the crop; it saves a crop which might be wasted thru drouth, frost or hail.

All the great dairy records are made with silage in the ration. Most of the champion steers at our stock shows have been fed on silage. It is nutritious, grasslike, succulent, easily digested, stimulates the appetite and gives thrift to the animal.

Silage with alfalfa or clover hay makes a balanced ration and wonderful results can be obtained by these two feeds alone. Silage should form the bulk of the ration for it is cheap, succulent and contains the food elements desired by our animals. If feed must be purchased let it be the concentrates, such as bran, oil meal and cottonseed meal.

Ask the man who has used a silo for several years what he thinks of his investment. Inquire among the successful breeders what they think of the silo. All evidence points to the fact that the silo is perhaps the most profitable equipment on the farm.

prices and wish to thank him for it. He is the only man so far who has the nerve to state real facts. He is respected and much talked about by the real people, the voters, strange as it looks and reads. Our state legislature is trying to frame and pass a law to put the workmen in jail for striking. Why all this? What is to become of our great country? Thousands of independent voters will sustain Senator Capper for helping to enforce law. I have always voted the Democratic ticket; now I am in the deep sea.

Sedan, Kan. D. K. Wade.

Succeeds With Poultry

In raising poultry one should have dry, warm, well lighted and clean houses. There should be an abundant supply of pure water and a variety of nutritious foods. In cold or rainy weather the chickens should have a sheltered yard and in good weather they should be given a range wide enough to give them exercise. Their bodies and their nests must be protected from vermin.

I keep my baby chicks warm either by a hen or with a brooder. Another way to warm them is to set a lantern in a box in which the chicks can have range. I feed my chickens regularly,

contentment. Senator Capper is earning the love and respect of not only his own constituents, but of all honest fair minded citizens. May God be his guide and encourage him in my sincere wish.

Tekamah, Neb.

Frank Roth.

Government Must Act

I have been watching Senator Capper's work in Washington and must say that I am very much pleased, especially the stand he has taken in behalf of the farmers. If his name ever comes up for President, I will certainly work for him. There are many things which the government should regulate as it did the price of wheat. I don't think the government should meddle with wheat any more as it costs us out here an awful price to get our wheat in the stack and due to the wet weather we had only about half a crop.

Woodston, Kan.

John Macy.

Doesn't Depend on Horses

I live on a farm of 320 acres with 160 acres in cultivation. In July of 1918 I bought a two plow tractor with a drawbar pull of 1800 pounds in plow gear and 2500 pounds in low gear. This

tractor has done 90 per cent of all labor done on this farm during the two seasons, including plowing, disking, harrowing, seeding, harvesting, hauling and spreading. I find it superior to horses for all of this work as well as many other small jobs.

During our wet harvest last summer I saved my entire wheat crop with this tractor. Had I depended on horses to cut this wheat fully one-third of it would have been an entire loss. This winter, while the ground is frozen, I am running a "Simplex" straw spreader with it. I find it entirely satisfactory for this work.

This tractor works successfully on either gasoline or kerosene. It has plenty of power for any and all ordinary farm work and can be operated with less expense of upkeep and repairs than any other tractor on the market today. I have paid out just \$2.30 for repairs on it in two seasons' work and have experienced no loss of time or trouble whatever with it. It is very simply constructed and operated. Anyone can quickly and easily do his own repair work and adjustment of bearings.

This tractor has a speed of 6 1/2 miles an hour in high gear, which is handy for road work and for many other purposes. By increasing my acreage and by earlier plowing and better seed bed preparation, together with the saving of hired help, I have more than paid for this tractor in the two seasons it has been in use.

Neosho Falls, Kan. John J. Trout.

A Voice from Tennessee

I am reaching across the country and from the little old Volunteer state to extend to Senator Capper the glad hand for his efforts in the Senate in behalf of the agricultural interests of our country. I wish our representative would unite with Senator Capper in this matter, for he knows as well as Senator Capper, that as the blood in the body is the life of the human being, so is agriculture the very life of our republic.

I wish to thank Senator Capper in behalf of our state for his great effort in our behalf. I wish I could vote for him. I am taking his paper.

Bells, Tenn.

J. D. Hill.

Uses Tractor for Everything

My son, Willie, and I bought a 10-18 J. I. Case last year, and it has truly been the best investment we have ever made on a farm. In plowing for wheat when it was so dry we could do nothing with mules we decided to buy the tractor. We plowed 7 acres of hard gumbo land a day with 10 gallons of gasoline and two bottom plows. In preparing the ground for sowing we used an 11 foot disk and a 12 foot double drag, averaging 18 acres a day with 11 gallons of gasoline. The tractor uses about 1 quart of lubricant oil a day.

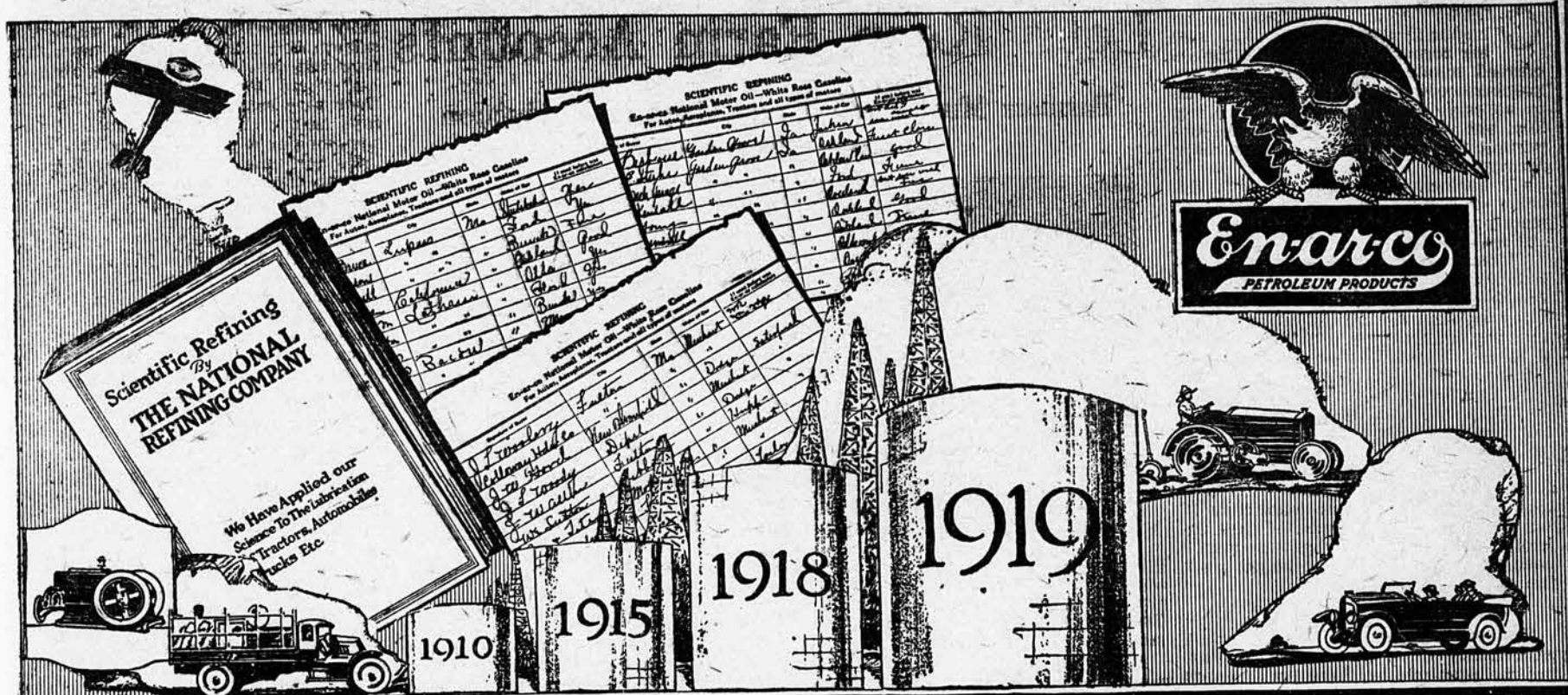
In winter the tractor can't be beaten. We use ours for sawing wood and for everything. The tractor is a success in every way, and all farmers should own one. At night when we have pulled the tractor into the shed, all our chores are done. It is much easier to handle a tractor than to handle four mules.

R. 1, Cherryvale, Kan. John Sack.

Farm Incomes Too Low

I am a reader of Passing Comment by Tom McNeal and Senator Capper's Washington Comment and greatly enjoy reading both. His article "Let's make no more railroad guarantees" is surely voicing the sentiment of the common people but what pleases me most is his article "Farm Incomes Too Low." It has the right ring.

Little River, Kan. G. L. Yocom.



This 400% Increase in Sales Bears Testimony to En-ar-co Unvarying Quality

Ten years ago motorists knew little about motor oils. Of course, they knew there were differences. What these differences were, and how they affected motor car performance, few, however, appreciated. Motor car manufacturers, through publicity and their salesmen, did much to educate car owners. So did leading oil companies. Many car owners learned by experience.

As motorists learned to distinguish the vital differences between oils, En-ar-co superiority was quickly recognized. No more convincing proof could be given than the fact that *since 1910 En-ar-co sales have increased 400 per cent.* We have more than a hundred thousand signed statements in our files testifying to En-ar-co unvarying high quality.

En-ar-co Motor Oil Vaporized—Then Condensed

Everyone knows that steam caught from a tea kettle spout when condensed is pure water. And that along the bottom and sides of the kettle a residue is left after the passing of the water into steam.

It is on much the same principle that En-ar-co Motor Oil is refined.

Only selected crude oil is used. This is placed in huge stills where it is heated until it forms a vapor. The vapor is then condensed into a liquid. This is done again and again. By this scientific refining all these residue-forming impurities are removed.

Thus En-ar-co enables you to get

full power from your motor. Friction is eliminated. And repair costs are kept to the minimum. Yet En-ar-co costs no more than many inferior grades.

Learn from the experience of others. Try En-ar-co TODAY.

All En-ar-co Products Excel

Just as En-ar-co Motor Oil has proved its superiority so do all En-ar-co products excel. White Rose Gasoline—clean, uniform, powerful. National Light Oil for Tractor fuel, also best for lamps, oil stoves and incubators. En-ar-co Motor Grease for transmissions, gears and differ-

entials on motor cars and tractors. Black Beauty Axle Grease for wagons. Always look for the En-ar-co trade-mark!

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This coupon will bring you FREE the fascinating En-ar-co Auto Tour Game, in which autos compete in a cross country race (not a road map). Grown folks as well as children will enjoy this game. Two, three or four can play it. Send in the coupon NOW.

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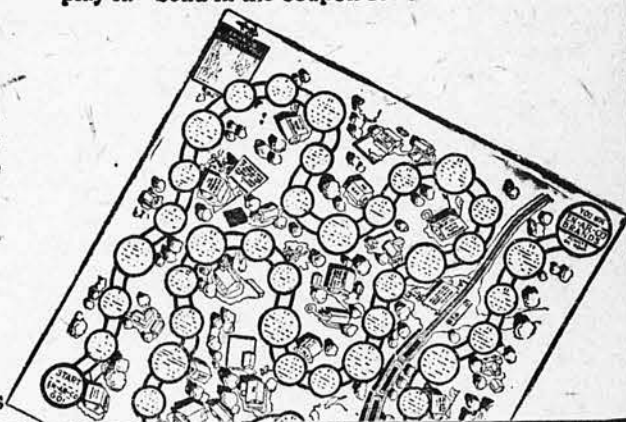
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Send me your En-ar-co Auto Game free. Enclosed find two two-cent stamps to partially cover postage and packing.
Also give nearest shipping point and quote prices on the items I have marked.

I use.....gals. Gasoline per year I use.....gals. Tractor Oil per year
I use.....gals. Motor Oil per year I use.....lbs. Motor Grease per year
I use.....gals. Kerosene per year I use.....lbs. Axle Grease per year

My name is.....
Street or R. F. D. No.....
Postoffice.....
County..... State.....
I Own.....
(Make of Automobile or Tractor)
(Be sure to give make of auto or tractor or game will not be sent)
Am at present using.....Motor Oil. I will be in the market for more oil again about.....and you may quote me on.....gallons En-ar-co Motor Oil.



ONE OF the most pleasing developments in the farming game during recent years has been the increased number of farmers who are keeping accounts. This is probably due to no small extent to the income tax law, but whatever the reason, the important feature is that more and more farmers are coming to really study their business and know it from the point of dollars and cents instead of merely guessing at what their farms are making for them.

Without doubt, the keeping of accounts is the most important phase of farming and goes further than any one thing in determining whether or not farming is really profitable. Unless a farmer knows, rather than guesses, what his livestock, his crops and his land are doing, he is working in the dark. He has more of a handicap than he should endeavor to carry. Especially is this true when one considers that an account can be kept with the different crops, and the different classes of livestock in no more than 10 minutes a day—an amount of time entirely insignificant when compared with the value of the accounts when the end of the year comes.

Are You Losing Money?

Farmers who are keeping accounts, particularly those who have only during the past two or three years begun to keep them, are especially enthusiastic of the value which farm accounts have. Just the other day a farmer told me that he prevented a lawsuit because of his accounts. Another bragged to me about the value of his accounts as a history of his farming operations. And still another was most pleased with the fact that from his books he had found his hog business was a losing game under the conditions that prevailed last year and so was able to "get out from under early." I only wish that those farmers who do not keep accounts and who are skeptical of the value which farm accounts have would talk to those farmers who really keep a system of accounts. Few would remain unconvinced.

It is not necessary for the system to be intricate, in fact it would not be practicable for the average farmer because of the time required. Books best answer for account keeping. Loose leaf systems, while very valuable in offices where regular help for keeping them can be had, are not preferred by most farmers because of the ease with which they are lost or misplaced. Any farmer now can purchase account books cheaply which will give him the required records. With these books there generally come explicit directions for keeping the accounts.

But, it is not enough to buy the books. In many farm homes the books have been bought and never used. The farmer keeps putting off until later when he will start to using the books with the result that he never begins but keeps groping along in the dark. I repeat, keeping accounts is the most important thing of all in farming.

The Inventories

An important part of any system of accounts is the annual inventory. Without this, it is impossible to determine how the farm business has paid. It is considered on general farms that during the late winter is the best time for making an inventory because then there will generally be the least unsold crops or other farm products on hand.

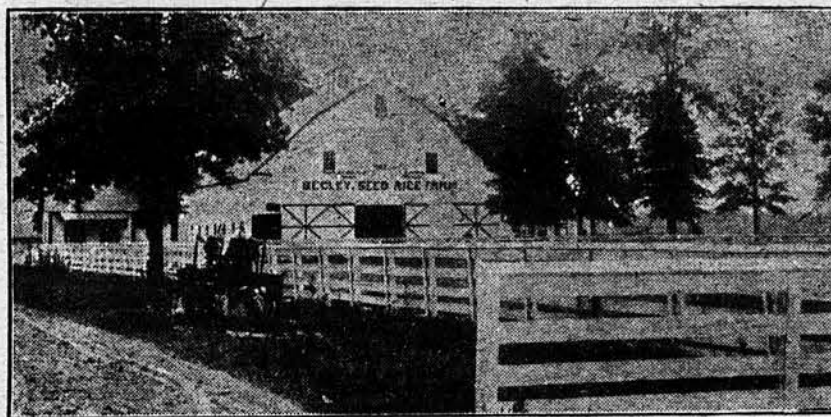
An inventory should not be an estimate but an accurate record. Every farm building should be gone thru carefully and all feed, grain on hand, livestock and machinery should be listed and valued. The temporary record made is then copied in a permanent record or in a book kept for that purpose only because the inventory for each of a number of years can thus be easily kept and compared.

Fixing the value of each article on the inventory requires good judgment and extraordinary care. Considering the original cost of an article and carrying that cost year after year is incorrect because the business soon becomes overloaded with what is really a fictitious value. It is further misleading to inventory any machinery, for example, at what it will bring in the market. The amount of service that it will return is in reality the only safe guide. Of course, the cost price and the actual worth at the time of making the inventory have value. Probably the best method for determining the value at which to inventory machinery is to con-

Let's Keep Farm Accounts

Farmers Must Know Exact Costs of Production

BY A. C. HARTENBOWER



sider the number of years of service each machine when purchased is estimated to return with good care and figure that it loses so much in value each year.

A further point that needs careful consideration is the rate of depreciation on buildings. On well constructed buildings 5 per cent may be sufficient for depreciation and repairs while on a poorly constructed building 10 per cent for depreciation alone may be too little. In considering the teams of a farm certainly at least 10 per cent for depreciation is none too small. On implements, while this varies greatly with the different ones, 10 per cent where they are well shedded is considered to be the average amount.

Crop Production Costs

Records of crop production are of especial value. Consider an illustration: A friend of mine kept records upon the cost of growing wheat a few years back and he found that as an average of several years his wheat was costing him money instead of making him money. He quit wheat and went in for potatoes. The three years following his quitting wheat happened to be poor wheat years in his community, and were good potato years. So his records upon the crops he grew enabled him to see exactly his loss incident to growing wheat even in good years, and saved him the greater loss he would have suffered during the poor years. The potatoes on the contrary made him a continuous, high profit. There are so many cases like that. Acre upon acre is being given up to crops that are not paying the cost of production. Records would expose such crops and permit more profitable crops to be grown instead.

Labor constitutes, under almost all conditions, the major part of the cost of growing crops. Land valuation is not the factor which generally governs the profit or loss coming with the production of any crop. This is true even if land becomes very high in value. Why? Because generally speaking, more intensive methods of production are used the higher the land values and with this there comes a higher labor cost. For land value to constitute even half of the cost of production is exceptional.

A further point is that there is generally no relation between the acre return from growing a crop and the profit coming from it. Corn which brings in but \$50 an acre may be more profitable than garden crops which bring in 10 times that amount. The deducting of labor, land, interest, and other charges may cause the crops which give the highest receipts to return the lowest profits an acre.

Don't Draw Hasty Inferences

Again, just because a crop gives a high return an acre is no sign that it should be generally grown. Peach production in Oklahoma, for example, may give a net profit of \$50 an acre and still it might be less profitable than to grow a crop like alfalfa hay, because the farmer with the same expenditure could take care of enough more acres growing alfalfa hay to give him a larger return for his labors in the course of a year. The acre is not the sole consideration. Renting or buying more acres may be more profitable than endeavoring to bring each

acre to produce its maximum under intensive, high-priced methods.

So, it is necessary in order to grow crops most intelligently, to have a record of costs of production. For the labor costs, the daily time sheets which are kept by many farmers will give the data required for determining that phase of the cost of crop production. Not only should these sheets show how much total time is put upon each crop produced, but also they should give the cost of each operation. For example, from the time records which I kept the past year with my alfalfa, I know now how much it costs to harvest each crop, including mowing, raking and stacking, to haul the crop marketed to town. I am able to determine whether it is more profitable, provided I can obtain the labor, for me to put up the crop myself or to rent it out on a share-crop basis. My records will be more valuable after two or three years. All this means a great deal in these times of high priced labor. But, better still it enables me to answer intelligently the question, "Is alfalfa a profitable crop for me to grow on my farm?" and, "Shall I increase my acreage of that crop or grow other crops in its place?" I couldn't answer those questions if I had no account with my alfalfa crop.

Consider Every Item

Every item that goes into the production of a crop, including, of course, land rent or interest on the investment in land, taxes, seed, plowing, planting and cultivating, should be charged against a crop in order to determine its profitability. To omit any item is to make practically worthless the value of your records.

Of course, such a record of crops becomes especially valuable if continued over a series of years. Many of the questions to be answered from such records are only really valuable when several years' averages are taken for each crop.

You, Mr. Farmer, who are not keeping accounts, may not think you have the time for such accounts. How much will the records be worth to you? Try keeping simple records for a time and then consider their value. The chief point is for you to begin now to plan a system of accounts and really to begin the work. After keeping the accounts for a time it will probably be desirable to make them more simple or more detailed. But, begin now to keep those accounts. Your business needs them!

A Modern Home at Geneseo

(Continued from Page 5.)

hose. In the furnace room is a vapor furnace which has been in use for two years and has given excellent service. The coal room which joins the furnace room is unusually well built. Although all the floors upstairs are double, Mr. and Mrs. Newkirk were afraid there would still be some danger of coal dust sifting thru, so Mr. Newkirk plastered the ceiling of the coal bin and they have had no trouble with dust finding its way upstairs. In another room in the basement is an independent electric light plant of a type which is doing such good work in so many farm homes in Kansas.

The dining room, living room and den of this home are large and beauti-

fully finished in oak, with walls of a smooth finish and tinted in tans. Mrs. Newkirk does not have large rugs on her floors for she finds the waxed floor very easy to keep clean, and she says that with her 50-pound wax mop she can put a polish on her floor that lasts for many weeks. Her dustless mop so quickly removes the dust from the floors that she finds it quite a saving of time not to have to clean rugs. "Kiddie Kars," doll buggies, and toys of all kinds and descriptions do not seem to have any effect on the luster of the floor. The rooms in this home are well lighted, the indirect fixtures having been chosen for the living room, dining room and den; the kitchen not only has lights over the work tables but also over the range. Plugs have been placed in the wall in the living room for a piano lamp and in the den for a desk lamp.

Another thoughtful plan was the building of a bedroom on the first floor to care for those who are ill. That this room was built purposely for the care of the sick is proved by the electric push button which was installed right by the bed so that anyone can easily call for help and get an answer even tho the home nurse is quite a distance away. The bell rings in the kitchen; it is placed in the upper part of the cleaning closet. Just off this bedroom is a small lavatory.

The stair steps leading to the second floor are covered with the small rubber foot mats which save wear and tear on the steps and likewise lessen the noise in treading the stairs. A large sleeping room was built over the kitchen and next to this is the dressing room. This room has two large closets. Mr. Newkirk said that when he was a boy he never had all the room he wanted for his clothes so that when he built his own house he planned a closet which should be used exclusively by himself. The little girls' dressing room opens off the parents' dressing room, and across the hall from these are the guest room, hired hands' room, and at the end of the hall the bath room and the linen closet.

Many Cosy Features

That there is a wonderful home life in this modern farm home is expressed by the many thoughtful, cozy plans here and there that suggest comfort and happiness. By the fireplace in the den has been built two Pullman seats which have on them pillows and blankets that breathe warmth and rest as do the easy chairs near them. The coal grate in the fireplace makes it possible for a fire to be kept burning all the time. An interesting feature of the fireplace is the ash chute which extends from the grate to the basement and thru which the ashes are allowed to fall, thus doing away with carrying the ashes out thru the living rooms.

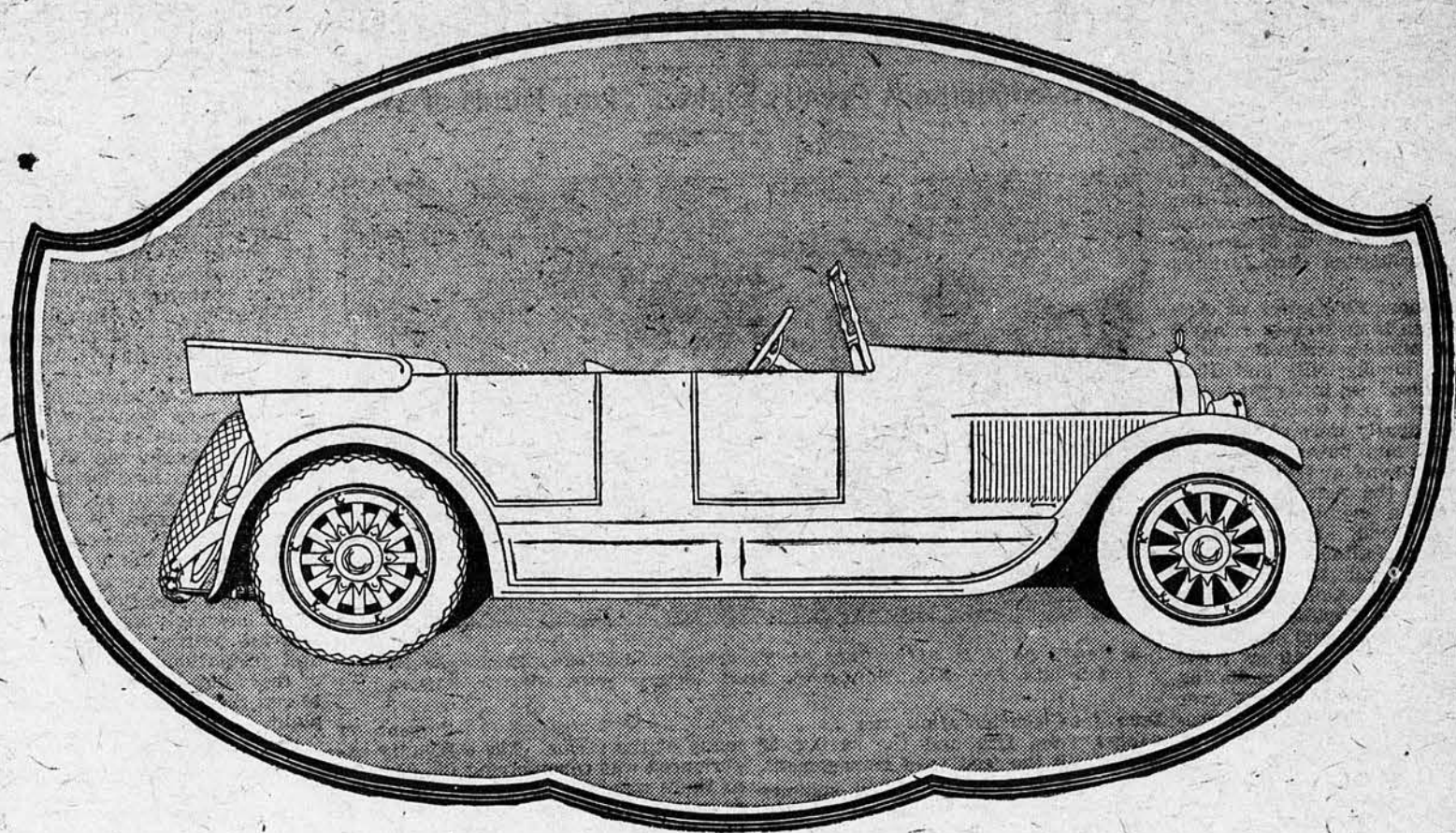
Coziness is again suggested by the fact that two-thirds of the colonnade between the living room and the den is devoted to book cupboards with most attractive beveled glass doors, and shelves filled with the best books and magazines. There are sliding doors between the living room and the dining room and this open space makes an excellent place for the little girls' "Lullaby Swing." Mr. Newkirk fastened a strong wire in the casing above the door and the swing can be hooked into this wire. Francis and Margery have just as good time swinging there in the winter as they do out of doors in the summer.

Director Enrolls as Student

The coming semester will see a middle-aged director of a southern agricultural college enrolled among the graduate students in agriculture at the University of Wisconsin. B. Youngblood, who has for years been active in the Texas Agricultural college, is to enter Wisconsin as a graduate student of agricultural economics with the intention of taking a master's degree.

Mr. Youngblood has been interested primarily in economics for many years. His position as a director in the Texas Agricultural college is a responsible one, owing to the great size and varied conditions of the state and so calls for a wide knowledge of economics.

Nowadays a nickel is about as useful as a glass eye at a keyhole.—New York American.



The JORDAN Silhouette

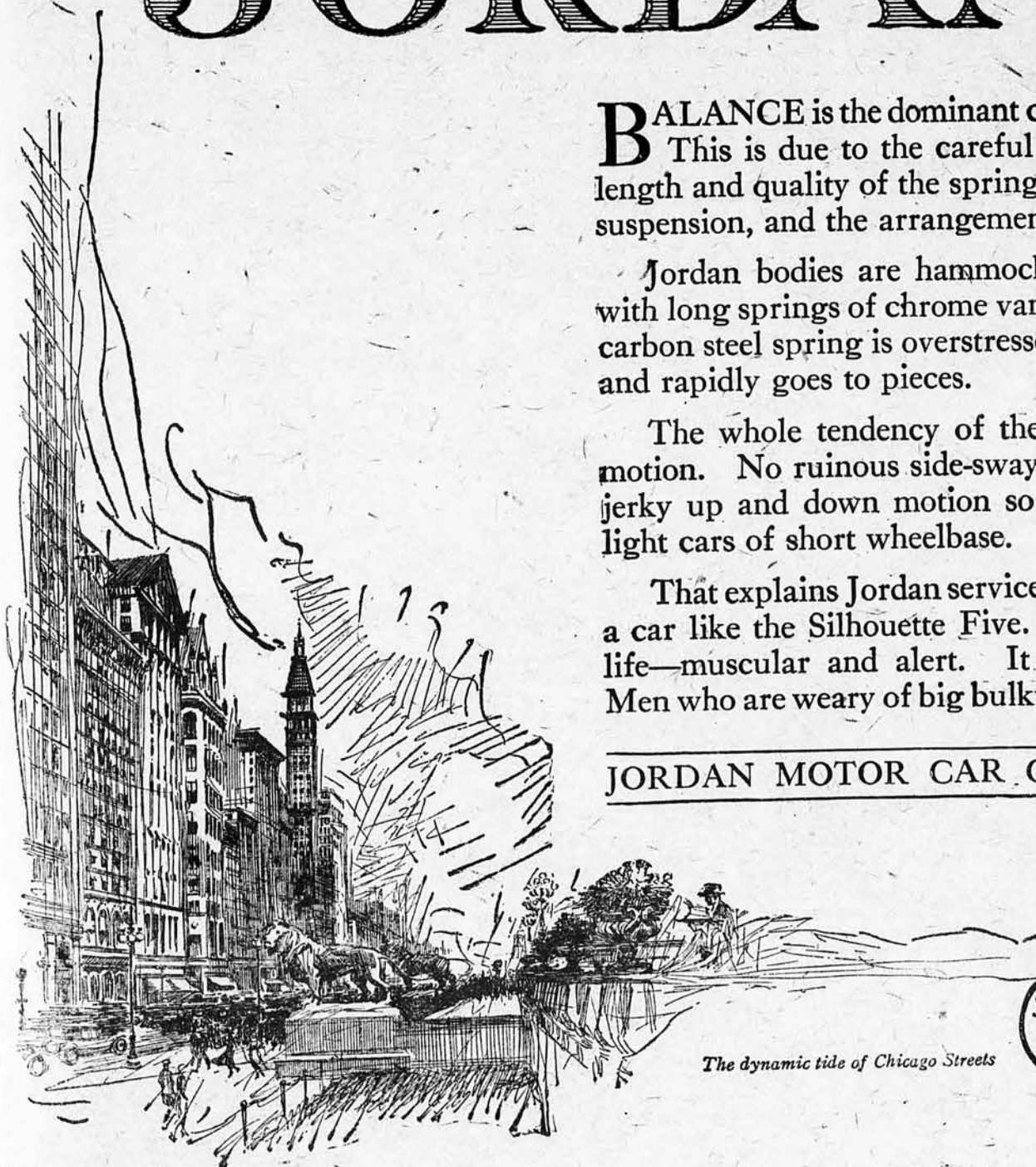
BALANCE is the dominant characteristic of Jordan cars. This is due to the careful distribution of weight, the length and quality of the springs, the delicate point of their suspension, and the arrangement of the steering apparatus.

Jordan bodies are hammock swung between the axles with long springs of chrome vanadium steel. When a cheap carbon steel spring is overstressed, it reaches its elastic limit and rapidly goes to pieces.

The whole tendency of the Jordan is toward forward motion. No ruinous side-sway as in over-heavy cars. No jerky up and down motion so characteristic of extremely light cars of short wheelbase.

That explains Jordan service, even with abuse. Imagine a car like the Silhouette Five. Picture it as it is—full of life—muscular and alert. It runs like a spirited horse. Men who are weary of big bulky cars will choose it with joy.

JORDAN MOTOR CAR CO., Inc., *Cleveland, Ohio*



The dynamic tide of Chicago Streets



THE PROGRESS of the Kansas farmer from the old days of the exclusively horse-power and man-power management has been rapid. He has grasped every advantage that would save labor and has shown an eagerness to adopt modern methods. Only within a half decade has there been before him opportunity for applying electricity to his operations. Even less than that has been the real development which followed the expansion of hydro-electric power transmission thru farming sections.

Kansas has now 1700 miles of electric transmission lines largely grouped in the central counties where the water power of the Smoky Hill and Blue Rivers are utilized in three plants of the United Light and Power System. These lines originally were constructed to supply light and power from central station to towns and villages. At the beginning of the year they served 55 towns of the counties of Dickinson, Clay, Cloud, Riley, Pottawatomie, Geary, Saline, Wabaunsee, Marion, Ottawa, and Marshall with power plants at Abilene, Rocky Ford and Blue Rapids, all under one management and connected by transmission lines. Along these lines, and on special lines radiating from the central plants, were over 400 farms utilizing current in household and productive methods. Over 100 farms are on the waiting list to be connected as rapidly as the lines can be extended. Over 500 miles of farm lines are now operated.

Lightens Household Duties

At first the farmer did not realize just what it meant. As the idea developed he discovered what he could do with a 24 hour current delivered at his door. First of all, he wired his house, doing away with kerosene lamps. He added to his wife's home equipment the vacuum cleaner, motor driven sewing machine, washer, and such little accessories as toasters, hair curlers, flat-irons. It reduced her household duties amazingly and as help is almost impossible of attainment in the country she appreciated it.

But the real value to the production end of the farm comes in the use of current in the operations of the feed yard and barns. The farmer lines have a transformer at every farmstead, and the wiring of the yards is as extensive as the owner may desire to make it. The first cost is now \$400, having been increased with the cost of material and labor. This brings the service to the farm. Wiring of the barns, garage and feedyards for light is of course the first installment. It avoids the old lanterns and makes the work far simpler. The windmill is being abolished in favor of an electrically operated pump which requires only the turn of a switch to set it in motion. The permanency of the water supply is thus secured.

This is but one of the patent factors of the advantage of the electric current on the farm. The larger element comes in a manner that will meet modern conditions of production. The farmer is waking up to his opportunity and he knows that he must put efficiency into his task. That efficiency comes from saving every possible portion of the nutritive worth in his feed, in getting it into the most efficient form for transforming it into cattle and hogs. The silo is one of the machines he uses to accomplish this and its management is a leading part of the farm's prosperity. Electricity has come into this field. The cutting of ensilage and filling the silo has become a simple process. Instead of having an engine with its accompanying laborers, the motor powerfully takes its place. On many farms the equipment is rented from the company which has prepared a number of portable motors, housed in motors with long cables and transformers.

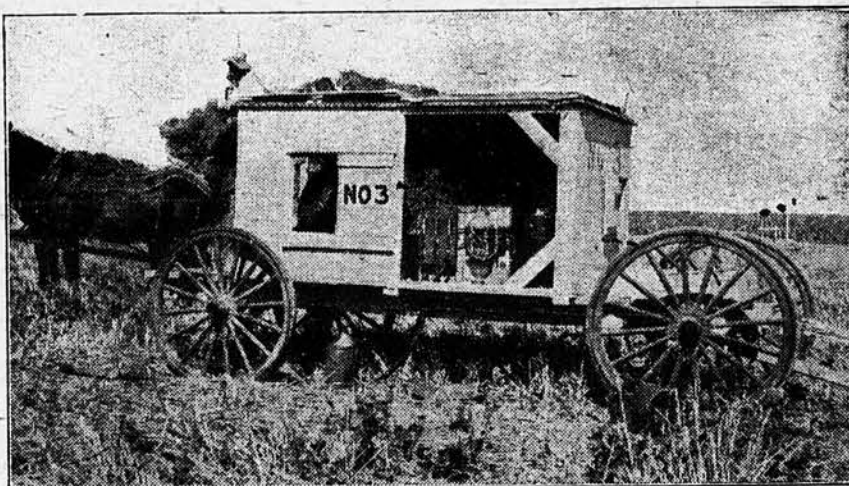
Prepares Feeds for Stock

For the smaller operations there are motors on the farm. Feed cutting is done daily with electrically operated cutters and stock gets the feed freshly prepared and giving a larger return. On every farm where the facility exists the feed cutter is in daily use. Results seem to justify the claims that there is a considerable gain, not to mention the advantage over the gasoline engine with its frequent balky days. Of course, too, this does not

Electric Power for Farms

Improved Methods Greatly Lighten Many Kinds of Work

BY C. M. HARGER



A Handy Portable Motor Used for Threshing and Cutting Ensilage. Many Farmers Threshed Their Grain Last Summer with Electric Power.

take into consideration the lessened danger from fire and the saving of time in all the feed yard management.

The wheat harvest of last summer saw the electric current doing its part in threshing on the farms along the lines. Several of the truck-carrying motors were busy steadily thru the season. These with their long cables could take the current from the wires anywhere along the road and carry it a half mile into the field. The threshing engine and its attendants were banished, smoke and fire were unknown, the separators ran with the smoothness of a factory equipment. When it came to the cost the results were surprising. Threshing was done last season by the hour, as high as \$10 to \$15 an hour being charged for the work. This included of course the entire equipment of separator and engine. Practically half was charged to the power end or \$5 to \$7.50 an hour. The portable motor and an attendant cost \$1 an hour. Again going to the bills paid by a large number of farmers for their threshing, it is seen that the highest cost to any farmer was 3.7 cents a bushel; the lowest 2 cents a bushel. The larger part ran from 2.5 cents to 3 cents. This one saving alone was sufficient to pay

the cost of installing the current on many of the farms. The difficulty experienced was in supplying the demand as there were not enough motor trucks to go around. In some instances groups of farmers own their own motor and separator and "change work," accounting for the completeness with which threshing was done early in the electrically equipped territory.

The engineering school at the University of Kansas reported last summer that 1700 miles of electric transmission lines are in operation in Kansas, radiating from a half dozen plants. Many of these have not expanded the farm end yet but the opportunity is being seized rapidly. Further utilization of the rivers will follow the acceptance of the farmer of this new method of giving to him modern methods. The essence of the electrical equipment is in its labor saving in the home and in farming operations. Were there no saving of money this would serve to make it popular—but that comes also. Freedom from the necessity of maintaining an individual power plant, the 24 hour current, always available, and the myriad uses to which it can be put at slight expense serve to make it one of the farmer's most valuable servants.

A National Tractor Show

Thousands Will Attend Kansas City's Big Exposition

BY JOHN W. WILKINSON

KANSAS CITY has everything in readiness for the National Tractor show which will convene in that city February 16-21. Present indications are that it will be one of the greatest shows ever held in the Midwest. More than 4 acres of floor space will be required for the exhibits which will comprise all the latest designs of farm power machinery. All the exhibition space has been sold for some time, Guy H. Hall, secretary of the Kansas City Tractor Club, manager of the show, announces.

"Kansas City has come to be recognized as America's greatest distribution center for tractors and implements," Mr. Hall said. "For that reason the annual tractor show has taken on added importance in the eyes of manufacturers. It is our belief the show this year will mark the greatest gathering of the makers of power equipment and farm machinery ever assembled at one time."

First display of the newest models in tractors and implements will be made at the show, Mr. Hall said.

Many Exhibitors

More than 300 manufacturers are contributing to the making of the National Tractor show the greatest exposition of power farming equipment ever held.

The management of the National Tractor show anticipates that the attendance will be materially increased

as a result of the manufacturers' decision to discontinue the national demonstrations. The dealer who desires to make a study of the latest in tractors and power implements and take his prospects where they will get the "power farming fever" must attend the 1920 National Tractor show.

There are to be no other shows or conventions in Kansas City during the week of the tractor show. The hotel managers believe they will be able to provide good accommodations to all who attend the show this year, but applications for reservations have been coming in so fast at the larger downtown hotels that even with additional stenographers the hotels are unable to answer all of them. The Hotel Baltimore and the Hotel Muehlebach had reserved practically every room in the two hotels for the Tractor Show week several days ago, and the applications still keep pouring in each day.

Big Crowds Expected

The Hotel Baltimore of Kansas City announces that more than 1,000 reservations already have been made for Tractor show week, and the Hotel Muehlebach has taken care of even a greater number. The information bureau which has been established in the lobby of the Hotel Baltimore by the conventions bureau of the Chamber of Commerce to locate rooms for visitors attending the motor show will be kept open for the tractor show. Other bu-

reaus will be opened in the Hotel Muehlebach and union station. Visitors who are unable to get accommodations at the downtown hotels will be directed to rooms in private homes and hotels in the residence districts. The Chamber of Commerce has sent out requests that all persons having available rooms for the Tractor Show week file the number and location with the bureau at the Hotel Baltimore.

Guy H. Hall, secretary of the tractor show, estimates that more than 6,000 dealers and representatives of tractor concerns will attend the show, besides those who come here simply to see the exhibits or purchase tractors. Three hundred out of town tractor concerns will have exhibits at the show.

Services of a number of sanitary inspectors have been obtained and they will be on duty at the show. It is intended to change the air in the entire building every half hour. The temperature will be kept as low as 70 or a little less because it is known that bodily heat of persons attending the show will raise the temperature.

Mr. Hall announced that 90 per cent of the spaces at the tractor show will have moving displays. Electricians now are putting in the heaviest wiring and insulations ever used in a show of this kind. There will be 200 motors to run the exhibits in the show's power plant.

Tractor Belts Need Care

H. J. METCALF
Iowa State College

A threshing machine, clover huller, or any other belted machine cannot be expected to do efficient work if the belts and pulleys are not kept in the best possible condition. There is always a specified speed at which the machine in question will operate most satisfactorily. Usually a very slight variation from this speed causes considerable loss of efficiency in the running of the machine. For example, a threshing machine that is supposed to run with a cylinder speed of 1200 revolutions will waste very rapidly with only a variation of 4 or 5 per cent. in the cylinder speed.

Belts climb to one edge or jump off of pulleys for several reasons. The most common one being the poor alignment of the shaft. This is often caused by running belts too tight, with the result that the boxings and journals are worn unnecessarily, allowing the shaft to slip from its proper bearing. Do not, however, run the belt with too much slack as this causes excessive slippage and uneven running is the result. When a belt runs to one side of the pulley, part of the belt running clear off the face, there is a loss of power and the life of the belt is considerably shortened because of the rapid wear. A belt soon becomes badly stretched when running in this manner and is hard to keep on the pulley.

Loose lagging on the pulleys will also cause belts to jump off. This covering must be kept tight and smooth. It is needless to say that the nails or rivets should not extend above the lagging because of the damage they will do to the belt.

Leather belts should be run with the hair side to the pulley. This gives a larger portion of the belt in contact with the pulley, because the grain side is smoother, with the result that more power may be transmitted with a minimum of slippage. To keep a leather belt in good condition, tallow, neat's foot oil, or some reliable patented belt dressing is needed at frequent intervals.

The common endless belts of rubber or canvas need just as close attention as do the leather belts. Oils are injurious to rubber belting. A good cleaning with soap will usually fit them for service. No belt dressing is necessary when rubber belting is used if it is kept clean and run under the proper tension. Canvas belting needs a frequent application of oil or prepared dressing to keep it soft and pliable.

When the machine is not in use, it is advisable to slip the belts off the pulleys to prevent them from taking a set. Every time the belt goes over a pulley it has to stretch and bend slightly. If this flexibility is removed by hanging tight over the pulleys, the belt is sure to crack. Cover all of the belts at night. A heavy dew or rain will cause lots of trouble the next day. A wet belt will not stick to a pulley.



The Secret of the Homiest Home

DO you know the secret of the home where "company" always enjoys itself,—the home which people always speak of as having "nice things"?

Lady Randolph Churchill put her finger on the secret. Lady Churchill is a very wonderful woman—now past 50 years old—and she owns the best furnished home in England. This is what she wrote:

"What an extraordinary man Mr. Edison is. He perfects his phonograph to a point where its realism is astounding. Then he determines

to make each Edison Phonograph, even the least costly, an attractive piece of furniture. Instead of the usual dentist-like looking cabinets, his designers have succeeded in putting the character and feeling of the best periods into his phonograph cases. These graceful and artistic productions will be hailed with delight by all who can afford them, and will cause Mr. Edison's new phonograph to be received in many houses where less worthy machines have not been welcomed heretofore."

CHIPPENDALE
(1709-1779)

The French-Gothic lines of the posts, and the French-Gothic grille with its Chinese cord-cut frieze combine to give an effect of stately beauty.

The NEW EDISON

"The Phonograph with a Soul"

gives you both of the great arts which make your house a cultured home—gives you all that is in music and furniture

MUSIC is RE-CREATED by the New Edison with perfect realism. This is no mere claim. Edison is a straight-from-the-shoulder American. He doesn't ask you to take anything on his "say so," any more than he'd take a scientific discovery on your "say so."

Edison actually proves the New Edison's realism. Before 3 million people he has made comparisons between the vocal and instrumental art of 50 different

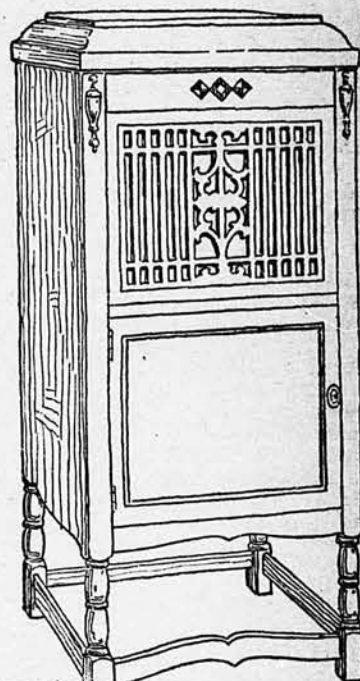
artists, and the RE-CREATION of their art. These 3 million people all admitted that they could hear no difference between the performance of the living artist and its RE-CREATION by the New Edison.

The furniture art of the New Edison is its own proof. Perhaps you are wondering since when did Edison turn furniture designer. He didn't. He knew that the marvelous furniture designs created in the Golden Age of Furniture still stand as the highest type of furniture art. So he did the common-sense thing. He had his designers adapt the master-

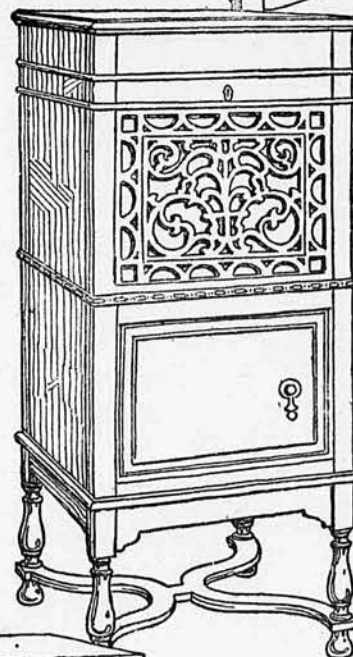
pieces of this period. They did the job so well that even Lady Churchill and Miss de Wolfe were surprised and delighted.

Edison not only made every New Edison a period cabinet—but he brought the prices down to where you know you're getting real value for every cent.

The New Edison is the delight of every one who likes music, and the ambition of every one who appreciates a fine home. It makes evenings-at-home triply enjoyable for both your family and your friends.



JACOBEOAN
(1603-1649)
This cabinet reflects the Jacobean tendency to simple, classic design.



WILLIAM
AND MARY
(1689-1702)
The legs, stretcher, pendent pull, and grille are typical of the taste and delicacy of this period.



Miss
Elsie de Wolfe

who designs and furnishes the interiors of the finest homes in America, says:

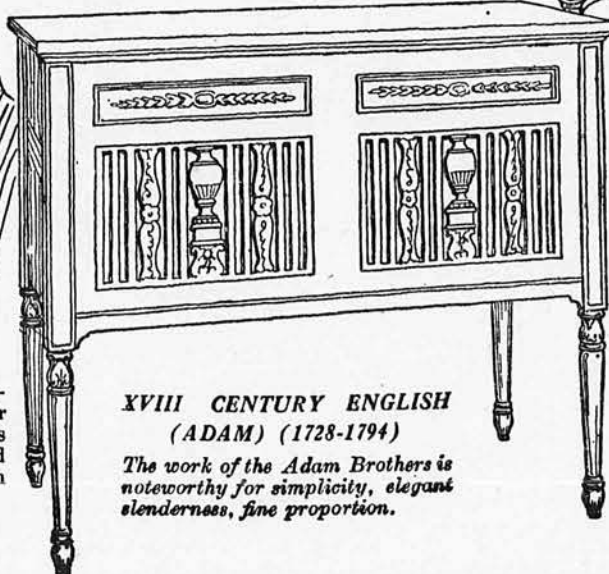
"THE period cabinets which Mr. Edison has adopted for his phonographs are in pleasant contrast to the rather grotesque cases one so frequently sees. From the diminutive Heppelwhite to the costly replicas of historic pieces, the superior furniture value of Edison cabinets can scarcely fail to impress the lover of good furniture."

Lady
Randolph Churchill

who is considered the greatest furniture authority in England, says:

"HIS (Edison's) designers have succeeded in putting the character and feeling of the best periods into his phonograph cases. These graceful and artistic productions will be hailed with delight by all."

(Her letter in its entirety is printed in the text above.)



XVIII CENTURY ENGLISH
(ADAM) (1728-1794)

The work of the Adam Brothers is noteworthy for simplicity, elegant slenderness, fine proportion.

Write today for your copy of "Edison and Music"

ONE of Thomas A. Edison's right-hand men has written a book about Edison. The book paints a fascinating word picture of Mr. Edison. It also contains 17 exquisite plates and invaluable information about Historic Furniture. We have issued a special paper-covered edition for free distribution.

Address Thomas A. Edison, Inc., Orange, N. J.

MANURE should be applied as soon as possible after it has been produced. This, however, is not possible under certain conditions. Manure that was formed last spring and during the summer could not, in many cases, be applied at that time. This accumulated manure and that being produced now should be applied as soon as possible. Manure produced during the winter should be applied as a surface dressing to wheat and alfalfa fields or should be put on fall plowed land that is to be planted to corn or a sorghum crop in the spring. Manure applied during the winter will decay sufficiently by early summer that it will not interfere with harvesting operations. The plant food in the organic matter will be sufficiently liberated by spring so that the plants can use it in their development. The plant food contained in manure will not be lost during the winter if it is applied to the soil and the soluble portion will be absorbed by the soil.

Loss of Plant Food

When manure is permitted to remain in a heap at the side of a barn during the winter it loses approximately one-half of its plant food and a part of the organic matter. In addition to losing this large amount of plant food it is the less valuable portion that remains because that part which is lost is more readily available to plants. The dark liquid which flows away from the manure heaps carries large quantities of plant food in solution. The smell of ammonia so common in the vicinity of a manure heap indicates the loss of plant food into the air. Another way in which plant food often is lost from manure is by permitting the liquid excrement to flow away or by carrying it away from the barn by use of tile. This portion of the manure is even more valuable than the solid excrement and should be saved by using plenty of bedding to absorb it. The losses from manure may be checked to considerable extent by hauling it to the field as soon as produced or by storing it in a covered manure bin.

Effects of Manure

A surface dressing of manure on wheat or alfalfa serves as a protective covering during the winter, thus reducing the danger of winter killing. It adds much plant food and organic matter to the soil, thus increasing the yield to a very marked extent. The organic matter increases the water holding capacity of the soil and decreases erosion. Manure applied as a surface dressing to fall plowed ground will greatly improve the physical condition of the soil and can be incorporated readily in the soil in the spring with the disk.

Extremely heavy applications of manure will cause a crop to burn in dry seasons and to lodge in wet seasons. The burning is largely a result of heavy early vegetative growth which is extravagant in the use of moisture. The lodging is produced by a heavy growth of straw and a weakened stem caused by too rapid growth. In addition to these, there is no better way of maintaining the fertility of the soil and maintaining the permanent high yield than by frequent applications of manure except in those places where the soil is naturally low in phosphorus. In such places phosphorus must be used in addition to manure because manure contains but a small per cent of this element.

Crops to Fertilize

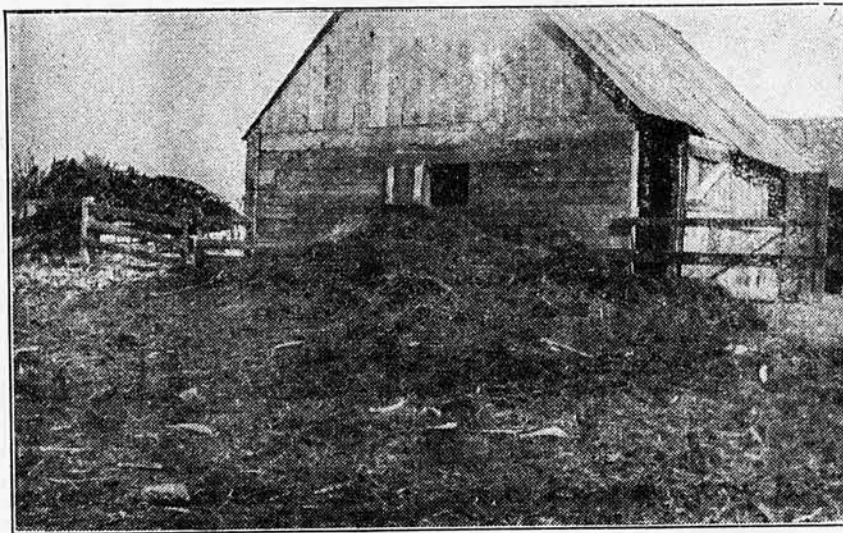
Altho it is profitable to apply manure to practically all general farm crops, it is more profitable on some crops than on others. Alfalfa and wheat usually give higher financial returns from the use of manure than do row crops. These crops make considerable growth during the spring when it is cool and when plant food elements are being liberated in the soil very slowly. The row crops make their growth during the warmer portion of the year and receive more available plant food from the soil and, therefore, do not respond so readily to applications of manure. Alfalfa is also a heavy feeder and requires large quantities of plant food, especially during the spring months.

On many farms in Eastern Kansas where both alfalfa and grain crops are grown, only a limited supply of manure is produced. When there is not sufficient manure on such farms to supply all crops, it should be used on

Making the Most of Manure

The Spreader Can be Kept Busy All Winter

BY R. I. THROCKMORTON



Manure Stored in This Way Will Lose Much of Its Value. Manure Would Double the Yield of Wheat on This Farm.

the grain crops and the alfalfa should have an application of phosphorus. This distinction should be made because the manure contains considerable nitrogen and the alfalfa plant is capable of obtaining this element from the air. The organic matter added in the manure is also of more value to grain crops than to alfalfa. There is one exception to this condition and that is in seeding alfalfa. No better treatment can be given a field that is to be seeded to alfalfa than an application of manure.

A field should receive the equivalent of 5 or 6 tons of manure every three years. The rate of the individual application will depend on the crop and on climatic conditions. Heavier applications may more safely be made to alfalfa than to corn or wheat because it is not subject to burning. In the central and western parts of Kansas, applications must be lighter than in the eastern part.

Rate of Application

Surface applications to wheat should be at the rate of 7 or 8 tons an acre in the eastern part of the state, and at the rate of not more than 5 or 6 tons in the central and western parts. The manure should be applied any time during the late fall or winter months when the field is solid.

For alfalfa, manure may be applied any time after removing the last cutting of hay. The application may be at the rate of 8 or 10 tons an acre if the manure is not too coarse. Coarse material should be applied lighter so that it may decay sufficiently before harvest that it will not be raked up with the hay. In preparing a field for alfalfa the application of manure should be made to a preceding crop so that the weed and grass seeds will have time to germinate before preparing the field for the alfalfa crop. In this way the weeds and grass so injurious to young alfalfa, will be destroyed before the crop is seeded.

Corn and other row crops should have the manure applied during the

winter as a surface dressing on fall plowed or listed land. The application should be at the rate of about 6 tons an acre. As a rule it is not advisable to plow under manure in this state unless such work is done sometime before a crop is to be planted. A layer of manure has a tendency to separate the surface soil from the subsoil and make it difficult to produce a firm seedbed.

Spreaders Give Best Distribution

Altho good results may be obtained by applying manure with the fork, the spreader is preferable if one can be obtained. The spreader insures an even distribution of the manure and makes it possible to cover a larger area. Under no condition should manure be hauled to the field, piled in small heaps and scattered later. This practice results in a loss of plant food and an excess application in the vicinity of the heaps.

If the amount of manure available is small, it should be spread over as large an area as possible. It is more profitable to apply 100 tons of manure to 20 acres at the rate of 5 tons an acre than to apply it to 10 acres at the rate of 10 tons an acre.

Fruit for the Farm Homes

(Continued from Page 12.)

influence on the surrounding air temperature. A small stream or ravine even may give excellent air drainage and so make the surrounding area better fitted for fruit growing than it otherwise would be.

The considerations which govern the choice of varieties for the home orchard are very different from those which present themselves to the mind of a commercial fruit grower. The first question which the commercial grower asks is, "What varieties pay best?" The amateur in choosing varieties for his home orchard is privileged to ask the question first of all, "What varieties do I like best?" A home orchard

should contain varieties for which the owner has an individual preference, so far as his condition of soil and climate allow him to attempt their culture. Varieties selected on this basis are likely to receive better care, and hence to yield better results, than a list containing many unfamiliar sorts, made up at the suggestion of the artful and enthusiastic tree peddler. Reliable nurserymen generally may be trusted for information concerning the adaptability of given varieties to conditions in their locality. Sometimes, however, they are inclined to judge a variety by its adaptation to cheap and easy production in the nursery, rather than by its value for the home orchard.

The young tree should be well formed, straight and clean, of a good size for the age, and of the right shape for the variety. Allowance must be made, however, for the fact that some varieties naturally make much more symmetrical tops than others. Winesap, for instance, is less inclined to make a good symmetrical growth in the nursery row than Ben Davis. The characteristic varietal habit of the tree should be kept in mind in judging its quality. Weaklings, with very slender and crooked trunks, stunted or unhealthy trees should not be accepted for planting.

Some buyers make the mistake of planting trees which are too old. Four, 5 or 6-year-old stock is not infrequently preferred by inexperienced planters, who seem to be under the impression they are investing in forestry rather than fruit. Such trees are likely to be the culls from which the better trees have previously been selected; they are nearly always headed too high, they suffer more from transplanting than younger stock, and the natural defects of habit which they may have developed are much more difficult to remedy. They should by all means be avoided. It is the judgment of the most experienced orchardists that 2- or 3-year stock is best for setting. At present the preference is rather for the younger of these.

Unpack Shipments Promptly

As soon as the trees are delivered they should be unpacked. They may have been on the road for several days and possibly they are getting dried out. If the land has previously been made ready, they may, of course, be set at once. Frequently, however, several days or even weeks may intervene between arrival and setting.

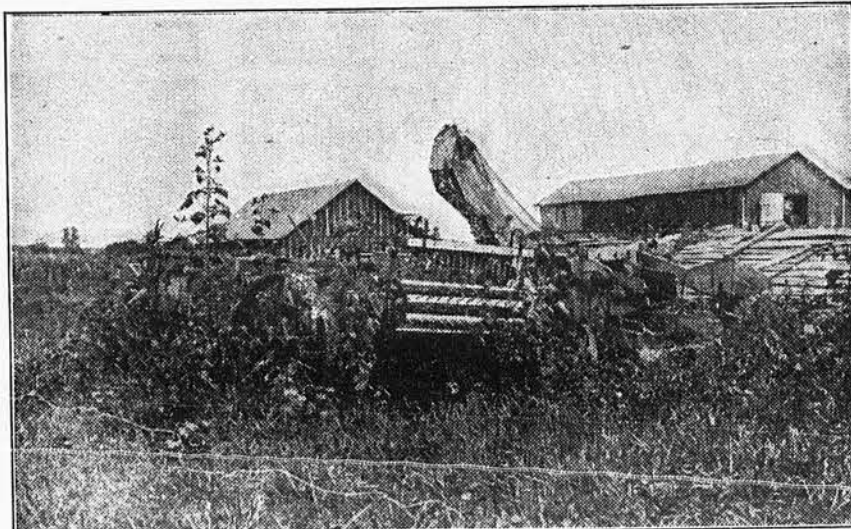
Wherever the character of the land will permit, thoro and deep working should be given before the trees are set. The surface should be made fine and friable. Sometimes it may be necessary to set trees in sod because of the steepness of the land. If this is done, they should be thoroly mulched as soon after setting as possible.

Don't set the trees too close. They should not in any case be closer than 32 feet; 36 feet is better, and 40 feet apart is, for most soils, better still. A sketch should be drawn off on paper showing the plan of the orchard and a list of the varieties it contains, with their location. Much inconvenience may often be avoided later if such a plan is made, and in any case it is always a source of satisfaction to be able to identify all the varieties with certainty as they come into bearing.

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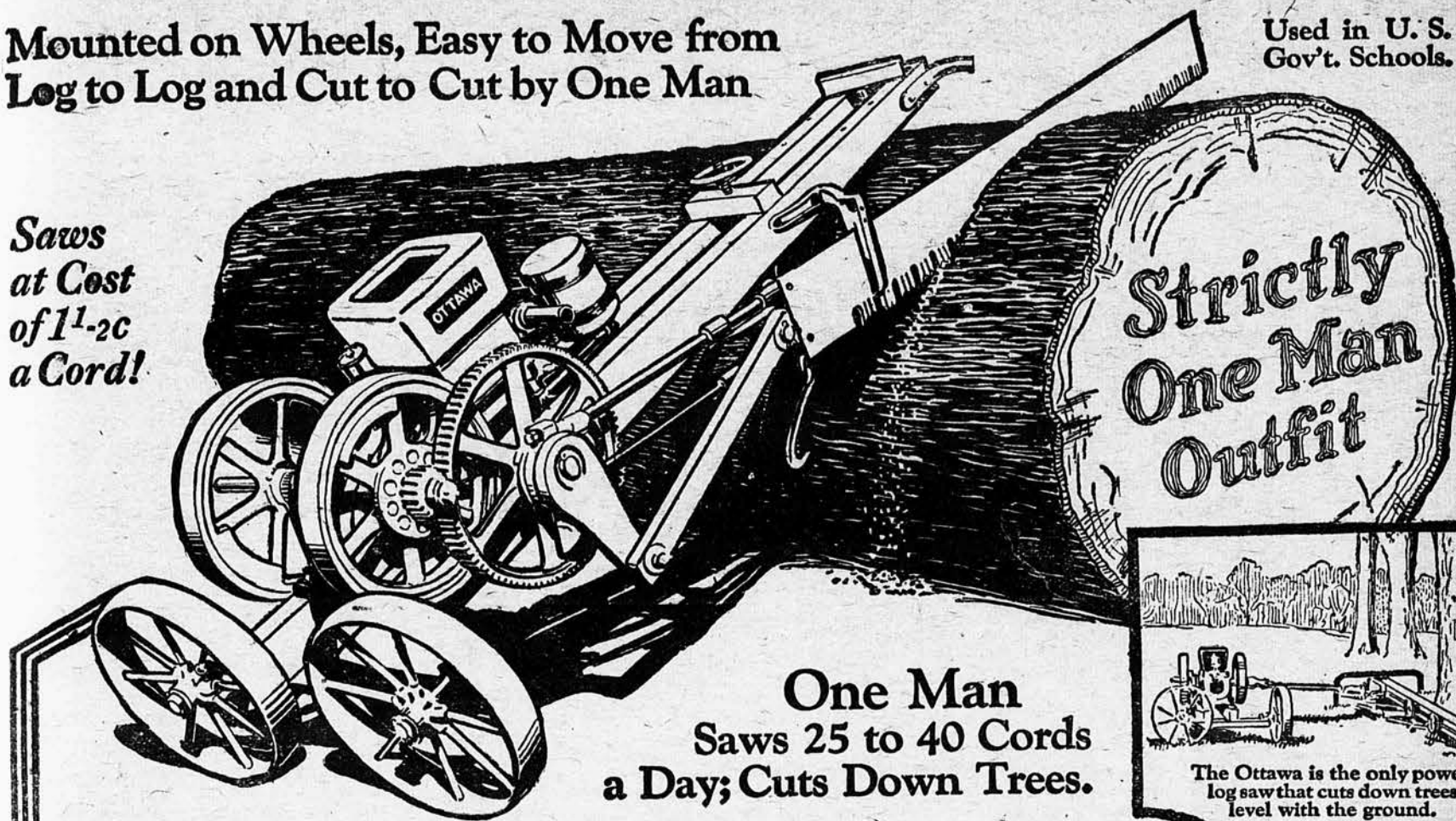


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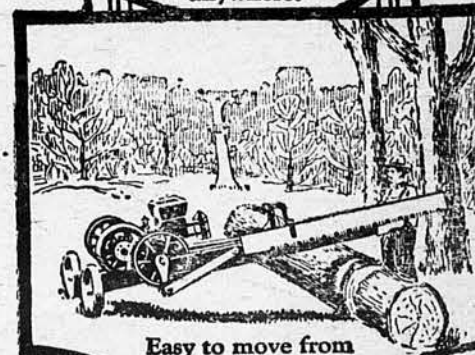
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LAMMING time is the busiest and most critical season of the year in handling a farm flock. Profits from the flock depend very largely upon the number and vigor of lambs born and saved. A pen protected from cold and storm is necessary during bad weather. When lambs are coming rapidly, the ewes should be watched day and night to avoid unnecessary losses.

Using Lambing Pens

A movable pen 4 feet square provides the best place for a ewe and her lamb until the lamb is 1 or 2 days old. The ewe is more sure to own her lambs, especially if she has twins, if she and her lambs are kept in this sort of a pen until they become thoroly attached. The ewe flock needs plenty of room during the lambing period, about 12 to 15 square feet of floor space each. Feed the ewe lightly on grain, about ½ pound daily, until her lamb is 3 or 4 days old.

Occasionally a ewe will have difficulty in giving birth to her lamb, but it is not wise to give her help until she has tried for some time, and appears unable to effect a delivery. When help is given, the attendant should exercise care not to excite her more than is necessary. When giving aid, see that the unborn lamb is in a normal position, with legs in such shape that they will not hinder the progress of birth. When it is possible to draw on the lamb, do so as gently as possible, and pull only at the time the ewe strains. As soon as the birth is about complete and it is possible for the lamb to breathe, remove the birth sack from the mouth and nostrils of the lamb, and blow into these parts to assist the newborn in getting its first breath. When the danger of smothering is past, leave the pen and let the ewe clean and care for her lamb for a few minutes. If, after 20 or 30 minutes, the lamb does not succeed in finding the teat, it should be given help. If it is weak and does not suck readily, place the teat in its mouth and squeeze some milk into it.

The shepherd should be very careful to see that there is no excess wool about the ewe's udder. Clip away the locks of wool, leaving the udder clean, so the lambs will have no difficulty in finding the teats. Sucking wool locks often causes wool balls—resulting in a stunted or dead lamb.

Increase Grain Gradually

After the lamb is 3 or 4 days old, the grain ration for the ewe may be increased gradually until ewes weighing from 125 to 150 pounds get from 1 pound to 1½ pounds each daily, within 10 days or 2 weeks after lambing. The amount of grain required will vary according to the condition of the ewe, whether she has twins or a single lamb, and her appetite. A good grain mixture is equal parts by weight of oats and corn, when it is possible to supply 2 to 4 pounds of good clover or alfalfa hay. To insure a sufficient milk flow, rather heavy feeding is advisable until the regular pasture season. Lambs grow rapidly early in life, if their mothers get plenty of feed and provide plenty of milk. Well bred lambs will make very efficient use of the feed given their mothers. It also pays to give the flock plenty of range and encourage them to take exercise daily.

Lambs to be marketed should be given every opportunity to gain rapidly, so that they may be sold when they are from 3 to 5 months old. Early spring lambs should be sold if possible before the very hot weather of summer, when pastures dry up and stomach worms are most troublesome. As soon as lambs are a week or 10 days old, they will begin to nibble at feed, and as they grow rapidly and require only a small amount of grain, it will pay to supply them with a creep where they can eat grain and some choice alfalfa or clover hay by themselves. A good grain mixture for nursing lambs is by weight, corn, 3 parts; oats, 3 parts; and oilmeal 1 part. The corn and oats should be ground during the first month. Increase the corn to 6 parts after the second month.

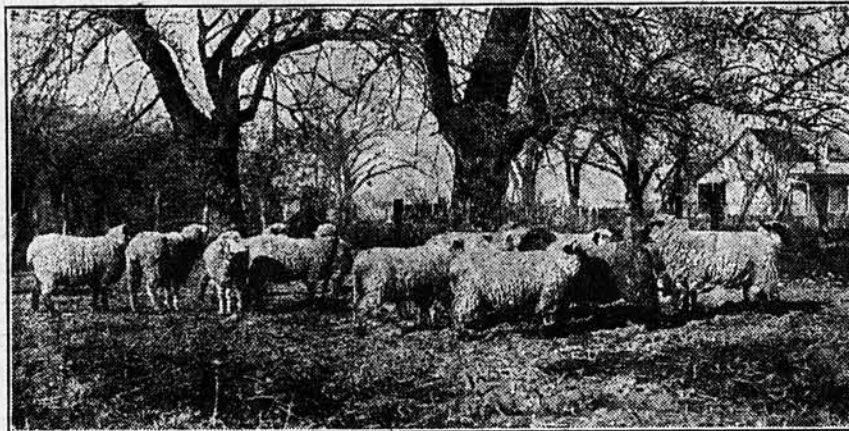
Docking and Castrating

Docking and castrating lambs is an operation too often neglected. The sheep dealer who buys and sells very many lambs hesitates to pay the top of the market for lambs that have not been docked and castrated; for he knows what the commission men at the

Let's Save the Lamb Crop

Feed the Ewes for Increased Milk Production

BY D. A. SPENCER



stock yards think about it. Docked and castrated lambs present a blocky, compact appearance, which of course attracts the buyer. At the stock yards, lambs docked and castrated are almost sure to sell to advantage. Ram lambs not castrated rapidly depreciate in value as market lambs after they are 3 or 4 months old. It is particularly important to dock ewe lambs that are to be kept for breeding.

It is best to dock and castrate lambs when they are 1 to 2 weeks old, as the danger of retarding growth is least at this time. It is usually most convenient to dock and castrate at the same time, and it is just as well if the lambs are strong and vigorous. Lambs seem to bleed least when they are operated on in early morning, before they become active, or in the evening when they have gathered in for the night. Lambs seem to do best and heal up most rapidly when they are docked and castrated during clear weather. The operation should be performed under sanitary conditions, and while they are healing they should not be exposed to storms, and should have dry, clean bedding at night.

When docking, the tail should be cut about 1 inch from the body, and the side next to the body should be a trifle the shortest. Docking can be performed with a knife, chisel or docking iron. The docking iron is an instrument with a blunt blade which upon being heated to a dull red, burns its way thru the tail, and sears the wound so that there is no bleeding. The docking iron may be in the form of pincers, or simply a heavy broad chisel. When docking with the pincers it is a good plan to use an inch board with a hole in it. Put the lamb's tail thru the hole, thus keeping the board between the buttock and the hot iron, and ensuring a cut 1 inch from the body. When the docking iron is in the form of a

chisel, it should be heavy and about 3 inches broad. One man should hold the lamb, placing the buttock on a block and facing the lamb toward the man who operates the iron. Thus the operator may hold the tail in one hand and manipulate the docking iron with the other. As the iron sears and prevents bleeding, it insures against an occasional loss from bleeding to death. It is especially valuable for docking lambs as old or older than 3 or 4 weeks. Mature sheep also may be docked successfully by the use of the hot iron.

When castrating, the end of the scrotum should be cut off to insure drainage. The testicles should be gripped firmly between the thumb and forefingers and drawn out rather quickly, but not roughly. The wound should then be washed thoroly with an antiseptic solution. In fact, it is safest to use this solution freely on the hands and instruments before and after performing the operation. There are several good methods of castrating the lambs, but with sanitary conditions and thoroly use of a good antiseptic, the method here mentioned has proved satisfactory.

A Kansas Boy's Flock

This little flock of ewes and the purebred Hampshire ram at the extreme right belong to a 14-year-old boy, Albert Drescher of Emporia. He paid \$15 each for the grade Hampshire ewes last fall and \$35 for the ram. He also has five Western ewes which he bought a year ago, selling their lambs to his father. The 14 ewes are bred for February and March lambs. Albert is very enthusiastic over his flock. He is giving them excellent care and is anxiously looking forward to lambing time, hoping for a goodly percentage of twins, and determined to do his part in saving every lamb born.

More Poultry for Kansas

A Billion Dollar Proposition for Farmers

BY JOHN L. PREHN

THERE is no good reason why Kansas should not be the leading poultry state in the Union. There are a number of reasons why she should be and many conditions make it possible for this state to reach that place. Her geographical location is all that can be desired. Being in the grain belt the matter of feed is simplified.

Practically every kind of grain suitable for poultry feeding is raised within the boundaries of the state. There is a sufficient quantity of all kinds of feed to insure a liberal supply and a large variety at all times. There is no more convenient and economical way to market grain than in the form of poultry, meat and eggs. The climatic conditions of Kansas are just about what the average chicken or turkey would select if they had the privilege of choosing. Neither the winters nor the summers are so long or so extreme as to cause this branch of the feathered family to wish to migrate even if they were given the opportunity to do so.

Practically every acre in the state is habitable to some one or all kinds of

poultry. There is no waste territory covered with swamps or mountains, large lakes or dense woods. Kansas is well watered and at the same time well drained. The rainfall is sufficient in most parts of the state to provide a plentiful supply of vegetation for poultry, but there is not, as a rule, enough excess moisture to keep chickens and turkeys from enjoying nature to its full extent.

I have traveled thru a large number of the states of this country, becoming quite familiar with the various characteristics of most of them. In extension poultry work during the past two years most portions of Kansas have been visited. A comparison between this state and other states familiar to me leads me to think of the Sunflower state as a very favorable prospect for first honors with respect to poultry in the near future. We are steadily forging ahead and if the census man does not place Kansas among the first three poultry states this time, let us see to it that he does so on his next time around.

The United States poultry industry

was in 1918 a billion dollar proposition, considering poultry and eggs sold and used during the year, together with the value of poultry on hand at the end of the year. The estimated production for the year was 589 million head of poultry and 1,921, 000,000 dozens of eggs. The figures for 1919 will doubtless show a decided increase but the demand still continues to grow.

According to the 21st biennial report of the Kansas state board of agriculture, the value of poultry and eggs sold in this state during 1918 was approximately \$14,792,000. The number of poultry on hand at the end of the year is estimated roughly at 20 million head. Adding to this the value of the poultry and eggs used by producers, at least 10 million dollars, it is readily seen that Kansas is holding up her end of poultry production. Six counties in Kansas each sold more than \$300,000 worth of poultry and eggs during the year mentioned. These are Marshall, Washington, Nemaha, Jewell, McPherson and Dickinson. The amount sold from 93 of the counties ranged from \$300,000 to \$10,000 with Grant, Stanton, Morton, Greeley, Haskell and Hamilton showing sales of less than \$10,000 each.

No Oversupply Possible

There are some who may become alarmed as to the future prospects of the poultry industry. It may seem that with continued increased production there may be an over supply, a flooding of the market, a swamping of the poultry ship. The same condition has been feared for the last 10 years but the fears did not suppress the demand for poultry and eggs. The price has continued to rise steadily in proportion to other similar products and still continues to raise. Eggs sold in Eastern towns and cities for \$1.20 a dozen during the recent holidays and poultry meat is retailing at from 50 to 60 cents a pound at the present time.

Factors That Govern Demand.

Three things tend to keep the demand ahead of the production and these factors will continue to be effective for some time. They are—the increasing population of the country, the growing popularity of the products and the export trade. There is every reason to believe that our population will continue to increase for a long period of time even if all of the Bolsheviks and other undesirables decided to go where they belong. The popularity of poultry products is only beginning to be evidenced. No special advertising campaign has been developed in this direction as in the case of "Sun-kist" oranges and other food products, but the increasing popularity of poultry and eggs has been gradual and steady. There are comparatively few city persons who can afford the luxury of fresh eggs for breakfast at any time but in the season of plentiful supply. As to poultry meat; show me a person not on the farm to whom a chicken dinner is other than a special treat. If you indicate such a person I will place him in one of three classes. He is a dyspeptic, a millionaire or he still takes his food from a bottle. The export trade is a minor factor in increasing the demand for poultry products, but there is every indication that this source of demand will continue and even increase during the coming years.

Therefore, considering the factors which cause increased consumption of poultry and eggs, and which call for increased production, let the alarmists rest easily for a few years at least. There is no danger of over production in this line while common working people like bank cashiers, college professors and governors can afford to eat chicken only on Sundays and enjoy fresh eggs only in the season when the supply is plentiful and the price comparatively low.

Wheat Honors to Kansas

Kansas leads the United States in wheat production for 1919 with a total of 151,001,000 bushels, according to figures recently given out by the Federal Bureau of Crop Estimates. This was grown on the 11,624,000 acres, the largest area ever sown to wheat in the state. Illinois comes second with 65,575,000 bushels, Nebraska third and Missouri fourth. In 1918 North Dakota was first with 105,672,000 bushels. Kansas was a close second with 102,008,000 bushels.

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The Wonderful Queen Bee

Mother of Millions of Workers Born to Serve

BY FRANK G. ODELL

THOSE who know her say the queen bee is the most remarkable among the lesser friends of humanity. It is her life mission to be the mother of millions of workers whose energies from birth to death are exercised for the good of the world. She is typified maternity, raised to the "anth" power. Born from the worker class, ordained to royalty by deliberate choice of her subjects, she becomes the humble servant of the city she rules.

Like all living things, the queen bee comes from an egg. In the cells of the honey comb are thousands of eggs which to the eye of the microscope or the research of the biologist are no different. Even that from which comes the lordly drone looks to be identical.

But behold a miracle! The mass of workers within the hive, urged by some mysterious power beyond human ken, presently decide that the royal succession shall bring forth daughters to rule by right of lineage. Some few of these tiny larvae, reposing in peaceful innocence in their cradles, are elected by this "spirit of the hive" to bear the honors and duties of royalty in the republic of the bees.

For this is a monarchy in name only—a name given centuries ago, before bees were known as they are known now—and the only grant of privilege bestowed upon this royal mistress by her subjects is the divine right of service.

Origin of the Queen

The queen is the mother of all the bees. "Whence came the first one?" From the exercise of that creative intelligence which made all things. The one dominant note of all life is the note of reproduction and nowhere in nature is this more strongly expressed than in the democracy of the hive. By virtue of this all pervading law it has been ordained that any egg, which, in due course, might bring forth a worker bee may, under other circumstances be transformed into a queen. Certain of these eggs are laid in small cells which form the greater part of the honey comb, and in the space of 21 days bring forth workers. The same egg, or the larva resulting therefrom, housed in a larger cell and fed the royal food by the bees, will in 16 days bring forth a queen.

This royal virgin presently goes forth in flight seeking a mate among the throng of lusty drones which pursue her like young Romans after the Sabine maidens. One, stronger of wing than all others, overtakes the royal maiden and they are wedded in the upper air. Alas, for the royal nuptials! The consort of the queenly daughter of democratic workers loses his life in one brief moment of ecstasy and the widowed queen returns to the hive from which she came to take up her labors of maternity.

From this single union her tiny ovaries bear the germ of life for unborn millions. A young queen, newly mated, is the most precocious thing in nature. She seems impelled by an irresistible impulse to bring forth her kind. Three thousand or more eggs in a single day is no extraordinary feat for her. The marvel of this fecundity may be better understood when it is said that the substance in this number of eggs exceeds twice the weight of her entire body in 24 hours. To accomplish this miracle she is fed continually by a selected company of worker bees, who constantly bring her the choicest of predigested food. They may be seen, surrounding her in a living circle, and feeding her constantly, even when she is engaged in the act of depositing an egg in a cell.

Bees True Eugenists

The citizen of the bee republic is your true eugenist. Here is neither race suicide nor the dominance of lust. Every queen and the millions which spring from her loins are children of love—born of the impulse to serve the common good. Here is found the apotheosis of the survival of the fittest, in a miniature civilization which may well serve as a model for the human publicist.

Lodged somewhere within the multitude of mysteries which fill the hive lies the power of predetermination of sex. The majority of the children of the queen are predestined to the spinsterhood of labor—unsexed females—the worker bees. Others, as shown, are elected to royalty. Yet others hold the brief dignity of sons, royal until their day of opportunity is past and the slaughter of the unproductive drone.

For, be it known, the drone bee is literally the son of his mother. An unwedded queen possesses the power to lay eggs which will bring forth drones with all their masculine powers. But it requires the union of the sexes to produce either workers or queens—a potent illustration of the unity and interdependence of sex.

This remarkable biological fact—"parthenogenesis," or the virgin birth, is found in a few species of the social hymenoptera—four-winged insects that live in communities. It should give pause to such as lift eyebrows at the biblical narrative of the birth of the Savior of men.

Such are a few of the wonderful attributes of the queen bee.

Winter Pruning Good Practice

An old and accepted theory in years gone by was that dormant pruning of fruit trees should be done only in spring just before growth starts. The general impression was that winter pruning followed by freezing and drying out of the wounds was injurious to the trees. Slight injury probably does result, but the Nebraska College of Agriculture says danger can be avoided by the painting of wounds more than an inch in diameter with white lead and linseed oil. This saves the wound from drying out and keeps out moisture and disease. There is no good reason why pruning should not be done during the winter. In fact for the average orchard owner that is the best time. In spring, when other work is crowding, the orchard is likely to be forgotten. Because no two trees are alike, no definite and specific pruning rules can be laid down. It is considered proper to keep tree tops reasonably open in order to permit penetration of sunlight. Dead and badly diseased limbs should be removed, as well as water sprouts and other limbs which are crowding into the center of the tree. Pruning smoothly, close up and parallel to the main branch, facilitates healing.

Supplying the Fire

The Man of Law—"But, my dear madam, there is no insurance money for you to draw. Your late husband never insured his life; he only had a policy against fire."

The Wonderful Widow—"Precisely. That is the very reason I had him cremated!"

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5 GREAT NOVELTIES 20 cts.

The glorious flower recently introduced by us has succeeded everywhere and proved to be the most showy garden annual. Nothing can surpass the mass of bloom which it shows all Summer and Fall.

We now have three new colors—pink, yellow and scarlet, as well as crimson. All these colors mixed. 20 cts. per pkt.

With each order we send 1 trial pkt. each of Giant Kechia, most decorative foliage annual.

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Japan Iris, new hybrids, all colors. Magnificent.
Giant Centaurea, superb for garden or vases.
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Big Catalog, free. All flower and vegetable seeds, bulbs, plants and new berries. We grow the finest Gladioli, Dahlias, Cannas, Irises, Peonies, Perennials, Shrubs, Vines, Ferns, Peas, Asters, Pansies, etc. All special prize strains, and many sterling novelties.

JOHN LEWIS CHILDS, Inc. Floral Park, N.Y.

FLASHLIGHT GIVEN OR CHOICE WATCH, CAMERA OR RIFLE for selling only 40 packets of Vegetable Seeds at 10c per large pack. Easy to sell. **EARN BIG MONEY** or premiums. We trust you with seeds until sold. Address:

AMERICAN SEED COMPANY
Lancaster, Pa.
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A Health-Building Cereal Grape-Nuts



A satisfying food, greatly pleasing to taste, full of rich nourishment and ready to eat without cooking.

Needs no Sugar

Pleasing alike to young and old.

"There's a Reason"

OWNERSHIP of a \$10,000 bull has become a reality to a group of Lyon county dairymen and business men who have organized a livestock improvement company capitalized at \$15,000. This company has been in operation almost a year. Dairying is in its infancy in this county, but remarkable strides have been made in the past few years. This last dairy project is but one of a series, each of which has pushed the dairy industry a notch farther to the front and widened the interest in this line of animal production.

The Lyon County Holstein-Friesian association has 26 stockholders, part of them being farmers who have taken company cows on their farms and the remainder town men who have invested in the deal as a business proposition. These men regard the investment itself as a good safe one, and in addition feel that the general prosperity of the whole community can be advanced by making it possible to place more purebred stock on the farms of the county.

The 10 farmer members of the company each have two or more association cows on their farms. These cows are the property of the company and are handled and cared for under contract by the "caretaker stockholders" as they are called. These men are required to buy at least 10 shares of stock at \$10 a share for each company cow placed in their charge. Their applications must be approved by a committee which will investigate the applicant's qualifications for properly handling highly bred dairy cows.

The contract entered into by the company and the caretaker is for a period of five years. The company agrees to provide well bred bulls and provide for their care, making them accessible to the members. It agrees to pay all registration fees, including fees for official advanced registry tests, to look after all correspondence in connection with selling bull calves and pay half of all veterinary expense. The caretaker is to keep the cows for the five-year period, receiving all the milk and butter produced and a half interest in the offspring. The bull calves are to be sold whenever they can be disposed of to the best advantage, it being agreed that the caretaker shall not be required to keep bull calves at his own expense after they are a year old. Proceeds from the sale of bull calves are to be divided at once. The caretaker was required to test all of his cattle for tuberculosis at least 90 days before he received the company cows and dispose of all reactors and disinfect the premises thoroly. He agrees to test once a year for the duration of the contract. He must also become a member of the Lyon county cow testing association.

Selling the Offspring

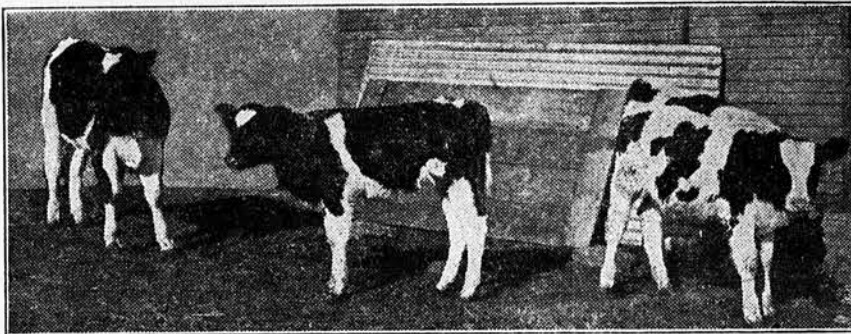
At the end of the five-year period the original cows, their female offspring and any bull calves on hand are to be assembled in Emporia and sold at public auction, the company agreeing to advertise the sale in the leading dairy papers of the country. The caretaker and the company may bid on any of the animals in the sale. After all expenses have been paid, including the cost of the original cows, the proceeds will be divided equally between the caretakers and the company.

This is the first company of the kind in Kansas. Several other dairy communities in the state are now organizing similar stock breeding companies. The plan has been tested in Pettis county, Missouri, where a company known as the Pettis County Holstein-Friesian company, capitalized at \$30,000 was formed in 1917. This company, having no precedents to guide it, worked out the probable increase of a 2-year-old heifer in a five-year period, calling in Prof. C. H. Eckles to assist in checking the figures. They estimated that if the normal law of averages worked out, at the end of five years the owner of the original cow would have in addition three cows that have produced calves, one 2-year-old heifer, two yearlings, two heifer calves, and will have produced six bull calves. They estimated that the bull calves should bring \$84. They allowed \$75 a head or \$150 for the two heifer calves, \$125 a head or \$250 for the two yearlings, \$150 for the 2-year-old and \$200 each or \$600 for the three young cows. This makes the original cow's total increase valued at \$1,234. In making these calculations the plan was to estimate them on the basis of two-

Kansans Buy a Good Bull

Co-operative Company Plans to Get Purebred Livestock

BY GEORGE C. WHEELER



These Calves are the Offspring of Company Cows. Heifer Calf in Center of Group Sired by \$15,000 Bull. Good Breeding Pays.

thirds the actual value. The Pettis county company in figuring their prospective profits made still further deductions, allowing 20 per cent to offset loss of calves, failure of cows to breed and other losses. Then a further discount of 20 per cent was deducted to provide for unforeseen contingencies. This reduced the theoretical valuation of the increase to \$790.56. It was further assumed that the original cow, which cost \$300, would depreciate half in five years. With all these deductions the profit of the transaction figured out at the rate of about 16 per cent a year, this being the amount that the stockholder in the company might safely expect. This company has 125 stockholders and the results of its operations have more than equaled the expectations. About half the stockholders handle company cows and every one without exception has been pleased with the results. One man, who sold his farm, sold his \$290 worth of stock in the company, together with his half interest in the increase of his cows, to the man who bought this farm for \$875.

Emporia's Recent Achievement

The most recent achievement of the Emporia company was the purchase of the bull, Prince DeKol Beauty Girl Segis, from J. M. Hackney of St. Paul, Minn. As individual breeders the men of this company could probably never have looked forward to the owning of such a bull. They are all men of small capital just getting started with dairy cows, some of them even being on rented farms. Some of the best Holstein herds in the United States are headed by brothers or half brothers of this animal they have just purchased. Mr. Hackney sold him to W. W. Finney of Emporia as a yearling. Mr. Finney has built up one of the best bred Holstein herds in Kansas, but owing to the press of other business he has found himself unable to continue this dairy farm proposition on its present basis, and in a deal made recently he sold the bull and 59 cows, heifers and heifer calves to Mr. Hackney for \$30,200. The company owned a good bull which had been donated to it by Mr. Finney, but the directors felt that it would be a calamity to let this outstanding individual get away from the county. They felt that the retention of such an animal, combined with good business methods in handling his offspring,

might easily make this place a great Holstein center. This bull is not only bred "in the purple" from the production standpoint, being a full brother to a cow breaking 20 world's records before she was 4 years old, but his heifers in Mr. Finney's herd are coming with all the type of good producers and the ones freshening are giving great promise. These are all going to Mr. Hackney.

In the few days between the sale and the time of shipment telegrams were exchanged with Mr. Hackney which resulted in this bull becoming the property of the Lyon county breeding company. One of the important points to settle in getting such a valuable animal was the selection of a suitable caretaker. Thomas Marks, whose farm is centrally located, was finally chosen as the best man to take charge of the company bull. Mr. Marks was selected because he had proved himself a real dairyman by the results he had obtained in his own dairy herd and the directors of the company felt that they could count on this valuable animal receiving the best of care in his hands. A motor truck has been purchased for hauling stock and supplies.

The Lyon county company made its start in a rather small way. It now owns 31 cows. Twenty-two of these were purchased in one of the leading dairy sections in Minnesota and nine from a Kansas breeder of Holsteins. A purchasing committee consisting of J. C. Hoch, president of the farm bureau of Lyon county, Prof. J. B. Fitch, head of the dairy department of the Kansas State Agricultural college, and Gaylord Hancock, county agent, the two latter in advisory capacity only, went to Minnesota to buy the cows.

Animals Selected Carefully

The animals were very carefully selected. Of the Minnesota purchases all but three are from A. R. O. dams and seven have A. R. O. records of their own. Six were bred to bulls whose dams had just finished a yearly test making 1305 pounds of butter. One was bred to a bull which the owner had refused \$15,000. The heifer calf in the center of the group shown on this page is the result of this mating. Two of the cows were bred to a half-brother of the bull just purchased by the company.

J. L. Stevenson is president of the

company. He has a fertile farm which has made him a good return on alfalfa. In fact he told us as we were walking over the farm recently that he had made no more from his dairy cows the last year than he could have made by selling the hay they consumed. He has an ambition, however, to do something that will live after him. "There is no future to selling alfalfa hay," said Mr. Stevenson. "When you quit you have nothing in the way of achievement to pass on." Then he spoke of the possibility of eventually reducing the fertility by selling alfalfa year after year. Mr. Stevenson has five association cows, several of which have already produced calves. He has five purebred cows of his own and is gradually getting his equipment in shape for handling dairy cattle. At present he is putting up with an extemporized dairy barn which is merely an old horse barn equipped with stanchions for the cows and facilities for cleaning by means of a home-made litter carrier. He milks with a machine and has just fitted up a milk room adjoining the stable.

On the William Drescher farm, we found two company cows, one of which had just produced a heifer calf sired by a bull whose four nearest dams averaged 30 pounds of butter in seven days. Thirteen of the Minnesota cows were bred to this sire. Mr. Drescher is on a rented farm, but is finding it possible thru the means of this company to get a start with high producing purebred dairy cows. He has a number of grade cows in his herd. His 14 year old son, Albert Drescher, took one of the young grade Holstein heifers distributed in Emporia two years ago as the result of a co-operative project in the introduction of dairy cattle. This boy is plainly developing a real interest in improved livestock. With a good deal of pride he called our attention to a small flock of purebred sheep which he purchased last fall.

On another rented farm M. E. Rumpf is handling two company cows. He has four Holstein cows of his own.

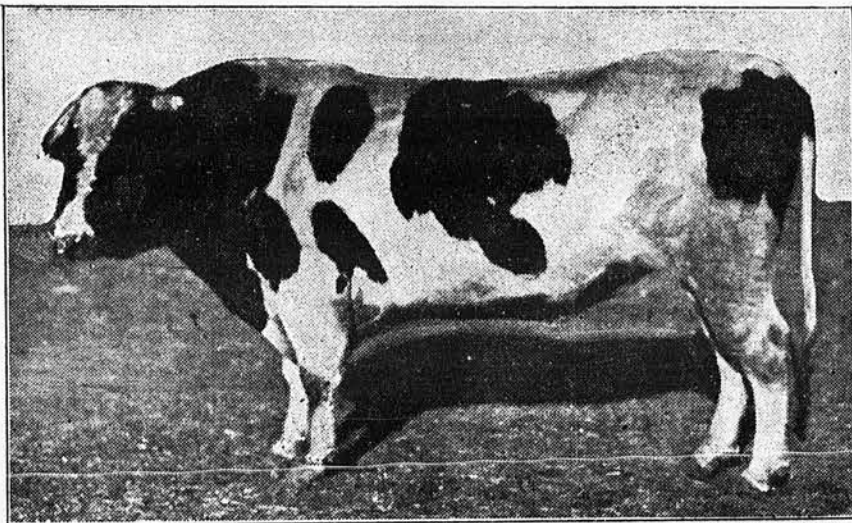
On this farm we saw a fine heifer calf only a few days old, sired by a half-brother of the Finney bull just purchased, for which the owners in Minnesota had refused a cash offer of \$35,000. One other company cow was bred to this same animal. While this company has not introduced a very large number of cows, the character of their breeding is such that their introduction into Lyon county will have a profound influence on the improvement of the purebred dairy stock of the community.

A. H. Guffler, an Emporia business man connected with the Theo. Poehler wholesale grocery house, is treasurer of the Lyon County Purebred Holstein-Friesian association. The town men associated with this enterprise are giving it their heartiest support in every way possible. Mr. Guffler recently shipped in a car load of blackstrap feeding molasses and sold it out in small lots at the bare cost of handling.

This project has already gone far enough to give evidence of the great possibilities which may come to a community as a result of the pooling of capital for improving the dairy stock. Other communities will do well to watch the results of this company's activities.

Kansas Steer Winners

Three loads of winning steers fed by A. E. Mac Gregor, Washington county, Kan., were shown and sold at the recent International Livestock show. These cattle were all purebreds, one lot being 2-year-old Shorthorns, and two lots being 2-year-old Herefords. The Shorthorn steers had previously won first in the yearling Shorthorn feeder class at the 1919 Western Livestock show at Denver. They were bred by Weiss Bros., Elizabeth, Colo., and obtained by Mr. Mac Gregor at a purchase price of \$20.50 a hundredweight. Immediately upon receipt of them, he placed them upon feed, bringing them to full feed about June 15, 1919. The average weight of the Shorthorns at the beginning of feed was 820 pounds, and the daily ration consisted of 19 pounds of ground corn, 2 pounds of oilmeal, 2½ pounds of Tarkio molasses, 2 pounds of ground oats and all the alfalfa hay they would eat. In general they were fed in open yards but had access to sheds for shelter in bad weather. In



Lyon County Holstein Breeding Company Takes Important Step Now in Purchasing This Highly Bred Bull for Use of Members.

the Chicago show, they received second as 2-year-olds in the special Short-horn classes, weighing an average of 1,420 pounds and bringing \$26.50 at public auction.

His two lots of Herefords were particularly interesting, since the lot which won first in the South Central District contained cattle without a previous show record, while his lot that was fifth had been grand champion feeders at the Denver show of last winter. His rations and methods of handling were the same for these, as for the Shorthorns, since both of the loads were 2-year-olds. His first prize load of Herefords were bought of Adams & Robert, Plains, Kan., at a purchase price of 17 cents a pound, while the fifth prize load was bought of Russell Bros., La Jara, Colo., at the purchase price of \$20.25 a hundred-weight. The average weight of the first load at the beginning of feeding was 732 pounds a head and of the 5th prize load 750 pounds a head. At Chicago the first prize lot weighed 1,375 pounds and brought \$25 at public auction, and the second prize lot weighed 1,282 pounds and brought \$24.50. The first lot dressed 64.4 per cent; the fifth prize, 63.9 per cent.

Mr. MacGregor has followed this method of making high-class beef for years and considers his rations and method of handling as nearly perfect for his own conditions as is possible for him to obtain.

Selecting a Pulley

H. J. METCALF
Ames, Ia.

Every time we buy a new piece of belt machinery we have the question to answer: "How large a pulley—do I need?" We cannot use the same size pulley on the feed grinders, the wood saw and the threshing machine, when all of them must run at a different speed to work satisfactorily.

The manufacturers tell us that never before have they done so much business in small separators as they have this year. The farm tractor makes the small machine a valuable asset to the individual or neighborhood.

Last year because of war emergency, everything possible was done to save wheat. Many of the small machines investigated were wasting as much as 15 per cent of the grain. The speed of the cylinder was the cause for practically all of it. The rule is simple and we need only take a moment to be sure that we are right.

Multiply the number of revolutions a minute of the engine or driver pulley N by its own diameter in inches D, and divide the result by the number of revolutions a minute at which the driver pulley should travel. For example: We have a 10-20 tractor with an engine speed of 500 revolutions a minute, using a 20 inch pulley. Our separator is a 22-inch machine and the cylinder must run 1200 revolutions a minute for successful operation.

Applying the above rule:

$N \text{ times } D \text{ equals } nd$
 $500 \text{ times } 20 \text{ equals } 1200 \text{ times } d$
 $500 \text{ times } 20 \text{ divided by } 1200 \text{ equals } d$, equals $8\frac{1}{3}$ inches.

We need a pulley with a diameter of $8\frac{1}{3}$ inches on the cylinder shaft. This rule is also used in figuring size of gears for similar reductions and for pulleys on line shafts in shop work.

Steer Feeding Shows Results

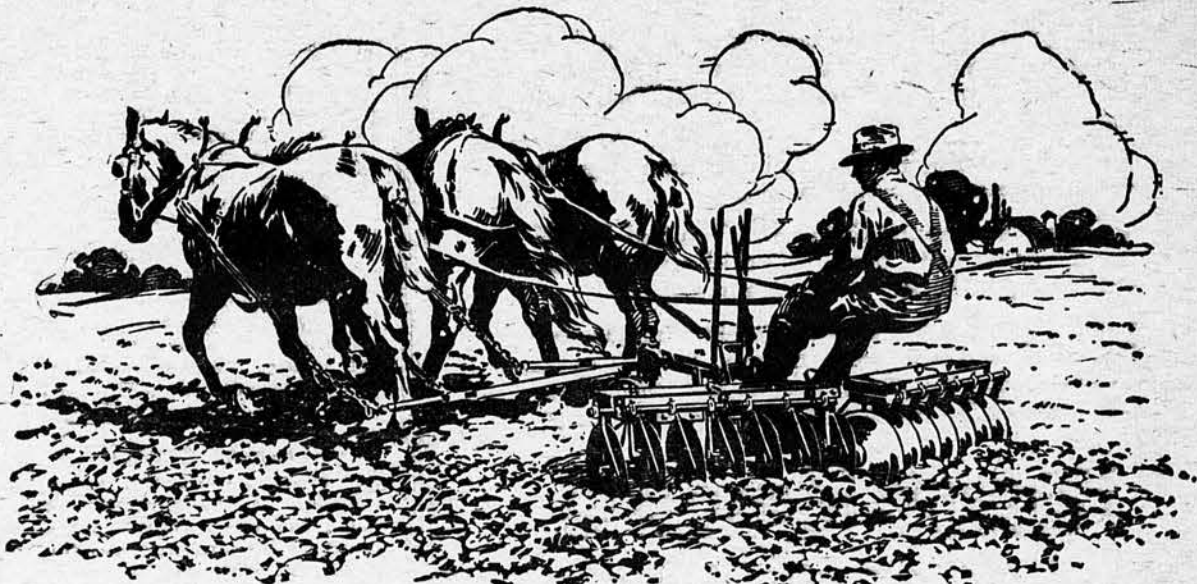
In a steer-feeding experiment conducted last year on the United States Experiment farm at Beltsville, Md., four lots of 2-year-old steers were fed. The purpose was to compare cottonseed meal and soaked velvet beans when used with and without the addition of shelled corn.

The addition of corn to a ration composed of corn silage, cottonseed meal, and wheat straw did not pay. The addition of corn to the ration of velvet beans and corn silage was profitable.

The lot receiving corn silage and soaked velvet beans with a small quantity of cottonseed meal as an appetizer produced the most economical gains and showed the greatest profit, even tho the daily gains and the selling price of the cattle were lower than those of any of the other lots.

Half the victories of life come from a confident belief that one is going to win. The world has little use for the man who is continually down at the heels.

Results show at Harvest Time



IF your seed bed is not properly prepared, take an inventory of the clods—the rough stuff in the field—and enter every single one of them in your ledger as a liability. They are just like so many pores letting out that precious subsoil moisture. You cannot spare that stored power if you want bumper crops.

International Tillage Tools put your seed bed in prime condition. In this deservedly popular line of implements are disk harrows, spring- and peg-tooth and combination harrows, culti-packers, etc. The disk harrow, for instance, slices and destroys the clods until the close-knit covering guards every bit of subsoil moisture, while permitting the absorption of additional supplies from above.

The 1920 International line of implements for laying crop foundation is the most complete we have ever offered. You know your soil. Whatever its needs, we have the type of disk harrow suited to it. If a sandy, loose loam the two-lever type answers every requirement; if hard, stony

or trashy ground, the three-lever type with its center-depth regulator insures a firm, compact seed bed. If you use a tractor, see our leverless tractor disk. Whatever your power equipment, we have a size that utilizes it to the best advantage. Ask your dealer to point out to you the exclusive features of each type.

Let us mail you descriptive folders of these tillage implements so that you will know just a bit more about the preparing of Spring seed beds. With every implement goes an alert, responsive and intelligent service. The International dealer will serve you direct.



INTERNATIONAL HARVESTER COMPANY

CHICAGO

OF AMERICA INC.

USA



Winds and Rains; Aches and Pains

EXPOSURE to bad weather means rheumatic twinges and other handicapping after-effects. We can't be too careful in relieving pains and aches, stiff joints, sore muscles, lumbago, sciatica.

"We keep a large bottle of Sloan's Liniment in the house all the time to use when an attack comes on. You know Sloan's is one of the old timers. Doctor Earl S. Sloan put it on sale 38 years ago. "We get the biggest bottle because it's more economical. A little applied to the spot penetrates without rubbing and promptly eases up the pain and ache."

Sloan's
Liniment
Keep it handy

"It's Like Finding Money" says the Good Judge



When you take a little chew of this real quality tobacco, and the good tobacco taste begins to come.

You'll find it keeps coming, too. The rich tobacco taste lasts and lasts. You don't have to take a fresh chew so often. Any man who uses the Real Tobacco Chew will tell you that.

Put Up In Two Styles

RIGHT CUT is a short-cut tobacco

W-B CUT is a long fine-cut tobacco

Weyman-Bruton Company, 1107 Broadway, New York City

Feed fresh feed— ground daily

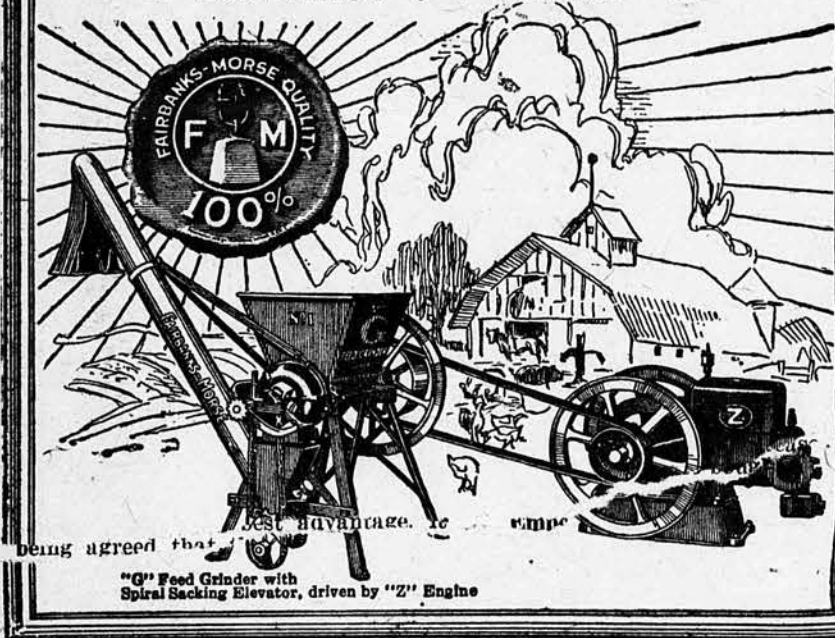
WITH a "G" Feed Grinder you can have fresh feed always on hand. Ground feed is hard to keep fresh, especially if not dry and well matured.

1 Fairbanks-Morse "G" Feed Grinders grind all grains—wet or frozen grains—handle cobs.

1 Ground feed pays big dividends. You feed less of it—raise better cattle, horses, pigs, chickens—get more work from your horses—make more money.

1 "G" Feed Grinders are quality-built throughout—Fairbanks-Morse construction that you know is good. They embody every known valuable feed grinder feature. See the "G" Grinder at your local dealer today.

Fairbanks, Morse & Co.
MANUFACTURERS CHICAGO



It is EASY to BLAST stumps

Atlas Farm Powder is prepared especially for the use of inexperienced farmers who wish to do their own blasting. It is as easy to use as the ordinary "gas" engine. Theodore Drake, Prattsburg, N. Y., writes regarding his first experience with it:

"After reading your book, 'Better Farming,' I am fully convinced of the value of explosives for farm work. I blew out some old apple tree stumps and smashed a rock with Atlas Farm Powder, though I had never shot any dynamite before."

You, too, will be able to use Atlas Farm Powder successfully after you read the directions in "Better Farming with Atlas Farm Powder." It tells how to remove stumps, blast ditches, smash boulders, plant trees and increase yields by subsoiling. Write for this book. It is free.

ATLAS POWDER COMPANY

Division F. M. I., Philadelphia, Penna.

Dealers everywhere

Magazine near you



Kansas Farm News Notes

COUNTY farm agents, progressive farmers, and all readers of the Kansas Farmer and Mail and Breeze are urged to send us items of farm news that they desire to have published in this department of the paper. It is our plan to make this a regular feature of the paper and we need your help to make it a success. Mail your material to us at the earliest date possible.

Grain in Motor Trucks

A truck owner in Pratt, Kan., hauled in 800 bushels of grain from a Pratt county farm in one forenoon recently. Another Pratt man took a truck load of hogs to the stock yards at Wichita, receiving \$104 more for them than he was offered on the local market.

Co-operative Insurance Successful

Reports made at the recent state convention of the farmers' union show that the co-operative insurance business of the organization for the past year has been very successful. From the hail insurance business, besides putting \$20,000 into the treasury as reserve, 35 per cent of the premiums were paid back to the farmers, approximately \$60,000.

Vote Rural High School

By a vote of 411 to 53 residents of the Perry community in Jefferson county have decided to establish a rural high school. The district will include parts of four townships. A bond issue of \$60,000 has been authorized and plans are being pushed to have the building completed and ready for occupancy by the opening of the next school year.

Wheat Growers' Convention

A wheat growers' convention is to be called in Kansas City some time in April by the National Farmers' Union. This was indorsed by the recent state convention of the Kansas farmers' union, and it was also suggested that the president of the Kansas union call a special conference of Kansas wheat growers at the same time to consider rates of payment for harvest hands, threshing grain and other wheat growers' problems.

Co-operative Threshing Advocated

Operation of co-operative threshing outfits was recommended by Maurice McAuliffe, president of the Kansas State Farmers' Union, in his annual address before the Hutchinson convention of the organization. Results of the past season demonstrated the advantages of this method of threshing. It was the testimony of many present at this meeting that the small thresher run with a farm tractor had saved large quantities of wheat.

For Collective Bargaining

J. B. Miller, counsel of the national board of farm organizations, appeared before a Senate sub-committee at a recent hearing to demand the right of farmers and dairymen to bargain collectively in the sale of their products. Mr. Miller testified before the committee that every big farm organization in the country had endorsed the Capper-Hersman Bill which has for its purpose the protection of farmers from prosecution under federal anti-trust laws.

Build New Grandstand

A new steel and concrete grandstand to cost \$75,000 is to be built by the Kansas Free Fair association to replace the old, wooden structure which has stood on the Topeka fair grounds until it is no longer safe to be used by the large crowds attending this fair. The plans for this new grandstand provide that it be modern in every way, having ample facilities for filling and emptying it quickly and with complete fire protection. It is planned to have it ready for use by fair time next fall.

Breeding Experiment Progress

The 20-year beef cattle breeding experiment being conducted at Manhattan by the Bureau of Animal Industry

of the United States Department of Agriculture in co-operation with the Kansas Agricultural college, is now in its fifth year. It began September 1, 1915 with a carefully selected herd of 20 Shorthorn cows. The principal objects are to determine whether the milking tendency in beef cattle is transmitted mainly by the dams thru the male line of descent and to what extent this milk-giving function of the dam influences the beef character of the progeny. Several steers and bull calves produced by this herd have shown unusual merit and have become prize winners of importance.

Sudan for Pasture

Sudan grass pasture for milk cows equals a ration of silage, grain and alfalfa hay, according to a test made at the Kansas Experiment station last summer. Six grade Holstein cows were put on a 4-acre patch of Sudan grass July 1 and were not taken off until October 10. These cows had been getting a ration of silage, grain and alfalfa. After they were put on pasture they were fed only a grain ration of corn, bran and linseed meal in proportion to their milk production. They held up in their milk thruout the summer period. This test would indicate the possibility of Sudan grass supplying pasture for milk cows during the hot summer months when other pastures fail.

Co-operation and Cash

In true co-operative enterprises the cash method of doing business is an important factor in the success of the enterprise. This point was strongly emphasized in the reports of co-operative business made at the farmers' union state convention. "Co-operation and cash go together," said President McAuliffe in his annual address. Co-operators who do not wish to do business on a cash basis have failed to appreciate to the fullest extent the principles of co-operative effort.

New Creamery Company

The Farmers' Creamery and Ice Company is the name of a new corporation just formed in North Topeka as a consolidation of two local companies. More than 200 farmers and city business men have taken stock in the new enterprise which is capitalized at \$50,000. Improvements costing approximately \$35,000 are planned for the building which is to be used. The new company will make ice-cream, ice and butter. It will have a daily capacity of 3,000 pounds of butter and about 20 tons of ice.

Barton County Bureau Drive

In a special membership drive made recently 730 new members were added to the Barton county farm bureau. Four townships were not covered at all. Thirteen farmers from other counties came in to help in presenting the farm bureau idea to their fellow farmers in Barton county. More than 90 per cent of the farmers interviewed signed membership cards in the local bureau and made donations to the special state bureau fund amounting to nearly \$1,000. The drive concluded with a banquet for all the organizers and officers of the organization who had taken an active part in the campaign. A musical program was given interspersed with short talks by the campaign workers. It was the opinion of those present that the farmers of this county have it in their power to bring about many changes which will be of great benefit to all of them and with proper understanding, team work, and organization can accomplish a great deal more than would be possible thru individual effort.

Armour Makes Big Profit

Gross sales of Armour and company for the year ending November 1, 1919 were in excess of 1 billion dollars, according to the annual financial report made to stockholders and given to the public. The net income is given as \$14,098,506. This represents a return of \$1.35 on each dollar of sales and 6.74 per cent on the net capital

invested. The directors point to this rate of profit on the capital as proof of the absurdity of the charges that packers are profiteering as a result of their control of the livestock and meat food markets of the country.

Accredited Herds Increase

Signs indicating support of the accredited herd plan for wiping out tuberculosis were tacked up with a number of the herds on exhibition at the recent national livestock show held at Wichita. Men who have gone into the accredited herd plan which provides for the periodic testing of herds by government veterinarians are permitted to advertise the fact. As soon as a herd has been found clean of tuberculosis following two consecutive tests, it is put on the accredited herd list published by the government.

Doniphan County Breeders Organized

Doniphan county breeders of purebred livestock met in Troy, January 31 and organized a county improved stock breeders' association. Breeders of all classes of livestock are eligible for membership. The objects of the association as set forth in the constitution and by-laws are to promote the breeding of purebred stock in the county, to facilitate co-operative buying, selling and exchange of good breeding stock, to prevent the spread of infectious and contagious diseases of livestock, to hold livestock and agricultural shows and sales, to co-operate with the county agent in his work, and to encourage in every way possible all projects which may assist in the development of the livestock and agricultural interests of the county. The organization plans to issue a classified directory of the breeders of purebred stock in the county in the near future. W. G. Denton of Denton, Kan., was elected president; P. F. Dubach of Wathena, vice-president and F. H. Dillenback of Troy, secretary-treasurer.

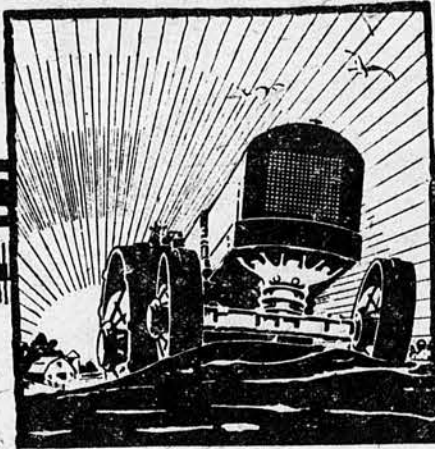
New Pasture Lease Plan

Paying for grass on the basis of gains made is a new plan being proposed by cattlemen of the grazing districts of Kansas for adoption the coming season. Last year the prices paid were extremely high and few leases have been made as yet this year. Under the old plan the pasture owner took no risk whatever. He received his money for the pasture no matter whether the cattle owner lost money or not. Under the proposed plan the responsibility and risk is to be more equalized. The cattlemen propose to put in scales and weigh the cattle when they enter the pastures and take the sale's weight on them when they are marketed, paying the pasture owner according to the gain they made while on the grass. If the season is good and the cattle do well, both will profit, while if the grass is poor and the cattle fail to make a good gain, both will lose alike. Cattlemen feel that the adoption of this plan would provide an incentive to the pasture owner to see that the cattle are well cared for, even tho the owner may seldom be around.

Kansas Holsteins to Minnesota

A notable sale of Kansas Holstein cattle was that made recently by W. W. Finney of Emporia, Kan., to J. M. Hackney of Saint Paul, Minn., in which was included what is probably the highest price Holstein bull ever sold in the state. Fifty-nine head of females of which only 21 head were mature cows were included in the sale, the total consideration being \$30,200. Thirteen were heifers less than 1 year old and the remainder heifers that had not as yet produced calves. The bull, Prince Beauty Girl Pontiac Segis, a son of the world famous dairy bull, King Segis Pontiac Count, was purchased from Mr. Hackney as a yearling for \$1,500 and in this sale went back to his breeder at \$9,800. Mr. Finney, who is manager of the Emporia Telephone company and a number of other telephone companies and a director in several banks, is selling these Holsteins because he finds it impossible to give sufficient attention to the rapidly growing herd. Mr. Hackney is vice president of the National Holstein-Friesian association and one of the prominent breeders of the country.

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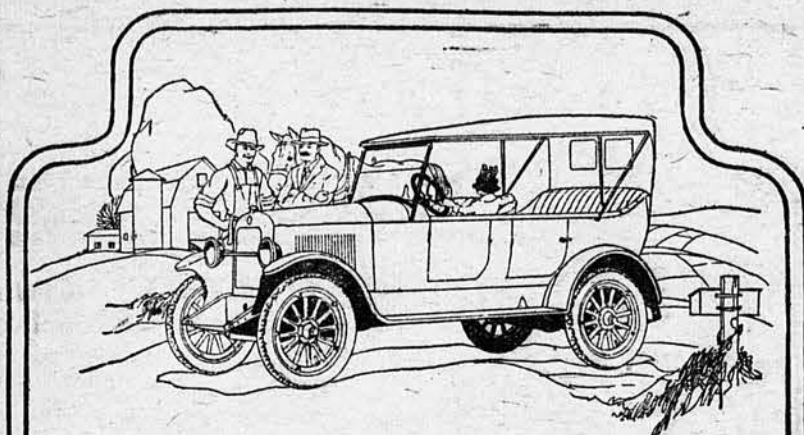
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Farming in Western Kansas

A FEW farmers in Western Kansas are feeding Russian thistle meal. Ben Bigge of Stockton put up some thistle hay last summer and in the fall bought a grinder attachment to his silage cutter. With this machine he has made thistle meal of his hay and it was the main ration fed to his stock last winter. The horses were fed a limited quantity of this meal and did well. Mr. Bigge says his cows gave as good a milk flow on this thistle meal as when previously fed on alfalfa. He says there is no waste in feeding in this way and thinks it pays to grind his hay.

Russian thistles usually are cut with a mowing machine, and raked and stacked while one-half cured. In this way they handle better and make a superior quality of hay. Some men rake them into cocks while others prefer to use the buck rake, putting them into larger heaps, while still others stack them in ricks. If well stacked, the hay keeps in better condition in ricks.

There are two general methods of feeding followed: One is to allow the stock to have free access to the heaps or stacks and the other is to haul out the desired feed every day and feed in racks or scatter on the ground. There is perhaps more waste in permitting the cattle to run to the stacks, but there is not so much waste as one would think and some labor is saved. Owing to the nature of the thistle hay, cattle seem to eat it with a little more relish when allowed to run to the stacks.

C. F. Folkers of Wakeeney put up 10 large ricks of thistle hay in the summer of 1918, cutting it with a grain header. Mr. Folkers was much pleased with this method of putting up thistles. It is much faster than the mowing machine, saves at least one handling and keeps the hay free from dirt. On account of the large amount of juice in the thistles the header canvas becomes quite wet so it is necessary to remove it at night and dry it out.

Analysis shows that Russian thistles contain practically the same percentage of protein as alfalfa but it is higher in crude fiber and ash. Thistle hay has been fed to all kinds of cattle including breeding cows. This feed is quite laxative and is not so satisfactory for inside barn feeding as outside feeding. The best results have been obtained when some other feed such as straw or Buffalo grass is included in the ration in the winter months.

What is Your Farm Worth?

The value of a farm is determined by its desirability as a home, and the ability of the soil to pay dividends on the labor of tillage.

What makes a home? Is it the fine barns and buildings? Would a stranger driving by your farm in winter be attracted by it as a place he would like to buy and live on? Two thousand dollars invested in a barn adds \$2,000 to the value of your farm. Two hundred dollars invested in an evergreen windbreak will add \$2,000 to the value of your farm in a few years, and a windbreak continues to increase in value while buildings depreciate.

Evergreens are recommended for windbreak plantings because of the low growing branches that carry their leaves thruout the season. A group or a row of evergreens on the farm adds a touch of life to the surroundings the entire winter. But in addition to that they are of economic value as a protection to livestock, houses and crops from cold winter winds. According to thousands of owners of evergreen plantings there is a great saving in feed where stock have evergreen shelter belts, and the beneficial effects begin to be noticed within four years after planting and continue to increase in value.

The agricultural experiment stations thruout the country recommend evergreens for shelter belt plantings. The United States Bureau of Forestry heartily endorses them. The Fort Hays Experiment station has been carrying on windbreak tests for 15 years. In the shelter belt plantings on the station the most efficient windbreaks on both the upland and bottom fields are

those composed of evergreens. The station is growing a few selected varieties for distribution thruout the Western half of the state. In the spring of 1919 more than 8,000 pine trees were set in nursery beds for use in 1921. Five thousand arbor vitae and 5,000 Red cedars are now in the nursery rows ready for distribution. These are sold at the cost of production. Three species of pines are being grown for distribution and are recommended highly for windbreak or ornamental plantings. The pines that have stood the test of Hays conditions are Austrian, Bull and Scotch. The first two are attractive in form and foliage. The Scotch does not carry its leaves very long, and presents a more ragged appearance and is less valuable as a windbreak. The Fort Hays Experiment station will not have any pines for distribution before 1922, but almost any reliable nursery can supply them.

The great danger in planting evergreens is in allowing the roots to become exposed to the air for even a short time. Such exposure is fatal.

Anyone expecting a shipment of evergreens should watch the express office closely and get the trees the day they arrive. If it is impossible to plant the trees at once the roots should be moistened in the package. Do not wet the tops.

Before starting to plant, a bucket or barrel of puddle should be prepared and the trees taken from the package and put in the puddle at once. Puddle is prepared by mixing water and clay to a creamy consistency. An excellent receptacle for the puddle is made by sawing a barrel across the middle. Take the trees to the field in the puddle and take them out when the freshly dug hole is ready for them.

The holes should be of proper size to easily accommodate all the roots without crowding, and the bottom of the hole should contain a spade's depth of loose soil. Extra care in arranging the roots in the hole and in covering them with loose, moist top soil will be paid for in a better stand of trees. After the roots are covered they should be tramped well to leave no air pockets to dry them out.

In the Western half of the state the best date for planting evergreens is from March 15 to April 15.

An occasional soaking of the ground is beneficial, but not essential except in unusually dry years. Better results are obtainable from continuous cultivation. This is imperative in Western Kansas.

Developing a New Wheat

The process by which a new strain or variety of wheat is developed is to select a promising head and grow it in head rows, then the next year in rod rows as the amount of seed is increased. From the rod rows enough seed may be secured to plant a plat the next year. If the wheat at this stage of development shows superiority it is sown in the larger commercial fields from which distribution may in time be made to the farmers.

Some of the more prominent varieties of wheat which will be tried out at the Fort Hays Experiment station are Kanred, P1068, P1066 and Clark's Blackhull. Kanred is considered the standard by which all other varieties are measured. P1066 and P1068 are closely related to Kanred. They are good yielders, winter hardy and comparatively free from rust. Clark's Blackhull has made a good showing. Its name comes from the fact that it has a black tinted chaff.

Six importations of wheat direct from Cape Town, South Africa, are being tried out for the first time in this country. These varieties probably will be only of passing interest as experience has shown that African wheats are subject to winter killing and are inclined to rust heavily.

A number of varieties and strains of both Turkey and Kharkof are included in the experiments. Some of these strains were selected and developed at the Fort Hays Experiment station and have been among the highest yielders. However they have been overshadowed by Kanred in both quality and yield.

Scene on the farm of Alex Chicone, Jefferson, S. D.

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The Farmiscope

Readers of the Kansas Farmer and Mail and Breeze are invited to contribute freely to this column. Bright sayings of children, witticisms, and good jokes especially are desired. Address all communications intended for this page to the Feature Editor, Kansas Farmer and Mail and Breeze, Topeka, Kan.

His Blunder

He resided in the suburbs, and when he accidentally met an old friend in the city who persuaded him to remain in town for the evening he went to the telegraph office and wired his wife as follows:

"Missed the 5:30 train. Don't keep dinner waiting. Shall be home late."

It was very, very late when he did arrive home, and his wife met him at the door.

"Did you get my message?" he said, beaming down at her.

"Yes," she said, very quietly, "but I would like you to explain why you sent a message at 4:28 telling me you had missed the 5:30 train."

Heartless Girl

He had been telling of his engagement to the beauty of the town, but no one took his announcement seriously. One day he gave out that he had broken his engagement.

"So you really broke the engagement, Henry?" he was asked.

"That's exactly what I did."

"Dear me! Tell us why you were so cruel," one of his hearers begged.

"Well, it's like this," explained Henry. "Dolly told me she wouldn't marry me and I don't intend to be engaged to any girl who won't marry me."—Pittsburg Chronicle Telegraph.

Those Inconsiderate Companies

A woman, wearing an anxious expression, called at an insurance office one morning.

"I understand," she said, "that for five dollars I can insure my house for a thousand dollars."

"Yes," replied the agent, "that is right."

"And," continued the woman anxiously, "do you make any inquiries as to the origin of the fire?"

"Certainly," was the prompt reply.

"Oh!" and she turned to leave the office. "I thought there was a catch in it somewhere."—Lumberman.

Where Rank Aailed Naught

A lieutenant-colonel attending a French class taught by a Frenchman who had not learned the American army insignia, said to the lieutenant-colonel:

"Et dites, Monsieur, quel age avez-vous?" (And say, mister, what is your age?)

"Indiana," the colonel replied, making a stab at the answer. In the tornado of laughter that followed he escaped from the room to the primary class.—Stars and Stripes.

Their Prospects

"Propinquity is what brings about marriages," declared the father of three single daughters in didactic mood.

"Yes?" murmured his wife.

"It works this way. From among the men who call most frequently at a house the daughters of the house naturally select husbands."

"In that case," said the mother sadly, "I fear our girls are doomed to marry bill collectors."

Chance to Shine

"She has no bump of order, no idea of system."

"She might do well in a pickle factory at that."

"In what capacity?"

"Give her the job of mixing the pickles."

Too Small to Notice

"Your father objects to your bathing suit," said Mrs. Cumrox.

"I don't see," protested Gwendolyn, "how he could possibly object to a little thing like that!"—Washington Star.

Looking Backward

"There's no danger," said the doctor. "It's only a carbuncle coming on the back of your neck. But you must keep your eye on it."—Christian Register.

SEEKING A MARKET FOR DAIRY BY-PRODUCTS

EVERY dairyman will agree that if he could sell his skimmed milk for what it is worth as a human food, the profits on his dairy business would be substantially increased. But where is the market for skimmed milk as a human food?

Authorities say that the milk supply of the country is twenty-five percent below the domestic market requirements, if each man, woman and child of this country, to say nothing of foreign needs, is to receive the amount of dairy products necessary for proper nourishment. This, then, is the market—helping to make up the 25% shortage by diverting to human use a part of the large quantity of skimmed milk which is fed to stock. And here is one method by which this can be done:

Skimmed milk lacks only a fat content to make it desirable for cooking and baking. The lack of fat, too, makes it unpalatable. Hence, it is just plain common sense that, with the addition of a vegetable fat, skimmed milk can be made palatable and more desirable as a human food for culinary operations, releasing whole milk so used for other more needed purposes.

Hebe Brings Skimmed Milk to Market as Human Food

HEBE was created to reach this additional market—to serve as an auxiliary to the daily milk supply for specific uses in the home. Hebe is labeled with the utmost frankness as to its contents and uses. It is advertised as it is labeled—honestly and frankly—"A Compound of Evaporated Skimmed Milk and Vegetable Fat," for cooking and baking. By the scientific emulsifying of refined cocoanut fat with the skimmed milk, Hebe makes it possible to market skimmed milk as a human food, and thus opens to the dairyman another and more profitable outlet for his by-product, without interfering with the markets already established for dairy products. In the production of every 100 pounds of Hebe 210

pounds of skimmed milk are used, and 7.8 pounds of cocoanut fat. Thus a small amount of vegetable fat serves as the vehicle for bringing a large amount of skimmed milk to market as human food.

Benefit to the Entire Industry

HOW is this new market to benefit the dairyman who is not near enough to a Hebe condensery to sell his product there? The Hebe industry is young, and Hebe plants few in number, but every can sold is helping to develop this new market, and every bit of advertising put out by the Hebe Company is helping to educate the people to the greater use of dairy products. This influence cannot help but be of great benefit to the entire industry, for every additional outlet for marketing a product puts a new value on the product, and skimmed milk, prepared and marketed for a human food, is bound to increase in value, thereby benefitting every dairyman.

Every By-Product Should be Utilized

BUSINESS has proved that no industry is completely successful until every by-product has been utilized in the most profitable way. To feed the skimmed milk to stock is not the most profitable method of utilizing this by-product, because only a very small percentage of the food value of the skimmed milk is recovered in the meat of the animal. The larger part is used up by the animal simply in living.

The dairy industry will reach a fuller measure of efficiency and economy when the skimmed milk is disposed of in the most profitable way—as human food. Hebe points the way. It is an ally to the dairy industry, offering one method of utilizing skimmed milk as human food and increasing the use of dairy products in the home.

You will be interested in reading our booklet, "The Missing Third." Ask us to send you a copy. There is no charge for this. Address 2263 Consumers Bldg., Chicago. The Hebe Company, Chicago and Seattle.

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This is your opportunity to obtain good land for little money in a rapidly developing section that is perfectly suited climatically to profitable stock raising, dairying and general farming. Could you invest a week's time to better advantage **right now than to see the Highlands District, talk with other Northern and Western men already making good there, and prove for yourself the land is just as represented?**

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Jayhawker's Farm Notes

By Harley Hatch

IF we had had last year a week of such weather as the last has been at the time of this writing, January 31, wheat would have made a good growth. But this year wheat does not respond to open weather. It is alive; in fact I have seen none in this locality which seemed to be dead, but the plant looks weak. I cannot see at this writing a show for more than a 12 to 15 bushel crop and it will have to live up some to reach that figure. The ground seems in good condition and there is plenty of moisture in the top soil so when spring comes wheat may surprise us by covering the fields with green in short order.

Last Year's Poultry Profits

The gross receipts from poultry on this farm were greater in 1919 than in any other year since we have lived in Kansas, the number of hens kept being considered. We did not keep the usual number of hens thru the winter of 1918-19 and February 15, 1919, found us with but 135 hens on hand. We made no attempt to raise chickens for the market, our only aim being to hatch enough to keep the supply of laying hens up to normal. Because of this, we only sold poultry to the value of \$44 in 1919; we kept many of our old hens over as but few of them were more than 2 years old. The egg receipts were \$377 from the 135 hens and in addition two families had what they wanted to use. Home consumption accounted for nearly all the young roosters, the few that were sold went for breeding stock.

Labor and Overtime Charges

I have seen the statement lately that city labor is so insistent regarding shorter hours of work, not because they really wish to work fewer hours but because they wish to have those hours count as overtime. For instance, if the working hours were cut down to six and the worker kept right on putting in eight hours, he would get pay for two hours overtime and overtime, as most of us know, counts for time and one-half. In this connection I would like to ask if anyone, anywhere or any place ever heard of a farmer drawing overtime wages for overtime?

Spring Work is Coming

It is getting close to spring; in 30 days, if we have our usual weather, farm work will be progressing down here in this part of Kansas and we still have on hand more than half the hay crop put up last summer. Some large holders have succeeded in getting off one car of hay while others have not moved any. I am told that car shortage is much worse here than on the main lines but even at that a very large portion of hay is still in first hands down here in the prairie hay section. This means that we will be extremely fortunate if we get our hay moved off the farms in time for the 1920 crop.

Schrock Kafir

My brother has a farm in Lyon county on which was grown a small field of Schrock kafir last summer. It was put in rather late, partly as an experiment and partly to assure a good supply of rough feed for the man who carries on the farm. This kafir was

topped and threshed last week and it made a yield of 40 bushels to the acre. In other words, it made 176 bushels on 4 2-5 acres. The rent share was sold right on the farm for \$1.50 a bushel, making a cash rent to the land owner of virtually \$20 an acre. It was the best yielding grain crop, aside from oats, I know of on upland in this part of Kansas and the fodder yield was in proportion.

Not Always Satisfactory

We do not think very highly of kafir as a main grain crop here. Schrock kafir will, no doubt, outyield common kafir, as it is not a true kafir but a mixture of cane and kafir. It has the hardness of cane and it will make a good grain crop when kafir is a partial failure and it probably will make fair poultry feed but, to tell the truth, it looks too much like cane seed to me to make the best feed. No doubt the fodder would be first class to feed early in the season but I am told that in the markets the seed is classed as cane and not as kafir. But as a yielder of bulk, both of grain and fodder, it has no equal.

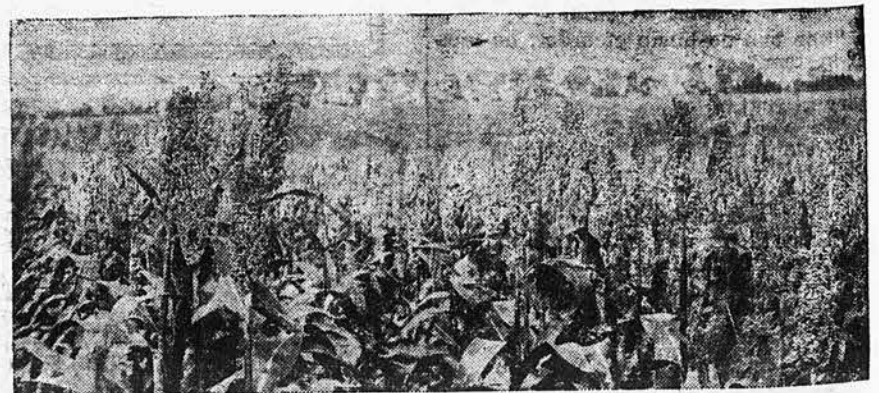
Rise in Wheat Prices

The continuous rise in the price of wheat from September until December 20 helped farmers' elevators to show a profit instead of the deficit which would otherwise have resulted from the fact that very little grain could be shipped. There are two elevators in Burlington owned principally by farmer stockholders, one of which has made a public report showing amount of business and the per cent of profit. From July 15 until the end of the year this elevator shipped 124 cars of wheat which sold for \$341,000. The profit allowed an 8 per cent dividend to stockholders and a refund to stockholding patrons of 4 cents a bushel on the wheat they sold and a further stock dividend of 5 cents a bushel on wheat sold. This elevator has no building but handled their business with a wagon-box elevator. Because of this they could take in wheat only when cars were available and so made no profit on wheat in store.

Marketing Eggs

We are going into the season of 1920 with 175 hens, about 75 of them are 2 years old this spring and when the laying season is over we shall cull and sell these older hens. It has been our experience that the profit in poultry keeping here lies much more in egg selling than in raising poultry for market. In this connection let me say that for several years I have noted a sharp increase in price of old hens directly after the holiday period and if I had old hens on hand after the heavy laying was over in the fall I would keep them until after Christmas before selling as the rise in price has for the last five years more than paid the expense of keeping them to say nothing of the eggs they often lay. Taking everything into consideration, I believe that farm poultry, well cared for, will pay a larger per cent of net profit than any other stock on the farm.

Now is the time to order farm machinery. If you delay you may not be able to get what you wish.



Many Kansans Have Raised Kafir and Have Found It Satisfactory But Many Coffey County Farmers Do Not Like It As a Main Grain Crop.

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Tom McNeal's Answers

Settlement of Estate

Five years ago A died leaving a widow. They had no children but A had four children by a former wife who is also dead. A's only son lives at home and helps farm and improve the place and pay taxes and interest on a mortgage on the land. A has one brother interested in the land also. Everything has been run with a mutual understanding and no attempt has been made to sell the land, but there is some desire to know how to proceed to sell the property and if an administrator is necessary in order to sell.

There is a mortgage of \$1,200 on the farm. The widow and A's son are going to pay this when due. Could A's brother and the widow have deed made to them by the mortgage holder and save expense to all, or would it be more satisfactory to have one of the family appointed administrator as the one selected would charge nothing for services rendered? What would be the probable cost? READER.

The law requires that an administrator be appointed. This might be either the widow or the son, or the brother if agreed upon. The widow however is first in line for the appointment.

The holder of the mortgage cannot make a deed to the property unless there is a foreclosure and he buys the land at sheriff's sale. He does not hold any title, but only a lien. Let the widow and son pay the mortgage and get credit for the payment in the settlement of the estate.

I cannot tell you how much the entire expense of settling the estate will be, but if the administrator charges nothing for his or her services and you do not find it necessary to employ an attorney in settlement the expenses would be quite light.

Federal Land Bank

Please inform me about the Federal Land Bank. How can I get a loan? What security would I have to give? How much must I pay down and at what rate of interest and for how long a time may the loan be had? READER.

It will be necessary for you to organize a local association of at least 10 land owners, unless there is already such an organization in your locality which you can join.

Your loan is secured thru this local association which sends application to the Federal Land Bank at Wichita, Kan., with the appraisal of the local appraiser. Then the Federal Land Bank sends appraisers to look at the land and pass upon it. The Federal Land Bank, if the application is approved, will lend up to 50 per cent of the appraised value of the land and in addition 20 per cent of the value of the buildings and permanent improvements. The rate of interest will be not more than 6½ per cent. In addition you will pay an amortization fee which goes to reduce the principal. You may pay the loan at any time after five years or it may run for 35 years.

In order to get any further information desired write the Federal Land Bank at Wichita for blanks and full directions.

Hog Fence

A wishes to let his hogs have the range of his farm and has all his place fenced with hog tight fence except one-half of the division fence between his land and that of B. C, who joins him on the other side fenced his half with hog tight fence without complaint but B refuses to fence his half in this way. B already has three barbed wires along his half and refuses to put up hog wire. Can A compel him to do so and what could he do in order to let his hogs run out? B uses his land for pasturing cattle and horses but not hogs. SUBSCRIBER.

Unless the voters of your township have voted to permit hogs to run at large B is not required to build a hog tight fence. A has the right of course to make the half of the fence belonging to B hog tight at his own expense. Of course if the township has voted to permit hogs to run at large B can in that case be compelled to make his fence hog tight.

Lien for Threshing

I threshed for a man last summer whose wheat was poor. It had been badly damaged by grasshoppers. I did not make much more than my expenses in threshing this grain. He could not sell any of his grain at that time on account of shortage of cars and so we offered to carry his account until he could sell his grain. Since then he has mortgaged his wheat. Can we collect the threshing bill ahead of the mortgage? READER.

You can if you have taken the proper steps to protect your rights.

Chapter 231 of the session laws of 1917 provides that threshermen shall have a lien on the grain threshed for threshing bills, but in order to get the benefit of this law it is necessary that the thresherman file in the office of

(Continued on Page 35.)

A Worn-Out Spreader If Not Replaced, Will Some Day Mean A Worn-Out Farm!



NO other implement ever paid you such handsome returns as that old, worn-out spreader of yours. Yet to continue its makeshift use is mighty poor economy. If it is time-worn to the point where frequent repairs are needed, scrap it--and get in its place the famous, combination manure-and-straw, wide spreading

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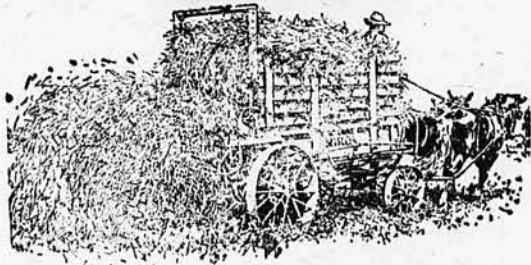
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Many important, patented features of construction and operation make NISCO the known leader. It has no gears. No complicated parts to break or get out of order. Built low down; easy to load. And its light draft lets you heap it thirty inches high and still have an easy haul.

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Dealers everywhere sell the NISCO Spreader. Farmers, County Agents and highest agricultural authorities endorse it. Plan to see the NISCO dealer in your town without delay. Ask him for a free copy of our valuable booklet, "Feeding The Farm."



Straw Spreading Attachment

At small cost, you can get this one-man attachment for new or old machines. Handles a big load. Shreds the straw fine and spreads it wide. Gives you two machines in one. Easily set up or detached. Puts a new money value on your straw stacks.

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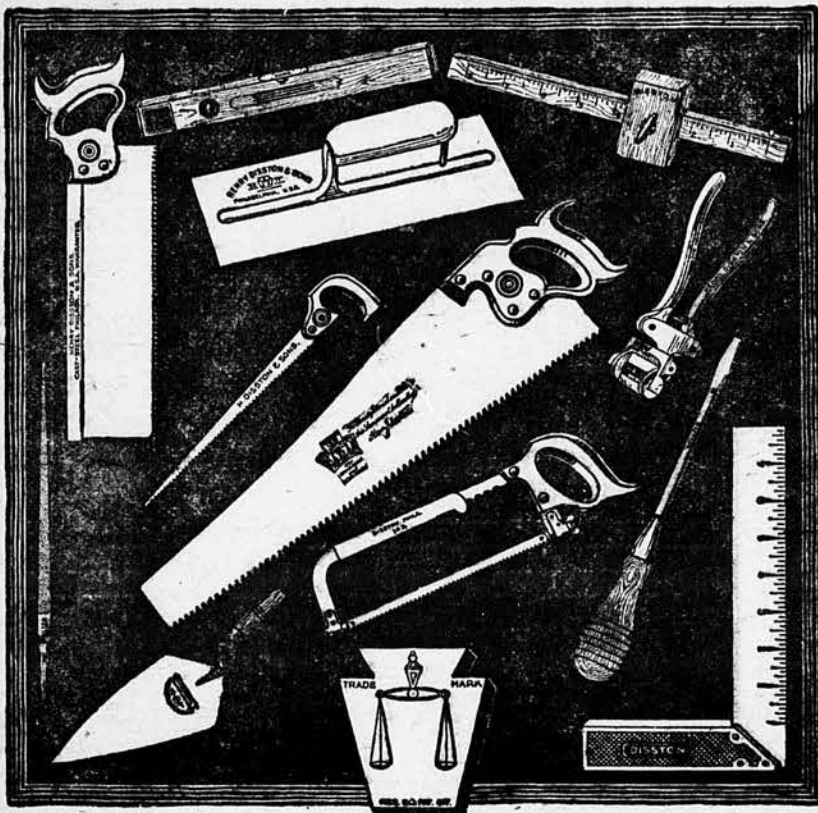
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Rural Engineering Hints

By C. E. Jablow

MOST of the gas engines offered for sale to farmers have been designed by men who are experienced in the operation and theory of internal combustion engines, but who have had no farm training whatever. This is as it should be for the best results, for it matters not whether the engine is pumping water for livestock on the farm or supplying water from a well in the city for some industrial enterprise. The work it is called upon to do is similar in both cases.

What we wish to impress is that the so-called farm gas engine is not a product grown on the farm, but is a gas engine similar to engines found in the cities in varied classes of service. If we should attempt to make a classification of gas engines suitable for farm work, we would find included therein engines that are most dependable, engines with fewest parts, engines that are easy to start and operate by persons not skilled along technical lines.

It is becoming more and more a factor, in order to combat the almost prohibitive wage demanded by farm laborers and the general scarcity of farm workers, to do what work we can by engine power. However, should the troublesome labor conditions be relieved, it will still be found that manual labor cannot compete with power from a small gas engine. No account is here taken of lifting the burden of the back breaking, nerve-racking labor from a human soul, but even the financial saving will be sufficient argument for the gas engine.

Size to Purchase

The purchaser of an engine should not figure on too much allowance for reserve power and thereby adapt the engine for a wider variety of uses. If this is done you may be assured you are not getting your money's worth out of each gallon of gasoline. As much as it may seem desirable to get a somewhat larger engine with the knowledge that it will at times be called upon to work to its capacity and will always be able to pull the smaller loads, it is a mistake for several reasons:

The friction of the larger engine being larger than the small engine, the lost work at light loads becomes entirely too large a percentage of the work delivered. Again it is found from careful experiment that an engine operates most economically in the use of fuel when developing in the neighborhood of something like 15 per cent less than its maximum power. In other words, an engine properly rated can only be depended upon to carry an overload of about 15 per cent. It can be seen that from the above argument more than one engine should properly constitute the equipment on the modern farm. It is generally agreed that an engine of between 2 and 3 horsepower will be suitable for most of the smaller jobs, such as pumping water, running a small electric generator, sheep shearing, operating the washing machine, cream separator, churn or forage blower, spraying fruit trees, running the grindstone and numerous similar jobs.

For the heavier work such as wood cutting, silage cutting, silo filling, hay baling and such work, engines between 8 and 12 horsepower will be found most suitable.

Fuels Suitable

Of all the fuels used in gas engines, gasoline will undoubtedly prove the easiest to handle for the inexperienced person. It should be kept in mind, however, that other fuels may be more available and considerably less costly in certain localities, which is a strong argument for their use. Kerosene or heavier oils are used in some engines. In some localities natural gas will be available for use in an engine. Each of these different fuels ordinarily requires slight modifications in design and, where an engine is advertised as suitable for any and all fuels, it should not be accepted without question.

For farm use the single cylinder engine is the one recommended. It may be mounted upon trucks or skids, or if it is purchased for a single and definite purpose, it may be mounted upon a permanent foundation. Multiple cylinder engines, it is true will give smoother operation generally, but have the disadvantage of also multiplying the number of parts which are likely to give trouble. In the smaller sizes the engine for the farm may be of the vertical or the horizontal type. For the larger sizes the horizontal engine will usually be the one offered by the manufacturer.

Careful Attendance

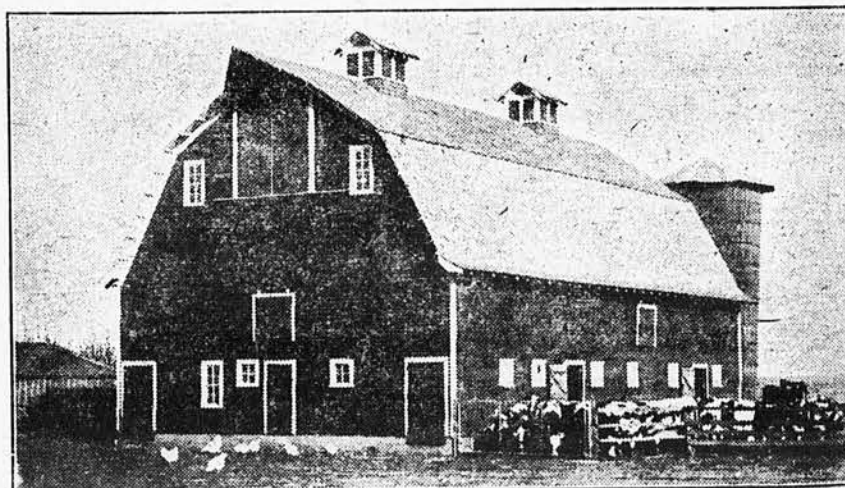
By careful attendance is not meant that one must stand over the engine and watch it during each revolution. If an engine is put into good running condition and all adjustments fixed so it cannot work loose readily; if proper quality as well as the proper quantity of oil is provided; if the cooling system is filled with sufficient soft water and excessive wear has not already taken place at certain points, it can safely be left for a considerable time.

The writer is a good friend of and a strong believer in the young men on the farms and wishes to propose that these engine duties be placed in their hands, not in addition to their regular chores, but to displace some of their other regular duties. If this is done, he believes that better results will be accomplished. This is said with all due respect to the older members of the farmstead.

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Now is the time to plan the garden.



Every Farm That is Well Equipped Should Have a Good Barn and Silo. The Gas Engine Also Should Have a Place of Honor in This Equipment.

Tom McNeal's Answers

(Continued from Page 33.)

the register of deeds of the county in which the threshing is done, a statement in writing duly verified setting forth the name of the owner or owners of the grain threshed, the kind of grain, the number of bushels threshed, the description of the land on which such grain was raised, the number of bushels threshed, the contract price of the threshing, the amount due and the name of the claimant. This statement must be filed within 15 days after the completion of the threshing.

If you have complied with this law your lien is superior to that of the chattel mortgage; otherwise it is not.

Sub Leasing Land

A leases land to B who subleases to C and D, each taking one-half of the land leased to B. C pays his half of the rent but D does not. What steps can A take to get the lease back from D? Can B hold it on the other half? Can A refuse the half of the rental paid by C? SUBSCRIBER.

B had no authority to sublease the land without A's consent, and unless A consented to substitute C and D as tenants for B he can hold B for all of the rent and let him settle with C and D. If A consented to the subleasing of the land and agreed to look to C and D for the rent in that event B has been released and A should give written notice to D to vacate the land on account of non-payment of rent. Ten days' notice is probably sufficient but as you do not state the length of time the lease was to run or the other conditions in it, it would be better to give 30 days' notice.

Legal Will

(1) A and B were husband and wife. A died and willed everything to B, leaving nothing to the children. Is such a will legal?

(2) If B marries again will the second husband get half of what she owns at her death, if the second husband agrees to take a life estate before the marriage? SUBSCRIBER.

(1) The husband had a right to will all of his property to his wife. The will if properly executed and witnessed is a valid will.

(2) The second husband would be bound by any prenuptial agreement he might make. He might agree to take only a life estate or an interest in the estate, less than one-half, or he might agree to inherit nothing at all.

May Ship His Own Wheat

(1) Is there a law prohibiting a farmer from shipping his own grain, or requiring him to have a license to do so?

(2) Who is the head of the United States Grain Corporation and what is his address? READER.

(1) There is no law prohibiting a farmer from shipping his own grain. He does not require a license.

(2) J. B. McClure, Hutchinson, Kan., is president of the Kansas Grain Dealers' association and E. J. Smiley, Topeka, Kan., is the secretary.

To Get Rid of an Agent

I placed my farm for sale in the hands of an agent. What must I do to get it released? L. A.

You have a right to revoke your agency contract at any time but if the land is sold thru the efforts of the agent before revocation you would be bound for the commission.

Moving Tank

I sold my farm but nothing was said or written on the contract concerning the large cast iron tank which sits on 6 or 8 large rocks not fastened to the ground in any way. Can I move the tank, or does it go with the farm? READER.

It is a difficult question to answer but I think you are entitled to remove it.

Land Agent's Commission

A owns a farm which he lists with B, a real estate agent. Their agreement was verbal. B brings C to see the farm, but tells A he cannot sell to C at the price at which he was authorized to sell it. Later A called at B's office and asked B to take it off the market, which B agreed to do. Later C came to A and bought the farm paying more than B asked. Has B a right to commission on the sale? B. J.

No.

School Attendance

We own a farm of 160 acres; one 80 in one township and district and the other 80 in the other district. Can we send our children to either school without paying tuition? OLD SUBSCRIBER.

You can.

About Taxes

How much taxes will be levied on \$1,000 in the state of Kansas? D. A. D.

That depends on where the owner of the \$1,000 is located.

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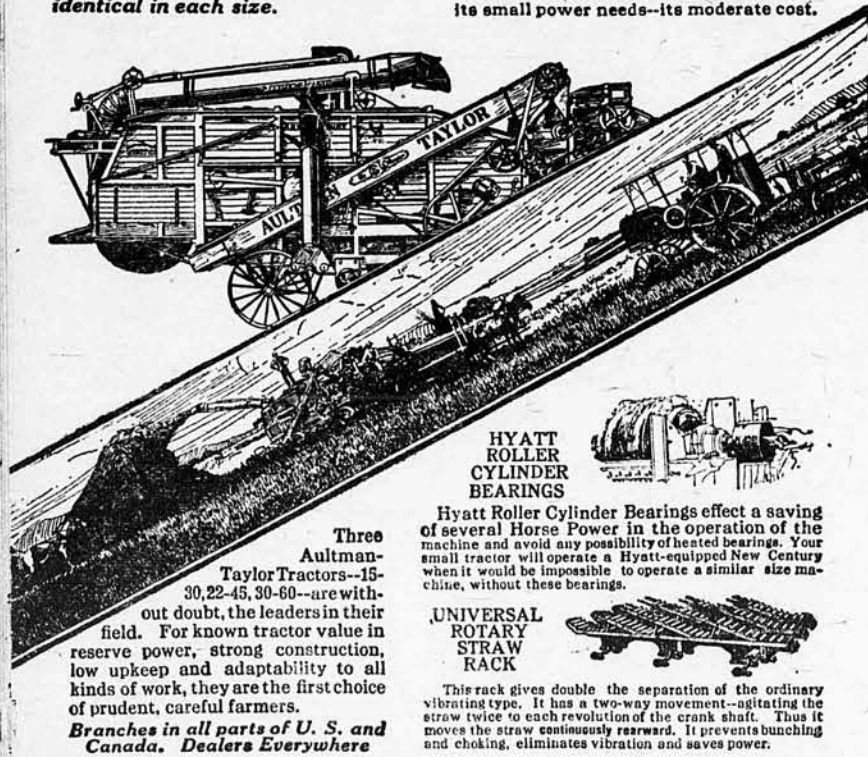
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Wireless Valuable on Farm

The Farmer May be His Own Weather Forecaster

BY PROF. A. E. STEWART
Kansas State Agricultural College

DAD, MAY I make a wireless set and string up some wires from the barn roof to that cottonwood tree in the lot? Bill's makin' a dandy and if I had a set we could talk whenever we wanted to."

Imagine the boy of a decade or more ago who came home Saturday evening after a brief visit with his cousin in town and made the foregoing plea to his father. What with the pigs to feed, the wood to get, the horses to bed down or turn to pasture, and a dozen her chores, his opportunities for instructive play never bore fruit. The town cousin wound his coils and rigged up his aereals and learned the code. Time healed the disappointment and dulled the desire of the boy on the farm. For, a decade ago an amateur wireless set on the farm was regarded as a little less valuable than a prize woolly lap dog. It was a plaything for the idle rich of the city, or the children of the idle rich.

It was not so long ago that the motor car was similarly regarded on the farm, but like the motor car the wireless "plaything" has become far more valuable to the country man than to his city cousin.

The possible uses of a wireless station on a farm are many, and I will discuss a few of these. Before going into a detailed discussion, it might be well to add, that the ability to receive the wireless code is not an essential factor in procuring many of the results to be obtained. The ability to receive the code is necessary to secure the fullest benefit, and to obtain a license for a sending set, but anyone with a receiving set will soon learn the code, and reap many of the benefits during this learning process. I will state clearly that these benefits are not just educational, but of commercial value, as explained in the following paragraphs.

Indicates Weather Conditions

The wireless receiving set may be used as a very reliable indicator of weather conditions, such as cloudy days and storms. Static electricity is present in the air at all times, but when clouds are present, the static charges are increased in the neighborhood of the clouds. It is the static electricity, usually referred to as static charges, which produces lightning and thunder. These heavy static charges produce wireless waves, which are caught by the aerial and receiving set, and the operator can hear the static discharges thru his set. As a matter of fact, this static disturbance is the one factor which hinders wireless communications more than all other factors combined. The elimination of these static troubles has never been accomplished until just recently. These static discharges, however, indicate storm conditions. The static will be heard from 12 to 24 hours ahead of a clouded area. If the clouds are not large enough to produce a storm, the static will be weak and will be heard for only a short time preceding a storm. Within about 6 hours before a real storm, the static is so bad that it is very annoying to keep the receivers over the ears, and often the crackling and hissing can be heard without lifting the receivers from the table. For an hour or two preceding a heavy thunderstorm, sparks may be seen to pass between the aerial and the ground, if the so-called ground switch is opened a small distance. The operator may get quite a spark from the aerial at these times if he does not keep the aerial connected to the ground.

The last twenty-four hours of the time at which I am writing have shown the reliability of the wireless as a weather indicator. At 3 o'clock yesterday afternoon there was no static to be heard by use of the wireless set. I told someone that we could plan on a good day for today. At 9 in the evening, there was a slight amount of static noticeable, while by 11 it was present in such quantities as to prevent receiving a wireless message. The static was not loud crashes, and indicated a weak storm area or a very distant one. I was surprised to see a clear

sky when I got up this morning, but in a very short time the weather looked rather gloomy, with a solid canopy of swiftly moving clouds overhead. I listened in on the wireless at 8 o'clock this morning, and the static was less than at 11 o'clock last evening. I made the remark, "These clouds can't mean much of anything." My prediction was borne out by a clearing up of the sky by noon, and a clear afternoon today.

The wireless as an indicator of cloudy conditions has already been used by one of the Central Electric Power stations in New York. They use these static discharges to inform them of the approach of a storm. They fire up the extra boilers when a storm is



Boys Like Electrical Machines.

approaching and have enough power to carry all the extra lights that are turned on in hundreds of offices and stores when a dark cloud covers the sun. Why shouldn't the farmer use this method to help decide when to cut his alfalfa? The saving in food value made from one crop not being caught in a rain would pay a fine dividend on the cost of a wireless set.

May Receive Market Reports

The receiving set has still other possible values. The farmer may receive weather reports as well as being his own weather forecaster. The radio department of Kansas State Agricultural college sent out weather reports by wireless before the war, and we shall do so again as soon as we receive a permit to use the sending set. Other schools may perform this service. As soon as the number of farm wireless sets will warrant more service, the farmer might be able to secure market reports each day and current press news. The market reports would save the farming community thousands of dollars. There is another use to which the amateur wireless station has already been put that should be mentioned. If the operator has a sending station, it may be used in times of distress, such as snow-bound, fire or tornado troubles, to notify the outside world.

Besides these commercial values, there is a high educational value attached to installing and operating an amateur station. The value of this training has shown itself in the production of men like Roy Weagent, Armstrong, John Hays Hammond and Ensign Rood. Weagent and Armstrong have improved wireless transmission in many ways, and are radio engineers of first magnitude; Hammond has developed wireless control of boats, and Ensign Rood was responsible for keeping NC-4 in her path across the Atlantic. The type of training that a boy or a girl gets when learning to use a radio set, is the type that makes self-made men. Any education gotten in this manner is worth four times as much as the same things learned in school, under the push of a teacher. Nearly every boy has a natural liking for electricity and electrical machines, and this gives him a chance to do something in the way of education that he desires to do, and the "desire to do" is the forerunner of any work that is done well. A radio set will go a long ways toward

(Continued on Page 47.)

Farm Questions

All inquiries about farm matters will be answered free of charge thru the columns of this department. Those involving technical points will be referred to specialists for expert advice. Address all letters to John W. Wilkinson, Farm Question Department, Kansas Farmer and Mail and Breeze, Topeka, Kan.

Ventilating Bins

What is the best way to ventilate grain in the bin to keep it from heating? Will grain heat as badly in Colorado as in Kansas? What is the cause of heating?

CHARLES BRIMMER.

Springfield, Colo.

Some persons have recommended placing pieces of 2 by 4 timbers upright in the bin. However, I believe that the best precaution to observe is to avoid storing grain in a tight bin when it is not in proper condition to store, that is, when it contains excessive moisture.

If you should have grain that is damp when threshed and not in condition to store in tight bins, it should be placed in an elevator where it can be passed over cleaning machinery and also changed from bin to bin in order to air it, or what the elevator operator calls "running" it, so that it may be dried out and put in condition to keep in tight bins without heating.

There is no doubt but what grain will heat in Colorado but much of the grain will be dry enough when threshed so that there will be little or no danger of it heating, and in a good deal of the state the temperatures will not run so high and consequently grain will not heat so readily. The principal cause of grain heating is excess moisture. Contributory factors are high temperatures and immaturity, also fine dirt, broken grain and the action of weevil. If you have a bin which you wish to ventilate, will you send us a sketch of it? We will be glad to make suggestions to you in regard to its ventilation.

L. A. Fitz.

Possibly Bad Teeth

Our heifer calf eats heartily but when she chews her cud the saliva runs out of her mouth. She is rather thin.

MRS. JENNIE HERWICK.

Aspen, Colo.

There is a probability that the calf has some disease of the mouth or teeth. I would advise that you open the calf's mouth and examine the interior very carefully for sores, blisters, and yellow spots. If any blisters are found, they should be opened and then painted with iodine. If raw sores are found, tincture of iodine should be applied to them, and if yellow spots are located, the yellow material should be removed by scraping and then the sore spots should be painted with iodine. If you cannot find anything on such an examination, then it probably will be best for you to consult a graduate veterinarian and I am satisfied that he will be able to handle the condition satisfactorily for you.

R. R. Dykstra.

Barren Cows

I would like to have information about how to treat cows that don't breed well. Will be thankful for any information you can give me.

GEORGE A. WILSON.

Salina, Kan.

Barrenness in cattle is usually due to some disease of the genital organs which may be located either in the vagina, neck of the uterus, the uterus, or the ovaries. A careful examination must be made of these different organs to determine the nature of the disease affecting them. Possibly the veterinarian examining your animals can prescribe treatment. This method of treatment is the only logical one and the only one that offers chances of again making your cattle breeders.

R. R. Dykstra.

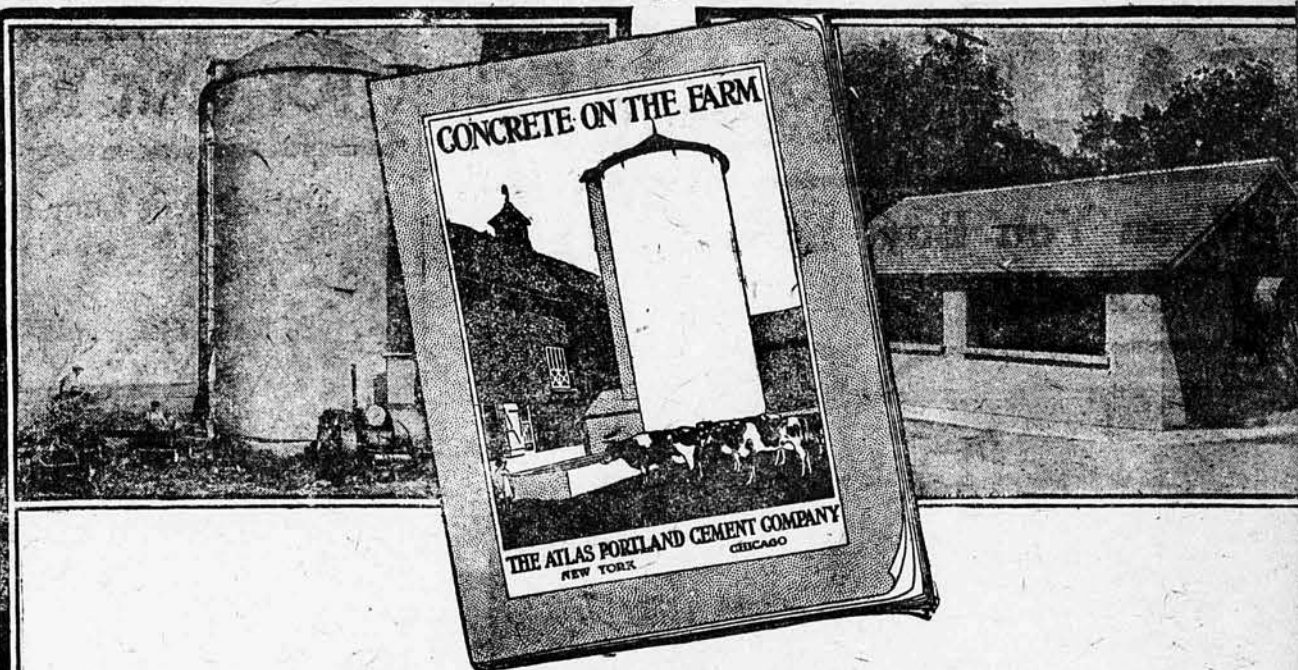
Estimating Kafir

How do you estimate kafir weight in the head, that would be both fair to buyer and seller? My kafir was cut close to the head with very little stem.

LaCygne, Kan. ERNEST F. McNUTT.

On an average, about three-fourths of the total weight is grain and about one-fourth stem. In well filled heads the proportion of grain often reaches 80 per cent while in poor heads it may run below 70 per cent. I would consider 75 per cent would be a satisfactory figure to use in estimating the weight of grain where kafir is sold in the head.

L. E. Call.



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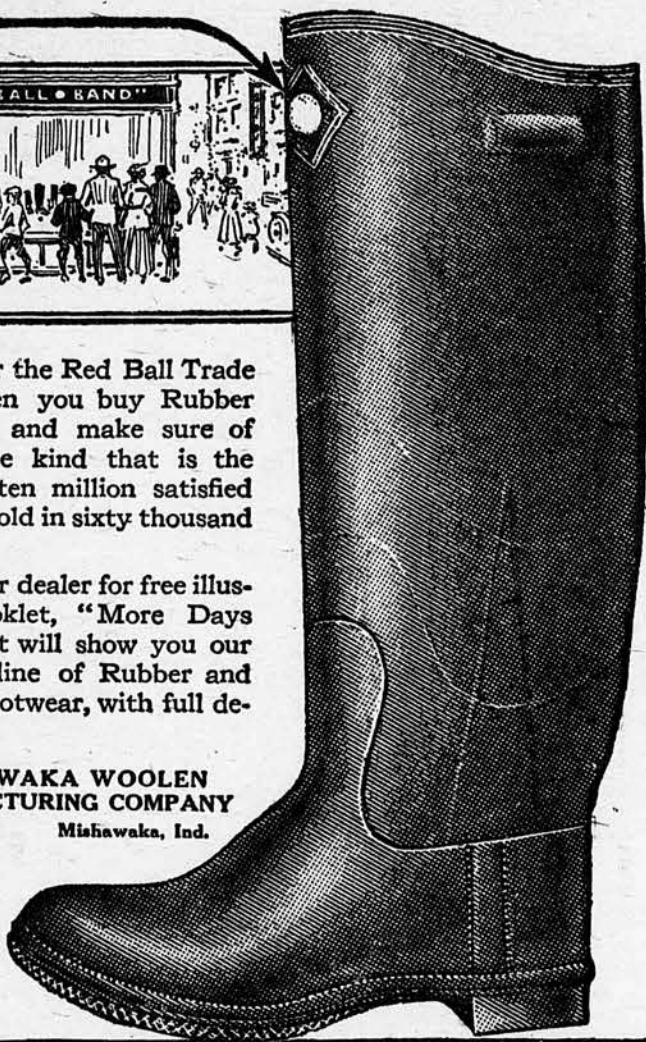


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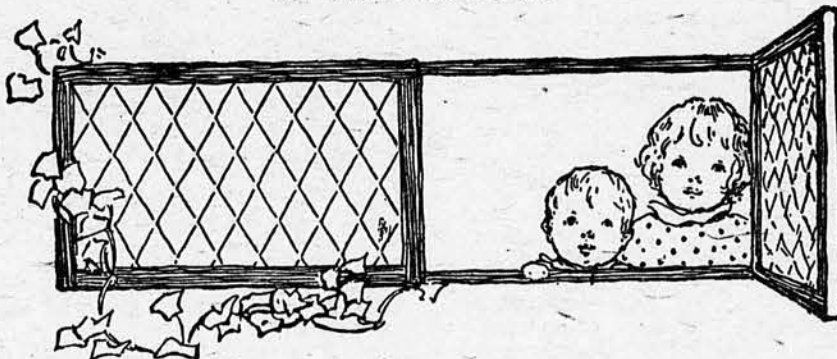
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Try a Classified Ad for Large Returns

For Our Young Readers

Mother Tells Lucy How to Go "A-valentining"

BY KATHLEEN ROGAN



LUCY was sitting at the window studying her lessons for the next day. Suddenly she looked up from her book. She seemed to be watching the two little children across the street, but really her mind was on something else.

"Mother," she asked irrelevantly, "what is a 'valentine'?"

Her mother explained that the word was valentine instead of "volentine," and then her little daughter went on to tell her that the girls at school had been talking about valentines. So Lucy's mother narrated the story of Saint Valentine's Day.

"In the old Roman days," she said, "it was the custom at a certain feast for the boys and girls to draw one another's names from a box for partners for their games. But the good bishops did not like this way of honoring the gods, so they put the names of saints in the box. If one drew the name of Saint Valentine, for example, he was supposed to try to be like that saint. This beginning of the day had no more connection with Saint Valentine than with any other saint, except that the celebration was made on February 14, which happened to be the day of the martyr's death.

"As the centuries passed the young folks of England began to revive the old customs of the Roman boys and girls. At parties they drew names. When a boy drew a girl's name, that girl was thereafter his 'Valentine.' There were many superstitions about the day. The first boy a girl met on the street on Valentine's morn would be her valentine. When she put the four-leafed clover under her pillow at night and dreamed of someone, that person, so the superstition ran, would be her best beloved. She even ate hard-boiled eggs, the yolks of which were filled with salt, so that she might more surely dream. The day was given over to young folks for merrymaking.

"I can remember some old valentines of my grandmother's," said Lucy's mother, and then she told the little girl about them. They were just plain paper with a lace border and verses written on them. Grandmother used to go "valentining" when she was a little girl in England. A group of children would serenade their friends early on Valentine's morning, singing songs about the day. Sometimes they were given candy and sweet-meats for their songs. They used to say "Good morning, Valentine" when they met their friends on the street, and the one who said it first made the other her valentine.

Loving One's Friends

Then Lucy's mother told how she celebrated the day when she was a little girl. At that time it was a day of remembrance of one's friends. Sometimes small gifts were presented, such as flowers or books or candy. "It was a day for just loving one's friends," the mother said.

"What fun we used to have making our valentines! What quantities of red paper and gold paint we used!" exclaimed Lucy's mother. Then she described her older sister's party where the place cards were imitations of little men. Aunt Edith had bought small sticks of red and white striped candy and made tiny hats for these make-believe men. She had tied tiny ribbons around the "neck" for neckties and used toothpicks for arms.

"Oh, Mother," interrupted Lucy, "couldn't I make something like that for a vol-valentine for poor little Joe and Mary? They never have any fun and they're always looking out the window as if they would like to come out and play with me."

"Yes, dear, that is a lovely idea," her mother answered. "In the writing desk you'll find a box of pretty colored paper and some bright paints."

Never did Lucy enjoy an afternoon more. Before evening she had several dainty valentines ready and could scarcely wait to take them to the children the next day. For little Joe she had cut an oblong piece of stiff white paper about 3 by 5 inches and pasted a scarlet heart in one corner. Thru this she painted a golden arrow and by the side of the heart wrote in gold paint "To My Valentine." Little Mary's valentine was a four-leafed clover which she made by pasting four red hearts together to make the clover shape and pierced them with a golden arrow. Across the clover she had painted in gold paint "Good Luck to My Valentine."

Surprise Baskets

For both of the little neighbors Lucy made a small basket by covering stiff cardboard with red paper and pasting gold hearts on the sides. This she filled with peppermint candy and a few flowers from her mother's window.

"You see, I want to give them something like the gifts you gave when you were a little girl," she told her mother.

When her mother went to prepare supper, Lucy sat thinking about what fun her mother had given her that afternoon. "I wish I could make her a valentine," she thought.

Presently she gave a little cry of joy and began to gather together her bright paper. She cut a large heart from the white cardboard and covered it with red paper, leaving a small white heart-shaped space in the center. In this she painted "For My Lovely Mother's Picture." Then she pasted a holder on it and hid it until the next day.

On Saint Valentine's Day Lucy was very happy. Her mother was so pleased with the picture frame and the little poor children were happier than they had been for a long time.

"Having a day to love people in," Lucy told her mother, "is almost as nice as Christmas."

Letters to a Farm Boy

(In this, the third of the series of letters by Mr. Case, it is shown that those who have worked hard either with hand or brain are the ones who have won success. However, Mr. Case points out that while to labor is a great virtue the boy who would win in the game of life must couple work with intelligence.)

Dear Robert:—Do you remember the day we were hunting and found the big oak down? Sam Brown had felled it to catch a 'coon but it had housed another family. Reddy Squirrel was busily at work carrying his stored nuts to another tree. He wasn't loafing on the job and scolding about the disaster but was up on his toes again getting ready for winter time. And altho it was work he seemed to be having a bully good time.

The third stone in the foundation of success is industry. I know of no man who has won success without it. Turn the pages of history and you will find the names of great men who were

tireless workers of the world's over the men and you will are most deserving and respect a with hand or cannot bring plied intelligence Reddy Squirrel just as hard a wheel as his new home anywhere. To make a tread labor life's great mistake.

Work is only And what was that of the of day nature a mystery before farmer boy? what pride y porkers in y bred pigs? Y night that y in the farrow rooters might contest game with stories rying slop an ing. Instead ownership, y were those pe well they ha care. There' ert, in work thought you

Industry s One never s he forgets to glad new d farm boy m afternoon off time and tha fixed that it work better i and one-half in playing honesty and izes his daily over the year was a boy a have become that every "game," but But there your father, to "fudge" he'd "cut se looking. In tuation of be too slow for lawyer with tion for sh within the friendship o With all

Is This does puzzle, does can solve it. Puzzle Edi Mail and B will be pac first six bo rect solution



Solution onous key ners: Eli E Russell, V Edward St

One time little broth met seven town. My about 3 y are you go out." Of tried to town did church do Miltonva

tireless workers. This is equally true of the world's leaders of today. Look over the men in your own community and you will find that the ones who are most deserving of your admiration and respect are those who work hard with hand or brain. But industry alone cannot bring success; it must be applied intelligently. Penned in a cage Reddy Squirrel would have worked just as hard running round and round a wheel as he did in carrying nuts to his new home. But he wouldn't get anywhere. Too many farmers, Robert, make a treadmill of life and consider labor life's greatest virtue. Don't make that mistake.

Work is only play if we love the task. And what work is so worth while as that of the open country where day by day nature unlocks the storehouse of mystery before the inquiring eye of the farmer boy? Do you remember with what pride you showed me the thrifty porkers in your contest litter of pure-bred pigs? You did not talk about the night that you and your father spent in the farrowing shed that those lusty rooters might have a fair start in the contest game. Nor did you weary me with stories of the hours spent in carrying slop and feed and in record keeping. Instead, with all the pride of ownership, you talked about how fine were those porcine aristocrats and how well they had responded to feed and care. There's a vast difference, Robert, in work and labor. Get that? I thought you would.

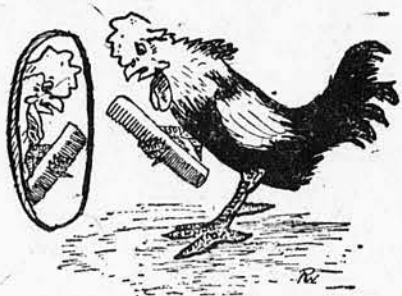
Industry sometimes has its penalties. One never should work so hard that he forgets to play. I hope that in the "glad new day" that is coming, every farm boy may have every Saturday afternoon off for some wholesome pastime and that the habit may become so fixed that it will last thru life. He'd work better for it during the other five and one-half days of the week. And in playing he should show the same honesty and integrity that characterizes his daily work. As I look back over the years that have passed since I was a boy and picture the boys who have become successful men, I recall that every man was a boy who was "game," but fair in play.

But there was Tom Tennant whom your father, too, knew well. Tom used to "fudge" in playing marbles. Later he'd "cut second" if the umpire wasn't looking. In football he gained the reputation of being "dirty." Farming was too slow for him. Now he's a shyster lawyer with some cash but a reputation for sharp practice that, while within the law, bars him from the friendship of folks worth while.

With all good wishes, your friend,
John Francis Case.

Is This a Flower?

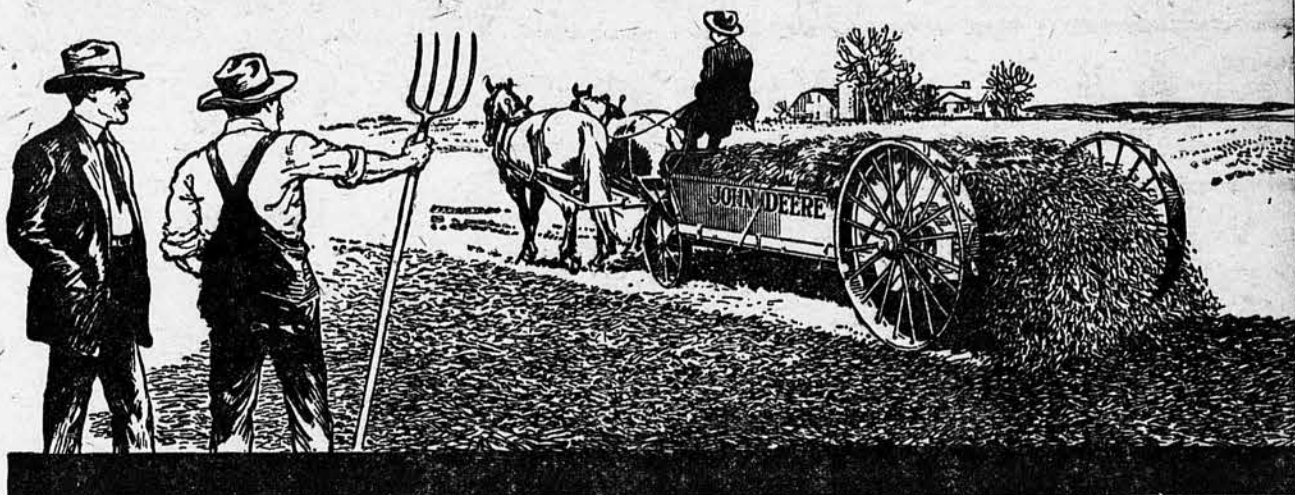
This doesn't look much like a flower puzzle, does it? But it is. See if you can solve it. Send your answer to the Puzzle Editor, Kansas Farmer and Mail and Breeze, Topeka, Kan. There will be packages of postcards for the first six boys and girls who send correct solutions.



Solution January 31 puzzle—A poisonous key; whiskey. The prize winners: Eli Helmuth, Opal Williams, Ida Russell, Velma Mottes, John Krinhop, Edward Stoppel.

Too Late

One time as papa, mamma and my little brother were going to town, they met several teams coming from town. My little brother who was then about 3 years old, said, "Papa what are you going to town for now? Town's out." Of course papa and mamma tried to make him understand that town did not "let out," as school and church do. Edith Horn.
Miltonvale, Kan.



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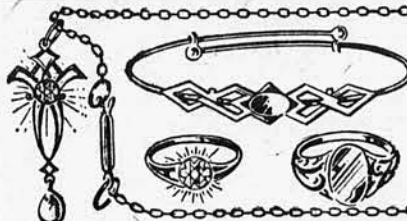
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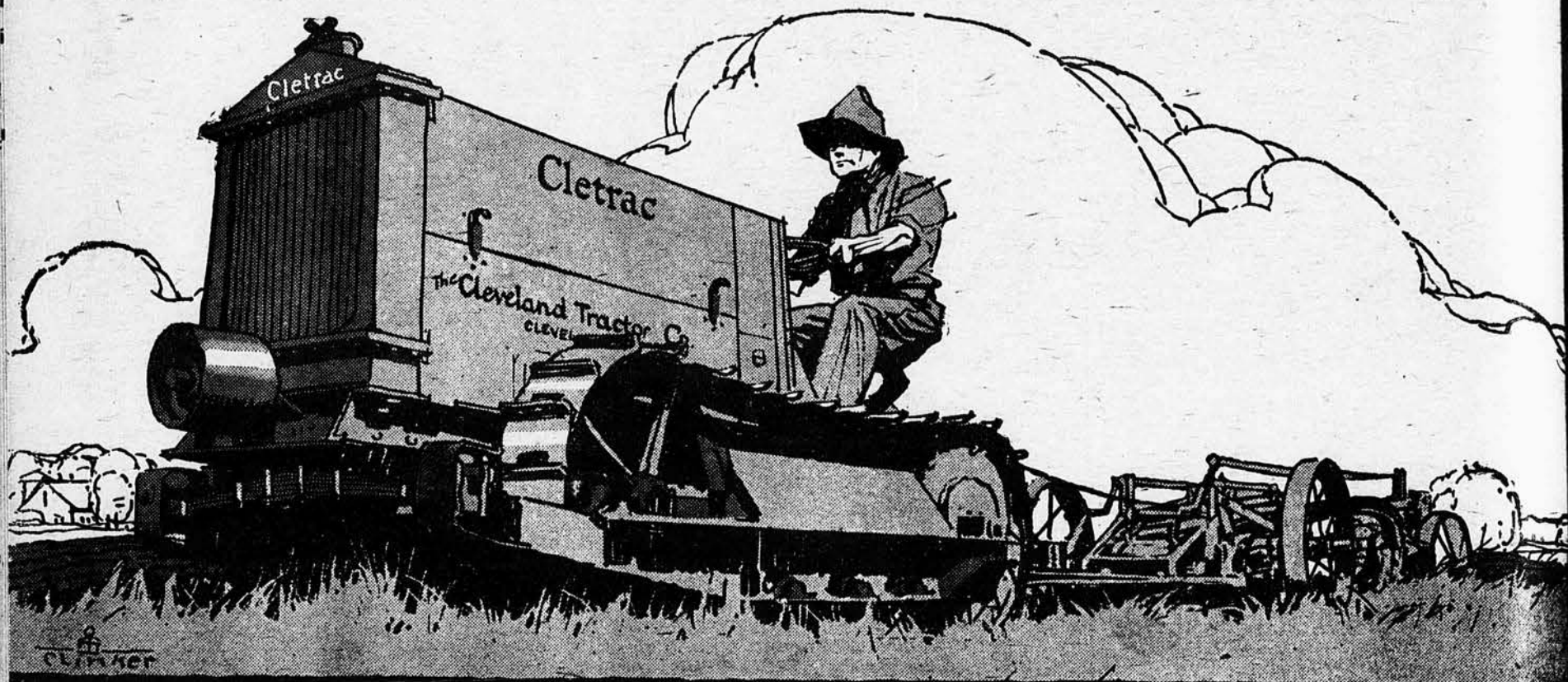
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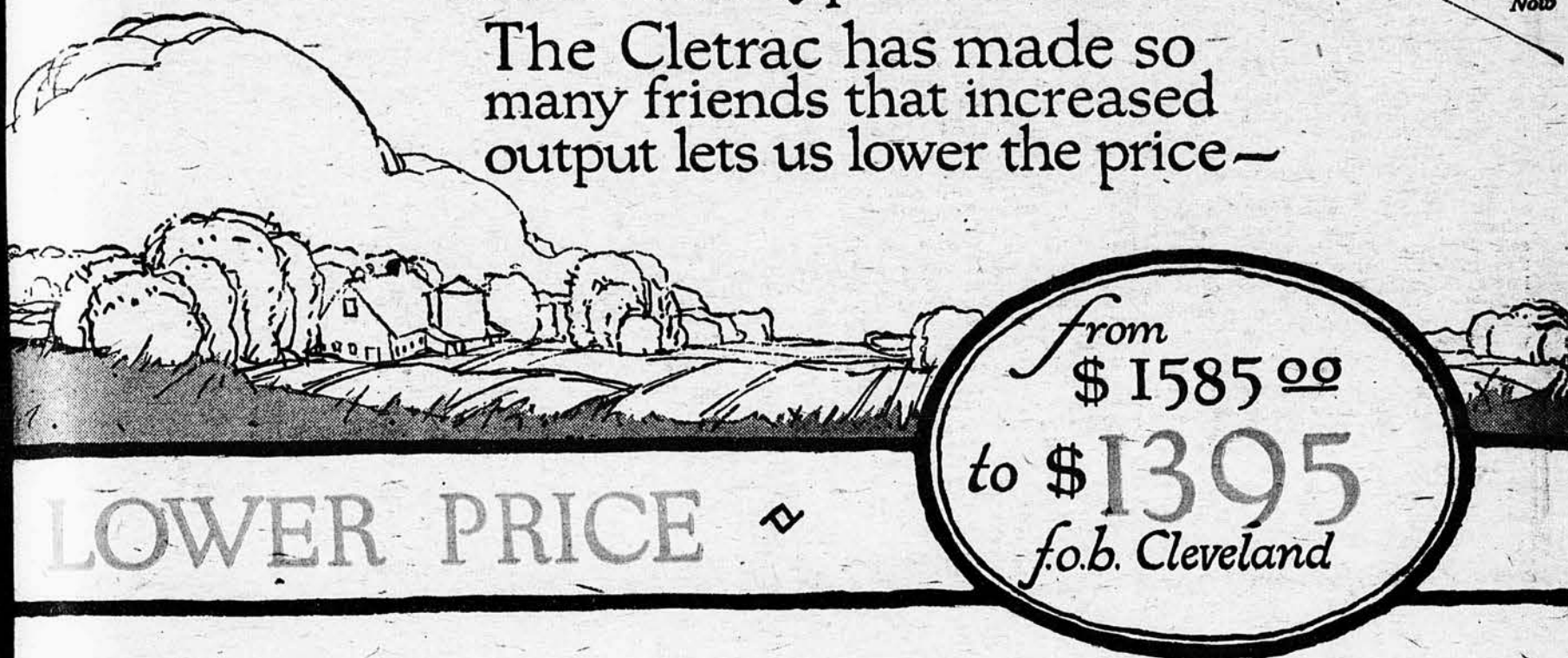
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TANK-TYPE
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With the Homemakers

Stella Gertrude Nash
— EDITOR —

Carefully Selected Curtains and Draperies Transform a House into a Home

THERE is no method so effective for dressing up a room as artistic window draperies. Beauty, moreover, may be achieved by good taste and careful buying, rather than by spending large sums of money. Brides and even old housekeepers whom experience should have taught better, often put a goodly amount of money into lace curtains without getting any adequate return in the beauty of the room where they hang.

First of all, I would advise that window draperies be one of the last selections made in choosing a room's furnishings. You will be much more likely to make a desirable selection after you have had a little time at least to study your furniture, rug and wallpaper.

Consider Outside of House

The house should be considered from outside, for the window draperies make considerable difference in its attractiveness to passersby. For instance, an old-fashioned mansion, with a fine front calls for curtains of some pretension to richness. To hang plain curtains of scrim or worse yet, dotted muslin, all across such a front is to give the house an appearance of being draped in sheets. But it is in equally bad taste to put costly lace draperies in the parlor of a simple little bungalow, or at pantry and kitchen windows where I have known women to use the good parts left from expensive lace draperies.

Window shades should be alike all over the house and either match it or harmonize in color. Red brick houses look best fitted with shades of tan or white. Houses are of so many materials and colors that it would repay young people about to furnish a house to notice the window shades used in houses similar in color to their own and then choose the ones they like best.

Many times the material in the glass curtains is the same all over the house. There is a decided economy in this method for the material may usually be bought at a reduction in large quantities. Marquisette or scrim are excellent materials for these curtains. They are easily hemstitched and require no starch, which greatly simplifies doing them up. Curtains of muslin, either plain or dotted, also are pretty and half their charm consists of starched freshness. Net, Russian crash, voile, tarlatan and madras are other materials much in favor for glass curtains.

Avoid too many or too heavy curtains in bedrooms even in winter. There is need in these rooms especially for an abundance of fresh air. Let those you do have be of easily washed materials, such as linen or cotton. Chintzes and imported cretonnes are expensive, sometimes costing \$5 a yard or even more. But the same patterns frequently are copied in the cheaper materials. A half width is usually sufficient for each side of a window. The beauty of most high windows is increased by a valance. Make this of lengthwise strips of the material sewed together as for a dress ruffle, allowing in length for a heading and a 4-inch hem, and in width about a third of the width of the window extra for fulness.

The Hall Curtains Next

Hall curtains often present quite a problem to the inexperienced housekeeper. The hall is not a good place for economy as almost every one who enters your home stands in front of the door curtain with several moments leisure to inspect its quality and condition. If the panels are of irregular shape and size, it will be necessary to use material that may be gathered at the top and bottom in order to have the curtains match. Figured marquisette, net, sunfast material or figured madras are all pretty and appropriate and may be selected in accordance with the interior furnishings of the hall.

In making curtains of wash material be sure to allow 2 inches at least for shrinkage. The glass curtain should come to the bottom of the window casing and the side draperies be 4 or 5 inches longer, altho decorators differ in this verdict and some prefer having both end with the window casing.

Get Guaranteed Colors

Few houses are pretentious enough for velvet draperies. For the ordinary living room, rep, chintz, terrycloth, cretonne or sunfast materials make better side curtains. As such draperies are in the class of permanent furnishings, I would advise the bride to wait until she can get those which are really good, of artistic design, and guaranteed fast colors.

Most of the large city stores will send a decorator to your home without extra charge to advise you in your selection of draperies and curtains. If you are not within reach of such service, study the matter of harmony and color for yourself. If the wallpaper of your room is figured, select plain window draperies. If the paper is

foot wide at 75 cents a strip up. These curtains hang flat against the glass, so measure your window's width, and the clerk will cut off the number of strips that you require. The plain filet net costs about 65 cents a yard. Lace curtains of fair quality cost about \$10 a pair and from that up to prices far beyond the reach of an average purse. Zira cloth is really marquisette printed in colors. It costs 45 cents a yard and may be used against the glass or as light over-drapery in bedrooms. Silkoline costs from 14 to 25 cents a yard and is sometimes used in the same way. Curtain Swiss comes at from 19 to 30 cents a yard.

Over-draperies are more expensive and are luxuries, not necessities. Sunfast materials cost from 90 cents to \$1.50 a yard. They may be used in some rooms without separate glass curtains. Cretonnes are priced commonly from 39 cents to \$1.50. Other cretonnes, chintzes and printed linens are as costly as they are beautiful.

Terry cloth has the rough weave of Turkish toweling. Being double faced, it is particularly good for front win-

drawn themselves from the society of their neighbors and are living lonely and secluded lives as the result of uncharitable remarks passed heedlessly from one to another. Let us be kind.

Try a sour cream dressing on lettuce. It is very appetizing and easily prepared. Wash and drain the lettuce, put it into a mixing bowl, add salt, pepper, a tablespoon of sugar and 4 tablespoons of vinegar to a pint of lettuce leaves. Mix by tossing with a fork. Add $\frac{1}{2}$ cup of rich sour cream and set in the ice box or a very cool place until ready to serve.

Squares of plain white terry with narrow edge crocheted in pink or blue fast color mercerized cotton make wash clothes for the bath room that have a dainty handmade appearance and require but little time to make.

Save cheese rinds for grating over macaroni or other scalloped dishes.

Good inside mittens may be made from the bottom cuffs of old union suits. Lay the pattern on the material upside down, so that the cuff of the underwear will be the cuff of the mitten. Cut around it, allowing for a seam. Then sew it up on the machine.

There is no better way to harden box-raised garden plants, previous to setting them out in the open ground, than to dig a pit deep enough to set the boxes in, so that the surface of the ground will be a little above the top of the plants. This protects the tender plants from the wind, at the same time allowing the sun and fresh air to complete the hardening process. When cold nights are expected, a covering of boards or straw and boards will serve as an additional protection.

For several years I have made a specialty of cabbage in my garden. For early cabbage I prefer the Charleston Wakefield, because it is not much later than the Jersey variety and it makes larger and more solid heads. One can raise quite a patch of cabbage with a small amount of hand labor by having the ground well prepared, then setting the plants corn-row width and using the cultivator to keep the middles clean.

Commercial chick feed is a boon to the busy housewife who has not the time or materials to give a balanced ration to her incubator chicks. It costs more than the feeds at hand, but since it need be given only a few weeks, the extra cost does not compare with the saving in time and increased growth of the chicks. Very often a scratch feed of just the right size is difficult to find on the ordinary farm.

Mrs. Clara Smith.

Chase Co., Kansas.

An Inexpensive Fruit Cake

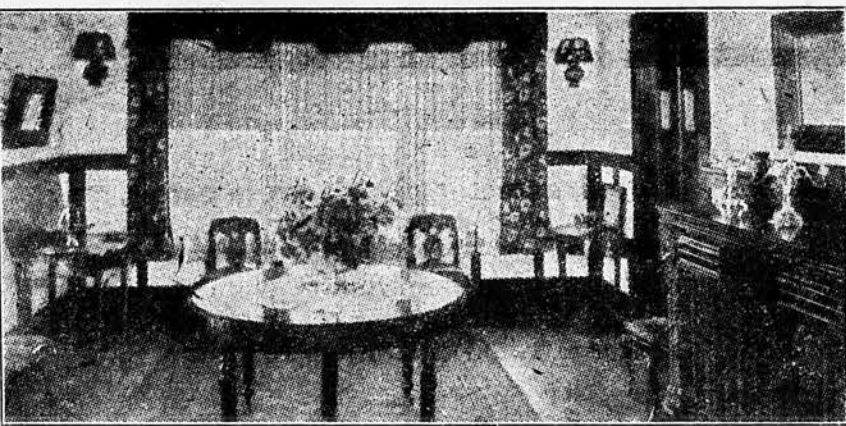
Cream $\frac{1}{2}$ pound of butter with $\frac{1}{2}$ pound of sugar, and add $\frac{1}{2}$ cup of milk or fruit juice. Separate the yolks and whites of 3 eggs, and beat the yolks until lemon colored, and the whites until stiff and dry. Add the yolks to the first mixture. Chop 1 pound of dates and figs, and $\frac{1}{2}$ pound of raisins. Cut $\frac{1}{2}$ pound of citron, and blanch and shred 1-6 pound of almonds. Sift together $\frac{1}{2}$ pound of flour, $\frac{1}{2}$ teaspoon of mace, $\frac{1}{2}$ teaspoon of cinnamon and $\frac{1}{2}$ teaspoon of soda, and thoroughly mix with the fruit and nuts. Stir this mixture into the batter and fold in the beaten whites of the eggs. Put into a deep, buttered pan, cover with oiled paper or a lid and steam slowly 3 or 4 hours, or bake slowly 2 hours. This makes a 3-pound cake.

Mrs. Ford Robinette.

Shawnee Co., Kansas.

Renewing Clothes With Dyes

With clothing prices so high many persons are getting out their old clothes, dyeing or cleaning them and then making them into new garments.



SOMEONE has wisely said "The windows make a house," for nothing affects the appearance of a house or a room, as do the windows. From the outside, well decorated windows make the whole house look well-balanced, artistic. If poorly decorated, the windows are ugly spots that spoil the house. On the inside, the windows can make a room beautiful or they can make it bare and unhomelike. The above illustration shows an ideal curtain arrangement for a group of windows in a dining room. The thin glass curtains with the figured side drapes and the plain valance make the room doubly attractive.

—Stella G. Nash.

plain, the draperies should be of figured materials. Also remember the rule that plain side curtains should be used with plain glass drapery and that if the glass curtains are figured, the side draperies should be figured also.

As to colors: If your wallpaper is golden you may use for draperies, plain sage green of figured material in dull brown, green and rose color. If it is light tan, select curtains of plain golden yellow, sage green, or figured material in dull brown, rose and green. Gray walls will harmonize with plain plum color, gray-green, fawn color, dull green, old blue or browns. A plain gray, which is always a good selection in wallpaper for a warm bright room, may have draperies in cretonne with tints of old blue, dull rose and black, or curtains of plain-rose color, or plain or striped old blue or plain plum color, golden yellow or sage green. With putty colored paper choose draperies in golden yellow, rose color, old blue or sage green.

Prices of Materials

Materials for glass curtains are priced about as follows: Curtain voile costs 25 cents and scrim from 11 to 65 cents. Madras sells for from \$1 to a \$1.25 a yard. This is a very beautiful material and comes in both colors and white. It is effective in many rooms without over-draperies. Filet net curtains, at present very fashionable, cost from \$6 to \$8 a pair. This material also comes joined in strips a

yards where the back of figured cretonne may look ugly if it shows, from the outside. This beautiful figured material comes in rich dark colors and costs \$1.50 a yard. It is said to wash without shrinkage or fading if carefully done.

Georgene H. Wilder.

Girls Urged to Make Dresses

In a letter to Lorraine Wooster, State Superintendent of Public Instruction, Ed T. Hackney, Fair Price Commissioner, urges the starting of a campaign that will lead the girls of every high school class in the state to make their own graduation dresses, and to make them simple. Thousands of young women will receive high school diplomas in a few months, and the cost of the commencement outfit is greater than ever this year. To some parents it will mean little, but to many it will mean denial of many things necessary for the comfort of the family. If the girls would make their own dresses, it would not only save many deserving parents the money they can so ill afford to spare, but would cause some girls to graduate hereafter who have been compelled to drop out because of this expense. The democracy of the school, too, would be improved by such a practice.

From An Old Farm in the Hills

How many time we utter an unkind word, not realizing how far it may reach. There are those who have with-

February 14, 1920.

Thus the art of dyeing is being revived in the home and good results are obtained where directions are followed carefully.

There was a time when silk required one kind or package of dye, cotton another and woolen, another. Now dyes are prepared so that the same package will dye any kind of material. All goods to be dyed must be thoroly clean of a uniform shade is desired. Stains of any kind should be removed. For this there is a government bulletin giving definite directions. Many woolen garments may be dry cleaned. For this the best results are attained by mixing dry cleaning material with warm gasoline. Rubbing briskly with a cloth dipped in the mixture is usually sufficient to dislodge the dirt or mark and rinsing with clear gasoline removes it. Great care is needed in using this mixture to keep away from fires. The gasoline may be made warm by setting the container in a basin containing a very little hot water. The warm gasoline is much more effective than cold and the dry cleaning mixture added to the gasoline is like soap added to water. Most cottons may be washed with soap and water, rinsed and placed in the dyeing bath. If one wishes to color a fabric a very different color from its present shade it may be necessary to strip or bleach it.

Stripping materials preparatory to dyeing them consists in boiling them in



They're as Good as New Now.

strong soap suds or some washing compound such as sal soda and rinsing until all the color is removed. This may require several boilings and rinsing and in the case of woolen fabrics is not often advisable as it makes the goods very tender. For most colors, one attains the best results by using a dye of the same color as that of the material only a different shade. Printed cottons, however, might be very undesirable color combinations if the colored print were not removed.

Should mere boiling and rinsing fail to remove color one may resort to bleaching. This is rather difficult to manage in the home but may be done by using plenty of water. To bleach cotton, linen and all vegetable fibers, first boil the goods to be bleached 1 hour in any good washing powder. This boil should be made slightly stronger than for ordinary washing purposes. After boiling rinse out thoroly and soak the goods from 1 to 2 hours in warm water to which has been added 1/2 to 1 ounce of chloride of lime for each gallon of water used. Remove the material and spread it on the grass 4 to 24 hours. Wash thoroly to remove the lime after taking from the grass. For wool and silk, wash thoroly, rinse well and hang on wooden pegs in a tight box or closet while damp; expose to the fumes of burning sulfur candles from 4 to 6 hours.

All goods to be dyed should be clean and damp when placed in the dye bath. It should be carefully weighed while dry and the proportions given in the directions on the dye package carefully followed. The dye material should be thoroly dissolved before any goods is entered as any undissolved particles will cause spots. It is well to remember that all colors look much darker while damp. The cooler the water when the goods are placed in the dye the better the coloring matter will be taken up by the fibers of the cloth. Much of the success in dyeing a garment depends upon keeping it stirring, up and down in the bath, some parts changed from top to bottom and vice versa. The appearance of the dyed garment will depend much upon a thorough crossing while still damp from dyeing. A cloth laid over the material and clamped in the center with a sponge, if needed, is a good way to press heavy garments.

It is well to study colors before applying one color to a garment of radically different shade. Blue over yellow, for example, would produce green. Red over yellow would produce scarlet, and red over green would produce brown. Mrs. Dora L. Thompson. Jefferson Co., Kansas.

Farm Home News

"When the hens begin to lay" is the refrain one neighbor says—she sings when the young people name the many things they'd like to have this spring. She has 100 very nice looking Plymouth Rock hens but they have shirked the laying business all thru January. The owner has not urged them very much as she prefers healthy chicks rather than many eggs. We think the reason our limited number of Reds have done so well is that they have had only milk to drink. If we were planning a regular poultry farm, we'd plan that half the effort should go toward dairy cows and their feed. The two lines of production are closely associated.

There are many who think that the hen is a close rival to the cow as a profit maker and some place her ahead of bossy. H. H. Johnson, the incubator man, has done some pencil work that shows the hens' returns in a few startling comparisons. It might be well for the average farmer who doubts his wife's need for more chicken equipment to think about such comparisons. Mr. Johnson says: "I find that nine hens, at present prices of eggs, laying 120 eggs a year will bring in as much money as a 40-bushel load of corn. It takes fairly good corn in Kansas and Nebraska to average 40 bushels an acre. The price of land ranges from \$125 to \$200. If nine hens valued at possibly \$18 can bring in as much money as \$125 worth of land, are not the hens the best investment?"

"Another way of figuring—alfalfa is a good crop in these Western states. We find that 4 1/2 hens will produce as much money as a ton of clover or alfalfa hay will bring. Figuring on the basis of present prices it is surprising what profits poultry will show."

If we were to find any fault with Mr. Johnson's figures—from the farm woman's standpoint—it would be that the average farm hen does not produce more than 60 eggs a year, we are told. For this poor record, we owners of chickens are to blame. There has been much written and said against the keeping of "boarder" cows. There should be more argument used to make us all see the folly of keeping an uncultured flock of chickens or one culled in a haphazard fashion.

We do not always make the best of what we have in many ways. We read the other day of the sale of 50 white roosters that averaged 6 pounds each and brought 2 cents a pound more than darker breeds would have brought. If the 50 cockerels had been caponized when 6 weeks old, they would have weighed at least 3 pounds more on the average and each pound would have brought 35 cents instead of the 21 cents received. May we not correctly say that as capons then they would have brought \$157.50 instead of \$63 or if sold at the same weight—an unusually light one—\$105 instead of \$63? Payment for the expense of caponizing would not have been more than \$5 or \$6.

I read recently that the United States is 100 million hens short of the usual number. This fact would indicate that many may be raised this year without danger of flooding the market or receiving a poor return for chickens and eggs. To do the least work and secure the biggest returns, we think an incubator is a great help. The early hatched chicks, in these states where June heat is intensive, do much the best. The incubator solves the problem of getting the chicks early and of uniform size.

We have had many inquiries from prospective buyers of incubators as to the best kind to get or as to the wisdom of buying a certain kind. Our experience has all been with one large incubator of expensive make—so costly that we cannot well recommend it for general use. In order to make a comparison that will enable us to answer inquiries more definitely, we are planning to use different machines.

Mrs. Dora L. Thompson. Jefferson Co., Kansas.

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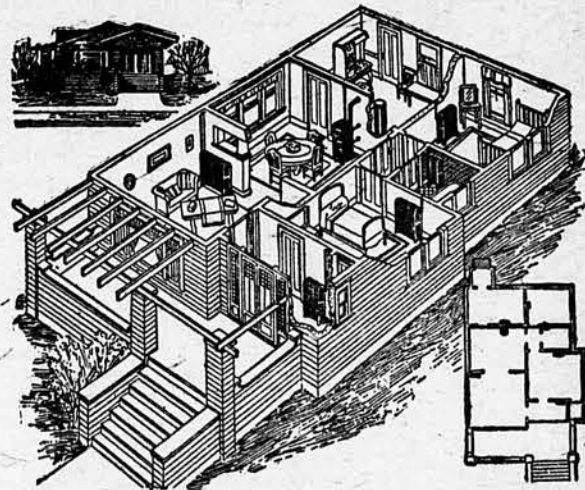
A farm house during these severe winters is only half-a-home indeed, unless it is comforted cheerily throughout with an IDEAL-Radiator Heating Outfit. Warms every nook and corner, keeps floors and halls free from chills and drafts. In fact, makes the whole house inside like summer time. The IDEAL-Arcola Radiator-Boiler does it.

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Cabinets Save Many Steps

A Handy Work Bench Makes Kitchen Duties Easier

BY MRS. IDA MIGLIARIO



THE old saying, "Every workman needs his work bench," certainly fits the case of the homemaker. If she has a work bench well arranged and equipped with all the utensils and supplies needed for preparing meals, the work is done much easier and with a big saving of time. The modern kitchen cabinet fulfils these qualifications in every detail and those

who use it think of it as a labor saver.

When trying to decide whether or not to invest in a kitchen cabinet the first thing the average housewife thinks of is durability and whether or not the cabinet can be easily and thoroughly cleaned. There are types of cabinets made of electrically welded steel which are most certainly very durable and with them there is no trouble with glue drying, or screws loosening. There is also no chance for moisture to be absorbed and consequently no danger of the absorption of odors.

There is naturally some difference in the price of these steel cabinets and those of wood and many times in these days of high cost of living housewives must buy the labor saver that will not put too much of a burden on their pocketbooks. The cabinet work in the average kitchen cabinet is most substantial; it is very strong and made with well reinforced and mortised corners. And so it is not difficult for one to find a well-made cabinet that will be suitable in price.

Some cabinets are easier to clean than others. Every homemaker who has had the responsibility of cleaning the house, the pantry, and so on, knows how difficult it is to clean square corners. Square corners in kitchen cabinets are exceptionally difficult to clean and so the cabinets which have inside rounded corners assure cleanliness with a minimum amount of work.

Another point that often causes the homemaker to hesitate in deciding to invest in a kitchen cabinet is whether or not it is possible to remove the drawers and bins so they may be frequently scalded and placed out in the sunshine and air. Most cabinets on the market of today are so made and, with the general smooth finish both inside and out, they are not in the least difficult to keep sanitary.

Every inch of space in these modern kitchen work benches is utilized. Racks on the inside of the doors provide a place to keep any and all sizes of utensil lids, as well as pastry and cake tins. The ever needed order blanks and pencil, the always useful time table, and the cloth holder for use in handling hot utensils have their place on the inside of the doors. There are shelves in the upper part of the cupboard where such china as is most needed in the kitchen may be kept. Homemakers so many times find it necessary to keep vegetable dishes, platters and so on in the dining room and when it comes time to serve it means a trip to the china cupboard or buffet. There are types of cabinets which save these steps by having a shelf on which these things may be kept. Then the neat array of spice jars held out of the way of the worker by a small shelf or a rack placed just a few inches above the ledge gives ample space for taller jars of ingredients to stand underneath them. The automatic sugar bin which is moist-proof and easily operated is another advantage, as well as the flour bin which is usually fitted with a sifter.

The fact that the ledge on which one works can be pushed back when not in use conserves space in the small kitchens and at the same time when it is pulled out it gives a table of convenient width for work. These ledges are so made that a food grinder can be securely fastened on them. Below the working ledge one finds drawers for the accommodation of knives, forks, spoons, egg beaters and in fact any of the cutlery needed in kitchen work. There is also a drawer in which may be kept dish towels, dish-

cloths and hand towels.

The pastry compartment is a much appreciated part of the cabinet for it is sometimes a puzzle to know what to do with cakes and pastries to keep them fresh for any length of time. At the left of the pastry compartment one finds two good-sized shelves on which may be kept large utensils, and just above these and under the cutlery drawer a bread board is neatly tucked away.

Certainly these cabinets save many miles of steps for the homemakers who are fortunate enough to own one, for with everything needed right at hand and a kitchen stool of suitable height for the worker, the housewife need take only the minimum number of steps when preparing her meals.

For the Home Dressmaker

9551—Ladies' and Misses' Corset Cover—This practical well-fitting corset cover can easily be made at home. The neckline is perforated for several outlines and the length may be to the waist or hip. Sizes 34, 36, 38, 40, 42 and 44 inches bust measure.

9568—Ladies' Two-Piece Skirt. The lower edges of the narrow panels are turned up to form pockets. The skirt fits smoothly across the front but is gathered at the back. Sizes 26, 28, 30 and 32 inches waist measure.

9558—Ladies' and Misses' dress. A blouse of georgette tops the draped



skirt of heavier material, emphasizing the fashionable long waistline and short sleeves. Sizes 16, 18 years and 36, 38, 40 and 42 inches bust measure.

These patterns may be ordered from the Pattern Department of the Kansas Farmer and Mail and Breeze, Topeka, Kan. Price 12 cents each. Give size and number of pattern.

Why Rice is a Cheap Food

One ounce of uncooked rice gives the same nourishment as 4 ounces of uncooked potatoes, altho both have the same bulk when cooked. So if potatoes and rice were the same price a pound, potatoes would be four times more expensive than rice.

Mrs. Ford Robinette.
Shawnee Co., Kansas.

Doctor—Did you open both windows in your sleeping room last night as I ordered?

Patient—No, doctor, not exactly. There's only one window in my room, but I opened it twice.—Boys' Life.

Women's Service Corner

When you have a perplexing problem you cannot solve, send it to the Women's Service Editor, Kansas Farmer and Mail and Breeze, Topeka, Kan.

Recipe for Apple Mince Meat

I am eager to get a recipe for mince meat without meat, but with apples, raisins and so forth.—Mrs. A. T. N., Kansas.

Chop very fine $\frac{3}{4}$ pound of beef suet from the kidney, and sprinkle with 2 teaspoons of salt. Pare, core and chop 2 pounds of sour apples, and mix with 1 pound each of chopped raisins and cleaned currants. Mix these with the suet. Sift together 2 pounds of sugar, 1 teaspoon each of powdered cloves and grated nutmeg, and 1 tablespoon each of powdered cinnamon and allspice. Mix these with the suet and fruit; add the juice and grated rind of 1 lemon, and a cup of sweet cider. Candied orange peel or chopped citron may be added, about 4 ounces of either, or of the two mixed.

A Book on Toasts

Can you suggest some toasts for dinner occasions?—Mrs. J. S. S., Kansas.

It would be difficult to suggest suitable toasts for dinners in general since much of the enjoyment of good toasts comes from clever local allusions. Local practices and happenings, covert and complimentary allusions to the guest of honor, or to the business or profession of other prominent guests, will be in order. I suggest that you send to the H. W. Wilson Co., West Plains, N. Y., for a book published by them called "The Toaster's Handbook," by Peggy Edmond and Harold Workman Williams. This book deals with the subject very effectively.

Pineapple Filling for Cake

Can you give me a recipe for pineapple filling for a layer cake?—Homemaker, Wichita, Kan.

The canned, shredded pineapple, drained from the sirup, and spread between the layers, makes a very good filling. The sirup may be used as a basis for the frosting.

Or the shredded pineapple, sirup and all may be thickened with beaten egg, 1 egg to a cup of pineapple, cooked together like soft custard.

Or 2 tablespoons of butter may be added together with 2 tablespoons of flour, and cooked with 1 cup of shredded canned pineapple until thick enough to spread in a good, deep layer.

In every case a little sugar may be added, if desired. The sliced canned pineapple should be chopped fine; and fresh pineapple should be grated when you wish to use it for cake filling.

To Sugar Cure Meat

Will you please tell me how to sugar cure meat?—P. Brown Co., Kansas.

Many different formulas may be used for curing pork by the brine method, but this recipe, if followed closely, will give very good results: For each 100 pounds of meat use 10 pounds of salt, $2\frac{1}{2}$ pounds of sugar or sirup, 2 ounces of saltpeter and 5 gallons of water. In warm weather 9 or 10 pounds of salt are preferable. Allow four days' cure for each pound in a ham or shoulder and three days for loins and small pieces. For example, a 15-pound ham will take 60 days; a piece of bacon weighing 10 pounds, 30 days.

The brine should be made the day before it is used, so that it will be cool. All the ingredients are poured into the water and boiled until thoroughly mixed. Place the ham on the bottom of the container, shoulders next, bacon sides and smaller cuts on top. Pour in the brine, and be sure it covers the meat thoroughly. In five days pour off the brine and change the meat, placing the top meat on the bottom and the bottom meat on top, then pour back the brine. Repeat this operation again on the tenth and eighteenth days. If the pickle becomes rosy, take out all the meat and wash it and the container off thoroughly. Boil the rosy pickle, or brine, make new pickle. When each piece of meat has received the proper cure, take it out of the pickle and wash in lukewarm water, string and hang in the smokehouse. The temperature of the smokehouse should not exceed 125 degrees F. Smoke the meat until it has a good chestnut color.

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Player-Piano



Sing These Old Time Songs Again

Everybody in the family will enjoy these songs. They bring back old memories to all. Here are a few out of a big list in our new book. Just mail the coupon below for this book, free.

Just a Song at Twilight
Comin' Thro' the Rye
Juanita
Old Oaken Bucket
Silver Threads Among the Gold
In the Gloaming



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Good Times With Your Gulbransen

Our new book containing more than 50 pages tells of the fun you can have with the Gulbransen Player-Piano.

Every kind of song you ever heard of, even songs in foreign languages, are listed. The best dance music of all kinds and ages is interestingly described.

Send us the coupon below with your name and address and get a free copy of this new book.

Gulbransen "Pedal-Touch"

GULBRANSEN "pedal-touch" is satisfyingly different from that of the ordinary player-piano. You will notice it before you have made a dozen pedal strokes. The Gulbransen pedals feel firm yet move easily. You do not have to push hard or pedal fast.

The "pedal-touch" of a player-piano is important—as important as "key-touch" to a hand pianist. Because, to the player-pianist, the pedals are the "keys" through which he produces expression.

If the "pedal-touch" is *stiff* it resists too much; it forces you to push hard. The reverse—a *mushy* "pedal-touch"—resists too little; the pedals die away under your feet. You are forced to pedal fast just to keep the instrument playing.

So, either *stiff* or *mushy* "pedal-touch" will make you work hard—take the fun

out of playing—and give you little opportunity for expression. That is why much player music sounds mechanical.

Gulbransen "pedal-touch" is easy, responsive, natural—well, just exquisite! You pedal as the music requires—gently or firmly—always leisurely, always relaxed, enjoying the music.

That is why Gulbransen owners play so well—with so much expression. They have the instrument which permits it—invites it. And the rich, full, resonant tone of the Gulbransen helps give spirit to the music.

You would enjoy a Gulbransen. You could play it well. Just try one at our dealer's store. You can locate him by the "Baby at the Pedals"—actually playing the Gulbransen—in his window. And send coupon below for our free book "Good Times With Your Gulbransen." Tells all about the music available and the fun you can have.



To Gulbransen Owners

The right way to treat a fine player-piano is to have it tuned, regulated and the tubes cleaned out every six months, at least.

Are you keeping your fine instrument fine?

Gulbransen-Dickinson Co., 808 No. Sawyer Ave., Chicago

Nationally Priced

Three models, all playable, by hand or by roll, sold at the same prices to everybody, everywhere in the U.S., freight and war tax paid. Price branded in the back of each instrument at the factory.

White House Model, \$725 Country Seat Model, \$625, Suburban Model, \$550

FREE BOOK COUPON
Write your name and address in the margin below and mail this coupon to Gulbransen-Dickinson Co., 808 N. Sawyer Ave., Chicago, for a free copy of the new book, "Good Times With Your Gulbransen."

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"Diamond Dyes" Make Old, Shabby, Faded Apparel Just Like New.

Don't worry about perfect results. Use "Diamond Dyes," guaranteed to give a new, rich, fadeless color to any fabric, whether wool, silk, linen, cotton or mixed goods,—dresses, blouses, stockings, skirts, children's coats, draperies,—everything!

A Direction Book is in package. To match any material, have dealer show you "Diamond Dye" Color Card.



\$500.00 IN GOLD GIVEN How Many Stars in the Circle

How many stars in this circle? Count them. It is not hard either—just takes a little ingenuity and skill. The puzzle looks easy and so simple. Try it. Everyone who sends in their answer to this puzzle will be rewarded. As soon as you send in your solution to this puzzle we will send you a

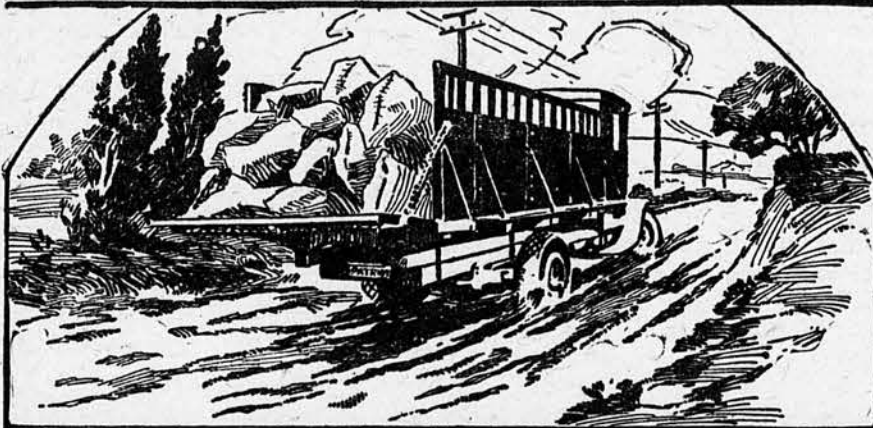
Beautiful Picture FREE

We are going to give each one who answers this puzzle a beautiful colored picture, 12x16 ins. in size. We are the largest magazine publishers in the west, and are conducting this big, "EVERY CLUB MEMBER REWARDED" Star Puzzle Contest, in which everyone sending in their solution receives a prize. Everyone joining the club will have an opportunity to share in the \$500.00 in gold.

REMEMBER All you have to do to join the club is, send in your answer to the puzzle, and we will immediately send you five beautiful pictures. Pick out the one you want to keep and distribute the other four on our fast-selling 25 cent offer. You will then be an honorable member of the Star Puzzle Club, and receive as a reward a gold-filled, five-year guaranteed Signet Ring FREE and POSTPAID. Many do it in an hour's time. Count the stars and send in your answer TODAY. A postcard will do. Don't miss this wonderful opportunity. We have a picture for you.

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On paved highways, no truck gives more satisfactory and economical service than the Patriot.

But if you want to see this unusual truck really perform—get right down and pull—send it charging through hub-deep mud, up slippery hills, through clogging sand, over newly plowed ground.

You will be astonished at the willing ease with which the Patriot answers unreasonable demands.

Built for the Farmer

Patriot Trucks were designed to stand up and deliver under the unusually difficult conditions that prevail on the farm. We expect the owner to use his Patriot every working day of the year, fine weather or foul, good roads or bad.

Patriots are easy to run and keep running. Few adjustments are necessary, little attention required.

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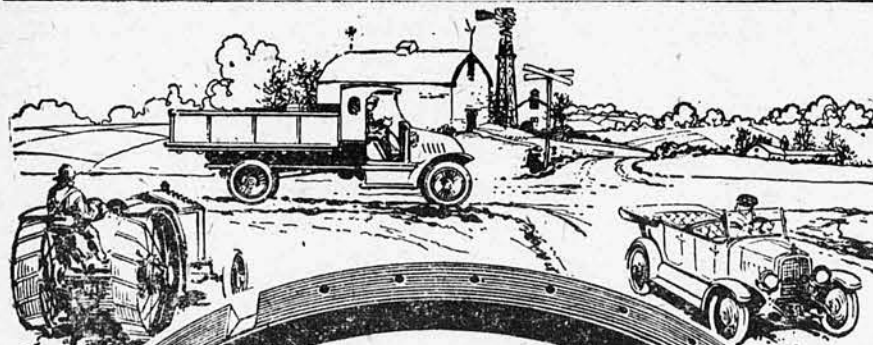
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place an impassable barrier between the firing chamber and the crank case of a gasoline engine.

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SPLITDORF ELECTRICAL CO.
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MARK

Health in the Family

BY DR. CHARLES H. LERRIGO



IN EVERY issue of this paper our readers are invited to avail themselves of the services of Dr. Lerrigo thru the columns of his department. No charge is made for this, but when a personal answer is desired postage should be enclosed for reply to each inquiry.

Those "Interstitial Glands"

Can you give me any authentic information as to the planting of the gland of a goat into a human and what effect it has on the person. Is it used in certain diseases, or will it invigorate and strengthen the whole body? There is so much now in the papers and I would like to know what your opinion is on the use of such operations or is it only newspaper talk? E. F.

Some experiments have been made with gland implantation but no promising results have thus far been obtained. The matter is in an experimental stage with the chances against it.

Newspaper stories make the matter seem very simple. You take a gland from an animal and implant it in a man and there you have the whole secret. But physiologists know that it is very difficult to get transplanted tissue to live at all. If it does live there is then the question whether the gland will function properly under its new source of nutrition; and the chances are that if the new owner of the gland has been unable to nourish the glands he had before, he will do no better with those transplanted. The only logical subject for experiment would be a young, healthy man or woman whose glands had been destroyed by accidental means or removed for surgical reasons.

The mere fact that a thing has not been done before is not an argument against its possibility. I have little patience with any person who imagines that old men can be restored to youth by any kind of sorcery or surgery. But there are young men, wounded veterans of the late war, and young women who have been subjected to surgical operations, for whom such a thing as relief by implantation of animal tissue might well be considered.

For the sake of such I hope that the experiments will prove successful, but I have seen no positive evidence yet.

Infantile Paralysis

I am a single person 34 years old; weigh 145 pounds and am 5 feet 2 inches tall. I had infantile paralysis when about 4 or 5 years old, but have outgrown it quite a bit so that I am able to do the house work for four or five grown people. I am a hard worker, also a hearty eater. For the last few years I have been bothered with weak spells. I can work all day but when I undertake to walk a little way sometimes I have these spells.

I wear heelless slippers at home and as low as I can get them for other occasions. I fell some years ago and sprained my left ankle very badly so I have two weak ankles.

Do you think these weak spells come, because I am so heavy? I have had a doctor for it but he could not tell what was the cause. He put me on a diet but it did no good even after I lost in flesh. Is there anything that could be done? Do you think I should put myself on a diet? I would be very glad to hear from you through the Kansas Farmer and Mail and Breeze.

C. M. S.

Your weight is not sufficiently out of the way to warrant any disturbance in the strength of your ankles. I think the weakness is a part of the old condition, which is quite possible even tho the affected leg was the right side.

I think there is no reason why it should get any worse. No doubt it is worse when you get tired and nervous, and better when you are well rested.

Galvanic electricity may be of some value. The chief thing that you can do at home is to rub the affected

muscles once daily with cool salt water followed by a brisk rub with a dry towel.

The better you keep up your general health the better you will be able to walk. You need to be well nourished and should not attempt to starve yourself.

Treatment for Acne

I am a girl nearly 16 years old and have had a breaking out on my face for about three years. At times it is much worse and then again it is scarcely noticeable. I have been to our local physician and have taken several kinds of medicine, but none seems to have helped me. I would like to know what your opinion is. M. L.

I think that your trouble is acne, a very common skin complaint with girls of your age. You will be helped by anything that improves your general health.

Get plenty of sleep. Exercise regularly in the open air. Get your bowels to act freely and regularly every day. Eat plenty of nourishing food, but do not indulge much in sweetstuffs nor allow excess in meats.

This trouble is not helped much by applications to the face. A cool bath every day with a brisk rubbing is the best skin tonic.

A Bad Cough

I would like very much to know how to stop a bad cough. In 1908 I had the measles and I took cold and it settled in my throat or bronchial tubes. Since then every bit of cold I get goes to them. It seems that none of the cough medicines will do any good. I cough so hard and don't seem to raise any phlegm. I take spells of coughing that make me almost choke and can scarcely breathe. I am very careful about wearing heavy underclothing and I try to take care of myself. Is there any cure for it? W. E.

Such a serious cough as yours demands serious treatment. It cannot be cured simply by taking a little medicine. You should take exactly the same treatment as if you had tuberculosis. That is, to say, you should live in the open air as much as possible, avoid inhaling dust and other irritants, take a great deal of rest, perhaps stay in bed until a fair improvement has been gained, eat plenty of nourishing food, drink milk, avoid overwork and all bad habits.

This is a severe prescription, but I think it will cure your cough and I doubt if anything less will. Once you succeed in allaying the irritation of the bronchial mucous membranes, you will have a chance to be well.

Probably Dropsy

I have been reading your answers in the Kansas Farmer and Mail and Breeze for some time and I am writing to ask you about my case. I have kidney trouble; also heart trouble and now my ankles and legs swell up to my knees thru the day, but all goes down at night. Also a bad cough. If you could advise what to do I would be very thankful. M. E. S.

You must move the dropsy away by increasing elimination thru bowels and kidneys. Restrict the amount of fluids that you drink, for a time. Eat small meals of nourishing food four or five times daily, and rest in bed. If not under a doctor's care you should be.

D. E. M.: A scar on the face made by a barb-wire cut can be very much improved by simple surgical methods. Possibly an expert, by the aid of a little skin grafting could relieve it so that it would scarcely be noticeable. In such a cut, if severe, the muscles are severed and the ends retract. The skin heals over but the lumpy ends of the muscles are very disfiguring. By uniting these severed ends of muscle the scar is greatly improved.

Wireless Valuable on a Farm

(Continued from Page 36.)

making a boy contented and help to keep him on the farm.

There are several reasons why we do not find more radio sets on farms. Farmers do not know that they are of any value. A little education along this line will bring about the use of more wireless sets among farm boys. The fact that most farmers are very conservative and that they would be reluctant to spend enough money to get a set is another important reason. I would have had a very hard time to secure enough money for a radio set when I was on the farm. Farm boys are seldom given as much money to spend as town boys. I believe, however, that the farmers and farm boys would find sufficient funds for a set if they knew more about wireless and wireless apparatus.

Advertisements Educate

Right along the last mentioned line is an opportunity for newspapers, magazines and radio companies to carry on an educational campaign that ought to prove profitable to all concerned, the farmer included. Companies that manufacture radio apparatus, and companies that publish books and magazines dealing with radio work should carry on an advertising campaign in the papers and magazines that the farmer and farm boy have access to. These advertisements should be educational in character, giving the value of radio sets to the farmers and explaining some of the simpler things concerning radio sets and their operation. The editors of farm magazines and papers can help to educate the farming public along these lines by carrying articles on wireless or even a series of lessons along this line in their publications.

There is another channel thru which the farm boy may be reached and interested in wireless. If catalogs of wireless goods and sample copies of such magazines as "Wireless Age," "Q. S. T.," and "Electrical Experimenter," are placed in district school libraries, the students will know more about wireless. School boards and teachers might be induced to buy books on wireless, or subscribe for some of the magazines I have mentioned. Any money invested in these will be well spent.

There is still another reason that may have kept some boys from using a wireless set, and that is, some source of electricity. Of course, no electricity is necessary for the simpler receiving sets, but there is need for electricity for a sending set, and for better types of receiving sets. Many farms are now supplied with farm lighting plants, and others have connections to commercial electric lines. Either of these sources may be used for radio work.

St. Valentine's Day

Valentine was a good priest who lived long ago in Rome. At that time Claudius was emperor of Rome. He was a heathen ruler and did not like the Christians. Valentine, being a wise and kind priest, tried to do what he could to help the Christian people.

One day the emperor sent for Valentine and told him that he must stop helping the Christians. Valentine refused to obey him. February 14 was the day set for his execution. On that day the good priest was beheaded on one of the roads to Rome.

Valentine was always kind to boys and girls and did much to make them better. On February 14 his name is remembered and we call the day St. Valentine's Day. On that day we send our little greetings of love to our friends. We should think then of the good St. Valentine did, and how he gave his life for others. C. B.

No Cars for Grain

There were 400 wagon loads of grain standing on the streets of Elkhart in Southwest Kansas recently awaiting their turn to be unloaded at the elevators. Milo, feterita and wheat had been hauled in from 40 to 65 miles. One truck load of wheat came 102 miles. Several thousand bushels of grain had been piled on the ground. On the day referred to there had been but one car at Elkhart in a week. Grain shippers estimated that more than a million bushels of grain in the Elkhart territory is yet to be delivered and shipped.



Perfection Increases Milk Flow

WHEN asked what feature in the Perfection Milker he considered most valuable, Mr. Charles M. Yarter, who is a well known dairyman in his State, said recently: "With the use of the Perfection we milk and strip fifty-four cows in eighty minutes, and yet I consider the greatest profit derived from using the Perfection is not so much in the time it saves as in the increased milk flow. We surely get much more milk with the machine than we could if we depended on hired help to do all the milking by hand, and we are getting a much better quality of milk too."

The Most Profitable Machine on the Farm

"I have gotten more benefit for each dollar put into my Perfection than from any other machine on my farm. We use the machine twice daily, Summer and Winter, while we only

use any of our other machines a few weeks during the year. The milker helps to make all our other machinery more valuable by giving us longer days to use it.

"I believe the Perfection Milking Machine is the simplest, easiest to keep clean, less liable to get out of order and draws the milk more naturally and with more comfort to the cows than any other milking machine or hand milker I know of."

Send For Names, Addresses and Catalog

Mr. Yarter is only one of thousands of satisfied Perfection owners. What the Perfection has done on his farm, it will do on yours. Write us and we'll gladly send you names and addresses of owners to whom you can write yourself. We'll also send a free copy of "What a Dairyman Wants to Know" the great book which answers every question about milking machines. Write today to Perfection Manufacturing Co., 2130 E. Hennepin Ave., Minneapolis, Minn.

Lieber's Farm Equipment Co.

Southwestern Distributer

Lincoln, Nebraska

216 North Eleventh Street

Why Milk by Hand?

PERFECTION MILKER

Don't Wear a Truss



BROOKS' Appliance, the modern scientific invention, the wonderful new discovery that relieves rupture will be sent on trial. No obnoxious springs or pads. Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Protected by U. S. patents. Catalogue and measure blanks mailed free. Send name and address today.

C. E. BROOKS, 341A State Street, Marshall, Mich

PAYS BIG DAIRY PROFITS

Cedar Rapids Speed Governor controls speed of all machinery like separator, churn, running mill, washing machine. Changes speed of any or all instantly while in motion. Fits for separators. Steady speed saves vibration and spillage. Insures closer straining. Costs very little. CEDAR RAPIDS FOUNDRY & MACHINE CO. Cedar Rapids, Iowa

Dept. 290

Smallest Bible on Earth

This Bible is about the size of a postage stamp and is said to bring good luck to the owner. Sent postpaid for only 10 cents in stamps or silver.

NOVELTY HOUSE, Dept. 10, Topeka, Kan.



More Milk and Easier Milking!

—Care of the Udder Insures It.

It is impossible to obtain a maximum milk-flow from an udder that is not entirely healthy both inside and out. The slightest hurt or congestion will interfere with the delicate milk-secreting process, and at once reduce the production of an otherwise healthy cow.

Bag Balm has the soothing, healing, and penetrating qualities needed to make the tissues and surface of the udder soft, smooth and pliable—easy to milk and encouraging production to the last ounce.

A little care pays big returns; keep Bag Balm on hand and insure against milk losses and disagreeable milking. Especially valuable in treating Caked Bag, Cow Pox, Chaps, Bunches, Wounds and any inflammation.

Sold by druggists, feed dealers and general stores, in liberal 60c packages. Be sure to obtain a package at the first opportunity. It's a little wonder-worker in any udder trouble. A great remedy at the calving period, when so many abnormal udder conditions arise.

DAIRY ASSOCIATION CO., Lyndonville, Vt.

BAG BALM

MADE BY THE ROW-KURE PEOPLE

Rock Island No. 35



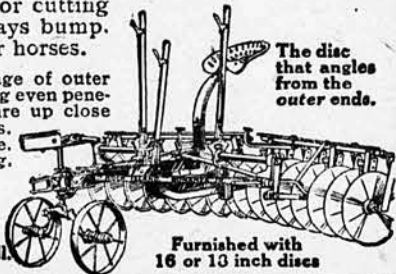
Constant Pressure—Even Penetration

MORE than 20 years of thorough discing shows the superiority of Bonanza construction. Gangs that angle from the outer ends. No chance of inner discs riding or cutting into each other. Bumpers always bump. No binding. No dead weight for horses.

Constant pressure is another advantage of outer angling. It is the only means of getting even penetration. Pressure lever applies pressure up close to gangs. Flexible spring steel scrapers. Hard maple bearings. Steel stub pole. Tandem attachment for double discing.

Rock Island Catalog illustrates full line of farm tools. Write for it.

ROCK ISLAND PLOW CO.
223 Second Avenue, Rock Island, Ill.
Established 1865



Furnished with 16 or 18 inch discs

Bonanza Disc

SAVAGE

The Side Partner You Can Trust— THE SAVAGE AUTOMATIC

It's small, light, unobtrusive. You don't notice it in the pocket or on the belt.

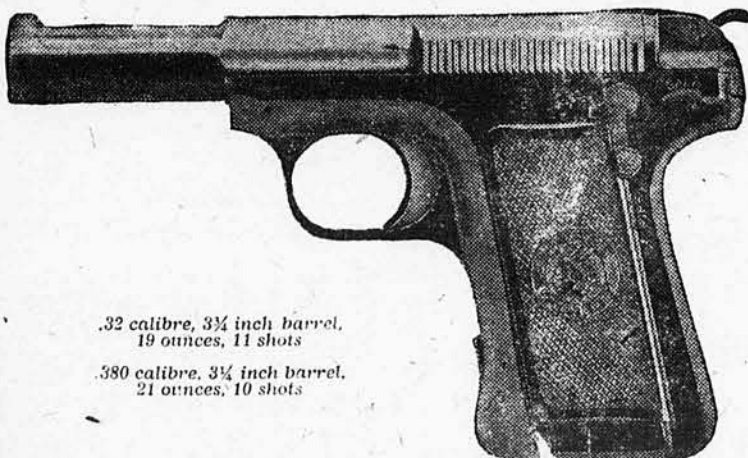
But when the diamond-back rattler buzzes or the copper-head squirms—when there's a bear in the trap or a bob-cat in the tree—when the rare chance of human violence threatens in the wilderness—or when the stinging wind on the North shore of Superior brings the blood-chilling yell of the man-hunting wolf-pack nearer and nearer—the little Savage proves the closest, truest friend.

Its barrel—length and locked breech gives more power and accuracy than other pistols of the calibre—its ten shots and one-hand reloading permit faster and more continuous fire—and the lines of its celebrated grip make you point it and shoot it straight in an emergency—as straight and as instinctively as you point your finger. Its monkey wrench simplicity makes it always ready and always sure-fire, because, like the best military pistols, you can cock and uncock it with your thumb.

Your dealer will show you—can supply you. For complete description, write us.

SAVAGE ARMS CORPORATION

Sharon, Pa. UTICA, N. Y. Detroit, Mich.
Executive and Export Offices: 51 Zurch Street, New York City



.32 calibre, 3 3/4 inch barrel,
19 ounces, 11 shots

.380 calibre, 3 3/4 inch barrel,
21 ounces, 10 shots

Housing for Dairy Cattle

Contentment is the Very Essence of Profits

BY J. B. FITCH

WITH THE increase in the number of cattle kept for dairy purposes in Kansas, has come the demand for better housing facilities for this class of stock. This demand has not come, however, until those who have dairy cattle have come to realize thru their own experience that a dairy cow requires more protection from the cold than animals kept for beef purposes. I have seen men pay high prices for good dairy animals and then limit their possibilities by poor housing and insufficient feed.

Dairy cattle respond very promptly to good care and the old saying that "Contentment is the essence of profits," is a good rule to follow in caring for dairy cattle. The work incident to keeping a dairy barn in a fit condition to produce human food is a tedious task unless some provision is made to reduce the task to a minimum. The use of cement floors, the overhead litter carrier, and running water in the barn, are warranted from the standpoint of convenience alone. In addition, it means a clean sweet smelling barn and a good quality of dairy products.

Clean Products Essential

Frequently, in discussing the production of clean milk, the impression is left with dairymen that elaborate and expensive equipment is necessary. This is far from the facts of the case. I have seen dairy barns which were the height of perfection in equipment, produce a very inferior product due to poor methods of handling. On the other hand, it is quite common to find poorly constructed barns producing a good quality of product when good methods are followed. The government score card for dairy barns gives 40 per cent to methods followed. The production of a good clean product is more a matter of good common sense than of expensive equipment. Cleanliness and cold are the important factors in the keeping quality of dairy products. Very few dairymen are forced out of business on account of poor equipment. Most of the trouble is caused by men who are ignorant of good methods or who do not follow instructions covering the production of milk.

A well arranged sanitary barn with cement floors and conveniences for cleaning the barn and feeding and watering the cows will cut the cost of production in saving labor and keeping the cows and help better contented.

The arrangement of the barn will vary with the ideas of the individual dairymen. By far the most common type of barn is the two story rectangular barn with two rows of stanchions, and with bull pens, calf pens and maternity stalls at one end. It is an open question whether the cows should head in or head out. Any person who has used one kind very much is in favor of the type he is most familiar with. I believe a greater proportion of the barns in the dairy districts are arranged with the cattle heading out. With this arrangement it permits of driving into the barn and loading the manure directly into the manure spreader. There is also less wall space exposed to the splashing of manure when heading out. With the cows heading out they face the sunlight and perhaps get more fresh air than if they were heading in. In a well ventilated barn this point would be eliminated.

With the cows heading out, there might be some time and steps saved at milking time. Some contend that the cows look better from behind than from in front. This of course is a matter of opinion.

There is obviously an advantage in feeding in favor of having the cows facing in. One trip down in front of the cows will suffice when heading in. If we save time in cleaning the barn when they head out, we save time in feeding when they head in. Since we feed at least twice daily and sometimes more often, the advantages from these two differences equalize. There is some advantage in having the rear of the cows exposed to the sunlight.

With a barn 36 feet in width, with the cows facing out, the width is distributed as follows: Feed alley 4 feet 8 inches; manger 2 feet 9 inches; standing platform 4 feet 8 inches; gutter 16 inches; and a driveway of 8 feet and 6 inches. With the cows facing in, a 6-foot walk behind the cows is used, with a 6-foot feed alley between the rows of stanchions.

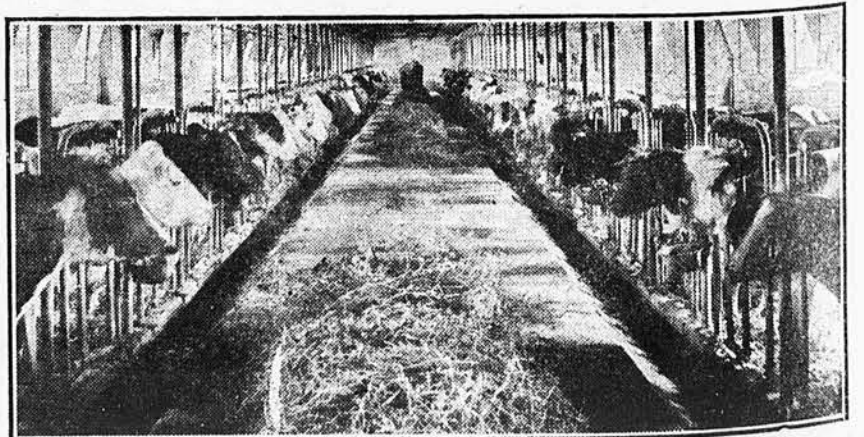
In keeping cows clean, it is essential that they be lined up so that their hind feet reach the edge of the gutter. In this way the droppings go into the gutter. When the cows are short the droppings fall on the standing platform and the cows lie down in the dirt. When the platform is too short the cows stand with their hind feet in the gutter. A standing platform 4 feet 6 inches in length is sufficient for small cows or for Jerseys and Guernseys; while Holsteins or Ayrshires will take a platform 5 feet in length, and the larger Holsteins will take 5 feet 4 inches or as much as 5 feet 6 inches. This length can be regulated by making the standing platform at one end of the barn wider than at the other end, and in this way the larger cows can be located on the widest platform. Some types of stanchions have alignment devices so that the short cows can be pushed back on the line of the gutter.

The gutter should be at least 16 inches wide and 10 inches deep. In many barns the walk behind the cows is 2 inches lower than the standing platform. This causes the cows to look larger and also shows them off to better advantage.

Keep the Cows Clean

The stalls should be 3 feet wide for the small breeds and 3 feet and 6 inches wide for the larger breeds of cattle. The manger should be from 2 feet to 2 feet 6 inches in width. It is preferable to have the walk in front of the cows a little higher than the standing platform, and the manger made with the bottom of the manger on the level with the standing platform. In this way, any feed thrown out of the manger into the feed way can be swept back into the manger.

A cement floor is not the most desirable material for cows to lie on. It is cold and damp and may cause udder trouble, but it is cheaply constructed and for that reason widely used. Covering the cement with boards in the region where the udders come in contact with the cement, is a wise precaution especially in cold climates. Cork, brick, and creosoted wood blocks are coming into more general use as a protection for the udder of cows. In finishing the cement floor of a dairy barn.



Plenty of Light and Ventilation Here—Concrete Floors and Troughs, Steel Stanchions, Carriers for Feed and Litter—All a Dairy Barn Should Have.

Dairy Farming at Lamar

BY C. STOCKER
Lamar, Colo.

THE Lamar community still has an abundance of feed. There are thousands of tons of alfalfa hay in the fields. Alfalfa hay at the present time is worth from \$18 to \$20 a ton, loose in the stack. Not only does this apply to this year, but every year there are many thousands of tons grown, making it possible always to get hay at the growers' cost. At the present time this same hay is selling for from \$36 to \$40 a ton in eastern parts of Illinois, Indiana and Ohio, and higher in sections farther East.

The upland or dry land is being settled rapidly and every year the dry land crops are increasing, and the local supply of corn, kafir, maize and wheat greatly exceeds the home consumption. The price of corn at present is \$2.50 a hundredweight for No. 1 corn. This is thru the dealer, and it can be bought for less if purchased direct. Good mill-run bran can be bought at the Two Buttes mill for \$1.75 a hundredweight.

Lamar is also a great beet growing community, producing thousands of tons of sugar annually. The feature in connection with the beet industry is the by-product for feed for dairy cows. Both the beet tops and wet pulp are used for feed. Each grower is sold back 48 per cent

of the pulp from the number of tons of beets sold to the company. The cost of beet pulp laid down at the station ranges from \$1.35 to \$2 a ton. This pulp when properly cared for can be fed to dairy cows thru the entire year. The large per cent of water it contains is beneficial to the ration for a dairy cow in that it aids in getting the proper proportion of water with the other feeds as well as the nutritive value it adds to the ration.

The beet industry in itself is going to be a very interesting vocation for the next few years, with the prospects for \$12 a ton for beets, and an average acre yield of about 12 tons makes a handsome return on land. The cow, however, is the forerunner to supply the soil with the proper fertility to insure the 15 to 20 ton an acre beet yield, and is a strong reason for staying with the cow.

The Helvetia Milk Condensing Company's plant, which is located at Lamar, has a capacity for 150,000 pounds of milk daily. At present the receipts are hardly one-third of that amount, and with the assurance of paying the same price for milk as in the eastern states it opens a great field for dairy men looking for a location.



Holstein Cows on the Farm of the American Beet Sugar Co. at Lamar Which Show the High Quality of the Animals in That Community.

it should be floated with a wood float rather than a steel float. The steel float will leave a very smooth finish which when wet will be very slippery. The wood float finish will leave a surface that will clean easily and still be safe for animals to walk upon.

Types of Ties

The type of tie used can be made to suit the taste and pocketbook of the individual. Home-made wood ties can be used but it will generally pay to get a steel tie that can be hung on either a 2 by 4 or a steel frame and can be made more flexible and also more durable.

A type of stall which can be made on the farm and is very successful in keeping the cows clean as well as comfortable, is the Graves stall. We have one barn at the college with 14 of these Graves stalls, and they have proved very satisfactory. They resemble very much the Hoard stall. The cows stand with their hind feet back of a split 4 by 4 and are tied to the stanchions by means of a chain to a strap about their necks. When they lie down they step in front of the 4 by 4 and lie with their heads under the hanger. In this way they step away from any manure that they may have left. There is a very shallow gutter to this stall, with a slight fall to carry away the liquid manure.

When cows are confined closely it is necessary to provide some means of ventilation. The common method used is the King system of ventilation. This consists of a series of intakes for fresh air and outlets for impure air. A properly ventilated barn will be sufficiently warm for the comfort of the animals, there will be no condensation of moisture on the walls, and the barn will have a clean smell. Good ventilation is essential not only to the health of the animals but for the quality of the product as well. Companies selling barn equipment will supply specifications for ventilating barns and also plans for dairy barns and prices on equipment.

With a cement manger and running water in the barn, it can be easily arranged to water the cows in the barn by sweeping out the manger and fill-

ing it with water for the cows. Water bowls where the cows can drink will cause increased production of milk. The more water we can get cows to drink, the more milk they will produce. When cows are watered out of doors during the winter months, it will pay in milk produced and feed saved to warm the water given to the cows.

In addition to the dairy barn proper, there should be a room conveniently located for cooling or separating the milk and washing the milk utensils. The milk sheet and scales can also be located in this room. Still another room can be used as a feed room.

Perhaps you cannot have every convenience that an up to date dairy barn has, but with very little expense you can convert any barn into a suitable barn for producing a good quality of milk, provided you use proper methods in handling the cows and their product.

National Shorthorn Congress

The program for the third National Shorthorn Congress at Chicago follows: Tuesday, February 17, 9 a. m. All entries will be in place, stalled according to ages, four classifications for bulls and five for females. Judging will be completed on Tuesday. The judges will be W. H. Pew, James R. McMillan, John Garden, and J. Charles Yule. Entries will total 350 head, a larger number than any previous Congress, these from 80 consignors representing a wide territory; 110 of the number are bulls, selected individuals representing in nearly all cases the best productions of the consignors.

Wednesday, February 18, 10 a. m., sharp, auction sale. One hour and a quarter will be set aside for lunch. The auction will close at 5 p. m. A complimentary dinner will be given at 6 p. m. The auction will convene at 8 o'clock p. m.

Field representatives of the association will be on hand to advise or assist beginners or anyone attending the Congress in the matter of purchases or information.

The Bolshevik movement in America is assuming the guise of a Back Home Movement.—Columbia Record.

DE LAVAL CREAM SEPARATORS

are the cheapest
as well as the best



This is the unanswerable argument in favor of the purchase of a DE LAVAL Cream Separator.

Everyone wants the best, provided its cost is within his means. Fortunately a DE LAVAL costs but little more than an inferior cream separator and saves that difference every few weeks.

Moreover, an inferior separator wastes in time and labor, and in quantity and quality of product what a DE LAVAL saves, and goes on doing so every time it is used, twice a day every day in the year.

If you doubt this is so, try a new DE LAVAL alongside any old machine you may be using or other make of separator you may have thought of buying. Every DE LAVAL agent will be glad to afford you the opportunity to do so.

If you don't know the nearest De Laval agent, simply address the nearest De Laval main office, as below

The De Laval Separator Co.

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50,000 Branches and Local Agencies the World Over

\$19.95 Sent on Trial Upward American Cream SEPARATOR

Thousands in Use giving splendid satisfaction justifies investigating our wonderful offer: a brand new, well made, easy running, easily cleaned, perfect skimming separator only \$19.95. Skims warm or cold milk closely. Makes thick or thin cream. Different from picture, which illustrates our low priced, large capacity machines. Bowl is a sanitary marvel and embodies all our latest improvements. Our Absolute Guarantee Protects You. Besides wonderfully low prices and generous trial terms, our offer includes our—

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Whether dairy is large or small, do not fail to get our great offer. Our richly illustrated catalog, sent free on request, is a most complete, elaborate and interesting book on cream separators. Western orders filled from Western points. Write today for catalog and see our big money saving proposition.

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A BETTER SEPARATOR THE VIKING

saves your cream dollars—skims to a mere trace—runs easy—has larger capacity—simple—durable—

Guaranteed for Five Years
The Viking is made with the new Straight disc skimming device which has proven the best, skims faster—closer and most easily washed device made.

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Fire clay glazed silos and hard burned unglazed silos last forever, solid construction, can't burn down, proven best and most economical. Write for Silo Facts and figures and Special Offer.

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Save 1 My New
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will save you a lot of money. 150 styles—also Gates, Lawn Fence, Barbed Wire.
FREE Today Free Fence Margin Book. Compare our low factory, FREIGHT PAID prices. Sample to test and book free, postpaid.
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HOMER

The ORIGINAL PATENTED PIPELESS FURNACE
with the Thermo-Seal INNER LINING

BEFORE you buy a pipeless furnace be sure to write for our new 1920 Furnace Book about the Homer Patented Pipeless Furnace. It will give you many facts you ought to know.



Less Price
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It Heats
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The Homer Patented Pipeless Furnace, you know, is the *Original Patented Pipeless Furnace*. It has been a continuous and increasing success ever since 1909—years before any other pipeless furnace even came on the market.

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There are thousands of satisfied Homer users all over America—and many are still using the same Homer Patented Pipeless Furnace that they bought ten years ago.

Talk to the Homer dealer in your town. You'll find him a high class merchant—and a man who knows why the Homer Patented Pipeless Furnace is your best buy.

The Homer Thermo-Seal Inner Lining Saves Heat and Keeps Your Cellar Cool

You want steady heat in the house—not in the basement where vegetables and fruit are stored.

The Famous Homer Thermo-Seal Inner Lining is made of two sheets of thick galvanized iron effectively insulated with heavy asbestos. This keeps the cold air passage cold—and the warm air passage warm. All the heat goes up into the house—none is wasted in the cellar.

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MANUFACTURERS OF
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GET MORE GRAIN PER ACRE

Clean Seed a Sure Success

You can easily guarantee yourself from five to ten bushels more oats, barley, corn, and other grains per acre this year and make several hundred dollars extra by cleaning and grading your seed.

Home grown seed produces the best results because it is acclimated but the trouble is that it contains many shriveled and imperfect grains, noxious weed seed and dirt. These objections are now easily and quickly overcome by the use of a simple and scientifically accurate Simplex Mill.

The Simplex Mill handles from 40 to 60 bushels per hour, so it is only a few hours work to clean and grade your seed and guarantee yourself successful crops.

Being sold direct by mail to you at factory prices the Simplex Mill costs from \$20 to \$25 less than others. In view of \$3 to \$4 wheat this next winter—an indicator of high prices for all grains—no farmer can afford to do without them. The Simplex Mill is sold on 30 days trial with nearly a year to pay and should easily last a life time. It performs over 50 different cleaning and grading operations, such as separating wheat mixed with oats or rye, cockle or mustard with oats, alfalfa and doddard, clover and buckhorn—in fact, all kinds of mixtures. Special corn grader included free.

My advice is for you to write a card or letter to L. D. Rice, Pres., Simplex Spreader Mfg. Co., 1703 Traders Bldg., Kansas City, Mo., and ask for his interesting descriptive matter and prices which will be sent free to any reader.

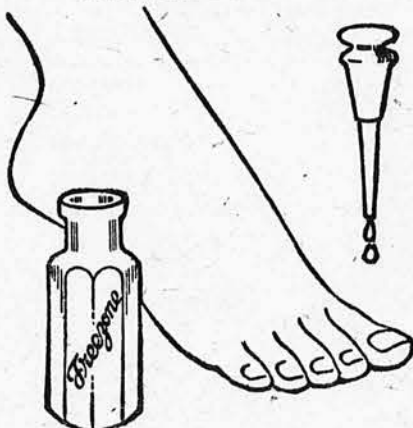


POULTRY SUPPLIES

Egg boxes and baskets, chick boxes, coops, incubators, hovers, fountains, feeders, home egg candlers, etc. Write 20¢ for free Western Box & Basket Co., Dept. F, Omaha, Neb.

Lift off Corns with Fingers

Doesn't hurt a bit and "Freezone" costs only a few cents



You can lift off any hard corn, soft corn, or corn between the toes, and the hard skin calluses from bottom of feet.

Apply a few drops of "Freezone" upon the corn or callus. Instantly it stops hurting, then shortly you lift that bothersome corn or callus right off, root and all, without one bit of pain or soreness. Truly! No humbug!

Tiny bottle of "Freezone" costs few cents at any drug store

Capper Pig Club News

What Do You Read in the Mail and Breeze?

BY EARLE H. WHITMAN
Club Manager

WELL, Earle," recently said Tom McNeal, whom every boy and girl in Kansas knows as the editor of the Kansas Farmer and Mail and Breeze, "how's the pig club getting along?" "Fine, Mr. McNeal," I answered. "Every boy in the club's right up and coming." "I was just wondering," continued Mr. McNeal, "if your club members read our paper. Of course they read the club stories, but do they look at anything else?" "Why, sure thing they do," was my reply. "Of course, they may not read the entire paper, but I know they read your 'Truthful James' stories and articles on the care and feeding of hogs." "Well, I'm glad they do," was Mr. McNeal's comment as he went back to his office.

Now, fellows, was I right? Do Capper Pig club members read our paper, or just the club story? From the frequent mention in club members' letters, I feel sure they read and profit from anything in the paper which applies to their work. I wonder how many boys follow the market report, usually in the back part of the paper. Keeping in touch with such matters is an excellent habit to form, and will make a more efficient farmer and livestock man out of our boys. Then, too, be sure to read the timely articles on feeding and caring for the sow before and at farrowing, and about feeding and raising the pigs.

Club members for 1920 are busily engaged in getting their contest sows. A boy who really desires to find a good sow should have no difficulty doing so. Many excellent gilts and a few tried sows are for sale by members of the club for 1919, while the livestock advertising columns of the Kansas Farmer and Mail and Breeze always contain offerings of reliable breeders. You should decide what breed you want, and be sure to choose the kind of hogs you like. I shouldn't advise any boy, tho, to bring into his community a different breed from those already being raised, unless he is certain of a market for his breeding stock and knows where he will be able to rebreed his sow. Any of the standard breeds will do well, if given proper care and management. Don't put off buying your contest sow, for all club members must have a sow purchased or immediately in view by March 20. This warning doesn't apply to many boys, of course, as sows are being entered in the contest right along, and a few contest litters have been farrowed.

Now, fellows, when you read this there will be only a couple of weeks more for enrollment in the Capper Pig club for 1920. Every year, a week or several weeks after enrollment closes, I get letters from boys who wish to join the club. But they're too late. Ambitious, hustling chaps who desire to get a start with hogs, or who already have sows but wish to line up for an enjoyable year of club work

with plenty of prizes to compete for, shouldn't wait another day. All over Kansas live-wire boys are taking advantage of their opportunity. As I write this, Anderson and Coffey have complete memberships. Pottawatomie lacks only one boy, while Wallace has two vacancies. Shawnee follows with room for three boys, and in Cloud, Jackson, Jefferson, Johnson, Linn, Ness, Osage, there's still a chance for four boys with pep. We have five members apiece in Atchison, Finney, Reno and Wilson. All counties unnamed have fewer than five members. Now, is there any excuse for holding back? The application coupon appears in the Capper Poultry club story this time. Look it up and send it in at once.

Some boys in this year's club certainly deserve a hearty pat on the back for the fine showing they are making in getting new members. Way out in Ness county Clark Scott is just "workin'" his head off. And he's getting results, for he has five teammates, and more on the way. "I have finally succeeded in getting a teammate," writes peppy Howard Scott of Morris county. "I think in a few days I shall be able to find a couple more boys. Seems like I've tried almost every boy in this county, and I'm surely going to keep after them." Go to it Howard, we're for you! And what's the matter with Morris county boys if they're not willing to line up with such a chap as Howard?

By the way, do you recognize the peppy looking young hog raiser shown in the picture? Waldo McBurney of Rice county is one of the original hustlers in the Capper Pig club. He and his mother came to Topeka to attend the pep meeting last fall and Waldo assured me he had "the time of his young life." This boy can raise hogs, too, as you'll agree when you've looked at the two he's showing you.

For the second time, Kingman county got into the winning last year. Ted Folkers won a cash prize and a \$25 prize pig in 1918, while in 1919 Wayne Forney came out with third place in the open contest and a check for \$12 from Arthur Capper. Wayne did the finest kind of work throughout the contest, and altho he got a late start with his pigs he produced \$1,950 pounds of pork at a very reasonable cost. His story was short, but interesting. Here it is:

"I enrolled for my second year of club work, and got busy hunting for just the kind of a sow I wanted. Finally I found one which I bought on March 12. She was a registered Duroc Jersey and I got her from J. H. McCormick for \$75. I brought her home in a few days and she began doing well. I entered her in the contest April 15 and May 25 she farrowed 14 dandy pigs. She raised 10 fine ones, five sows and five boars.

"I fed the pigs plenty of separated



Waldo McBurney of Rice County and Two of His Poland China Contest Pigs.
"They Weighed 200 Pounds Each at 9 Months Old," Says Waldo.

mills and shorts and they grew like real hogs. I weaned them August 1. They kept on growing well until the end of the contest. The average weight was 195 pounds on December 15 when I took them out of the contest. Every one is the same in size and color.

My total feed cost amounted to \$116.17 figured by contest prices. My total profit on my contest pigs and sow and fall litter amounts to \$141. I have enjoyed the club work very much, and would like to be in it another year if I could. I am doing my best to get a full county membership in the two years I have been in the club. Here's wishing the club for 1920 a bigger and better year. I certainly do appreciate what Mr. Capper has done for me."

Wool Consumption in December

A total of 64 million pounds of wool, grease equivalent, was used by manufacturers in December, 1919, or 26 million pounds more than in December, 1918, according to the Bureau of Markets' monthly report just issued by the Department of Agriculture.

The continued demand for fabrics made from the finer grades of wool is reflected by the percentages given in the report. Of the total wool consumed in December, 34 per cent was fine; 18 per cent, $\frac{1}{2}$ blood; 17 per cent, $\frac{3}{8}$ blood; 16 per cent, $\frac{1}{4}$ blood; 3 per cent low; and 11 per cent, carpet wool.

Massachusetts continued to hold the lead in the amount consumed with 23,120,247 pounds of all grades, classes, and conditions, followed by Pennsylvania with 8,804,337 pounds; Rhode Island, 6,548,116; New Jersey, 5,012,965; and New York, 4,082,080. Connecticut, New Hampshire, Ohio, and Maine used between 1 and 2 million pounds, while in the Pacific Coast states 363,078 pounds were used.

The total amounts consumed according to condition were grease, 46,165,984 pounds; scoured, 7,681,642 pounds; and pulled, 1,718,627 pounds.

The detailed report of wool consumed in December will appear in The Market Reporter of January 31, a copy of which will be sent to anyone addressing a request to the Bureau of Markets, United States Department of Agriculture, Washington, D. C.

Income From Land Sales

Income from selling land at an advance over the purchase price or its value in 1913 is taxable income under the federal income tax laws. This is an angle of the law which is perhaps new to many land owners. Land has advanced rapidly in value in the last few years and many high sales are being made. The government counts as income the increase in price over what the land cost or in case it was owned by the seller prior to 1913, the value March 1, 1913. If land sold was inherited since March 1, 1913, the estate's appraised inventory value is used as the cost in calculating profit. In case permanent improvements have been added to the farm since 1913, they should be considered in figuring the gain when sold.

States in "Better Sires" Drive.

In 40 States the Better Sires—Better Stock campaign of federal and state agricultural forces is now fully organized and in many of them it is in full swing. Of the few not yet enrolled several have made plans for joining the movement which promises numerous benefits to the livestock interests of the country. Each of the enrolled states has filed with the Bureau of Animal Industry, United States Department of Agriculture, the name and address of an official directly in charge of the work. This list will be sent any inquirer on application. The states enrolled in the crusade on January 1, were the following: Alabama, Arkansas, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Idaho, Kansas, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

A gain of 207 lbs. in less than 2 months



SUGAR LOAF CATTLE FATTENER

An average gain of 207 lbs. per head in 52 days is what Sugar Loaf Cattle Fattener did for two hundred 900-pound steers. They were fed an average of 19 pounds of Sugar Loaf and 20 pounds of Sorghum Ensilage per head per day with plenty of clean water and salt. Many feeders are doing this and so can you with Sugar Loaf Cattle Fattener.

It's a quick fattener and it finishes live stock rapidly for market. Sugar Loaf needs no other mixture. Results not alone prove it most economical, but the most perfectly balanced ration possible to produce to build live stock. Sugar Loaf is composed of the right proportions of Corn Feed Meal, Cotton Seed Meal, Alfalfa Meal, Sorghum Leaves Meal, Molasses and $\frac{1}{2}\%$ salt and analyzes: Protein, 15.75%; Fat, 3.00%; N. F. G., 45.00%; Fibre, 13.00%.

If your dealer is out of Sugar Loaf Cattle Fattener, he will get it for you—put up in 100-lb. sacks.

Temtor Corn and Fruit Products Co.
General Offices, St. Louis, Mo.



Send this Coupon
for Free Sample

Temtor Corn and Fruit Products Co., Dept. F,

Please send me complete information on feeds checked at right and free sample.

I have.....milk cows;hogs;horses;
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☐ Jersey Queen Dairy Feed
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BIG MONEY IN SHIPPING YOUR
HIDES
FURS—WOOL—TALLOW
To JOHN NELSON & CO.,
Central Ave. and Water St., Kansas City, Kan.

FARM FENCE
201 CENTS A ROD and up for a 26 inch Hog Fence; 29¢ a rod and up for 47 inch. WE PAY THE FREIGHT. Low prices Barbed Wire. Factory to User Direct. Sold on 30 days FREE TRIAL. Write for free catalog now.
INTERLOCKING FENCE CO.
Box 125 MORTON, ILL.

OUR advertisements are considered part of our service to our readers. Familiarity with a reliable market in which to buy is as essential as knowing better farming methods. Read the advertisements in Kansas Farmer and Mail and Breeze.

Money Saving Order Blank

**RENEW
THREE
YEARS
SAVE
\$1.00**

Watch the Label

If the date after your name on the Label on the cover of this issue is Mar. '20 it means your subscription will run out March, 1920. Send in your renewal right away so as not to miss an issue of Kansas Farmer and Mail and Breeze.

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The regular subscription price of Kansas Farmer and Mail and Breeze is \$1.00 a year. You can save \$1.00 by sending us your order for a three-year subscription at \$2.00. Or you can send us two yearly subscriptions at \$1.00 each and get your own subscription free.

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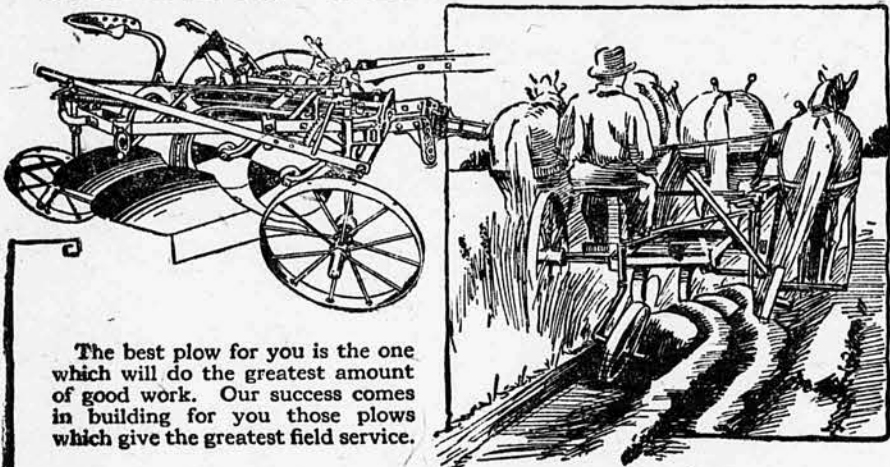
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The best plow for you is the one which will do the greatest amount of good work. Our success comes in building for you those plows which give the greatest field service.

MOLINE HIGH LIFT SULKY & GANG

Better plows than these cannot be bought at any price. With them you can do good plowing at all times and under all conditions. The reason why you get so much field service out of these plows is because they possess every plow improvement that has shown its worth. In one particular feature they are the most improved of all the frame type plows. They have a perfected foot lift device that gives the operator two possibilities in raising the bottoms—

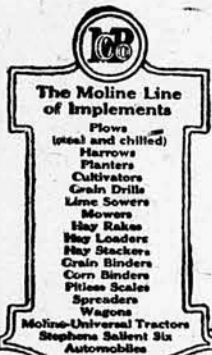
- (1) The bottoms can be raised independently of the frame.
- (2) The frame can be leveled at the same time that the bottoms are raised.

These plows are made to run straight and true—the wheels do not crowd the furrow wall and the horses walk straight ahead without crowding or fretting. Side draft and landside friction are reduced to a minimum. These plows provide every advantage in springs and levers which give the operator full and easy control at all times.

Your Moline Dealer knows the worth of these plows—he will tell you all about them. Or write to our nearest branch for information.

Moline Plow Company, Moline, Ill.

Nearest Branches at Kansas City, St. Louis, Denver and Oklahoma City



SINCE 1865, "MOLINE" ON A FARM IMPLEMENT HAS BEEN A MARK OF QUALITY

With the Capper Calf Club

Study Your Work Thru the Question Box

BY EARLE H. WHITMAN
Club Manager

IT WAS A QUARTER after 2 o'clock on a Friday afternoon. In the schoolroom, the pupils—and even the teacher—were tired and restless after a hard week's work. "Only 15 minutes 'till recess," muttered Sammy Brown to himself. "Wish that clock would hurry up." Then a sudden idea came to him and up shot a not over-clean hand. "Well, Sammy," asked the teacher, "what is it?" "Please, teacher," enthusiastically burst forth from the boy's lips, "can't we have a question box after recess?" "Oh, yes, let's do," came in words and eager looks from Sammy's mates. "Perhaps we can, Sammy," was the teacher's encouraging reply, "I'll think about it between now and then."

When the bell ended recess time, girls and boys poured into their seats and looked expectantly at their teacher. "Yes," she smiled, "we'll have the question box, so put away your books. Every one of you will write a question in regard to some of our school work, and after you have had 10 minutes to do this, Sammy may pass the box." What a rush for paper and pencils as there was. And when the questions were written and gathered up and "teacher" began to open them, what a variety of questions had been asked.

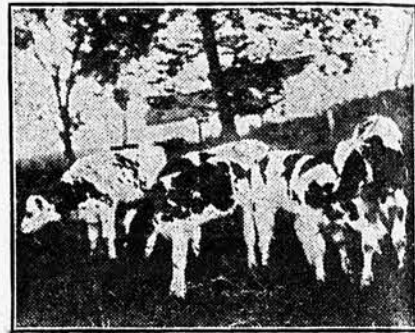
But why go ahead with this little story about a school question box? The Capper Calf club boys and girls are going to have a question box all their own. The box will stand open on the club manager's desk all the time, and it will be up to him to answer the questions. This calf club work is rather new and there will be many things to learn. Study your rules carefully, but as questions come up that you can't solve, write to me about them. I'll send you an answer, and if the question is one that will interest other club members it will be given in the club story, with the answer. Now, how do you like the plan? Will it be a success? It's up to you.

• How many Capper Calf club members know where the Holstein-Friesian breed of cattle was developed? Authorities on the subject state that for more than a thousand years the people of Holland have raised black and white dairy cattle. The province of Friesland in Holland and the province of Holstein in the northwestern part of Germany are especially noted for large numbers of these cattle. When Holsteins first were imported into the United States a quarter of a century ago, they were brought under the names of Holstein and Dutch Friesian. They were sold as different breeds for some time, but in view of the fact that all the cattle imported to America are essentially the same, the breeders and importers finally agreed to call the breed Holstein-Friesian.

Holsteins have grown greatly in numbers and popularity in recent years, due in a great degree to the increased demands of large cities for market milk. Cattle of the breed are most numerous in the Eastern and Middle Atlantic states, with the Middle Western and Pacific sections next in order. With the exception of the

Jersey, there are more Holstein cattle in the United States than of any other dairy breed.

A universal characteristic of the Holstein-Friesian cattle is the black and white color of their coats. The sharply defined and contrasting colors of jet black and pure white give them a very striking appearance. Although either color may predominate, black below the knees is objectionable. Pure-



Want a Holstein Like These?

bred animals with any red or gray in their coats are ineligible to registry.

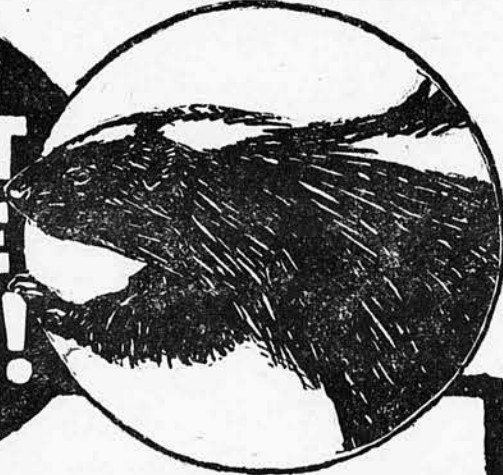
In disposition Holsteins are even-tempered and not excitable—in fact, they are rather lazy in their general habits. They are large consumers of feed, especially roughage, and do best when plenty is readily available. The Holstein is the largest of the dairy breeds. From the point of view of milk production they average higher than any other breed. The percentage of butterfat, however, which averages lower than that of any other dairy breed, tends to counter-balance the advantage of greater production.

That's about enough for the Holstein-Friesians. Next week we'll talk about the Ayrshires.

Membership in the Capper Calf club is open to any boy or girl in Kansas between 12 and 18 years old, provided membership in some other Capper club is not already held. Only five members to a county will be accepted, and time for enrollment will end April 1. You may think there is plenty of time to join, but the thing to do is to line up at once, be sure of a place in the club, and be on the lookout for a good place to buy the two calves which you will enter in the contest. Those calves must be not less than three-fourths purebred, of the same breed, and must not be valued at more than \$125. Contestants may enter two dairy calves or two beef calves, according to choice.

"Pep" certainly is going to be the password for Capper Calf club members. Both girls and boys are right up on their toes and working to complete membership in their counties. "I'm so glad I got into the club," writes Harriet Boyle of Osage county, "for there are lots of boys and girls who would like to join. I am going to be on the lookout for the calves. As papa has no calves coming in the spring, I will have to buy some. I think I'll get Jerseys, as I believe there is more money in cream and milk than in beef cattle. Papa has taken the Kansas

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The world's biggest fur operators look to us to supply their demands. Funsten assures you the top prices and very highest grading at all times. We have \$8,000,000 to pay for furs—you get spot cash by return mail. No matter where you live, ship to the

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Funsten handles more Skunk, Muskrat, Mink, Opossum, Raccoon, Wolf, Civet Cat, Fox, etc., than any other house in the world! As season nears close, fur prices and qualities will decline. Grading is all important now. Funsten grades highest. We need all your furs—not only this season but next season too. Ship today!

Ship to **FUNSTEN BROS. & CO., St. Louis, Missouri**
International Fur Exchange
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FUNSTEN

FACE POWDER

A box containing a generous supply of high grade face powder sent free and postpaid to all who send us only 10 cents for a 3-months' subscription to the Household, a magazine of from 20 to 32 pages monthly, containing stories, fashions, fancy work and recipes. The Household, Dept. F.P.4, Topeka, Kan.



Gold Plated Flag Pin Free

Flag Pins are now being worn by all patriotic American Citizens. Get in line and show your patriotism by wearing one of our Gold Plated, enameled pins which we send for only 10c to help pay advertising expenses. Jewelry House, 137 Eighth St., Topeka, Kan.

The Capper Calf Club

Capper Building, Topeka, Kan.

Earle H. Whitman, Club Manager

I hereby make application for selection as one of the representatives

of.....county in the Capper Calf Club.

I will try to get the required recommendations, and if chosen as a representative of my county I will carefully follow all instructions concerning the club work and will comply with the contest rules. I promise to read articles concerning club work in the Kansas Farmer and Mail and Breeze and will make every effort to acquire information about care and feeding of my contest entry.

Signed Age

Approved Parent or Guardian

Postoffice R. F. D. Date

Age Limit: 12 to 18

Farmer and Mail and Breeze for about 15 years, and I read everything in the paper, and of course the club news." There's going to be a lot of pleasure in getting acquainted and working with the most hustling, ambitious boys and girls in your county. The coupon is waiting to be clipped out, filled in and mailed to the club manager. Rules and instructions will be sent at once. Don't wait, for there may be no place for you when you do apply.

Desire Railroads Returned

Representatives of seven big national farm organizations met in Washington recently to prepare memorials for presentation to President Wilson asking for immediate return of the railroads to private control and the enactment of such legislation as is needed to meet the present conditions. Protests were made against representations that farmers favor continued government control. Adequate production was emphasized in the statement prepared, the assertion being made that the farmers are continuing their efforts to produce abundant foodstuffs but demand that both capital and labor do their share in keeping up the production. "We have reached the critical point in regard to shorter hours of labor and a 44-hour week will neither clothe nor feed the world," it was asserted. The organizations represented were the International Farm Congress, The National Farm Congress, The National Grange, The American Farm Bureau Federation, The National Farmers' Union, The American Cotton Growers' association and the National Federation of Milk Producers.

Wool in Suit of Clothes

The wool in a \$60 suit of men's clothing now costs only \$5.25, says Dr. S. W. McClure, secretary of the National Wool Growers' association. An average weight suit requires about 62 ounces of wool. This amount of the very finest wool grown would not cost to exceed \$7. Doctor McClure characterizes as absurd the statement recently made before the National Retail Clothiers' association in Chicago that clothing prices would advance 25 to 40 per cent partly because of advancing wool prices. Whatever may be the cause of advances in clothing prices, it cannot be charged to the cost of the wool which even at present high prices does not represent more than 10 per cent of the total cost of the suit.

Milking Cows Paid

Fred Stalder of Meade county says that his purebred Jerseys are the best-paying investment on his farm. He has only six cows, but during December the cream sales amounted to \$113.56. During the last nine months the cream produced by these cows sold for \$750. In addition to the immediate return a valuable breeding herd is being developed thru the selection of the female offspring. The cows have been given only ordinary care, being fed silage, barley chop and alfalfa hay.

SOMETHING DIFFERENT

A Farm Paper Edited on a Farm

Capper's Farmer, published by United States Senator Arthur Capper of Kansas, is a farm paper that is different. It is edited on the farm by a farmer and for the farmer. It is published in the heart of the greatest agricultural country in the world. It stands for a square deal for the consumer and fair profits for the producer thru eliminating grain gamblers, market jugglers, and other trusts and combines. For that great body of American Farmers who live with ideals, who want to be progressive, there is no such favorite as Capper's Farmer. There is a department for the women folks, boys and girls, marketing, livestock, poultry, dairy, field crops, farm machinery, horticulture, health, etc. In addition to the regular editorials, Senator Capper's Washington Comment is one of the most interesting and instructive.

In order to introduce this bright and breezy farm paper to readers of the Kansas Farmer and Mail and Breeze, the publisher agrees to send the paper six months for ten cents. This is a special offer, good for ten days only. You should send in your dime today. Address, Capper's Farmer, 507 Capper Bldg., Topeka, Kansas. You can't afford to miss a single copy.



The Highest Quality Work Garment Manufactured

Made of best grade denim, KEY OVERALLS give longest wear with greatest ease and comfort to the wearer. Cut to fit, no bagging or binding. Sewed never to rip, each stitch put in to stay.

Clad in KEY OVERALLS, any worker on any job has the satisfaction of knowing he is wearing the best.

Guarantee. If KEY OVERALLS do not give you absolute satisfaction, get your money back or a new pair, free.

If your dealer is out of your size write us.

THE MC KEY MFG.CO.
OVERALLS

General Offices, Kansas City, Mo.
Plants at Kansas City, Mo., and Ft. Scott, Kansas.



Sewed Never to Rip



Easy Comfort



Made to Last Longer



Cut To Fit Better



Get My Price—FIRST

30 Days' Trial—Satisfaction Guaranteed

I want to quote you a price that will cause you to sit right up and take notice on the grandest, best plow that ever turned a furrow. I can do it because we are the actual manufacturers, and sell direct to you. You buy at the actual factory price when you order direct from us. But that isn't all. You get a better plow. I say to you that the

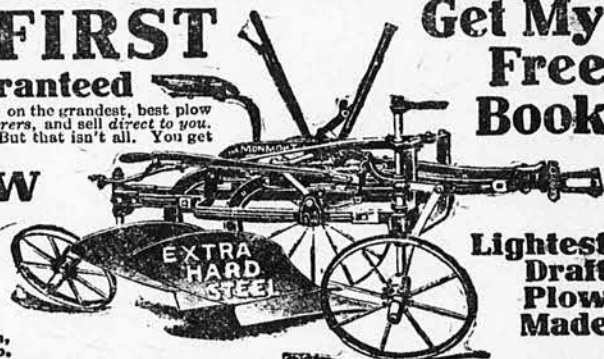
Monmouth SULKY OR GANG Plow

will prove easier for you to handle, easier on your horses and will do your work better than any plow you can buy, regardless of price. It's positively the only plow that actually carries the beams on top of the frame. No pressure on bottom of furrow—no friction. Single-Rail and Horse Lift; and "Point, First" action. I'll give you a chance to prove every statement I make and will pay the "damages"—freight both ways—if we "fall down" in a single assertion.

All Kinds of Farm Tools Sold Direct from Factory To You.

Quick Shipments from Monmouth, Kansas City, Omaha and Fargo.

I want to tell you all about these plows and our other implements—Cultivators, Disc and Spike Tooth Harrows, Corn Planters, Grain Drills, Mowers, Rakes and other farm tools—all sold at factory prices. Satisfaction guaranteed. Just write a postal for our complete catalog. It's free. Write to me, The Plow Man, with



Get My Free Book

Lightest Draft Plow Made

Monmouth Plow Factory, 121 So. Main St. Monmouth, Ill.

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the classified advertising columns. They may save you many dollars.

Crochet and Knitting Book

The book is a treasure of attractive ideas for beginners as well as expert crochet workers. Anyone can follow the simple instructions and do beautiful work. Contains more than sixty-five new designs. We are going to give one of these crochet and knitting books, postage paid, with a yearly subscription to the Household at 30c. Address, Household, Dept. C.K., Topeka, Kan.

The Midnight Marriage

A fascinating tale of love and romance; thrilling scenes; startling climaxes. To quickly introduce our popular monthly magazine, the Household, containing from 20 to 32 pages of short stories, serials and special departments we will send this book free with a 3-months subscription to the Household at 10 cents. Address The Household, Dept. MM.2, Topeka, Kan.

Get a Buick FREE



Without a Dollar of Cost

You don't have to pay for it—not even the freight. Positively no money required. The man shown in the car answered our ad. Now he's riding in the Buick we gave him. You can get one too. Don't send a cent—just your name and address—that's all. Do it now. A post card will do. I want to send you a dandy auto also.

D. K. Austin, Mgr., 103 Capital Bldg., Topeka, Kansas

"I Wasn't Getting An Egg—Now 10 a Day"



"I received your 'More Eggs' Tonic and started giving it to my hens. I wasn't getting an egg, now I am getting 10 a day." So writes Mrs. Ernest Campbell, of Mineral, Va. Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents' worth of "More Eggs" and you will be amazed and delighted with results.

Now is the time to give "More Eggs" to your hens, while prices are high and profits big. Don't let your hens loaf; make them lay. "More Eggs" Tonic has done this for 400,000 chicken raisers all over the country. It will do the same for you.

\$1.00 Package

Free

If you wish to try this great profit maker, simply write a postcard or letter to E. J. Reefer, the poultry expert, 5442 Reefer Bldg., Kansas City, Mo., and ask for his special free package \$1.00 offer. Don't send any money. Mr. Reefer will send you two \$1.00 packages of "More Eggs." You pay the postman upon delivery only \$1.00, the price of just one package, the other package being free. The Million Dollar Merchants Bank of Kansas City, Mo., guarantees if you are not absolutely satisfied, your dollar will be returned on request. So there is no risk. Write today for this special free package offer.

Poultry Raisers Everywhere Tell Wonderful Results of "More Eggs"

"More Eggs" a Godsend

I received your "More Eggs" Tonic and found it was a great Godsend. I was only getting 12 eggs a day, and now I am getting 50 per day.
MYRTLE ICE, Boston, Ky.

"More Eggs" Paid the Pastor

I can't express in words how much I have been benefited by "More Eggs." I have paid my debts, clothed the children in new dresses, and that is not all—I paid my pastor his dues. I sold 42½ dozen eggs last week, set 4 dozen, ate some, and had 1½ dozen left.
MRS. LENA McBRON, Woodbury, Tenn.

1200 Eggs from 29 Hens

The "More Eggs" Tonic did wonders for me. I had 29 hens when I got the tonic and was getting five or six eggs a day. April 1st I had over 1200 eggs. I never saw the equal.
EDW. MEKKER, Pontiac, Mich.

160 Hens—1500 Eggs

I have fed two boxes of "More Eggs" to my hens and I think they have broken the egg record. I have 160 White Leghorns and in exactly 21 days I got 125 dozen eggs.
MRS. H. M. PATTON, Waverly, Mo.

\$200 Worth of Eggs from 44 Hens

I never used "More Eggs" Tonic until last December; then I just used one \$1.00 package and have sold over \$200.00 worth of eggs from forty-four hens. "More Eggs" Tonic did it.
A. G. THODE, Sterling, Kan., R. No. 2, Box 47.

1368 Eggs After 1 Package

Last fall I bought a box of your "More Eggs" Tonic and would like to have you know the result. From January 1st to July 1st my hens laid 1368 eggs.
A. E. WHITE, Scranton, Pa.

Send No Money

Don't send any money; just fill in and mail coupon. You will be sent, immediately, two \$1.00 packages of "MORE EGGS." Pay the postman upon delivery only \$1.00, the extra package being FREE. Don't wait—take advantage of this free offer TODAY! Reap the BIG profits "MORE EGGS" will make for you. Have plenty of eggs to sell when the price is highest. Send today!

FREE \$1.00 PACKAGE
E. J. REEFER, Poultry Expert,
5442 Reefer Bldg., Kansas City, Mo.

Dear Mr. Reefer:—I accept your offer. Send me the two \$1.00 packages of Reefer's "More Eggs" for which I agree to pay the postman \$1.00 when he brings me the two packages. You agree to refund me \$1.00 if both of these packages do not prove satisfactory in every way.

Name
Address

Capper Poultry Club

Fix Your Eye on Your Goal and Determine to Win

BY BERTHA G. SCHMIDT
Club Secretary

IMAGINATION spells the difference in small success and big success. These words of Edwin T. Meredith, United States Secretary of Agriculture, have a message for the girl who is going into business for herself as a member of the Capper Poultry Club. Imagination is the ability to see things now as you would like to have them in the future. You are beginning the new year's club work with a flock of 20 baby chicks or with a pen of eight hens or pullets and a cock or cockerel. In your imagination you see those 20 chicks as 20 full-grown sturdy chickens, or if you are in the pen department you are looking forward to having a flock of 200 or 250 chickens.

Imagine big things for yourselves. But back the picture up with honest effort. It is what we want that we get, if we want it hard enough and are willing to work and to wait for it. Disappointments are bound to come and it requires determination to stick to our resolutions when things go



Nina Hosford of Crawford County.

wrong. But the girl with perseverance succeeds in the long run.

When Edwin Meredith was a boy on an Iowa farm his father gave him a runt pig and told him that with proper care the pig might be raised and sold at a profit. The boy grasped the opportunity and from that moment the runt pig was hand fed, watched over, sheltered and protected. Finally young Meredith sold the pig at a good profit. That was but one of many instances of determination which brought the farm youth from a penniless boy to the office of Secretary of the United States Department of Agriculture and millionaire publisher.

Capper Poultry club girls have set high goals for their year's work. Many of those who won exceptional success last year are laying plans for a big poultry business in the future.

A Goal Reached

When Alma Bailey began work in the club last spring she announced that she was going to make as big a success of her work as her sister, Ella, had made the previous year. Ella won the silver trophy cup for having made the highest profit with her contest pen in

1918 and Alma, her twin sister, won the cup awarded in the club for 1919. Alma raised 240 chickens and made a profit of \$497.98. Here is her contest story:

"Last spring when Ella took off a big bunch of her pretty Rose-Comb Rhode Island White contest baby chicks, they were such fine big, fluffy, active fellows that I just fell in love with them, and I said to myself, 'Well, I'm going to be a member of this club next year and have some of those fine Rose Comb Rhode Island White baby chicks for my very own.'"

"Before long the Capper Poultry club girls were calling for new members again. Here was my chance. One day when Ella was feeding her chickens I asked her if I could take my pick."

"I penned my birds in the new hen house. Then I got some boxes and an old heater from the cellar to put in the hen house for the nests. The next thing to do was to get some straw for the nests and to put on the hen house floor for a deep litter, so the chickens would have to scratch and exercise for their feed. I then got some good black loam and boxes about 3 inches deep in which I planted wheat for my chickens. I got walnut slabs and made roosts."

"The hen house faces the south and in good weather my birds got plenty of sunshine, but in cold, cloudy weather the hen house was cold. So I got a long piece of carpet and tacked it just above the opening and in cloudy weather I left the carpet down, but on bright, sunny days the carpet was put up."

"I entered my chicks in the contest February 1, 1919. I got three eggs the first day and when mamma set the incubator two days later, I had eight eggs which I put into it."

"I fed my fowls three times a day, giving them a warm bran mash and sprouted wheat in the morning, and at noon corn, feterita, oats and meat. The meat ration consisted of rabbits. In the evening I gave a whole grain ration. Then after the chicks had gone to roost I scattered a light grain ration in the litter so they could have feed early in the morning. They had plenty of fresh water and milk before them all the time. I also kept grit and charcoal before them."

"I did not feed my baby chicks until after they were 24 hours old, for Mother Nature had provided for their first food by the absorption of the egg yolk into the chick's abdomen, just previously to hatching. For the first feed I gave my chicks hard boiled eggs, chopped fine, shells and all, mixed with three times the amount of stale bread. I also gave them angle worms which I dug daily for them. I gave them a little millet seed, finely cracked wheat and corn, and sprouted wheat after they were about 10 days old. I fed my baby chicks five times a day. After they were 2 weeks old I began feeding them a mixed grain ra-

Capper Pig and Poultry Clubs

Capper Building, Topeka, Kan.

Earle H. Whitman, Club Manager; Bertha G. Schmidt, Secretary. Send Pig Club applications to Mr. Whitman; Poultry Club to Miss Schmidt. I hereby make application for selection as one of the representatives

of.....county in the Capper

.....Club.

(Write pig or poultry club)
I will try to get the required recommendations, and if chosen as a representative of my county I will carefully follow all instructions concerning the club work and will comply with the contest rules. I promise to read articles concerning club work in the Kansas Farmer and Mail and Breeze and will make every effort to acquire information about care and feeding of my contest entry.

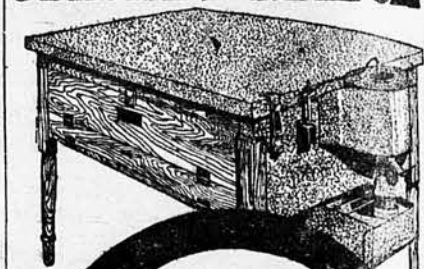
Signed Age

Approved Parent or Guardian

Postoffice R. F. D. Date

Age Limit: Boys, 12 to 18; Girls, 10 to 18.

SAFETY HATCH



INCUBATOR BIGGER BROODS

Every unhatched egg and crippled chick is a dead loss. SAFETY HATCH positively gets a healthy chick from every fertile egg of normal vitality, if simple directions are followed. Provide your poultry income with

Incubator Life Insurance

Built solidly; vibration can't addle eggs. Four-ply walls nearly 2 inches thick have wool felt lining with vacuum air spaces between. Keeps heat at EVEN temperature. Similar in principle to the thermos bottle. Perfect moisture-laden ventilation. Economical heater. Metal bound. ABSOLUTELY FIRE-PROOF. Sanitary; most easily cleaned. Guaranteed.

Dealer Will Surprise You

Visit your SAFETY HATCH dealer. You'll be astonished to see how SAFETY HATCH rises head and shoulders above all other incubators. Dealer's name, if you don't know him; also free catalog, on request. Nothing equals genuine SAFETY HATCH. See the dealer. Means dollars to you this season.

4 SIZES—50 to 240 Chick Capacities

THE MORRIS MFG. CO.
831 E. Russell St.
EL RENO, OKLA.



A Live Dealer Wanted in Every Town and City.

Biggest Hatches Strongest Chicks

That's what you'll get with my Hatching Outfit—and I can prove it.

Get my big Free Catalog "Hatching Facts"—it tells the whole story—gives newest ideas and easiest ways to make poultry pay. Learn of the many advantages the Belle City has over the "old hen way" and the big profits folks make by using my

\$12.95 140-Egg

= Champion

Belle City Incubator

Price Winning Model—Double Walls Filter Board—Self-Regulated—Hot-Water Copper Tank—Thermometer Holder—Egg Tester—Safety Lamp—Deep Nursery. With my Famous \$7.55 Hot Water Double-Walled 140-Chick Brooder—both only \$18.50

Freight Prepaid East of Rockies Towards Express

And allowed to points beyond. I ship quick from Buffalo, Minneapolis, Kansas City or Racine. Used by Uncle Sam and Agr. Colleges.

With this Guaranteed Hatching Outfit and my Guide Book for setting up and operating you can make a big income. You will also get my

Special Offers They provide easy ways to earn extra money. Save time—order now; or write today for my Free Poultry Book "Hatching Facts" It tells all. Jim Rohan, Pres.

Belle City Incubator Co., Box 21 Racine, Wis.



Over 815,000 Users

When writing advertisers mention this paper

SOFT-HEAT

Greatest Incubator Discovery in 50 Years. Insures Strong, Healthy Chicks from every good egg. Iron-Clad Guarantee. Porter Soft-Heat Tubeless Incubator combines hot air and water. Automatic control of heat, moisture and ventilation. Center heat plan, round nest, eggs turn semi-automatic, saving time and money. Simple, Safe, Sure. Express prepaid. Write for Big New Free Book.

PORTER INCUBATOR CO. Box 157 Blair, Nebraska

tion or prepared chick feed and small potatoes boiled. I gave them this feed until they could eat whole grain. By this time they were good, big birds able to help find their own living.

"I want to sincerely thank Mr. Capper for being so kind and thoughtful in organizing the Capper clubs for the boys and girls in Kansas."

Another Prize Winner

In announcing the winners of breeders' prizes one which was awarded the first part of July was omitted from the list. Gladiola Bowman of Coffey county won the \$10 Buff Orpington cockerel offered by her mother, Mrs. John Bowman, R. 2, Hartford, to the girl raising this breed of chickens whose hens made the best egg record during the penning period. Gladiola's pullets laid 554 eggs during the five months they were penned.

Here's the application blank waiting for more girls to fill it out. Linn county now has complete membership of 10 active members and 10 associate members, but one more mother is needed to complete the membership of 10 for the mothers' division. Coffey county ranks second in number of members, having 10 active members, five associates and six in the mothers' division.

Isn't this cockerel of Nina Hosford's a proud looking fellow? Nina raised Rose Comb Rhode Island Reds for her contest work.

Motor Cars and Civilization

In the score of years which have elapsed since 1900 motor driven vehicles for passenger and freight transportation have passed permanently out of the classification of luxuries into that of necessities. They have exerted a profound influence on the growth and development of industry and on social conditions in every civilized country in the world.

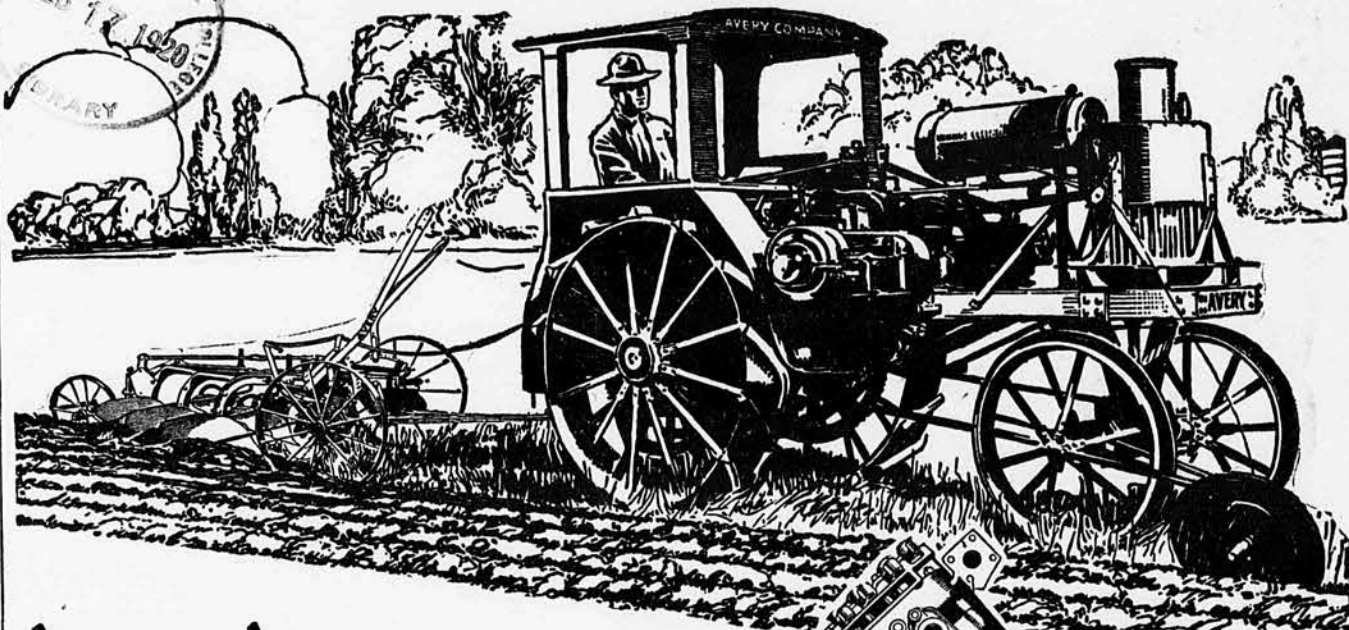
It is difficult, for example, to imagine how the world food crisis of 1917, 1918 and 1919 would have been overcome without the use of the tractors which enabled farmers to increase the wheat acreage in this country at a time when farm labor was unobtainable in many sections, scarce in others and inefficient wherever it could be got. The use of tractors enabled the farmers to plow, plant and cultivate the land on which was grown the wheat the world needed.

The breakdown of railway transportation in this country, emphasized by the terrific conditions imposed on the roads by the requirements of a nation at war and enforced on the understanding of all in the terrible winter of 1917-1918, brought the motor truck recognition as a practicable machine for long hauls with heavy loads and resulted in the establishing of a great number of permanent freight carrying lines. The experimental trains of trucks run by the army under all sorts of weather conditions and over all sorts of roads have shown what the advantages and disadvantages of this form of transportation are, and their records are available for the guidance of private car owners and operators.

What engine driven trucks and passenger cars have meant in the development of property in the neighborhood of large towns, but once inaccessible because of a lack of transportation, is a matter of common knowledge to every citizen of the country. Market gardeners can carry their produce to town in any weather and in a short time; city shops can deliver goods expeditiously; manufacturers can obtain supplies and fill orders; the affairs of business and social life alike can be expedited by means of the modern automobile.

New Chief of Markets

George Livingston, a native of Ohio, succeeds Charles J. Brand as Chief of the Bureau of Markets of the United States Department of Agriculture. Mr. Livingston has been Acting Chief of the Bureau since July 1, when Mr. Brand resigned. He was educated at Ohio State University, Cornell and the University of Halle. He was farm raised and has been connected with a number of agricultural colleges and experiment stations. For a number of years he has had immediate charge of federal grain supervision under the United States Grain Standards Act and has had general supervision over all of the grain and hay marketing activities of the bureau.



Averys Are the Tractors with the "Draft-Horse" Motor and "Direct-Drive" Transmission

WHEN you get an Avery, you get a tractor with a motor especially built for tractor work, and exclusively for Avery Tractors. It is built like a draft-horse for the kind of work a tractor must do. **Powerful, heavy duty, low speed**—does not race under light loads or stall under heavy pulls.

It is a horizontal, opposed motor improved and perfected with many exclusive Avery features. Its length distributes the weight properly between the front and rear wheels. Its narrow width makes possible a narrower tractor with less side draft. Also a short, heavy, practically unbreakable crankshaft—requires only two main bearings—always in perfect alignment—quickly adjustable with an ordinary socket wrench.

It is built with five-ring pistons, thermo-siphon cooling system, valves-in-the-head, renewable inner cylinder walls, and gasifiers that turn the kerosene or distillate into gas and burn it all.

Because of its low speed the power of the Avery "Draft-Horse" Motor is delivered through

The Avery Patented Sliding Frame Transmission

giving "Direct-Drive" in high, low, reverse, or in the belt. The belt pulley is mounted right on the motor crankshaft. You get a larger percentage of the power developed by the Avery "Draft-Horse" Motor at the drawbar, and all the power in the belt.

These and other big features make Avery Tractors run steady, economically and last a long time. These are some of the reasons why Avery owners are buying their second, third, fourth and even sixth Avery Tractors. They are easy to operate, even by the inexperienced. Avery prices are based upon the big output of three large Avery factories and the low selling cost of the complete Avery Line.

The Avery Line

Includes tractors for every size farm. Six sizes, 8-16 to 40-80 H. P., with "Draft-Horse" Motors and "Direct-Drive" Transmissions. Two small tractors, Six-Cylinder Model "C" and 5-10 H. P. Model "B." One and two row Motor Cultivators, "Self-Lift" Moldboard and Disc Plows, Listers and Grain Drills, "Self-Adjusting" Tractor Disc Harrows. Also roller bearing Threshers, Silo Fillers, etc.

Write for the Avery Catalog and interesting Tractor "Hitch Book." Both books free.

AYER COMPANY, 7503 Iowa St., Peoria, Illinois
Branch Houses, Distributors and Service Stations Covering Every State in the Union

AVERY

Motor Farming, Threshing and Road Building Machinery

Progressive Poultry People Are Raising Their Chickens with the

SURE HATCH INCUBATORS AND BROODERS

You can raise more chickens and do it easier than with hens. Less work and greater profits. Sure Hatch Incubators are time-tried and scientifically correct. Made of California redwood. Double walls, insulated. Copper hot water heating system. Automatic heat regulator. Roomy nursery with chick tray. Built in three sizes.



Send for FREE BOOK

SURE HATCH COLONY BROODER

beats 'em all for raising chicks. Cast iron stove heated with coal. Pure fresh air and even heat. No crowding or smothering. Raise all your chicks. Let us tell you about our Sure Hatch System.

FREE Send for Sure Hatch Book. Tells all about profitable poultry raising. SURE HATCH INCUBATOR CO. Box 14 Fremont, Nebr.

FREE 13 Hatching Eggs from Lady Victory 304 Eggs Per Year. World's Champion Leghorn, given for selling only 40 packs of vegetable seeds at 10c large pack. Sell easily. Write today for big sample lot. Send no money. We trust you with seeds until sold. AMERICAN SEED CO. Box 199 Lancaster, Pa.

Ironclad

TRADE MARK

The Iron Covered Incubator
BIGGEST HATCHING
Value Ever Offered



Investigate the Ironclad Incubator before you buy. Get my new catalog and learn why the Ironclad is the safest and best incubator. It tells how they are made and why they are better. My special offer of iron covered incubator and roomy brooder for only \$17.25 freight paid east of Rockies.

30 DAYS' TRIAL

Money Back If Not Satisfied

is the greatest incubator offer of the season. You can use the machine for 30 days and if not satisfactory, we will refund your money and pay return freight charges. Machine come to you complete, ready to use, and accompanied by a 10 YEAR IRONCLAD GUARANTEE.

Both for \$17.25 Freight Paid East of Rockies

MADE OF CALIFORNIA REDWOOD
150 Chick Brooder

IRONCLAD INCUBATOR COMPANY, Box 87 RACINE, WIS.



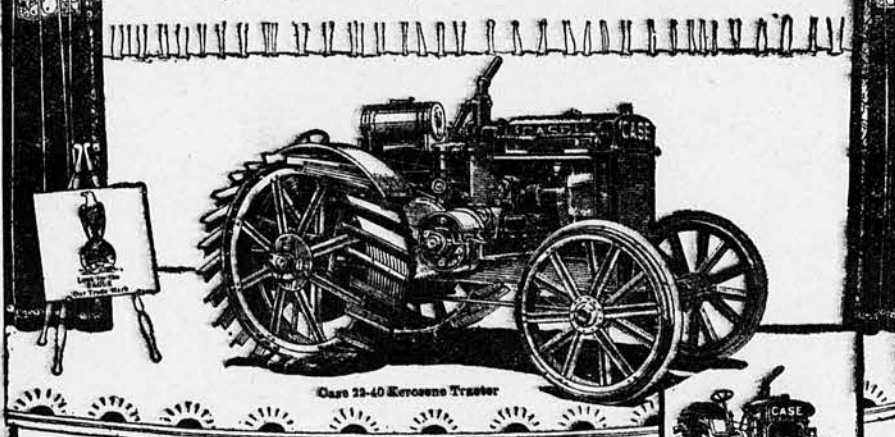
62 BREEDS PROFITABLE Pure-Bred Chickens, Geese, Ducks, Turkeys, Hardy Fowls, Eggs and Incubators at lowest prices. Pioneer Poultry Farm. Valuable poultry book and catalog FREE. F. A. NEUBERT, Box 302, Mankato, Minn.



Poultry Book Latest and best yet! 144 hatching, rearing, feeding and disease information. Describes busy Poultry Farm handling 68 pure-bred varieties and BABY CHICKS. Tells how to choose fowls, eggs, incubators, sprouters. Mailed for 10 cents. Berry's Poultry Farm, Box 37, Clarinda, Iowa

WHEN WRITING TO OUR ADVERTISERS MENTION KANSAS FARMER AND MAIL AND BREEZE.

At the
National Tractor Show, Kansas City,
Mo., February 16th to 21st, 1920



Case 22-40 Kerosene Tractor



Case 15-27 Kerosene Tractor



Case 10-18 Kerosene Tractor

See the New Big Brother of all Case Kerosene Tractors

Conservatively rated at 22-40 h. p., with a substantial margin of excess power in reserve; a characteristic of all CASE tractors. Standardized in design along the same lines as the familiar Case 15-27 and 10-18 Kerosene Tractors, with such modifications as are necessitated by its greater dimensions and power.

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Will drive a Case 32x54 Thresher, with windstacker, feeder and grain handler; will handle a No. 20 Case Ensilage Cutter with 40 feet of blower pipe attached; will pull four 14 in. plows in hard ground, or five plows under favorable conditions; will pull a battery of grain drills, or a pair of 8 ft. road graders, or other loads requiring similar power.

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NOTE:—We want the public to know that our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.

Weeks Financial News

BY SANDERS SOSLAND.

FOR WEEKS it has been pointed out in this department of the Kansas Farmer and Mail and Breeze that depression in foreign exchange was a serious matter to all farmers. Recently, too, this department has emphasized the seriousness of the tight money situation. Now, all markets are showing great appreciation of these serious factors. To some producers and dealers they are a surprise, but they should not be to the readers who have followed the discussions in this department. Foreign exchange and money market events loom high in the business of America. They are affecting and promise to continue to affect the revenues of farmers and stockmen. And they are going to be felt by the consumers in cities. No class will escape.

Prices of stocks have been declining because there is strong evidence of the beginning of a sharp decline in buying of food, manufactures and other products by Europe in the United States. There is also evidence of larger selling here by Europe. Wall Street has sensed this change. It is bearish because this change means lower prices for American products, less competi-

tion for our goods and more offerings to compete in our own markets from Europe.

Look at the latest rates on foreign exchange: The German mark is worth only a cent, the English pound only \$3.20, the Italian lira only 5 cents and the French franc only 6 cents. Before the war the mark was worth 23.8 cents, the pound \$4.86, the lira 19.3 cents and the franc 19.3 cents. Now, bear in mind that the reserves of the twelve Federal Reserve Banks were only slightly above the minimum of 40 per cent which the Federal Reserve Board plans to maintain against the deposits and the Federal Reserve notes of these institutions. With lessened buying by Europe and with money tight, it is extremely difficult to put prices up in livestock, grain, copper, cotton, steel and other markets. This makes the position of stocks bearish. And it will in the end make bonds which are strongly secured the best possible investments.

Changes in Business

Financial markets point to new conditions in American business. A slump in stocks means discounting of changes to a period of less prosperity and lower prices. These changes are being brought about by depression in foreign exchange and tight money. The pocketbooks of all, including farmers, stockmen, laborers and merchants in cities, are affected. The influences emphasized in the financial department of the Kansas Farmer and Mail and Breeze for many weeks as pointing to present vital changes are now receiving general attention in the United States.

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Financial Markets React

The Fourth 4 1/4 per cent Liberty Bonds have sold below \$90. Many business men and others unable to obtain funds on money markets are selling the bonds. This is the reason for the declines. So long as money is tight, the prices probably will remain weak. But when money conditions improve, the bonds will advance. Think of getting \$4.25 a year on a United States government Bond which costs \$90 and which is tax exempt! What a bargain! But prices may go lower. Some day, however, they will advance sharply. Other bonds are also at bargain levels. There is not yet, however, in sight a turn for the better in money markets.

Questions and Answers

Farmers who desire information in regard to bonds, stocks and other financial investments are urged to send

in their inquiries to this department and they will be answered free of charge. The editor in charge of this work is one of the best financial experts in the United States. Address all communications to Sanders Sosland, Financial Editor, Kansas Farmer and Mail and Breeze, Topeka, Kan.

Canadian Bonds

I contemplate the purchase of a new issue of Canadian Provincial Bonds. Does the refunding of a previous issue mean that the previous issue has come due and the province wishes to extend the time of payment of the principal and put out a refunding of practically a new issue? Why are these bonds quoted at 97 in Canada and 91 in New York? I can't see why United States money is worth more than Canadian. The Canadian sellers tell me they expect to be able to deliver me interim bonds soon and then the definitive bonds. What is the meaning of definitive and interim bonds?

A volume might be written in answer to the foregoing questions. They are interesting questions, and deserve serious study. First, your idea as to the refunding issue is correct. The Canadian province wants to refund or pay off the old loan by putting out a new one, called a refunding issue. On the day this question was received, February 5, Canadian exchange was at a discount of 18 per cent in New York, a new low. This means that a Canadian dollar is worth only 82 cents in American money in New York. Why? Inflated conditions of Canadian currency along with inflation in England. On the same day the English pound was at a discount of 27 per cent in New York. This explains why the New York price is quoted lower. If the Canadian seller makes allowance for the premium of the American dollar in Canada, then you could buy at equal figures. For the benefit of other readers, permit me to say here that this situation is one reason why Canada has been shipping an unusual number of cattle to the United States. An interim bond is a temporary bond or certificate issued to the buyer pending the printing of the permanent or definitive bond. New bonds are brought out quickly, or when the money market is most encouraging for their sale. To print the permanent bonds requires much time, especially with enormous issues of new securities put out the last year. So, interim bonds are issued, which are simple, until the definitive or permanent bonds are printed. The interim bonds entitle the buyer to the definitive issue and bear the same interest and are also transferable. Make sure that these bonds are payable in principal and interest in American funds, for, if not, every Canadian dollar interest you get will be worth only 82 cents on the present basis in American money. I will be glad to answer other questions as to your proposed investment. I wish to be helpful to all the readers of The Kansas Farmer and Mail and Breeze.

Santa Fe Stock

Kindly advise me where I can get shares of Atchison, Topeka & Santa Fe common. What is the meaning of common as quoted in relation to shares? Do you know of any other safe investments for a widow? I am lending on notes, I find that the rate is so high that it leaves me only 4 per cent.

MRS. A. K. The shares of Atchison, Topeka & Santa Fe common are bought on the New York stock exchange. Kansas City has two houses with memberships on the New York stock exchange that will buy these shares for you at a commission of 15 cents a share. A common stock is a share in a company of a given par or fractional partnership interest with no limit as to its return as a rule. The common stock receives dividends after the preferred, the preferred also being preferred as to assets. The Atchison has outstanding \$22,138,000 of common stock of a par of \$100 and \$124,173,700 of 5 per cent preferred stock. The common is paying 6 per cent. The preferred receives dividends before the common and after the interest is paid on the bonded indebtedness, while the dividends on the common come from the remainder. For a widow no investment excels Liberty Bonds and the strongest Kansas municipal bonds at present prices. You can buy Fourth 4 1/4 per cent Liberty

Bonds at \$90 for the \$100 denominations. This means \$8.50 from an investment of \$180 which in your instance would be tax exempt under the state and federal tax laws. Some day the Liberty Bonds will again sell at par, or \$100. You can get Kansas municipal bonds close to a 5 per cent basis that are tax exempt in Kansas and under the federal income tax law.

Foreign Exchange

I wish your opinion about the possibilities of making money in buying foreign exchange, French francs or Italian lira and German marks.

W. C. S.

Purchases of foreign exchange are so highly speculative that I would not favor making them at this time. Foreign exchange is still weak. If you decide to speculate, buy French city or Italian city bonds, as these are considered safer than the internal government bonds of these countries. We have started on a reaction in business, with a downgrade of prices, and I think this an inopportune time to speculate on the buying side at least. Follow this department, and you will be advised when the foreign exchange situation begins to look better.

Select Good Garden Seed

It is time to do garden-seed shopping. The seed catalogs are out and the prospective gardener now has time to make his plans for next spring's work. For the market gardener the market will decide what vegetables to grow. The home gardener has the tastes of the members of his family to meet. Home gardeners seek to supply the table the year 'round with fresh, stored or preserved vegetables. To do this they must first make a forecast of a year's vegetable demands, taking into account the seasons of those vegetables that may be served fresh and those that will bear storing and preserving. Then they must secure data from which to estimate how much may reasonably be expected a foot of garden row or a square foot of garden of any vegetable. Having this information the gardener will know how much seed to buy when he makes up his order.

The next step in spring garden plans is putting the rows into the garden. This is as fascinating as a game, and as frequently disappointing, for garden area cannot be stretched indefinitely, although even a small garden may become surprisingly elastic in the hands of one adroit in arranging "companion" crops properly, and in utilizing "succession" crops correctly.

Where to go for seed and what varieties to use will give some concern. There are good seedsmen and others not so good, and there is cheap seed and some that is quite expensive. Extravagant claims for novelties and prize packages may be taken with a grain of salt. However, new varieties of exceptional value are sometimes found by trying out on a small scale those comparatively unknown. This may be done without risk if known strains are depended upon for the bulk of the crop.

Paint Pays for Itself

It is false economy to be too sparing with paint, says H. B. White, of the agricultural engineering division of the Minnesota University. Lumber is expensive. Paint improves the appearance of buildings, but more than that, it adds materially to their permanency. Once the building is neglected it is much more difficult to stop the deterioration.

Mr. White says the surface to be painted should be dry, clean, smooth, and free from frost. It should be dry and clean, for oil will not penetrate where there is moisture or grease. It should be smooth in order that an even coat may be easily applied. It should be warm enough to permit the oil to penetrate and bind the pigment to the surface painted. In considering the cost of painting it is often estimated that a gallon of paint will give two coats to 250 square feet.

Farm machinery, too, looks better when painted and it lasts much longer and gives more satisfactory service if painted before the wood has checked or decayed.

Cabbage keep well wrapped in newspaper and turned bottom side up on shelves in a cool cellar.

The country's biggest rancher— what he thinks about the packers

Robert J. Kleburg is manager of the "Million Acre Ranch" in Texas. He keeps about 40,000 breeding cattle. The following is from his remarks made recently before a committee:

"Their (the packers') business prospers most when they have an ample and regular supply of live stock from which to draw.

"It therefore follows, as a matter of course, that it is to the interests of the packers to foster, not to hamper, live stock production. In order to do this they must pay the producer of live stock a fair price for his products, so that he, the producer, may be enabled to stay in business.

"I therefore contend and believe that the producer of live stock who conducts his business properly has nothing whatever to fear from the packers. He needs the packers to prepare his product for the market and to distribute it.

"Without the aid of the packers the production of live stock could not exist as an industry.

"I can well remember when there was no real market

for live stock in the part of the country in which I lived—southwest Texas.

"In those days we drove the steer to the butcher's pen. The butcher would slaughter him, throw away the head, horns, hoofs and other offal, and give the producer credit for so much meat at his shop. All of this waste is now saved and marketed. * * * *

"I believe that when a business is as big as the packers' business, that business has to be conducted properly and on business lines and on principles of fairness to the public.

"I do not believe they can afford in their own interests to conduct their business in such a way that it injures the great mass of people with whom they do business. * * * *

"Nor do I believe that the packer can control the law of supply and demand."

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Money in Small Orchards

The Midwest Faces a Great Fruit Shortage

BY GUY V. HOLSINGER

THE MIDDLE WEST is facing a shortage of all kinds of fruit at the present time. The production of fruit in most sections of this territory is way below what it should be. Practically no orchards have been set out during the past 10 years. As late as the winter of 1909-10 thousands of acres of fine orchards and of the best varieties were cut out. In addition to this thousands of acres of orchards have died from disease and neglect, and have since been removed. At the present time it is doubtful whether the Middle West has 50 per cent of the trees that it had 15 years ago. One has only to note the present condition of most farm orchards to be convinced that it is high time that a lot of planting be done.

Trees Need Good Care

Many of the college extension horticultural men have felt heretofore that it was quite important to show farmers and fruit growers that the orchards that they now have are valuable and worthy of the necessary care to make them profitable. Because of the lesser importance of the orchard as measured by the other farm activities the average farmer has been disposed to neglect his trees. Too many farmers have been inclined to use the orchard as a sheep or hog pasture, and if in addition to pasturing thus obtained some fruit was produced, it was that much clear gain.

Professor R. S. Herrick came to Iowa a few years ago from Colorado. He realized that if the apples were pruned, sprayed and given such other cultural methods as might be required the orchard would be the most valuable part of the farm. It was at first difficult to convince the farmer that such was the case. Here and there in various parts of the state owners of small orchards were persuaded to buy small spraying outfits and spray their trees. Professor Herrick's idea was not so much the telling of people how the work should be done, but actually going into the orchard and spraying a definite number of trees from 50 to 100 in the way that he felt that the work should be done.

It is well to state here that practically all the orchards sprayed are farm orchards varying from 30 trees or 1 acre, and up to 4 or 5 acres in extent. Nearly all the commercial orchardists already knew that they must spray in order to make a profit, therefore, little time was given to them.

Co-operation Brings Results

The average farmer knows little about entomology or botany, and therefore, does not realize the importance of applying the spray mixture at the proper time. Furthermore the farm orchard had been anything else but a profitable venture. It required from \$25 to \$50 to buy a hand outfit large enough to spray a farm orchard of 30 to 100 trees. Spray material costs ran from 20 cents to 30 cents a tree plus the cost of labor for applying the same. Because of past experiences the average farmer was not very enthusiastic in putting \$100 into something that heretofore had been a failure so far as financial returns were concerned.

Professor Herrick found here and there in every community some of the farmers who were willing to co-operate and with practically no exceptions the

results were so satisfactory that the owners have continued the work. To show how this work was put into effect a farmer living southeast of Des Moines, had a 10-acre orchard that never had produced enough apples to make it profitable. The owner had just about decided to get rid of it by removing the trees and devoting the land to other farm crops. Hearing that a spraying demonstration was to be held in an adjoining county he traveled 30 miles to see it. He was so impressed with the possibilities that he decided to go home and put into practice some of the things that he saw demonstrated. This was in the spring of 1913. Since that time the orchard has netted more than \$100 an acre each year. In 1918 the gross sales were \$6,000, of which \$4,000 was above cost of production. The crop of apples in 1918 made more clear profit than the rest of the 240-acre farm. The owner is now increasing his planting instead of cutting out the trees as he had originally intended doing.

At Clear Lake a renter of a farm found that the orchard of 4 acres was an incumbrance. He therefore re-rented the orchard back to the owner of the farm for \$7 per acre. A small power outfit was obtained and the orchard sprayed four times. In the fall of 1918 the crop netted over \$1,600, and with equally good results in 1919. Had the owner been living on the farm where he could have given a little closer attention to the management of the orchard the net returns would have been considerably more.

Farm Bureau Helps

The great factor in making the spraying of the farm orchard such a success in Iowa has been thru the influence of the Farm Bureau. As near as we can find out less than 400 men were spraying in Iowa prior to 1915. In 1919, 2,342 orchards were sprayed and we are reasonably sure that more than 4,000 will be sprayed in 1920. It is estimated that there are 25,000 farms in the state with orchards ranging from one half acre in size upward. One can readily see that it is no small job to educate the public up to the point where all of these will be given proper care and attention.

That it will pay to do so there can be no question, for the trees sprayed during the past four years made a net average gain of \$7.83 a tree over those that were not sprayed. The actual cost for spraying—including spray material, labor and depreciation on machinery, was less than 60 cents a tree. The whole thing resolves itself into this, the man who has an orchard and takes care of it has apples to eat from August to April, and with a surplus to supply the neighbors. Many persons will contend that they would rather buy their supply than raise them, but the fellow who has to buy at \$2 to \$3 a bushel is not going to consume anything like the quantity that he would if he had a supply available.

So far it has been Professor Herrick's policy to get farmers and orchardists to care for the orchard that they already have, rather than encourage the planting out of more trees. He does feel that no farm is complete that does not contain enough fruit trees suitable to the country in which the farm is located and in quantities sufficient for home use. This will require from 25



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to 50 trees of all kinds. This is, strictly speaking, a home proposition.

With an orchard of this size a small hand power sprayer can be used. One should hesitate in planting an orchard of 2 or 3 acres for the reason that it does not fit into the general scheme of things as managed on the farm. If one is interested in planting a commercial orchard it should be large enough to become one of the major activities of the farm. This will mean that the farmer should plant 5 or more acres and will thus enable him to use a power sprayer rather than a small hand pump when the trees are ready to be sprayed.

For the home orchard the grower should include varieties of apples, peach, plum and cherry that ripen in succession so as to make the producing season last over as long a period as possible. The following suggestive list will convey what the writer has in mind. Most of these varieties do well in the northern half of Missouri and Kansas and the southern one third of Iowa.

This list should include two trees each of the following apple varieties: Oldenburg, Yellow Transparent, Wealthy, Delicious, Grimes, Jonathan, Tallman. To these should be added six Winesap and six York apple trees. The orchard also should contain two trees each of Richmond, Montgomery and English Morello cherries; and two trees each of Dawson, Wild Goose, Burbank, and Hanson Hybrids. The Waneta and Hanska are especially recommended of the Hanson Hybrids. Two trees each of the following kinds of pears will be found desirable: Kieffer, Berkett Seedling, Garber. In the proper latitude 12 to 20 peach trees should be added.

This list of fruit includes some of the best varieties of apples, plums, cherries, and pears that do well in this section of the Middle West. The list is by no means complete for there are many other good varieties. Individual preference should guide one in selecting his list of trees and small fruit, but at the same time he should choose from those sorts that have done well in the community, or else those that have been approved by the state horticultural society or the experiment station of his state.

On the other hand if one chooses to plant a small commercial orchard, he should not plant too many varieties. Probably four to five of the proved and established sorts are all that should be planted.

There is no question but what the Middle West is in great need of men who are willing to plant more orchards. If given proper care and attention there are few phases of agriculture that offer financial reward as will a well kept orchard.

A Real Farm Home

BY MRS. IDA MIGLIARIO

One of the attractive farm homes of Meade county is that of Mr. and Mrs. C. J. Hays. When building the new home Mr. and Mrs. Hays decided to have it wired for electricity and stacked for furnace heat so that when they were ready to install these two farm home conveniences it would not be necessary to do any remodeling of the house.

The living and dining rooms of the Hays home are most attractive with their hardwood floors and tinted walls.

The color scheme used is that of the tans and browns. The draperies in the rooms have a great deal of rich green as do the rugs; this color blends nicely with the brown and tan background. The fumed oak, brown wicker and brown leather upholstered furniture give a most restful atmosphere to the home.

Mrs. Hays and the neighboring ladies are just now in the first steps of the organization of a Community Homemakers' club. In planning the type of club that would be most beneficial to them, they decided that they wished to study all of the subjects that have to do with successful homemaking. Too many times we think of cooking, sewing and home nursing as the only subjects for study in homemakers' clubs. The ladies in this community feel that to be 100 per cent efficient in the art of homemaking they need to have a complete knowledge of everything that in any way touches home life. And so they intend to include in their course of study along with cooking, sewing and home nursing, the balancing of meals, some work in costume and design; and the study of good pictures, books and magazines. They desire also to study good music. In taking up these subjects they wish to study the lives of the authors, composers and artists so that when they buy music, books or pictures they will know by the name of the producer whether the one in question is classed with the best that can be obtained.

Plan to Produce a Living

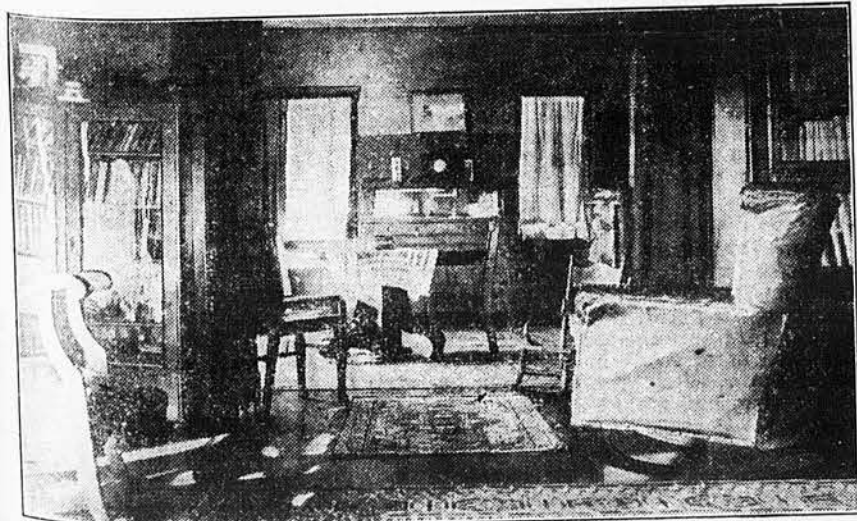
Much is to be said against farmers scattering their efforts over a whole lot of things while trying to make the land produce all of the living for the family. When all of the land is in wheat, for instance, cows and pigs and chickens and a garden may not be worth the effort when conditions are normal. It depends upon individual temperament.

But conditions are not normal now. They may get much worse before they get much better. A reasonable return to the ancient ways of agricultural self-reliance and independence will at least not be unsafe. Old-timers who homesteaded their claims know how it is done. Some of them still do it. All of them can do it again and show others the way.

The family which has milk and butter, poultry and eggs, and some hams, shoulders, bacon, and lard stored away, can stick it out a long while. There is not a farm in Kansas on which all of these things are not possible. Potatoes, sweet potatoes, beets, turnips, carrots, parsnips, cabbage, and tomatoes may be grown on nearly every farm in Kansas every year. A little irrigation may be needed to get by with them sometimes, but not much.

Time spent in the production of these things, which the family must have to be well-nourished, may bring most satisfying returns during the coming year. It may be that if you do not produce them, you will not have them. If you do not produce what you need when you can produce it, others may not do it for you. Others now are refusing to produce for you necessities which you cannot produce and must have or suffer.

The problem of living will be simplified if farmers will do all that they can to care for themselves and their own.



The Dining Room in the Beautiful Farm Home of Mr. and Mrs. C. J. Hays of Meade County; it Has Hardwood Floors and Tinted Walls.



HAVING devoted 53 years to the seed business, I know the importance of good seeds. All my energy has been devoted to the growing and distribution of quality seeds—seeds that are high in germination and will give you best satisfaction.

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J. B. Barteldes



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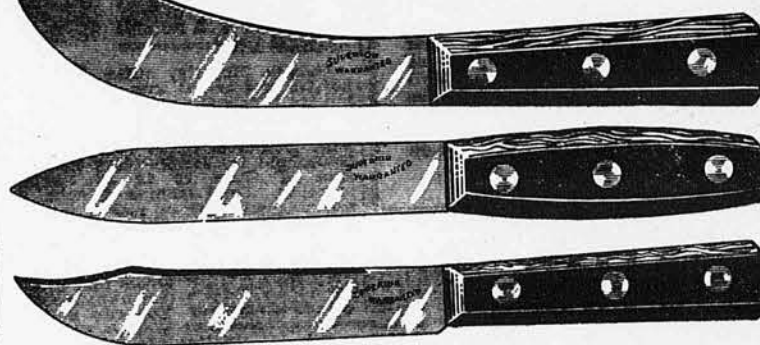
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This picture shows a "Chink" doing his daily wash. In the picture are a few faces of his customers—these faces can be discovered by a little figuring, and by turning and twisting the picture in various positions. It looks easy and simple, but if you can find as many as two faces, mark them with an (X), and return the picture to us, and we will send you full information regarding the \$1,000 in prizes which will be given away FREE.

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A Good Rotation Pays

BY F. B. NICHOLS

WHEN A man uses a good rotation he can increase his crop yields and the farm profits easier than in perhaps any other way. This fact is recognized generally by most of the leading farmers in Kansas, and it has been well shown by the experiment station work. It is especially important to get a rotation that includes a considerable place for the legumes, such as alfalfa, clover or cowpeas.

At the Kansas Experiment station at Manhattan, where corn has been grown continuously for eight years, the yield of corn in 1917 was 17½ bushels an acre. In a simple rotation of two crops of corn and one of wheat the yield of corn was 22½ bushels, an increase of 5 bushels an acre. In the same rotation where cowpeas were sown after harvesting the wheat and plowed under in the fall before frost, the yield was increased to 34½ bushels an acre. On a field that grew alfalfa four years, corn two years, wheat one year, and then corn again, the yield was 45 bushels, an increase over the ground on which corn had been grown continuously of 27½ bushels an acre. This great increase in yield was due in a great measure to the beneficial effects of alfalfa.

Quite naturally a rotation is easier to work out in Eastern Kansas than in the Western half of the state for one does not have to contend with so great a moisture limitation—and it is bad enough some seasons in Eastern Kansas. But one can follow the principles of crop rotation as closely as his local conditions will permit. He should try to include a legume, a cultivated crop such as corn, potatoes or kafir and a grain crop such as wheat or oats. Just the way these crops are combined will of course ever be the problem of the individual farmer. Certainly the most used rotation in the United States of corn, oats, wheat and clover is a good one where the local conditions are adapted to its use.

Fortunately the Kansas State Agricultural college has obtained a considerable fund of information in the co-operative work in crop production which has been done over the state. You can obtain complete information in regard to the results with rotations in your section if you will write to L. E. Call, professor of agronomy, Kansas State Agricultural college, Manhattan. In every case a good rotation has produced a large increase in returns.

Farmers Busy Planting Crops

BY JOHN W. WILKINSON

Farmers in every part of Kansas are busy planting and making preparations for their spring crops. Ground that has not been prepared previously is being plowed in many localities when weather and soil conditions will permit this work to be undertaken. This year farmers are studying market conditions and demands more closely than heretofore and these things will influence them greatly in making up their minds about the kinds of crops and livestock that will be handled.

Price Situation in Nutshell

The level of prices paid producers of the United States for the principal crops increased about 4.5 per cent during December; in the last 10 years the price level increased in like period about 2.2 per cent. On January 1, 1920, the index figure of prices was about 18.9 per cent higher than a year ago, 12.3 per cent higher than two years ago, and 84.7 per cent higher than the average of the last 10 years on January 1.

The prices of meat animals—hogs, cattle, sheep, and chickens—to producers of the United States decreased 2.9 per cent from November 15 to December 15; in the last nine years prices decreased in like period 0.7 per cent. On December 15 the index figure of prices for these meat animals was about 13.9 per cent lower than a year ago, 9.4 per cent lower than two years ago, and 44.2 per cent higher than the average of the last nine years on December 15.

Food Products Advance

From December, 1918, to December, 1919, 19 foods increased in price, as follows: Onions, 108 per cent; prunes, 53; coffee, 51; raisins, 48; potatoes and granulated sugar, 34 each; rice, 27; canned salmon, 16; flour, 15; strictly fresh eggs, 11; storage eggs, 9; butter, 7; fresh milk, 6; bread, 4; cornmeal and tea, 3 each; hens and lard, 2 each, and cheese, 1. Ten articles decreased in price, as follows: navy beans, 21 per cent; plate beef, 18; bacon, 14; chuck roast, 11; pork chops, 8; ham and round steak, 6 each; rib roast, 5; sirloin steak, 3, and lamb, 2.

From December, 1913, to December, 1919, six foods increased over 100 per cent, as follows: Rice, 103 per cent; cornmeal, 113; lard, 121; potatoes, 126; flour, 141; granulated sugar, 169. Eighteen other foods increased 50 per cent or over, with the exception of tea, 27 per cent, and plate beef, 43.

In all but four of fifty cities the average family expenditure for 22 foods increased between November 15 to December 15. The decrease, in Fall River, Boston, Norfolk and Richmond, was less than five-tenths of 1 per cent.

Increases ranged from less than five-tenths of 1 per cent to 5 per cent.

From December, 1918, to December, 1919, the increases included: Minneapolis, 14 per cent; Omaha, 12, and Mobile, 10. Baltimore decreased 2 per cent. Since 1913 increases were shown in Richmond and Providence, 100 per cent each; Buffalo, 101; Atlanta, 102; Charleston, Memphis and Minneapolis, 105 each; Detroit, 106; Omaha, 108, and Birmingham, 109.

Reports from various parts of the state show some improvement in the condition of winter wheat while in other sections there has been little change. All agree that a good deep snow at this time would improve the wheat situation very materially. A good acreage of oats and also of spring wheat will be sown in those counties adapted to the growing of spring wheat. Local conditions over the state are shown in the following county reports:

Atchison—The past week has been damp and cloudy with frequent rains. Roads are very muddy and bad, as frost is present out of the ground. Early sowing of wheat is satisfactory, but late sowing does not look very well. Hay is plentiful, and a good deal of shock fodder still is in the field.—Alfred Cole, Feb. 7.

Barton—Wheat needs moisture. Weather is pleasant, and farmers are doing many odd jobs.—Elmer Bird, Jan. 31.

Brown—Weather is damp and disagreeable. We have plenty of feed for livestock. Corn is high and scarce and not many hogs are being fed. Cattle sell well at sales and horses bring better prices. Wheat still is in excellent condition. The amount of moisture thus far for the winter is below normal. Wheat is \$2.30; corn, \$1.38; oats, 90¢; eggs, 40¢; cream, 56¢; hogs, \$11.—A. C. Dannerberg, Feb. 6.

Cheyenne—Three and one-half to 4 inches of snow fell in the northwest part of county this week, but the fall was light in the southeast part. The moisture will benefit wheat, although there was an abundance of moisture before. Weather now is fair. Farmers are getting ready to sow spring wheat, and a large acreage probably will be sown. Winter wheat is coming along well in excellent condition. There is no demand for corn and barley. A few more will be held next week. Elevators are paying \$2 for wheat; eggs, 42¢; butterfat, 40¢.—F. M. Hurlock, Feb. 7.

Crawford—Weather is warmer, but winds are very bad. Wheat does not look well. Cows are more plentiful, but roads are so bad that very little wheat is being marketed. Feed is scarce and high.—H. B. Painter, Feb. 8.

Geary—Weather has been cloudy and wet. One inch of rain fell February 2 and 3. Roads are in bad condition. Wheat looks good. Rough feed is plentiful, but pasture and grain are so high that farmers will keep fewer cows and brood sows than usual. Calf crop will be light this spring, as farmers are shipping out a good many sows.—O. R. Strauss, Feb. 7.

Gray—Weather is pleasant with occasional cloudy and foggy days. It is good for stock and wheat pasture. Moisture for wheat seed will be very beneficial. Nearly all the seed has been sown, and the yield will be very good. Influenza is prevalent, and nearly all schools are closed. Kafir is selling for \$2; barley, \$1.—A. E. Alexander, Feb. 7.

Hamilton—We had ideal winter weather during January, with but little snow or severe storms. Stock grazed on pasture and saved great quantities of feed. The spring crop of calves, lambs and pigs will be large. There are not many hogs in the county, but the pig crop will be heavy. We have some influenza here, but the general health of the people is good. A large acreage of spring crops will be planted. Pasture lands rent for 10 to 30¢ an acre; better

is worth 60c; eggs, 50c; kafir and maize, \$1.50 a cwt.; hens, 26c; good beef by the quarter, 15 to 18c.—W. H. Brown, Feb. 7.

Harvey—Weather is cloudy and foggy. There is plenty of moisture for wheat. Sales are being held daily and livestock prices are good. Pigs and brood sows are scarce and high priced. Nearly all very early are going out of hog business. Wheat prices are lower. Butter is worth 42c; eggs, 42c; potatoes, 90c a peck; apples, 1.50 to 3.00.—H. W. Prouty, Feb. 6.

Haskell—Wheat is in good condition, but moisture would be beneficial. We had a light shower this week. Livestock is doing well as there is plenty of feed, and some wheat pasture. Farmers are plowing and planting their spring work. We are getting plenty of grain cars now. Wheat is \$2; maize, \$1.70; kafir, \$1.70; butterfat, 54c.—H. E. Tegarden, Feb. 7.

Jackson—Weather has been cloudy and rainy the last week, and frost is nearly out of ground. Many public farm sales have been held. Stock looks well, and feed is plentiful. Corn is worth \$1.50; wheat, \$2.30; oats, 80c; hogs, \$13.50 and \$14.—F. O. Gables, Feb. 7.

Jefferson—We have had good winter weather for some time. Roads are good. Conditions are favorable for winter work. Most of the wheat looks satisfactory. Some persons are moving while roads and weather are good.—Z. G. Jones, Feb. 4.

Jewell—Wheat is standing the winter satisfactorily. Cattle and horses are doing well. Weather has been very disagreeable since February 1. We have had snow, hail, rain and ice, but the weather being warm, it did very little damage. Nearly every family has the influenza. Few public sales are being held and nearly everyone is staying at home.—U. S. Godding, Feb. 7.

Labette—Weather is foggy, and there is much influenza in this county. Wheat is growing on account of the damp weather. Ground is bad for hauling feed from fields. A few sales were held during January and better prices prevailed. Rough feed is plentiful. Eggs are 50c; cream, 50c; apples, 1 to 1.50 a pound; potatoes, \$3.25.—J. N. McLane, Feb. 6.

Lincoln—We had a good rain February 3 and 4, but weather cleared up warm. Wheat should show up soon. Farmers are getting ready for oats and barley sowing. Public sales are getting more numerous. Mules sell high and prices for horses are improving. No cattle are on feed. Eggs are 42c.—E. J. Walker, Feb. 7.

Linn—Weather is warm and damp, and ground is in good condition for plowing but few farmers have begun the work. A few sales have been held, and everything sells well, especially cows and mules. Stock is wintering well. A light form of influenza is prevalent here and some schools are closed. There also is some diphtheria and mumps in the county. Farmers are getting up wood and cutting hedge. Some oil drills are being worked, with no great success as yet.—J. W. Cline-Smith, Feb. 7.

Logan—Weather is pleasant and there is plenty of moisture in the ground. Livestock is in good condition. Wheat is satisfactory. Cream is worth 52c; eggs, 45c; corn, \$1.15; barley, \$1; oats, 80c; cane seed, \$1.—T. J. Daw, Feb. 6.

Marshall—We are having excellent weather and an early spring is predicted. Not much plowing for oats was done last fall, as it generally is disked in corn ground. Wheat is not showing up as it should. Sales are being held every day, and everything sells well, but not as high as last year. Not much land is changing hands. Corn is \$1.45; wheat, \$2.50 to \$2.65; millet, \$2.10 to \$2.30; oats, 80c; butterfat, 56c; eggs, 42c; hens, 23c; springs, 23c; shorts, \$3; bran, \$2.25.—C. A. Bollberg, Feb. 2.

Pottawatomie—Wheat has begun to show from the last few days. Weather is cold and foggy, and frost is nearly out of ground. Most livestock wintered well, and we have plenty of feed. Some land is changing hands at advanced prices. Corn is up, and hogs are down. Two sales have been held every week and prices for produce are good. Milk is high. We have a great many influenza cases.—F. E. Austin, Feb. 7.

Reed—We have had a good rain, and wheat is greening well. Grass has started to grow. Many farmers are disappointed with the outlook for wheat, however it is too early to tell how it will turn out. We are getting for the warm weather as it saves feed. There still is some corn in the field. No much wheat is being hauled to market.—D. B. Hart, Feb. 7.

Republic—Weather had been pleasant, and roads are getting better again when the rain of February 4, 5 and 6 came which covered everything with ice. The ice is melted now, and roads and fields are very muddy. Growing wheat does not seem to be damaged. Many farm sales have been held, and high prices have been received. Farmers are shipping much alfalfa hay to Kansas City. It brings \$20 to \$28 a ton; wheat, \$2.25; corn, \$1.35; oats, 80c; eggs, 42c; butterfat, 60c; hogs, \$13.—E. L. Shepard, Feb. 7.

Russell—We had a good rain this week, and weather has been cloudy, foggy and damp since. It is very beneficial to wheat. Cattle are doing well. Farmers complain of the shortage of cars to move wheat. Much sickness and influenza is prevalent here, and there is one case of smallpox.—Mrs. M. Baskin, Feb. 5.

Trego—Weather has been changeable, with some fog. Prospects for wheat are good. There is some wheat to be threshed yet. Feed is plentiful. We have a great deal of cane seed, but there is not much demand for it. Wheat is \$1.60 to \$2.30; corn, \$1.25 to \$1.50; oats, 90c; kafir and feterita, \$1.25 to \$1.50.—C. C. Cross, Feb. 2.

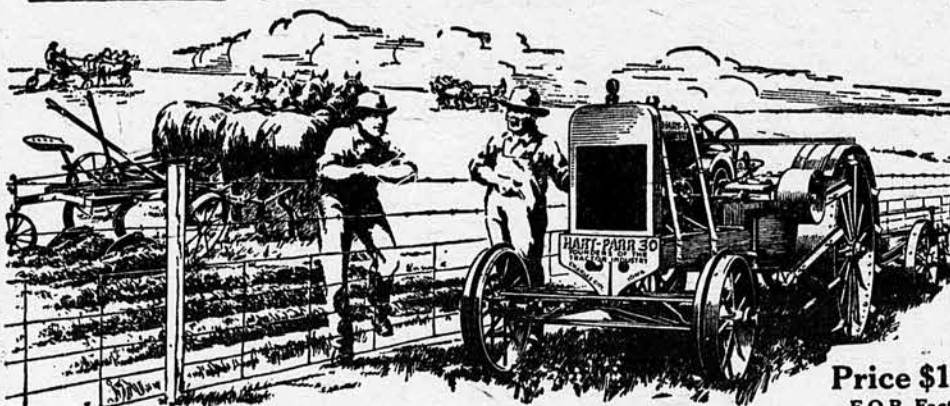
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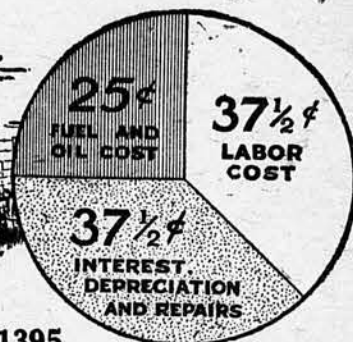
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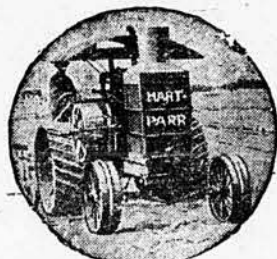
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WE PAY THE HIGHEST MARKET PRICES ALWAYS—DON'T BE MISLED BY IMITATORS.

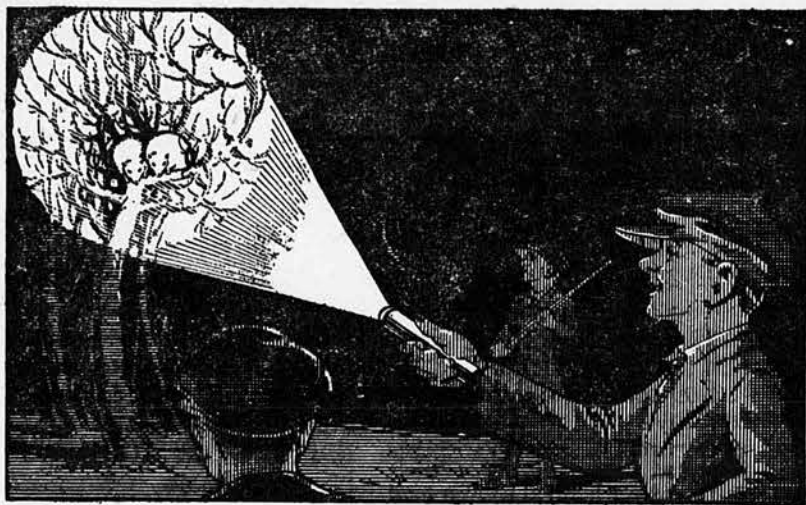


HIDES and FURS

Green Salt Cured Hides (under 45 lbs.) No. 1.....32c
 Green Salt Cured Hides (under 45 lbs.) No. 2.....31c
 Green Salt Cured Hides (over 45 lbs.) No. 1.....25c
 Green Salt Cured Hides (over 45 lbs.) No. 2.....22c

Horse Hides, as to size, No. 1.....\$9.00 to \$11.00
 Horse Hides, as to size, No. 2.....\$8.00 to \$10.00

T.J. BROWN 126 North TOPEKA, KAN.
 Kansas Ave.



BOYS! BOYS! Here's Your Chance

Use Your Flashlight Whenever You Want To

What would be nicer these cold winter evenings when you are out setting your traps, skating, or coasting down some big long hill than to have a reliable flashlight that you can call your own? Wouldn't it be more enjoyable when you go out for an evening's outing, skating, coasting, etc., with your boy and girl friends to reach up on the shelf and get your own flashlight instead of borrowing your mother's or father's? How often have you been out in the evenings enjoying yourself when some little thing went wrong that spoiled your evening, and which could have easily been fixed in the dark if you only had a flashlight?

Make Your Batteries When You Need Them

The beauty of our Flashlight Outfit is, if some night you have had a little hard luck, and have had to burn your flashlight until the battery was exhausted, you can immediately make a new battery in just a few minutes' time. You won't have to wait until the next day to go to the store for a new battery—you make your own. It is so simple that a boy or girl 10 or 12 years old can make these batteries by following the instructions. It's great fun to make these batteries, and when you get one of the outfits, invite your neighbor boys and girls over some evening and surprise them

by showing what you can do. You can make a battery absolutely fresh, full of life and power which will give a brighter light, and a longer lasting light than the battery you buy at the store. Be the first one in your neighborhood to get one of these outfits, and you will always have a crowd of your friends watching you make these batteries. They will think you are a genius—you will be envied by all of them. It's so simple they will all be wanting you to show them how it is done. You will be considered a wonder when it comes to making your own battery with our outfit.

Why You Should Make Your Batteries

Here Are the Reasons:

The life of a battery depends upon its age. The minute a battery is made, chemical action caused by the combining of different elements, starts. Deterioration begins, and the term of the battery life is definitely fixed. With ordinary batteries, if you are fortunate enough to secure one fresh from the store, you secure a battery of usefulness—but never 100 per cent—some deterioration is sure. Our MAKE-

UR-OWN outfit comes "knocked down," ready to assemble in a jiffy, and here is the big point. Until you assemble the parts—at the time you need a fresh battery, the MAKE-UR-OWN principle keeps all the life intact. There's no life lost in deterioration before you get the battery. The battery reaches you all complete and packed in a nice carton, consisting of six zinc receptacles, six electrodes, one stirring stick and COMPLETE INSTRUCTIONS.

Given Free on Big Special Offer

Mail Coupon Today—Quick

We want every reader of this paper to take advantage of this most wonderful offer, especially the boys. Never before has such an opportunity confronted you. Either one of our wonderful outfits will be sent you FREE and POSTPAID for just a little easy work which you can do in an hour's time. All we ask is that you distribute a few big, colored pictures among your friends on our fast selling 25 cent offer. The pictures are wonderful, and go like wildfire.

If you have no flashlight, order Offer No. 1.
 If you already have a flashlight of standard tubular size, order Offer No. 2.
 Mail coupon today; don't miss this opportunity.

OFFER No. 1. This offer includes Outfit No. 1, with flashlight, and is twelve of our big, beautiful colored pictures. Mail coupon TODAY.

OFFER No. 2. This offer includes Outfit No. 2, without flashlight, and is given FREE and POSTPAID for distributing only six of our big, beautiful, colored pictures. Mail coupon TODAY.

C. C. FRENCH, 207 Capper Bldg., Topeka, Kan.

Dear Sir—I am very much interested in your Battery Offer. Please send me enough pictures to get Outfit No.

Name

St. or R. F. D.

Town..... State.....

Larger Yields With Onions

BY C. E. DOWNING

Onions should stand from six to nine plants to the foot, depending on the variety of onions. Three or four days after seeding I drag the field with a small drag pulled by hand, the teeth being made of 20-penny spikes and arranged so they can be set at a desired slant. One man can easily drag 4 acres a day. By going over the field both ways with this drag before the sprouts get started on the onion seed, the weeds that would appear at the time the onions get above ground will be destroyed.

As soon as the rows of onions can be followed, cultivate with a wheel hoe, with knives set as close as possible without damaging the young plants. Follow this with a drag crossways with the teeth set at an angle that won't drag out the plants. This will remove the crust in the row and destroy the small germinating weeds. This should be repeated in a few days before the onions get so large that they would be broken down. Aim to stir the ground often to destroy weeds before they become noticeable. This is the cheapest and the only way.

Suspend a sack between the handles and sew it up in order that it will not swing with the motion of the cultivator.

Compel the operator, even if it is yourself, to pull all the weeds the cultivator misses. These can be put into the sack and dumped at the end of the field. It will surprise you how soon the operator learns to catch most of the weeds with the cultivator. If the culture is carried on properly, there may be no necessity for resorting to general hand-weeding. Fighting weeds is like fighting fire—it must be done quickly. There are men who cannot learn to cultivate until they are able to see weeds to kill. Such persons will always have weeds and have trouble.

About the time the bulbs begin to form we shove dirt to them. It seems to keep the plants growing longer, and we get larger bulbs. It protects them from the sun, thereby preserving their quality and color. Onions exposed to the sun become changed in texture similarly to the way a potato changes when it is exposed to the sun. Consumption is lessened with inferior quality, and since demand and consumption go hand in hand, the demand for inferior quality is decreased. An increased demand causes better prices. It is the rubbish thrown on the market that takes the profit out of the business.

Keep up cultivation as long as possible. If bulbing properly the leaves will alternately and freely break away from the main neck and form layers on the bulb. When the lower leaves die without parting at the base it signifies that corresponding layers are not being formed on the bulb, and the tendency is for the bulb to become a scullion or bottle-neck. This may be caused by the lack of available plant food.

This is the critical period. I sow 75 to 100 pounds of nitrate of soda to the acre and work up a good dust mulch even if it is necessary to do it with a narrow, straight-toothed garden rake cut off so it can be used conveniently between the rows. Vigor can

be attained in this way and a good crop produced. Neglect at this period would cause the crop to be a failure.

When the tops are mostly down and most of them have lost their color we pull the onions and place the crop in crates. These are stacked five high in a single row and covered with boards. After two or three days, we run them over a 15/8-inch screen and place them in the storage bins with the tops on. Onions will not keep well if topped before the neck is thoroughly shriveled; this action closes out the air and keeps fungus molds from getting in. They should not be left on the ground to cure any length of time, because dampness causes the bulbs that are ripe to start a second growth. This will not be noticeable for some time. By cutting onions that have been allowed to remain on the ground a small green second growth can be detected. Bulbs may appear sound and sell well, but if they are allowed to remain on the ground they are sure to sprout within a few weeks. No process of storing except solid freezing will keep these onions, and even then when the frost comes out the sprouts will start.

Onions must be handled with care. A bruised one will always try to reproduce itself and send out a second growth. The chief cause of the unsightly onions seen in a grocery store is poor handling.

Farmers Desire Better Teachers

Farmers of Kansas attending the state farmers' union in Hutchinson recently went on record for better rural schools. The resolutions adopted included provisions favoring less duplication of work of the state schools, declaring for more development of rural high schools, the giving of more practical instruction in agriculture, favored fewer instructors and supervisors and better salaries for those actually engaged in the teaching work and declared that only citizens of the United States should be employed in any school.

Registration Ages

A news item in a recent issue of an English livestock paper is as follows: "Fines were imposed on members who had neglected to observe the rule that births of calves must be properly notified to the society before such calves are 30 days old." Some difference between that and the two years which some Americans wish to take.

Our Best Three Offers

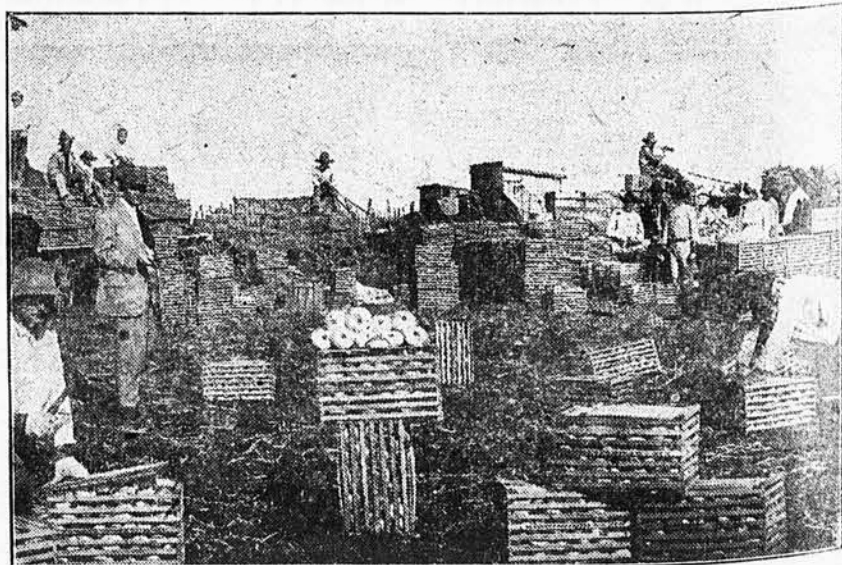
One old subscriber and one new subscriber, if sent together, can get The Kansas Farmer and Mail and Breeze one year for \$1.50. A club of three yearly subscriptions, if sent together, all for \$2; or one three-year subscription \$2.

"The Man Who Wins"

The man who wins is the average man. Not built on any peculiar plan;

Not blessed with any peculiar luck. But steady and earnest and full of Pluck.

A woman's tears are the greatest water-power known to man.—Atchison County Mail.



Onions May be Grown Profitably by Truck Farmers in Kansas if Attention is Paid to Getting Good Yields of High Quality Bulbs.

FARMERS' CLASSIFIED ADVERTISING

Rate: 12 cents a word, each insertion, on orders for less than four insertions; four or more consecutive insertions the rate is 10 cents a word. Count as a word each abbreviation, initial or number in advertisement and signature. No display type or illustrations admitted. Remittances must accompany orders. Real estate and livestock advertising have separate departments and are not accepted for this department.

TABLE OF RATES

Words	One time	Four times	Words	One time	Four times
1	\$1.20	\$4.40	26	\$3.12	\$10.40
2	1.32	4.40	27	3.24	10.80
3	1.44	4.80	28	3.36	11.20
4	1.56	5.20	29	3.48	11.60
5	1.68	5.60	30	3.60	12.00
6	1.80	6.00	31	3.72	12.40
7	1.92	6.40	32	3.84	12.80
8	2.04	6.80	33	3.96	13.20
9	2.16	7.20	34	4.08	13.60
10	2.28	7.60	35	4.20	14.00
11	2.40	8.00	36	4.32	14.40
12	2.52	8.40	37	4.44	14.80
13	2.64	8.80	38	4.56	15.20
14	2.76	9.20	39	4.68	15.60
15	2.88	9.60	40	4.80	16.00
16	3.00	10.00			

Special Notice All advertising copy, discontinuance or change of copy must reach this office by 10 o'clock Saturday morning, one week in advance of publication.

EMPLOYMENT

FARM HAND WANTED AT ONCE FOR team field work. A. R. Smith, Hamilton, Kan.

WANTED—GOOD FARM HAND. MUST BE a good milker. Work the year around for night man. J. P. Mast, Scranton, Kan.

MEN 18 UP. RAILWAY MAIL CLERKS. Commence \$1,300. Vacancy list free. Franklin Institute, Dept. 015, Rochester, N. Y.

WANTED—WOMAN UNDER MIDDLE AGE—Housekeeper, small farm, near town. Good home. Address 203 East 5th, Cherryvale, Kan.

FIREMEN, BRAKEMEN, BAGGAGEMEN, \$100-\$200. Colored porters by railroads everywhere. Experience unnecessary. 796 By Bureau, East St. Louis, Ill.

WANTED—MARRIED MAN WITH SON 12 years old for work by year. Good accommodations. Give references and money expected. W. W. Trumbo, Peabody, Kan.

AGENTS WANTED

WE PAY \$200 MONTHLY SALARY AND furnish rig and expenses to introduce guaranteed poultry and stock powders. Bigler Co., X 608, Springfield, Ill.

DON'T WASTE YOUR SPARE TIME—IT can be turned into money on our easy plan. We have a splendid offer for ambitious men or women who desire to add to their present income, and will give complete details on request. Simply say, "Tell me how to turn my spare time into dollars" and we will explain our plan completely. Address, Circulation Manager, Capper Publications, Topeka, Kan.

SERVICES OFFERED

PLEATINGS—MRS. M. J. MERCER, 800 Topeka Ave., Topeka, Kan.

AUCTIONEERS MAKE BIG MONEY; 67 passed annual free. Mo. Auction School, Kansas City, Mo.

FREE—OUR NEW EIGHTY PAGE STYLE book. Ideal Button and Pleating Co., Dept. B, Brown Bldg., Omaha, Neb.

TOBACCO OR SNUFF HABIT CURED OR to pay. \$1 if cured. Remedy sent on trial. Superba Co., Sy. Baltimore, Md.

LET US TAN YOUR HIDE, COW, HORSE, or suit skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

MATERNITY HOSPITAL AND HOME FOR unfortunate girls during confinement. Babies adopted free. The Veil, 15 West 21st Kansas City, Mo.

BOOKBENDERS—ANY SIZE ROLL FILM developed and six wax prints made for 25 cents cash with order. Runner Film Finishing Company, successor to E. J. Runner, Edgerton, Kan.

INVESTORS WRITE FOR OUR ILLUSTRATED book and evidence of conception. Send model or sketch for our opinion of its patentable nature. Highest references, prompt service. Reasonable terms. Victor J. Evans & Co., 825 Ninth, Washington, D. C.

FAIRMONT MATERNITY HOSPITAL for confinement, private, prices reasonable. May work for board, babies adopted. Write for booklet. Mrs. T. B. Long, 4911 East 27th St., Kansas City, Mo.

HIGH PRICES PAID FOR FARM AND dairy products by city people. A small classified advertisement in the Topeka Daily Capital will sell your apples, potatoes, pears, tomatoes and other surplus farm produce at small cost—only one cent a word each insertion. Try it.

SHIP YOUR LIVE STOCK TO US—COMPE- tent men in all departments. Twenty years on this market. Write us about your stock. Stockers and feeders bought on orders, market information free. Ryan Robison Commission Co., 425 Live Stock Exchange, Kansas City Stock Yards.

BUSINESS CHANCES

HANDLE MORE BUSINESS? ARE YOU getting all the business you can handle? If not get big results at small cost by running a classified ad in Capper's Weekly. The Great News Weekly of the Great West with more than a million and a quarter readers. Sample copy free for the asking. Only one word each week. Send in a trial ad now while you are thinking about it. Capper's Weekly, Topeka, Kan.

FOR SALE

WRITE FOR DELIVERED PRICES ON cedar posts. Pay after unloading. J. B. Overton, Sagle, Kan.

WHOLESALE PRICES ON BALE TIES, lumber delivered to any town in the state. Hall-McKee, Emporia, Kan.

MACHINERY.

WANTED—40-80 AVERY TRACTOR, CASH or trade. Crow Bros., Haxtum, Colo.

FOR SALE, 6 HOLE SANDWICH, READY to run. Fred Blewett, Studley, Kans.

INTERNATIONAL TWO TON TRUCK FOR sale, new. H. C. Hardie, Macksville, Kan.

18-36 AVERY TRACTOR, 4-BOTTOM PLOW, 300 gallon fuel tank. Used one season. H. J. Ledy, Abilene, Kan.

WILL TRADE AVERY MOTOR CULTIVATOR for small tractor or truck. Hayes Allen, Crab Orchard, Nebr.

MOLINE UNIVERSAL TRACTOR FOR sale. Latest model. Used one month. Jacob E. Loewen, Meade, Kan.

FIFTY HORSE CHARTER KEROSENE stationary engine, for sale. Lester Bridenstine, Route A, Marienthal, Kan.

FOR SALE—AULTMAN-TAYLOR TRAC- tor, 26-50 H. P. Run about 35 days. Write for information. H. E. Mueller, Macksville, Kan.

STOP AND READ—LITTLE "TWISTER" power transmitter for Ford and Dodge cars. 10 days free trial. Write for circular. Wm. Russell, Salina, Kan.

HART PARR "OIL KING" 35, FOR SALE, with four bottom plow. Reason for selling, dissolution of partnership. Algot Johnson, Sinolan, Kan., Salina, Mo.

NEARLY NEW 12-25 WATERLOO BOY Kerosene Tractor, first class condition, complete with three bottom 14 Oliver Plow. For quick sale \$790. Colbert Machinery Co., St. Joseph, Mo.

TRACTOR THRESHING OUTFIT, 25-50 Minneapolis tractor with six plows and 22-50 Aultman and Taylor separator. All in first class shape. Will trade. G. S. Stryker, Hesston, Kan.

WATERLOO BOY 12-24 KEROSENE TRAC- tor, plowed 150 acres, good as new with three bottom 14 inch Rock Island Plow. First check for \$675 buys the outfit. Colbert Machinery Co., St. Joseph, Mo.

FARM POWER BARGAINS—9 H. P. CHAL- lenge Farm Engine, steel truck; 2 1/2 h. p. Ottawa Gas Engine; 2 h. p. Gray Gas engine; 3 h. p. International oil engine, new; 8-ft. 3-in. new leather belt; 10-20 Titan tractor; 3/4 k. w. 32-volt dynamo, switch board. Above practically new and good condition. S. W. Baker, McLouth, Kansas.

SEEDS.

SEED CORN, EARLY AND LATE VARIE- ties. Laptad Stock Farm, Lawrence, Kan.

MELONS. TOM WATKINS. ECKLEY Sweet. Selected seed. M. Bailey, Peck, Kan.

SUMAC CANE SEED, \$4.50 PER HUN- dred. Test 99, 1919 crop. G. E. Irvin, Gage, Okla.

RED AMBER CANE SEED, \$2 PER bushel. Bags free. Claude Austin, Blue Mound, Kan.

BEST WHITE BLOSSOM SWEET CLOVER seed, low priced. John Lewis, Route 1, Madison, Kan.

RECLEANED WHITE KAFIR. DARSO and Ribbon cane, \$4 per hundred. Sacks extra. A. J. Thompson, Okarche, Okla.

ALFALFA SEED, CHOICE, RECLEANED, 35c per pound. Samples free. F. J. Bartel, Route 8, Topeka, Kans.

RED WEATHERFIELD ONION SEED direct from grower \$1 per pound delivered. C. Baldwin, Garnett, Kans.

SUDAN SEED RECLEANED, 1919 CROP, \$15 hundred, my station, sacks free. Henry Schulze, R. 3, Sedgewick, Kan.

CHOICE RED AMBER CANE SEED, \$2 bushel in burlap bags. Leoti, Kan. Samples free. D. E. Jacobs, Lydia, Kan.

PURE WHITE SOURLESS CANE SEED. Orders for 100 pounds or more, 4c per pound. T. J. Chastain, Satanta, Kan.

FOR SALE—ALFALFA SEED, 95% PURE, good germination, \$14 per bushel my track. Geo. Bowman, Concordia, Kan.

BROOM CORN SEED. EARLY DWARF Makes whorl. Grows even. Write for guarantee. Len Sanders, Atlanta, Kansas.

SEED CORN—BOONE COUNTY WHITE, butted, tipped, shelled, graded, tested 96 per cent. \$4 f. o. b. Lee Trotter, Gross, Kan.

BLACK AMBER CANE SEED, WELL MA- tured, re-cleaned, \$1.80 per bushel, sacked. F. O. B. Wiley, Arthur Thompson, Wiley, Kan.

DICKINSON COUNTY GROWN SEED corn. Boone County White and Goldmine samples free; \$4 per bu. J. F. Feigley, Enterprise, Kan.

EARLY, GOOD MATURED SEED—BLACK hull kafir, \$2.75 bu., 16 lbs. pure Sudan grass. Order at once, f. o. b. Harry Shepard, Lyndon, Kansas.

SEED CORN, AMERICA'S CHOICEST quality 90 to 130 bushels. Produces 2 1/2 lb. ears. Must please or money back. Bushel, \$4. Wiltse, Rulo, Neb.

I HAVE THE EARLIEST BLACK HULL kafir in the state; price \$4 per hundred f. o. b. For further information write Wm. Foster, Route 4, Box 53, Carbondale, Kan.

\$1 MONEY ORDER FOR EVERY NAME of parties having sweet clover seed (threshed or unthreshed) much or little that we can buy. Write quickly. Standard Seed Company, Eureka, Kan.

500 BUSHELS SEED CORN, STANDARD blue and white, \$3 bu. Shelled, graded and sacked. Germination test 98. Pure white rice popcorn seed, 9 cents lb. S. E. Stoughton, Hutchinson, Kan.

SEEDS—BLACK AND RED AMBER CANE, \$1.40 per bu. Golden cane, sumac, feterita, white kafir, Schrock kafir, \$2 per bu. Golden millet, \$2.50 per bushel. All sacked and re-cleaned. F. O. B. Oberlin, Northwestern Seed Co., Oberlin, Kan.

GUARANTEED SEEDS: WE HAVE A complete line at all times. We live where it grows and sell for less. We guarantee satisfaction in every case or refund your money. Look up our ad in the seeds section of this paper. It gives you prices of all kinds of seeds. Look for the little "square" Meier Seed Company, Russell, Kan.

TYPEWRITERS FOR SALE.

TYPEWRITER FOR SALE, CHEAP. TRIAL. Write J. Yotz, Shawnee, Kan.

FOR THE TABLE.

CLEAR EXTRACTED HONEY—60-POUND can, 18c a pound. L. Gorsuch, Lazear, Colo.

HONEY OF SUPERIOR QUALITY. ALSO Green county's cheese. Price list free. E. N. Rosa, Monroe, Wis.

HONEY—FANCY EXTRACTED MOUNTAIN Sunshine. 60 pound cans, 22c here. Two or more delivered free; 10 pounds, \$3.15 delivered. Satisfaction guaranteed. J. M. Lancaster, Greeley, Colo.

NAVY BEANS—GOOD WHITE NAVY beans, 10c per pound, in 120 pound lots. Sacked, 1919 crop. Good cooking, fine flavor. F. O. B. our track. F. C. Kohout (Grower), Rushville, Neb.

OLD FASHION "CUBAN MOLASSES," SPE- cial price for a few weeks. Guaranteed to keep all summer. 30-gal. barrels, 35c gal.; 60-gallon barrels, 30c a gallon. Cash with order. Winston Grain Co., Winston, N. C.

"THE BESTO" ROCKY MOUNTAIN honey, light colored, thick, fine flavored. Per can, five pounds net, postpaid anywhere west of Ohio river, \$1.50. Send remittance with order. The Colorado Honey Producers' Association, Denver, Colo.

WANTED.

WANTED—HEDGE POSTS IN CARLOAD lots. Chas. Peterson, Thayer, Kan.

PLANTS

STRAWBERRY PLANTS, \$4 to \$5 PER 1000. List free. J. Sterling, Judsonia, Ark.

FOR SALE—WHITE SILVER SKIN BOT- tom onion sets, run \$10,000; per bushel, \$4 F. O. B. Hutchinson. Reference Citizen Bank. G. C. Curtis, Hutchinson, Kan.

STRAWBERRY PLANTS—SENATOR DUN- lap, 75 cents per 100; Progressive, \$1.50 per 100; raspberries and blackberries, \$3 per 100; asparagus, 100 for \$1; Concord grapevines, \$1.50 per dozen; 25 pieplant, \$1 (prepaid). Order now. Catalog free. Welch Nursery, Shenandoah, Iowa.

HIGH GRADE FROST-PROOF CABBAGE Plants. Millions now ready. Varieties: Early Jersey and Charleston Wakefield. Succession, and Flat Dutch. Prices: 1000 for \$2.25; over 4000 at \$2 per 1000 by express, charges collect. By mail, postpaid 500 for \$1.75; 1,000 for \$3. Onion and lettuce plants same price. We are booking orders now for early tomato and potato plants. Write for literature. Satisfaction guaranteed. Piedmont Plant Company, Greenville, S. C. and Albany, Georgia.

PET STOCK.

FLEMISH GIANTS AND BELGIAN HARES, Maggie Houston, Potwin, Kan.

SCOTCH COLLIE PUPPIES, WESTERN Home Kennels, St. John, Kan.

TRAIL HOUNDS, FOX AND WOLF, VAR- ious breeds. Write Dr. Kennedy, Collins, Mo.

WANTED—100 WHITE ESQUIMO-SPITZ pups about six weeks old. Brockway Kennels, Baldwin, Kan.

FOX TERRIER PUPPIES. SEND ORDERS for February litter. Bitches, \$2.50; dogs, \$5. L. K. Poos, Lowmont, Kan.

FOR SALE—TRAIL HOUND, 14 MONTHS old,coon or wolf, 24 months old,coon or opossum. W. A. Cripe, Council Grove, Kan.

AIREDALE TERRIERS, FARM RAISED. Whelped November 23. Buy now and train for your purpose. Good breeding, eligible to register. E. Hewitt Griffin, Overlook Farm, Kincaid, Kan.

POULTRY

So many elements enter into the shipping of eggs by our advertisers and the hatching of same by our subscribers that the publishers of this paper cannot guarantee that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. Neither can we guarantee that fowls or baby chicks will reach destination alive, nor that they will be satisfactory because opinion varies as to value of poultry that is sold for more than market price. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

ANCONAS.

GOOD S. C. ANCONA COCKERELS, \$2. H. Schnatterly, Kinsley, Kan.

FIFTEEN PUREBRED ANCONA EGGS, \$1.50. Box 41, Denison, Kan.

S. C. ANCONA COCKERELS, \$3. MOTTLED Muscovy ducks, \$2 and \$3. Emma Luckey, Elk City, Kan.

ANCONA COCKERELS, \$3-\$5. EGGS, 16. \$2; 100, \$8. Prepaid "Dope Free." Eighteen years breeding poultry. Pages Farm, Salina, Kan.

BRAHMAS.

FOR SALE—LIGHT BRAHMA COCKER- els. Putifer Bros., Burritt, Kansas.

LIGHT BRAHMAS, COCKERELS, \$4-\$7 each. W. Seimars, Howard, Kans.

CHOICE LIGHT BRAHMA COCKERELS. Mrs. Harry Hayman, Formoso, Kan.

BANTAMS

GOLDEN SEABRIGHT BANTAMS, ONE dollar each. Lawrence Gray, Lyons, Kan.

CHICKS, EGGS, POPULAR VARIETIES. Free catalog describes 8000 pure bred heavy winter layers. Moderate prices. Missouri Poultry Farms, Columbia, Mo.

BABY CHICKS

ROSE COMB RED BABY CHICKS, 25 cents. Lily Robb, Neal, Kansas.

BARRON ENGLISH LEGHORNS—BABY chicks, 15 cents. Arthur Nitcher, Oberlin, Kan.

BABY CHICKS, LEADING VARIETIES. Booking orders now. Sarver Poultry Farm, Hastings, Neb.

BABY CHICKS—BOOKING ORDERS FOR early hatches. Write us—your wants. Clay Center Hatchery, Clay Center, Kan.

BABY CHICKS—SINGLE COMB WHITE Leghorns, 16c; Barred Plymouth Rocks, 18c, cash with order. Myers Hatchery, Clay Center, Kan.

CHICKS, EGGS; POPULAR STRAINS, leading varieties, free delivery, prices reasonable. Catalog. Standard Egg Farms, Cape Girardeau, Mo.

BABY CHICKS, PURE BRED S. C. WHITE Leghorns, 17c. Other leading varieties, 18c; prepaid; safe delivery guaranteed. C. G. Cook, Lyons, Kan.

BABY CHICKS—PURE BRED S. C. WHITE and Brown Leghorns, 17 cents; Barred Rocks, R. I. Reds, etc., 18 cents. Prepaid. Safe delivery guaranteed. C. G. Cook, Lyons, Kansas.

YOUNKIN'S DAY-OLD CHICKS—BUFF Orpingtons, Reds, 18c; Barred Rocks, Buff Leghorns, 17c; White Leghorns, 14c. 50 postpaid. Live delivery. Younklin's Hatchery, Wakefield, Kan.

BABY CHICKS—ROCKS, REDS, ORPING- tons. Minorcas, Brahmas, Leghorns, \$16 to \$25 per hundred, prepaid. Hatching eggs, \$2 for 15; \$4 for 50; \$7 for 100. Kansas Poultry Company, Norton, Kan.

BABY CHICKS AND EGGS—S. C. WHITE and Buff Orpingtons. Whites from 200 Poorman egg strain—S. C. White Leghorns mated with Ferris cocks. Chicks, 20 cents each. Mrs. Lawrence Rickles, Troy, Kan.

BABY CHICKS AND EGGS—SINGLE COMB Ancona and White Wyandotte eggs, \$6 per hundred; Ancona chicks, 18c; Wyandottes, 20c, prepaid. Order early for delivery dates. J. B. Brewer, Minneapolis, Kan.

YOU BUY THE BEST CHICKS FOR THE least money at Colwell Hatchery, Smith Center, Kansas. 150,000 to sell at 18c each. Guaranteed alive or replaced free. Leading varieties. 500 for \$89. We need more good White Rock and White Wyandotte eggs.

RHODE ISLAND REDS, BOTH COMBS; White and Barred Rocks; Buff Orpingtons; White and Silver Laced Wyandottes; White, Brown and Buff Leghorns, \$18 per hundred. Under 100, 20c. Eggs, \$2 setting; \$8 per hundred. Berry & Senne, Route 27, Topeka.

DAY OLD CHIX—BARRED AND WHITE Rock; Rose and Single Comb Reds, 18c; Single Comb Brown and White Leghorns, 16c; left overs, 15c each; by mail prepaid, guaranteed alive. One Buckeye 2440 egg incubator for sale, new. Edward Steinhoff, Leon, Kan.

SINGLE COMB WHITE LEGHORN DAY old chicks, 20c each. From world's best Smith, Young and Ferris strains. Guaranteed alive or replaced. 500 for \$99. From hens that pay \$8 each per year. Clara Colwell, Smith Center, Kan.

LOOK, BABY CHICKS—\$13 PER HUN- dred, up. We ship by parcel post, prepaid. S. C. White and Brown Leghorns, Barred and Buff Rocks, and Rhode Island Reds. Live delivery guaranteed. Catalog free. Huber's Reliable Hatchery, Box 4, Augusta, Kan.

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FOR SALE—DARK CORNISH FOWLS. A few good cockerels and utility pullets. L. C. Horst, Newton, Kansas.

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SINGLE COMB BROWN LEGHORN cockerels \$1.25. John Monasmith, Holyoke, Colo.

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BARRED ROCK COCKERELS, \$3 and \$5 each. William Harris, Waverly, Kan.

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SINGLE COMB RED COCKERELS, \$2.50 and \$3. Chas. Olsen, Alta Vista, Kan.

ROSE COMB RHODE ISLAND COCK- erels, \$3. Della Schultze, Quenemo, Kan.

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ROSE COMB RHODE ISLAND WHITE Cockerels, \$3 each. Mrs. George Ralstin, Mollinville, Kan.

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PURE BRED DARK R. C. REDS. EGGS \$1.50, 100, \$8, prepaid. Mrs. Elva Acheson, Paola, Kans.

EARLY DARK VELVET R. C. COCKERELS, \$2.50, \$1.50 setting. Freda Peckenpaugh, Lake City, Kan.

THOROBRED ROSE COMB DARK RED Cockerels, Bean strain, \$3-\$5. Mrs. Lillie Ward, Burlington, Kan.

LARGE DARK RED ROSE COMB REDS, \$2.50, \$1.50 setting. Satisfaction guaranteed. Richland Farm, Hedrick, Ia.

LARGE DARK RED R. C. R. I. COCKEREL, The Red quill kind. \$3 to \$5 each. W. A. Fish, Concordia, Kan.

ROSE COMB RED COCKERELS, \$1.50-\$3. Mrs. W. A. Miller, Winfield, Kan.

ROSE COMB RED COCKERELS, \$3 and \$5. Chicks and eggs from prize winning stock. Mrs. R. E. Hailey, Wiley, Kan.

DARK ROSE COMB RHODE ISLAND RED Cockerels, also three cocks, large, bony, \$2.50 and \$4. Chas. Jacob, Chapman, Kan.

ROSE COMB REDS—FINE LOT OF ROSE comb deep colored cockers. Longfield strain \$3 and \$5. A. R. Hoffman, Haddam, Conn.

LUNCEFORD'S SINGLE COMB QUALITY Cockerels \$5 each. Eggs \$1.50 per 10. \$3 per 100. Sadie Lunceford, Mapleton, Kan.

ROSE COMB RED COCKERELS, DARK red large bone, from good layers, \$3 to \$5; pullets, \$3. Mrs. Maude Smith, Alden, Kan.

ROSE COMB RHODE ISLAND WHITES, large, excellent layers. Eggs setting \$1.50; \$2.50. Mrs. Frank Sloman, Effingham, Kansas.

EGGS IN BOTH COMBS FROM OUR state show winners, \$3 per 15. Ask for mating list. Brumley Red Yards, Wellington, Kan.

LARGE DARK SINGLE COMB RHODE ISLAND Red cockers, big boned, from scored birds, \$3 to \$5. Mrs. Frank Melcher, Seneca, Kan.

MR. RED BREEDER—WHY NOT BUY eggs that will hatch R. C. R. I. Red chicks? \$2 per 15. Mrs. S. H. Nash, Kinsley, Kan.

PURE ROSE COMB RHODE ISLANDS. Dark red cockers for sale, from \$2.50 to \$5. Prime winter layers. Maggie Gingerub, Michelson Valley, Kan.

FINE LARGE BONED S. C. RED COCKERELS from the famous C. P. Scott strain direct. Eggs in season. Mrs. W. W. Scott, Route 5, Topeka, Kan.

OFFMAN'S FAMOUS REDS MAKE ANOTHER sweep at state show, finest cockers and eggs from finest matings. D. F. Coffman, Josephine, Tex.

LARGE DARK VELVET RED COCKERELS, Single Combs, \$2, \$3, \$5 each. Fine Bourbon Red turkey toms, \$6; hens, \$5. Mrs. L. A. Hawkins, Wakeeney, Kan.

PURE S. C. RHODE ISLAND REDS, EGGS \$1.50 per hundred from healthy range chicks. Some baby chicks \$15 per 100. Mrs. Hazel Spittler, Grenola, Kan.

ROSE COMB RHODE ISLAND WHITE Cockerels, \$5, \$7.50 and \$10. Guaranteed exhibition. Seven years a Rhode Island White breeder. Mrs. John F. Nevin, Arrington, Kan.

RHODE ISLAND REDS THAT ARE RED for sale. Cockerels, large single comb, \$2, \$3, \$5 each. We have tested nine years for purity qualities. Eggs \$10 per hundred. Henry Lenhart, Hope, Kan.

SINGLE COMBED COCKERELS, VIGOROUS farm raised, big boned, standard hatchery early hatched from winter layers. Winner at big Free fair. \$3.50 to \$10 each. Lakewood Farm, Route 7, Topeka, Kan.

ROSE COMB RHODE ISLAND WHITES—Cockerels \$3, \$4, \$5. This breed took first and second at national egg laying contest. 1919 Catalog. Eggs 100, \$12.50; \$6; 15, \$2.50. Col. Warren Russell, Winfield, Kan.

HEART OF AMERICA WINNER SINGLE Comb Reds. Tenth cockerel in class of 12 cockers with good color, type and user \$5 to \$15. Choice hatching eggs, setting list free. Olive E. Jones, Parsons, Kan.

ROSE COMB RHODE ISLAND REDS—FIVE choice large rich red cockers left at \$7.50 to \$10 on approval. Eggs for hatching, 15, \$2.50; \$5; 100, \$9; special prize winning \$5. Satisfaction guaranteed. Mrs. G. V. Kimbrel, Kiowa, Kan.

HARRISON'S FAMOUS "EXHIBITION" strain. Single and Rose Comb Reds. Show winning, non-sitting, developed layers. Red breeding bulletins and mating lists on request. Robert Harrison, "The Red," Station C, Lincoln, Neb.

WYANDOTTES.

PURE BRED WHITE WYANDOTTE COCKERELS, \$5. James Leland, Cummings, Kan.

WHITE WYANDOTTE COCKERELS FOR sale. Mrs. George Nixon, Peck, Kan.

PURE WHITE WYANDOTTE EGGS, \$8 per 100. James Christiansen, Canton, Kan.

WHITE WYANDOTTES, COCKERELS AND EGGS. H. O. Collins, Fontana, Kan.

GOOD SILVER WYANDOTTE COCKERELS. Mrs. L. Brunner, R. 5, Newton, Kan.

PURE WHITE WYANDOTTE COCKERELS, \$3 each. Nora Elliott, Haviland, Kan.

WHITE WYANDOTTE COCKERELS, \$3 each. Mary Lowe, Alma, Kan.

PURE BRED WHITE WYANDOTTE COCKERELS. Mrs. J. R. Antram, Galesburg, Kan.

I AM STILL SELLING SILVER WYANDOTTES. M. B. Caldwell, Broughton, Kan.

PURE ROSE COMB WHITE WYANDOTTE Cockerels, \$2. Verne Smith, Studley, Kan.

GOOD GOLDEN WYANDOTTE COCKERELS, \$2.50. Mrs. Geo. Effland, Victor, Kan.

WHITE WYANDOTTE COCKERELS, \$3 each. Mrs. Emma Arnold, Manhattan, Kan.

A FEW PARTRIDGE WYANDOTTE COCKERELS, \$5 each. Mrs. Francis Long, Madison, Kan.

WYANDOTTES.

ROSE COMB SILVER LACED WYANDOTTE Cockerels. Barton Morris, Protection, Kan.

CHOICE GOLDEN WYANDOTTE COCKERELS, \$2 each. Frank Dietrich, Miltonvale, Kan.

"BEAUTIFUL" SILVER WYANDOTTES. Eggs, 15, \$3; 100, \$10. Mrs. Edwin Shuff, Plevna, Kan.

ROSE COMB SILVER LACED WYANDOTTE Cockerels \$2.50 each. Henry Blasing, Zeandale, Kan.

CHOICE BUFF WYANDOTTES. Cockerels \$3 up; Pullets \$2 up. John Ruppenthal, Russell, Kans.

GOLDEN WYANDOTTE COCKERELS FOR sale \$2.50 each. Eggs in season. Mrs. Della B. Bilson, Eureka, Kans.

WHITE WYANDOTTES, HEAVY LAYING strain. Booking eggs, \$2 per 15; \$7 per 100. H. M. Savery, Cedar, Kan.

PARTRIDGE WYANDOTTES, PREMIER Mahogany Strain, cockers \$2.50, \$3, \$7. E. N. Montgomery, Dennis, Kansas.

THOROBRED WHITE WYANDOTTE COCKERELS, \$3 to \$5. Eggs, \$7 per 100. Bruce Taylor, Alma, Kan.

QUALITY WHITE WYANDOTTE COCKERELS with records to back them. G. L. Wright, Coats, Kan.

GOOD SILVER LACED WYANDOTTE Cockerels, \$3 each. Mrs. W. S. Heffelfingers, Effingham, Kan.

WHITE WYANDOTTE COCKERELS \$3.50. Satisfaction guaranteed. Eggs \$7 per 100. Fred Borger, Pierceville, Kan.

WHITE WYANDOTTE COCKERELS, BRED from record layers. Catalog free. Mrs. A. J. Higgins, Effingham, Kan.

SANDERS SILVER WYANDOTTES, PRIZE winners, Kansas City show. Cockerels \$3 and \$5. Ralph Sanders, Osage City, Kan.

PREMIER PARTRIDGE WYANDOTTE Cockerels, \$5 to \$10. Satisfaction guaranteed. Speak up. F. R. Beery, Concordia, Kan.

STANDARD BRED WHITE WYANDOTTES Cockerels \$8, \$10. Pullets \$5. Real Wyandottes, from Keeler's best. J. A. Robinson, Nickerson, Kans.

CHOICE ROSE COMB SILVER LACED Wyandotte cockers, laying strain, best ever, \$3 to \$5. Eggs in season, \$3 setting. Henry Olivier, Danville, Kan.

WHITE WYANDOTTES, LEAVENWORTH, Missouri state and Kansas state show winners. Selected eggs, \$4 per 15; \$20 per 100. Postpaid. L. A. Moore, Hiawatha, Kan.

FOR SALE—A FEW CHOICE WHITE Wyandotte hens. Bred from trap-nested egg producers. Very cheap at \$4 each. Mrs. R. C. Obrecht, Route 28, Topeka, Kan. Phone 878 K-2.

TURKEYS.

BOURBON RED TOMS, \$10; HENS, \$7. Mrs. H. Passmore, Wayne, Kan.

BOURBON RED TOMS, \$10 and \$8; HENS, \$7. Carrie Yapp, Jewell, Kan.

BOURBON RED HENS \$6 AND \$7. Vaughn DeGeer, Deerhead, Kan.

FOR FINE BOURBON RED TURKEYS write Rena Glchrist, Peabody, Kan.

NARRAGANSETT TOM WANTED IMMEDIATELY. Mildred Botkin, Burden, Kans.

PURE WHITE HOLLAND TURKEY TOMS, \$8; hens, \$6. Frank Darst, Fredonia, Kan.

MAMMOTH BRONZE TOMS, LARGE boned, \$10 and \$8. Ellen Henn, Plainville, Kan.

NARRAGANSETT TOMS, LATE HATCH 15 to 19 pounds. Fred C. Sackhoff, Downs, Kan.

PURE BRED MAMMOTH BRONZE TURKEYS. Toms, \$12; hens, \$7. W. Williams, Carlton, Kan.

PRIZE WINNING WHITE HOLLAND TURKEYS. Toms, \$10; hens, \$6. Grace Scott, Anthony, Kan.

MAMMOTH BRONZE GOLDBANK STRAIN toms, \$10 and \$15. Freda Peckenpaugh, Lake City, Kan.

MAMMOTH BRONZE MAY TOMS, 26 LBS., \$10, hens \$7. Satisfaction guaranteed. Arthur Sawtry, Fowler, Kan.

LARGE, WHITE HOLLAND TOMS, \$10; hens, \$6. Barred Rock cockers, \$3. Norman Gross, Russell, Kan.

BIG TYPE GIANT BRONZE TURKEYS. Choice unrelated trios. Two extra fine toms. Virra Bailey, Kinsley, Kan.

PRIZE BRONZE TURKEY TOMS \$12 each. Golden Laced Wyandotte cockers \$2.50 each. Mrs. J. W. Hyde, Altoona, Kan.

MAMMOTH BRONZE TURKEYS OF QUALITY. Large, vigorous, well marked birds. Flock headed by Chicago winner. Mrs. E. B. Powell, Higginsville, Mo.

PRIZE WINNING MAMMOTH WHITE Hollands. "The big boned, pink legged kind." Toms, \$12 and \$15. Eggs, \$1.50 each. Mrs. E. V. Collins, Belleville, Kansas.

SEVERAL VARIETIES.

1919 COCKERELS, 40 VARIETIES. FREE book. Aye Bros., Blair, Neb., Box 5.

68 BREEDS, FINE PUREBRED CHICKENS, ducks, geese, turkeys. Stock and eggs. Catalog 4c. A. A. Ziemer, Austin, Minn.

GAME BIRDS, POULTRY AND CANARIES. Pheasants, Peafowl, Chickens, "Ringlet" Barred Plymouth Rocks, Buff Cochins, Bantams, Silkies, Turkeys, Mammoth Bronze, "Goldbank" Strain. Splendid 18 months old toms \$15. Mallard ducks, \$5 trio. Mrs. Iver Christenson, Jamestown, Kan.

POULTRY WANTED.

RUNNER DUCKS WANTED. EMMA AHLSTEDT, Lindsborg, Kan.

PROSPECTS HIGHER MARKET—TURKEYS, capons, hens. Write for prices. Coops loaned free. The Copes, Topeka.

WANTED—900 RUNNER DUCKS AND ALL leading varieties thoroughbred fowls; also Hamburgs, Campines, Games and Hares. Describe what you have. Name lowest wholesale price. I buy entire flocks. P. W. Frehse, Clarinda, Iowa.

PREMIUM POULTRY PRODUCTS COMPANY, 210 North Kansas Avenue, Topeka, pays well for good market quality. We deal direct with producers and furnish coops for shipping. Write for prices to John L. Prehn, manager. Formerly poultry specialist in Kansas.

Buy Sprayer Repairs Now

Now is the time to prepare for spring spraying. Valuable time may be saved by making sure now that everything is repaired so there will be as few mishaps during the busy season as possible. Starting with the engine, be sure you have a crank. If the compression is poor, the valves likely need grinding. See that the wires to the battery box are good and that all electrical connections are clean. The connecting rod bearings may stand taking up. The oil should be taken out of the crank shaft and replaced by new.

In looking over the pump, make sure that the bearings of the pistons are tight and that the packing will last well thru the summer. Perhaps it will need to be replaced now. Look over the suction hose and strainer; the wire of the strainer may need replacing. Open each valve and see the condition of the valve seats. It is best to take the relief, or safety valve completely apart; trouble may be given by sticking. Start the engine and make sure the valves of the pump are holding well by watching the steadiness of the needle on the pressure gauge. Place

ment survey with one taken two decades ago.

Food purchases of 500 families, representing different standards of American life, were carefully analyzed. Comparison with former years was made possible by the fact that the government had similar figures covering a survey made 20 years ago of 400 families.

The decrease in meat consumption amounted to 8 per cent and that of grain products 11 per cent. The amount of dairy products consumed has increased about 6 per cent. Vegetables show an increase of 4 per cent and fruit 8 per cent.

The average cost of food a man in these 500 families was found to be 46 cents a day. This, of course, represents only actual market costs and does not include costs of preparation and serving. Unfortunately, no comparison with 20 years ago is shown.

Make Mother's Work Easy

Women have some big problems to solve. A little arithmetic, for example, has shown that one woman took 256,000 needless steps every year, all

Do You Wish Better Harness?

Have you ever taken time to estimate how many horses are injured and maimed every year thru the use of poor and improper harness? Have you ever thought what it would mean to have harness with no buckles, no holes in the straps, no loops, no snaps, no billets, and no friction on the straps? Often a set of ordinary harness may have as many as 68 buckles, 275 holes in the straps, 10 to 14 snaps, 100 loops, 70 billets, and about 275 places where the straps wear thru by friction against metal rings and other metal bearings. Look your harness over carefully and make an inventory of these things and then write us what you observe. Tell us what kind of harness you are using and how you think it can be improved. Do you want something better? Do you want us to suggest something to you? If we get suggestions from every one, it will be an easy matter to determine what would be the best kind of harness to have. Send us your suggestion by return mail. We wish to hear from all of our subscribers. Prizes will be given for the best letters and we will pay for all the other letters we publish at regular rates. Address all letters to John W. Wilkinson, Farm Letter Department, Kansas Farmer and Mail and Breeze, Topeka, Kan.

the hand over the end of the suction hose to see if there is a backward flow, which indicates a leak in the valve. The stuffing box where the agitator enters the tank may need new packing. Grease the wheels. In the spring when the ground is soft the team will need all the assistance one can give them. One or two good-strainers for putting the material in the tank should be on hand. These can be made by nailing wire netting over the end of a proper size box. A tower is a good thing on a sprayer to reach the tops of large trees. Now is a good time to make it. Note the condition of the spray hose, and order extra disks and nozzles, hose gaskets, extra links for agitator, and drive chains, if needed.

On the Milk Wagon

Comparison of food purchases of the present with those of 20 years ago, show that the people of the United States are using less meat and less grain but we have increased our consumption of dairy products, vegetables and fruits. These facts were established by checking a recent govern-

because of the inconvenient arrangement of her kitchen appliances. Probably the rest of her house was as poorly arranged as her kitchen, giving her at least an additional 256,000 needless steps. This meant 512,000 steps, or approximately 200 miles, tramped off annually in the daily round. Perhaps this was an exceptional case, but proper arrangement is one of the big problems to be solved in each individual home.

Farm Wages Highest Known

For labor hired on the farm by the month with board the average rate for the United States during 1919 was \$39.82, according to the figures given out by the Bureau of Crop Estimates of the United States Department of Agriculture. The lowest average wage was \$30.54 in the South Atlantic states and the highest \$62.96 in the Western states including the Mountain and Pacific states. Without board the average wage for the United States was \$56.29, the lowest being \$44.03 in the South Atlantic states and the highest \$87.12 in the Western. Average harvest wages by the day with board reached the top figure of \$4.48 in the North Central states west of the Mississippi River and the lowest figure \$2.28 in the South Atlantic states. At no time have the wage rates of farm labor been as high as they were in 1916 or at least as far back as 1866, which is as far as the records of the bureau of crop estimates go.

A Compromise

A little colored girl, newcomer in Sunday school, gave her name to the teacher as "Fertilizer Johnson." Later the teacher asked the child's mother if that was right.

"Yes, ma'am, dat's her name," said the fond parent. "You see, she was named for me and her father. Her father's name am Ferdinand and my name is Liza. So we named her Fertilizer."—Plow and Tractor.

The ultimate consumer hopes that at least he is now paying the ultimate high prices.—Little Rock (Arkansas) Gazette.

POULTRY SUPPLIES.

GLAY COUNTY POULTRY AND PET Stock association, all breeds and varieties. Directory free. Sec'y H. L. Boge, Harvard, Neb.

YOU CAN RAISE EVERY CHICK YOU hatch if you start them on Brooks' Best chick-starter. This is a pure baby chick food that contains dried milk, meat scraps, fish dried meals, and etc. It does not contain weed seeds, grain screenings, etc., like are used in many grain feeds. Ask your dealer, if he won't supply you, will ship direct. 100 pound sacks \$5.50 or 500 pounds \$26.25 on cars here. We do not ship less than 100 pounds. The Brooks Mfgs., Fort Scott, Kansas.

STRAY LIST.

TAKEN UP BY W. J. SCOTT, WHO RESIDES in Hampden township, Coffey county, Kan., on the 16th day of December, 1919, one brown mare mule, about 3 years old, weight about 1100 pounds, about 15 1/2 hands high. No marks nor brands. Ed A. Gillman, county clerk of Coffey county, Kan.

Real Estate Market Place

Real estate advertisements on this page (in the small type, set solid and classified by states) cost 65 cents per line per issue. Send check, money order or draft with your advertisement. After studying the other advertisements you can write a good one and figure the cost. About six and a half words make an agate line. Count initials and numbers as words.

There are 7 Capper Publications totaling over a million and a quarter circulation and widely used in this advertising. Ask us about them.

Special Notice All advertising copy must be received at the Real Estate Department of this office by 10 o'clock Saturday morning, one week in advance of publication.

KANSAS

WESTERN LANDS FOR SALE OR TRADE. J. E. Stohr, Ensign, Kansas.

1/4 SEC., in Gove Co. Price \$1,600. Would accept car on deal. F. Buhrle, Russell, Kan.

50 Southeastern Kan. farms for sale. Possession March 1. Robbins & Craig, Thayer, Kan.

FOR SALE. All kind of farms. Write for list. Carl Johnson, Clay Center, Kan.

BEST FARM BARGAINS for sale in S. E. Kansas by G. W. Meyer, Fredonia, Kan.

WELL IMPROVED FARMS. \$85 to \$125 per acre. I. N. Compton, Valley Falls, Kan.

203 ACRES. Imp., 40 wheat goes, \$112.50 a. Terms. Bert W. Booth, Valley Falls, Kan.

WANTED TO RENT—Farm. Aug. 1, 1920. References furnished. F. E. Cochran, Conway, Kansas.

BARGAINS. Bargains in wheat farms and stock ranches. Write for list. W. B. McAdams, Brewster, Kansas.

FOR SALE—Good farms from \$80 to \$125 per acre. Call on, or address, O. C. Paxson, Meriden, Kansas.

80 ACRES. 1 mile of Westphalia, highly improved, \$70 acre. W. J. Polre, Westphalia, Kansas.

500 ACRES. 3 miles from Ford, Kan. Farm land, meadow and pasture, \$40 acre. Box 176, Offerle, Kansas.

80 ACRES. well imp., 65 cult., bal. pasture, 2 miles Humboldt, macadam road, \$9,200. Box 235, Humboldt, Kansas.

160 ACRES. Improved, half pasture. Well watered, good soil, \$2,000 will handle. Chase Agency, Severy, Kansas.

320 OR 640 ACRES fine unimproved Kansas farm land, \$10.00 acre. Claude Chaplier, Syracuse, Kansas.

WESTERN KANSAS LAND We will buy your land if price right. W. A. Layton, Salina, Kansas.

WE CAN SUIT YOU in stock and dairy farms in Leavenworth county, any size. Will Newby, Tonganoxie, Kansas.

EASTERN KANSAS FARMS. Large list Lyon and Coffey counties, for sale by Ed. F. Milner, Hartford, Kan.

WE DON'T OWN THE WORLD, we sell it. Write for farm list and pictures. Kansas Land Company, Ottawa, Kansas.

CARY & HOARD, Real Estate Exchange and Loan Agent. Ranches a specialty, sold on commission. Phone 13, Anthony, Kansas.

FOR SALE—All kinds of farms in N. E. Kan. Send for printed list. Silas D. Warner, 727 1/2 Commercial St., Atchison, Kan.

WRITE for our free list of eastern Kansas farms and ranches for sale. The Eastern Kansas Land Co., Quenemo, Kan.

HAMILTON AND STANTON county lands, \$8 up. Write me your wants. Tomsen, Syracuse, Kansas.

160 ACRES. 4 miles Culver, 1 mile school; 80 a. wheat, 1/2 goes; spring crop and pasture; good house and other buildings, \$70 a. Terms. Art Miller, R. 6, Minneapolis, Kan.

WANT 10 TO 30 ACRES. adjoining good R. R. town, good water and improvements. Description and price given. T. J. Meadows, Walnut, Kansas.

240 ACRES. 6 miles town, 70 a. in cultivation, balance grass, good imp., \$42.50 per acre, close to school and church, 1 mil. good gas field. C. H. Wilson, Moline, Kansas.

BARGAINS—Wheat, corn, alfalfa and grass lands in Virgil or Fall River bottom. Any size tract you want. L. S. Hoover, Eureka, Kansas.

TWO SQUARE SECTIONS Living water; 6 miles to county seat. Price \$22.50 per acre. Terms. D. F. Carter, Leoti, (Wichita Co.) Kan.

FARMS ranging from 80 to 600 acres, well improved, for sale. Black loam soil from \$75 to \$100 per acre. Jake Brown, Olpe, Kansas.

I WISH TO RENT an improved farm for 1920. Have cattle, horses, good equipment. Can give references. Would like western Kansas. Harry Shepard, Lyndon, Kansas.

640 ACRE WHEAT FARM. Pawnee county. 500 acres in wheat, 1/2 delivered to owner; good water; all good land. \$50 acre, terms. H. L. Baker, LaCrosse, Kansas.

280 ACRES. well imp., 90 cult., 50 bottom. Balance pasture. Plenty water. Gas territory. 1 1/2 miles good town. \$75 acre. Parsons & Stewart, Fredonia, Kansas.

80 WOODSON CO. all plow land, near county school and church. Possession March 1. \$2,500 will handle for immediate sale. W. H. McClure, Owner, Republic, Kansas.

WE HAVE several choice Kaw valley alfalfa and potato farms. Some fine upland farms, good black rich soil, well improved. Close to Lawrence and university. Write Wilson & Clevenger, Merchants Bank Bldg., Lawrence, Kan.

KANSAS

LYON COUNTY—240 acres. 120 in cultivation, 70 acres wheat goes, balance grass, fair imp. Quick sale, \$1,500. Jas. C. Dwelle, Emporia, Kansas.

GOOD SOUTHEASTERN KANSAS FARMS For sale on payments of \$1,000 to \$2,000 down. Also to exchange for clear city property. Address The Allen County Investment Co., Iola, Kan.

I WOULD rather invest in Wallace county, Kansas, land right now than anywhere I know of. Come and see for yourselves. Live agents bring your men. I show good stuff. A. H. Wilson, Sharon Springs, Kan.

240 ACRES. well improved, price \$100. 145 acres, 60 in wheat, price \$75. 316 acres, price \$125 per acre. Write for description. Triplett Land Co., Garnett, Kansas.

WE HAVE A FARM in the oil belt and have an oil man ready to drill if buyer will lease. Price \$15,000 which is its value as a farm. Other farms. Holcomb Realty Co., Garnett, Kansas.

WE HAVE some splendid 40's, 80's, 160's close Ottawa, well improved, good corn, wheat land. Priced worth the money, at your service. Write us. Bridwell-Gilley, Ottawa, Kansas.

NESS CO. LAND—320 a. well improved, price \$45; 480 a., 300 a. in wheat, \$37.50 crop plan; 160 a., all smooth, \$20; 640 a., price \$17.50. All close in. Several good ranches. Chas. E. Rutherford, Ulica, Kan.

FOR RENT—Eight hundred acre farm, four miles from Fort Scott and Borden's milk condenser, suitable for combined grain, stock and dairying. Martin Miller, Ft. Scott, Kansas.

IMP. EIGHTY. Linn Co., Kan. Good 7 room house, barn 30x40, 3 ml. to town, on R. F. D. and phone, 40 in cult., balance pasture. Everlasting water. Price \$5,000. Walter J. Wolfe, Owner, R. F. D. 3, Blue Mound, Kan.

120 ACRES. 1/2 mile from depot LeRoy, Kan. Good house, newly new barn, smoke house, other outbldgs. Land all lays fine, good soil and well watered. Price \$125 per acre. Will give possession March 1st if sold soon. LeRoy Realty Co., LeRoy, Kansas.

FOR SALE—160 acre farm in Allen county, Kansas; 4 miles from Moran. Well improved, 30 acres in pasture, the rest in cultivation; 2 good wells. Good level farm free of rocks. Write. Mrs. Florence Whitlow, R. 3, Moran, Kan.

160 ACRES. \$2,000. \$687.50 cash, balance \$187.50 yearly, 6%—40 miles from town. Half choice, tillable land, balance fine pasture, 60 acres cult. Immediate possession. No improvements. No trades. Griffith & Baughman, Liberal, Kan.

BUY FROM OWNER 80 acres, 1 1/2 miles from Westphalia, Kan. Good 6 room house, good barn 40x60, wagon shed, hen house, other outbuildings, 1/2 mile land. Price \$80 a. Good terms. Plenty water. W. G. Beissel, Westphalia, Kansas.

BEST BUY IN JEFFERSON COUNTY 320 acres, 8 room modern house, large barn, garage, double granary, etc. 140 acres clover and bluegrass, 12 acres alfalfa, 40 acres in corn, balance in small grain. Watered by springs, 4 miles from town on R. F. D. 40 miles from Kansas City. Price is only \$150 per acre. If you want to buy a farm of any size come and see me. Benj. J. Griffin, Valley Falls, Kan. Phone 34.

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160 ACRES. \$2,000. \$687.50 cash, balance \$187.50 yearly, 6%—40 miles from town. Half choice, tillable land, balance fine pasture, 60 acres cult. Immediate possession. No improvements. No trades. Griffith & Baughman, Liberal, Kan.

BUY FROM OWNER 80 acres, 1 1/2 miles from Westphalia, Kan. Good 6 room house, good barn 40x60, wagon shed, hen house, other outbuildings, 1/2 mile land. Price \$80 a. Good terms. Plenty water. W. G. Beissel, Westphalia, Kansas.

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KANSAS

240 ACRES LYON COUNTY Part creek bottom, priced to sell \$85. 61 acres bottom, \$185. Jas. C. Dwelle, Emporia, Kan.

NESS COUNTY, KANSAS, LANDS Good wheat, alfalfa and ranch lands at bargain prices. Several excellent ranches. Write for price list, county map and literature.

FLOYD & FLOYD, Ness City, Kan.

BEAUTIFUL FARM HOME Located 4 miles town, Lane County, Kansas, all smooth land, 160 pasture, 160 farm land, only \$10,500. Terms. Write for bargain list and Kansas map.

Mansfield Investment & Realty Co., Healy, Lane Co., Kansas.

A FINE FARM—200 acres, 3 miles town, 100 bottom, 20 alfalfa, 40 bluegrass and clover, balance for spring crop and about 40 in pasture. New 9 room house, 2 large barns. Improvements worth \$10,000. Price \$125 an acre. T. B. Godsey, Emporia, Kansas.

FOR SALE—160 acres of land; 35 acres fenced and watered pasture and hay; balance in fine crop of wheat; two miles from Lindsay, Ottawa Co., Kansas, four miles from Minneapolis, county seat. For price and terms address, M. E. Richard, Gettysburg, Pa.

FINE 160 ACRE FARM Franklin County, Kansas. Good improvements, 1 mile town; 30 acres wheat; 30 acres pasture; all good land. Price \$110 per acre. Casida & Clark, Ottawa, Kansas.

122 ACRES, 1 mile town, large improvements, some alfalfa, all creek bottom land, 25 acres wheat, 25 acres blue grass pasture, balance for spring crops, fine water, big bargain. Price \$150 per acre. Write W. T. Porter, of Kansas Land Co., Ottawa, Kan.

KANSAS—3,120 acres, 2,000 under plow, 7 sets imps., 35 miles fence stone posts, good water. Sold with crops, livestock, machinery or without. Syndicate proposition and a good one. Look it over. No trade. Cut into tracts, if too large. L. C. Walbridge, Russell, Kansas.

FOR SALE—160 a., imp., all kinds of fruit, all tillable, 4 ml. to town, 25 a. alfalfa, part hog tight, best of never failing water. Sell for cash or trade for stock of shoes in any good town in Kansas. Ask for full description. I. J. Peckinpaugh, R. F. D. No. 1, Lyons, Kan.

POSSESSION MARCH FIRST 71 acres, well improved. Close town. \$125 per acre. 80 acres, 3 1/2 miles town. Well improved. Bargain, \$9,500. 155 acres, 4 1/2 miles town. Well improved. 100 hog tight. 25 wheat. \$137.50. Terms on any above if wanted. Write for booklet: list No. 456. Mansfield Land & Loan Co., Ottawa, Kan.

115 ACRES, 3 miles Ottawa. Well improved. Large silo, etc. 35 wheat, 12 alfalfa. Nice home. Possession at once. 155 acres, 4 1/2 miles Ottawa. Well improved. 25 wheat. 100 hog tight. Beautiful piece of land. Immediate possession. Write for full descriptions, booklet and list No. 456. Mansfield Land & Loan Co., Ottawa, Kan.

POSSESSION NOW—Several good farms, share crops to go, one-half section, living water, 60 bottom, 4 miles out, horses, cows, implements, etc., only \$36.25 an acre. If wanting home, get illustrated list 33 real snaps before locating. Buxton Whitmer Co., Ransom, Kansas.

320 ACRES WHEAT LAND Near Spearville, small improvements, all fenced, 110 acres pasture, 210 acres wheat, all goes, good road to town, telephone and daily mail, plenty of water, possession any time. \$65 per acre. Chas. E. Stapleton, Owner, Spearville, Kan.

STOCK FARM BARGAIN 560 acres, 5 miles out, 100 a. valley land in cult., 460 a. all fine prairie meadow and pasture; 60 a. wheat goes. Fine stock ranch. 5 room house, barn 40x60. Bargain for quick sale. \$42.50 per a. Possession now. M. T. Spong, Fredonia, Kansas.

KANSAS

FOR SALE—80 acres, improved, 5 miles Ottawa; price, \$3,000, \$2,000 down, long time on balance. 320 acres, 7 miles Franklin Co. town, all good bottom, good improvements. Price \$100 per a. Inc., \$14,000, 4 yrs. 6%. If you have anything to exchange write, J. T. Priddy, with Kansas Land Company, Ottawa, Kan.

240 ACRES, 8 miles from Anthony, 1 1/2 miles from elevator; tenant improvements, 25 acres in pasture, balance first class productive crop land, laying in fine neighborhood. Price \$67.50 per acre. Landlord's share of crop goes. Couch Land Company, Anthony, Kan.

FOR SALE—330 acres, 4 1/2 miles of Franklin county town, 12 miles Ottawa, 250 acres in cultivation, balance pasture and now land, spring water, 8 room house, fair barn, silo and other buildings. Price for quick sale, \$100 per acre, or might take smaller farm \$80 to 100 acres. Write R. R. Tucker, of Kansas Land Company, Ottawa, Kansas.

A DANDY BARGAIN—160 acres, Ness county, Kansas; 4 miles from market; about 80 acres in wheat, share with place; light improvements; close to school; possession of improvements and pasture land at once; offered for quick sale for \$35 an acre. This is a bargain. Jas. H. Little, The Land Man, LaCrosse, Kansas.

WHEAT SPECIAL Half section 4 miles from town, very good improvements, handy school, one-half of 229 acres of fine wheat, and possession March first, will go to buyer. Price forty dollars per acre, very easy terms. Write for new land list free. Justin T. Avery, Traer, Decatur County, Kan.

LANE CO. SNAPS A section has 480 in cultivation; 300 in wheat, 1/4 to purchaser; balance for spring crops; all level; some improvements; possession March 1st. Price \$25 per acre, 1,690 acres grass land, shallow water about 200 acres bottom land; price \$17.50 per acre. Level quarter grass land, \$2,400. Other bargains. See, C. N. Owen, Dighton, Kansas.

FOR SALE—Brick business building in McDonald, 30x75 feet basement and store-room. Eleven office and living rooms in second story. Fine club room in basement, wired for electric lights, steam heat, toilets, baths, hot and cold water. Fully rented, built two years. Priced about half what would cost to build now. Box 137, McDonald, Kansas.

GOOD FARMING, gas and oil land, 450 acres, 240 under cultivation, bal. in pasture and meadow, 1 ml. from Fredonia, on gravel road, fair improvements, with 3 gas wells paying nice royalty. A drill working on farm and good prospects for more production. Owned by non-resident. Must be sold soon. \$125 per acre. Address, T. D. Hampson, Fredonia, Kansas.

FOR SALE—640 acres, one of the best stock farms in Eastern Kansas, 175 acres cultivation, 30 acres prairie meadow, 25 acres alfalfa, balance good pasture with abundance of good water, all fenced. Improvements: 4 room house, good barn, other outbuildings, just fair. This farm is priced worth the money at \$75 per acre, being an estate must be sold. Write for full description and pictures. R. R. Tucker, with Kansas Land Company, Ottawa, Kansas.

CREEK AND RIVER FARM—200 acres, 4 1/2 miles from here, 4 miles from Spearville, good 8 room house, basement under it all. Barn and sheds and fine chicken house. Young orchard, 20 acres alfalfa, 130 acres fine alfalfa land, 25 a. in wheat, 40 acres native prairie pasture, plenty of timber on creek. This is as good a farm as you can find anywhere. Price only \$150 per acre till February 1, 1920. R. R. Johnson, Hartford, Kan.

160 ACRES, 4 1/2 MILES LAWRENCE Two miles R. R. elevator and store, 1/2 mile school, 1 1/2 miles church, 157 acres tillable, 85 acres wheat goes, 15 pasture, balance spring crop. House 6 rooms, barn 38x40, 100 ton silo. Granary 40x40, chicken house, garage. Never failing water. Land smooth. A real farm home in splendid neighborhood. Price \$165 per acre. Possession March 1, 1920. Hesford Investment & Mortgage Company, Lawrence, Kansas.

620 ACRES KENO COUNTY LAND 10 miles from town on county road; school house on land; has two sets improvements consisting of one six and one seven room house, both new; and other improvements; 90 acres growing alfalfa; 300 acres new alfalfa land; a big per cent of this section is in grass and it is one of the best stock sections in the county. Price \$45,000. Will make terms on \$25,000. V. E. West, Hutchinson, Kansas.

KINGMAN CO. FARMS AND RANCHES Kingman county offers one of the best opportunities for buying land of any county in Kansas, quality of soil and price considered.

We have two 640 acre ranches at \$35 per acre, one 800 acre ranch at \$42.50 per acre, 60 other mostly improved farms, containing from 80 to 640 acres at \$50 to \$100 per acre. These are stock farms, wheat farms or corn or alfalfa land. Write for particulars. FIESER & RILEY, Kingman, Kan.

320 ACRES, 1 1/2 miles good town, new rural high school, fine improvements, 8 room house, large barn, silo, etc. Plenty good water. Land lays well; 160 acres grass, balance plow. About 100 acres wheat goes. \$127.50.

480 acres, Anderson county; 6 miles to two good towns; 10 room house, full basement, good barn. Good water, and all lays well, no breaks, rock nor gravel. 300 acres good grass, balance in plow, about 50 acres wheat. Sacrifice price for quick sale \$75 acre. Possession at once. School at corner of farm. Write today for list of other good farms. Dickey Land Co., Ottawa, Kan.

FOR SALE FOR NEXT 60 DAYS At 25 dollars per acre, 1,364 acres Wallace county, Kan.; 400 acres broke, 200 acres fine land, 50 acres growing alfalfa, balance never grazing land. One mile running water, never failing. Fenced and cross fenced. New 7 room house, good outbuildings. Two windmills. A fine ranch or farm.

Also, 5,600 acres in Wallace and Greeley counties, Kansas, in one tract. Good wheat land. Water on any quarter at from 20 to 100 feet. Two sets improvements, 160 acres broke, all fenced, 7 wells fine water. Nelson Bros., Sharon Springs, Kansas.

PAYING BUSINESS FOR SALE

Want to change locations and will sell my four and half ton ice plant, moving picture show (the only one in town), \$5,000 stock general mdse., small equity in well located real estate, equity in some pasture leases, etc.; also my real estate and insurance business. For quick sale of whole business, will take 70% of actual value. Come see me.

M. W. PETERSON, JETMORE, KANSAS

MONTANA—Judith Basin Land

To you who want the pride of owning good productive farm land; to you who want the satisfaction of the producer; to you who want prosperity and the independence of the farmer and ranchman,—we say that we know of no locality which offers greater opportunity than does this Judith Basin. We know of no country which has a better record during its history of crop production. We know of no place where labor and thrift and industry will reap a larger reward—where land values are more certain to make a material increase in a shorter time. Let us tell you the records, resources and advantages of this Judith Basin and about the farms and ranches we own and offer for sale on easy terms.

THE COOK-REYNOLDS CO.

BOX G. 1405, LEWISTOWN, MONTANA

KANSAS

500 ACRES, 230 acres of which is good bottom land, 2 miles from Medicine Lodge, on Elm creek. 200 acres in cultivation, 100 acres in alfalfa. Good improvements, plenty of pasture and plenty of good running water. Price \$50 per acre. Terms on 12 months. Write for list.

2,000 acres of fine grass land, Ochiltree Co., Texas. On Wolf creek, 300 to 400 acres bottom land, plenty of running water, large bottom land, plenty of cultivated. This is an A per cent can be cultivated. Price \$12.50 per acre. No. 1 ranch. Write for list.

John Ferriter, Wichita, Kansas.

Only \$2,900

Large improved 40 acres, 22 miles south of Topeka. 20 acres in growing wheat. First offer gets it. Act quick. Write for list.

Owner, 315 Quinton, Topeka, Kansas.

LYON and CHASE CO.

Is the place to buy farms. The best land for the money to be had anywhere. Farms from 50 to 1,440 acres. Plenty of creek and spring water, and bluestem grass. Alfalfa, wheat and corn land. Write for list.

Will Albin, Saffordville, Kan.

The Bargain Counter

Right here at Winona is the high spot in value and the low spot in price. Come and see improved farms and ranches, grain, alfalfa and grass lands. We own or control our bargains.

THE BROOKER LAND & TRUST COMPANY, Winona, Kansas.

Choice Farm Near Topeka At A Bargain

240 ac., 4 1/2 miles from Washburn college. Nearly all valley land; black loam soil. 8 room modern house; both house and barn electrically lighted; double corn crib; cattle sheds; garage and other buildings. This is one of the high class farms near Topeka. Never has been rented and is a money maker. Price only \$175 per acre. Address the owner, L. L. VROOMAN, Topeka, Kansas.

Coffee County Bargains

160 ac., 3 mi. of Waverly, on main road, lays smooth, 40 a. wheat, 1/2 goes, 40 a. native grass, but for spring crops; 5-room house, new barn 36x44 ft. Plenty of water, 1 mi. to school. Price \$90 per acre. Good terms.

50 a., 5 1/2 mi. of town, 20 rods to school, lays good; 30 a. for spring crops, 30 a. good pasture, 20 a. tame grass meadow. Good house of 7 rooms, new barn 30x30 ft. Abundance of everlasting water on main traveled road; price \$6,500. Good terms.

Many other good bargains in any size tract. Write for list.

Geo. M. Reynolds, Waverly, Kansas.

ARKANSAS

WRITE TOM TETER, SHERIDAN, ARK., for bargains in good farms.

DOWELL LAND CO., Walnut Ridge, Ark. Fine corn lands, easy terms, plenty rainfall.

WRITE TOM BLODGETT, Pine Bluff, Ark., for land bargains that will double in value.

160 ACRES, very fine farm, to be sold cheap at once. Very rich land.

R. S. Young, R. 1, Box 2, Mayflower, Ark.

OZARK Cream-Stock Farms, Fruit Farms, Hens and Vegetable Tracts.

Hunsaker, Decatur, Ark.

N. W. ARK.—Bargains in fruit, stock and grain farms; good soil, water and climate.

Fredricks Realty Co., Springdale, Ark.

FOSTER REAL ESTATE COMPANY, Gravette, Arkansas.

Landers in farm and town property.

BUY A FARM in the great fruit and farming country of northwest Arkansas where land is cheap and terms are reasonable. For free literature and list of farms, write:

J. M. Doyel, Mountainburg, Ark.

53 Acres for \$1,200

WILL BE ON NEW HIGHWAY

50 ac., only 1 1/2 to railroad station, 40 acres under cultivation, all under good fence, 2-room house and outbuildings, family or hotel, good well and spring. Price only \$1,200. Send at once for copy of large farm bulletin with complete descriptions of farm.

STUART LAND CO., DE QUEEN, ARK.

CALIFORNIA

300,000 ACRES of free land in U. S. "The Home Seeker," a 100 page book describing millions of acres of vacant public lands, timber, mines and grazing lands. Contains township plats and illustrations. Published on historical facts. Does not mislead. Read official warnings, eliminates crooked land agents. Tells whereabouts of government land in Arizona, New Mexico, Nevada, California, Idaho, Oregon, Montana, Washington, Utah and Old Mexico. Describes water, soil and climatic conditions, all the physical, U. S. land laws. A marvelous publication, just off the press. Mailed anywhere, 22 cents. Address, The Home Seeker, Dept. 104, 324 First Grant Bldg., Los Angeles, Calif.

California Farm Land For Farming or Investment

If you are thinking of California or the West for pleasure, investment, farming or anything, let us tell you about the San Joaquin Valley, 97 miles south of San Francisco. Wonderful climate, beautiful homes, business opportunities. Small farms being made from big ranch tracts. Address, AMERICAN LAND SECURITY CO., 12 N. Dearborn St., Chicago, Ill.

COLORADO

20 IMPROVED eastern Colorado farms for sale at bargain prices; terms; information and literature on request.

Frank Sutton, Akron, Colo.

EASTERN COLORADO

Irrigated farms. Any size, ranches and upland farms. Write for list.

C. A. Qulmbly, Granada, Colorado.

FOR SALE—Improved farms in eastern Colorado. Close to town and school. If interested write, or see, J. Youngberg, Stoneham, Colorado.

IRRIGATED small tracts and farms produce sure and paying crops. We have them at Rocky Ford, Colo. Write.

Wm. C. Steele, Rocky Ford, Colorado.

SOUTHEASTERN COLORADO farms and ranches, any size, lowest prices, best terms, good crops, excellent climate. Send for free descriptive booklet and list.

The Gregg Realty Company, Lamar, Colo.

EASTERN COLORADO and Western Kansas land. Farms, ranches and investments. Tracts of 160 to 2500 acres. Our prices from \$12.50 to \$30 per acre.

Barnes & Doty, Towner, Colo.

WASHINGTON COUNTY, eastern Colorado, crop producing lands, \$40 to \$80 per acre, none better, ideal climate, good water. Write us for particulars, or see us.

The Co-Operative Investment Co., Otis, Colo.

FOR THE FARMERS MANAGED BY FARMERS

Get a home on mail and milk route. Prices so you can afford to buy. Write today.

O. & B. Land & Loan Co., Lamar, Colorado.

SOUTHEASTERN COLORADO farms and ranches in the rich, productive lands of Baca county, Colorado. Wheat 30 bushels to acre, corn 40 bushels to acre. Land \$15 per acre up according to improvements.

F. J. Graves, Springfield, Colorado.

HASWELL DISTRICT of eastern Colorado, the garden spot of the state. We own our own land and guarantee delivery. If you have never seen this district, which is largely shallow water, by all means look it over before buying elsewhere. Write us.

CHARLTON-HOPEWELL LAND CO., Haswell, Colorado.

EASTERN COLORADO LAND, 320 acres, 4 miles west of Burlington and 4 miles east of Bethune on north side of highway. 100 acres in cultivation. Good improvements. Can give possession March 1st, 1920. If interested write for information, or I will meet you at any train. George D. Power, R. A. Box 87, Burlington, Colorado.

FARMERS ATTENTION—Do you own land or is your farm too small and hindering your operations? If so, write for information regarding fine farm land which I own in the Big Horn Valley, 50 miles east of Denver and will sell in sections and half sections at bargain prices and give liberal terms. Write the owner.

John W. Baughman, Liberal, Kansas.

LANDS ARE rapidly advancing here. No other district has such a future ahead of it. A farm bought now, will be worth double in a few years. Let us show you what we do for those who buy from us. Let us show you the experience of those who have been here a few years. We sell our own lands, and can offer good farms with or without growing wheat. For further particulars write, Wagner Realty Co., Akron, Colo.

FOR SALE—160 acre irrigated farm in the San Luis Valley of Colorado. Has first class water right for irrigation and an artesian well of pure, soft water for domestic use. It has fair improvements and is fenced hog tight. All in cultivation, of which 130 acres is fine stand alfalfa. Is in consolidated school district. Price \$130 per acre. Now rented for \$2,000 cash, tenant will gladly take it for term of years at same rate. Send for literature regarding the San Luis Valley.

ELMER E. FOLEY, 1001 Schwitter Bldg, Wichita, Kan.

GET THE FACTS ABOUT COLORADO LANDS

Write today to the Colorado Board of Immigration for complete, authentic information on agricultural, dairying and live stock opportunities in various irrigated and non-irrigated districts of Colorado. "We have no land to sell, but will help you find good land at a fair price. Our '1919 Year Book' contains detailed discussion of resources, crop production, financial conditions, etc., by counties. A few copies left at 75c each to cover printing and binding cost. Send cash or money order if you want one.

Room 68, State Capitol, Denver, Colo.

DOES YOUR WIFE WANT A HOME? When this sale is past it means an opportunity gone. This is the last rain belt country where land is still cheap.

We are selling our own lands, the famous Bijou ranch, in Elbert county, Colorado. This is the proven rain belt of Colorado. We want home buyers. To those we sell on small payments down, carry balance long time at 6%.

To all buyers before March 1st, we refund car fare to and from Colorado. Buy your ticket to Simla, take a receipt. Land shown free and no expense to you while at the ranch. This offer is for 20 days only.

A. M. JENNINGS, Mgr. Bijou Ranch Co., Simla, Colorado.

Good local agents wanted.

Best Lands

The best closest priced lands in Kiowa and Cheyenne counties, Colo. 160 to 5,000 acre tracts, raw and improved, \$17 to \$35 per acre. Best climate, soil. Do not pay three or four commissions to be brought here. Own most of what I offer. Write or come now. R. T. Cline & Sons, Brandon, Colo.

TAKE A HUNCH FROM US

AND get in on this wave of prosperity now coming to the Eastern Colorado Farmer. Send for folder and lists.

Wolf Land Company

Yuma, Burlington, and Stratton, Colorado.

CANADA

160 ACRES, best black soil, 1/2 fenced, 6 mi. from Richdale, near Hanna, Alberta; 1/2 mi. from school. House, 3 1/2 ft. seam coal, spring, clear title, 1/2 cash, \$20 per a. Apply Edward Stirling, Owner, 716 Vancouver St., Victoria, B. C.

MISSISSIPPI

WRITE for free Mississippi map and land list. Land Market, Box 843, Meridian, Miss.

MISSOURI

OUR BIG new list for the asking. Amoret Realty Co., Amoret, Mo.

ALL SIZED FARMS, fruit farms and timber land. Noll, Mt. View, Missouri.

LISTEN! 160 acre valley farm, \$50; 160 fruit farm, \$5,000. McGrath, Mtn. View, Mo.

VALLEY FARMS—Fruit and berry farms. Write, Chambliss & Son, Anderson, Mo.

IMP. FARMS, ranches, timber lands. Exchanges. Goff Realty Co., Willow Springs, Mo.

FOR BIG FARM LIST, just out, write, Baker Investment Co., Mountain Grove, Mo.

DO YOU WANT a home in South Mo.? Write Stephens & Perry, Mountain Grove, Mo.

POOR MAN'S CHANCE—\$5 down, \$5 monthly, buys 40 acres productive land, near town, some timber, healthy location. Price \$200. Other bargains. Box 425-O, Carthage, Mo.

REAL BARGAINS in Mo. farms; write for illustrated booklet and list.

E. L. Fresson, Bolivar, Mo.

FORTY ACRES, all in cultivation, four room house, good barn, spring, on state highway, \$1,600. Houston Realty Co., Houston, Mo.

FREE—All about the Ozark country, map and list of cheap lands.

Durnell Land Company, Cabool, Mo.

IF YOU WANT a large or small prairie or timber farm, pure spring water, no crop failures, write J. E. Loy, Flemington, Mo.

3,700 ACRES, good timber, plenty water, \$7.50 per acre. Farms of all sizes.

Douglas Co. Abst. Co., Ava, Mo.

242 ACRES, 6 room frame house, big barn, 75 acres in cultivation, want auto accessories and garage supplies.

Houston Realty Co., Houston, Missouri.

FOR SALE—232 acre north Missouri farm, black land, lays good, good buildings, good water, close to town, Charlton county. Price right. Box 72, Colony, Kansas.

80 ACRES, house, barn, good water. All fenced, most all good plow land orchard, good water, beautiful location. Price \$3,000, \$1,000 down.

Tom King, Weaubleau, Missouri.

NEBRASKA

HITCHCOCK COUNTY, Nebraska, lands are the best buy in the United States today. Ask A. R. Smith, the Land Man, of Culbertson, Nebraska, about them.

OKLAHOMA

203 ACRES, well improved, joins town, 3 sets improvements, will subdivide, \$75 a.

M. F. Garretson, Adair, Oklahoma.

WRITE US for prices on good wheat, alfalfa and ranch land, 80 a. to 3,000 a. E. M. Dempsey, 124 1/2 West Randolph, Enid, Okla.

\$20 TO \$60 PER ACRE. Fine wheat, oats, alfalfa, corn and cotton lands. Write for free illustrated folder.

E. G. Eby, Wagoner, Okla.

400 ACRE HOG RANCH. Garden spot. Kay county, 160 in alfalfa. All bottom, good bldgs. \$150 per a. Fine 147 a. farm, \$12,500.

O. K. Realty Co., Newkirk, Okla.

IMPROVED FARMS \$50 TO \$100

Raw land less. 35 inch rainfall belt of Southeastern Oklahoma. Government book free.

Dollins & Rorex, Henryetta, Oklahoma.

140 ACRES, two miles R. R. town 1,500, in this county. All bottom and second bottom land. 120 acres cult., balance timber. Fair improvements, \$45 per acre. Terms. Southern Realty Co., McAlester, Oklahoma.

GOOD GRAIN, COTTON AND STOCK FARMS

\$50 acre up. Eastern Oklahoma. New country, rapid development. Ask us.

Malone & Ryan, Allen, Oklahoma.

160 ACRES

3 miles Oakwood, 70 cultivated, all tillable, 4 room house, stable, granary and crib, good well and windmill, fenced and cross fenced, orchard for family use, on state road. Price \$4,000, terms on half.

L. Pennington, Oakwood, Oklahoma.

160 ACRES, 6 miles out, 1/2 from school. R. F. D. 100 acres in cult., splendid soil, lays good, 60 acres best of pasture, fenced hog tight with some timber along spring branch. 6 room frame house, large barn with loft, granary, driveway, arched cave. Basement under house. 50 acres wheat. A splendid farm and home with pure soft water. Possession 30 days. Price \$8,500 with 40 years time \$4,000. Free list and map.

DeFord & Cronkhite, Watonga, Oklahoma.

PLAY SAFE

Buy farms from bonded real estate men. Square deal assured. Have direct listings from over one hundred firms under bond in Oklahoma, Arkansas and Texas. Write us what you want.

Bonded Securities Company

702 Oil Exchange Bldg., Oklahoma City, Oklahoma.

OKLAHOMA

HAVE YOU SOLD OUT?

We have 7 special bargains in farm homes. Possession at once. Priced from \$3,500 to \$12,000 per quarter. Good terms. Write us today for this list and new map. Best part of Oklahoma.

DeFord & Cronkhite, Watonga, Oklahoma.

TEXAS

LIFETIME OPPORTUNITY, get your money working. Panhandle bargains. Bumper crops, and recent oil possibilities are all great. Write today.

J. N. Johnson Land Co., Dalhart, Texas.

TEXAS leads all other states in the Union in total value of agricultural products with approximately \$1,076,000,000 (U. S. government report). Raw or improved land to suit those wanting home or investment, \$25 to \$175 per acre. Hundreds of homeseekers come to Texas every week. Many farms paid for themselves in 1919. Write us what kind of farming you prefer; fruit, livestock, dairy, or general farming, and how much you want to invest. We will help you find the farm. We will mail illustrated agricultural booklet issued by the Railroad Administration. Texas Railroad Agricultural Committee, Room 306-E, M. K. & T. Building, Dallas, Texas.

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Virginia Farms and Homes

FREE CATALOG OF SPLENDID BARGAINS

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4. To make picking easier and spraying more effective.
5. To thin the fruit.
6. To lower and to renew the tops of trees.

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AT ONCE Will sell to first party 1 registered black Percheron stallion, coming 4 years old, price \$390; 1 registered black Percheron stallion, coming 2 years old, price \$190; 8 registered Red Polled bulls, \$75 to \$150; 10 registered Durocs at 1/2 price. All the above are bred right, sound and good ones.
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Valley Breeze Korndyke Winona

 28-lb. dam, 42-lb. sire whose dam (Korndyke Winona) was tested at Cabana's Valley Breeze Dutchland Korndyke from A. R. O. heifer whose dam (Canary Inka) made 28-lbs. His sire N. C. Dutchland Korndyke is from the world's record 2-year-old twin, 31-lbs. These two bulls are ready for service—priced right and will go quick.
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 Is one of the most desirable qualities a dairy animal can have. Vanderkamp Segis Pontiac is our herd sire. His dam is one of less than 20 cows in the world to produce over 30 pounds of butter in 4 consecutive lactation periods. Twenty-three of his nearest dams average over 27 pounds of butter in 7 days. We have several young bulls to offer sired by this remarkable bull. Prices \$100 and up.
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Calves; 12 heifers and 3 bulls, 6 to 8 weeks old, nicely marked, from heavy producing dams, \$25 each. Safe delivery guaranteed. Fernwood Farms, Wauwatosa, Wis.

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REGISTERED HOLSTEIN BULL FOR SALE
J. W. Edgcomb, Overbrook, Kansas
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FEBRUARY 24—PUBLIC AUCTION—FEBRUARY 24

 We will sell at our farm, 4 1/2 miles east and 2 miles south of the Kansas Wesleyan University, Salina, Kansas; or 4 miles west of Kipp, Kansas; one of the finest dairy herds in Salina Co., headed by our herd bull Sir Korndyke Larkin Virgo 184649 H. F. H. B.; whose SIRE is Sir Korndyke Virgo Canary 3rd 106491 H. F. H. B.; DAM, Mille Nellie Larkin 84133 H. F. H. B. These cows just in their prime—not an old cow in the lot—majority of cows, fresh or heavy springers about date of sale. This offering includes 11 mature cows and some two and three year old, heavy springing heifers, all bred to our herd bull. Address inquiries to
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A Son of Canary Paul Fobes Homestead from a 23-pound granddaughter of Canary Paul Fobes Homestead

 He is 3/4 white, a perfect individual, just past a year old and ready for service. He has a 23-pound dam, a 32-pound sister, a 35-pound granddam, 49 A. R. O. sisters, a brother that was grand champion at the 1913 National Dairy Show, a brother that sired the youngest cow in the world to make 1,000 pounds of butter in a year. He is just the kind of a bull you need. Price and pedigree upon application.
STUBBS FARM CO., Mark Abildgaard, Mgr., Mulvane, Kan.

Less Competition For Grain

Bears in Market Stimulated by World Conditions

BY SANDERS SOSLAND

THE bear element in grain and feed markets who, not many weeks ago, questioning the correctness of their views, were preparing to "get on the fence" or even climb over into the "bull" territory, feel more secure than in months. While not entirely disregarding domestic conditions, market operators have been influenced to a very great extent by the depreciated value of the moneys of European nations, or the appreciated value of the American dollar. They see in such a development influences which overshadow current factors in domestic trade channels, such as the day-to-day demand and supply.

All varieties of grain and many feedstuffs were included in the downward trend of prices the past week. Wheat occupied an extraordinary position in the fluctuations, having suffered the most severe break among the cereal list and the sharpest on the bread grain thus far on the crop year. Values on hard winter and dark hard wheat were carried down to a level prevailing early in November, practically four months ago. From the high point reached on carlots of wheat in Kansas City, \$3.08 a bushel, the market was about 60 cents lower, and about half of that decline occurred in the past week. The declines on hard wheat ranged from 20 to as much as 35 cents a bushel, and on red winter wheat the net losses amounted to 17 to 21 cents, the two varieties selling near a parity.

Cause of Wheat Decline

The sharp break in wheat was not the result of an enormous movement to market or clogged condition of consuming channels, for almost the opposite is true at the present time. An important factor governing the price fluctuations, which the daily market reports apparently have overlooked, is the growing pressure from banks to force the grain upon the market. Banks have called for increased margins on wheat loans, and in instances have required that loans on wheat be made at a figure not above the government price, this necessitating a burden of as much as 50 cents a bushel on the holder. This naturally has

brought much wheat upon the market, and, at the same time, resulted in a more cautious policy on the part of millers.

The use of all grain cars available in Chicago by the United States Grain Corporation to move out its wheat, about 8 million bushels being held there, has had a depressing influence on prices, also. With mills receiving more freely wheat purchased from the government several months ago, the tendency is to reduce purchases on the open market. This has been further aided by serious shortage of cars at milling plants. Many mills in Kansas have been forced temporarily to shut down because of their inability to obtain cars to load out their flour and bran and shorts, and a similar and possibly more serious condition prevailed in other sections, including the Northwest. Extremely quiet domestic demand for flour is still another factor. The acute position thus

Expect Rebound in Wheat

Though wheat values have declined about 50 cents a bushel from the top mark, a rebound to \$3 a bushel is generally expected on the Kansas City Board of Trade. Only further serious depreciation of exchange rates will affect the market bearishly. Domestic demand and supply conditions are favorable to an upturn. The movement to market is falling off.

brought about has been further unsettled by depreciation in foreign exchange to new low levels.

Prices Will Advance Again

Were it not for the acute exchange situation, the writer would urge strongly upon wheat growers the need for holding their wheat for a \$3 market. Demand and supply conditions favor a return to the \$3-level on the Kansas City Board of Trade, and market interests quite generally hold to the belief that \$3 will again be paid for wheat of the 1919-20 crop, and before May 1. Growers who still hold wheat should not be concerned over the break in prices. Tho the market is about 40 cents a bushel from a \$3-top at the present time, an advance as sharp as the decline of the past week would bring values to practically this basis. Some even believe it would not be surprising to witness this figure before the close of February. This however, appears improbable, at the moment at least. Before many weeks pass, markets are expected to yield violently to reports of wheat crop conditions, and the effect should be bullish.

Aside from the declines in foreign exchange rates, which naturally make the outlook for foreign sales discouraging, corn has been depressed by the order of the United States Railroad Administration giving the coarse grain priority in loadings, this priority now being in force. The movement of corn to market is slowly increasing, but the amount reaching terminals is far below the expectations of the trade. In giving grain-loading preference over all other commodities, a heavy movement might result the latter half of the month. There is sufficient corn in country elevators to permit a heavy movement, but the trade is seriously asking whether there are sufficient cars available, irrespective of the priority order, to allow unrestricted loadings. Despite the small movement thus far, buyers have not absorbed offerings in a manner which reflects concern over the available supplies, and for this reason there has been an absence of bullishness.

Corn Shows a Decline

In the past week carlots of corn declined 6 to 9 cents a bushel, the sales ranging from \$1.34 to \$1.48 a bushel, and ear corn around \$1.36. Feeders in Kansas are buying corn in small quantities, but the tendency among this

trade is to buy merely sufficient for current needs. "They're awaiting a movement," is a common remark heard among dealers. This is significant, of course, the long delay in marketing corn causing no tight situation among feeders. In the Southwest the sorghum-grains are being used as a substitute on a comparatively large scale. Another depressing influence in corn was the sharp decline in hogs and other meat animals, also the weakness in feedstuffs. The February option in Kansas City fell 11 cents a bushel, and the May delivery was quoted off about 5 cents, around \$1.31.

While more or less independent strength has been witnessed in the oats market, the minor cereal yielded to pressure from low exchange rates, the downturn in corn and other grains. Considerable quantities of oats held by exporters at the seaboard have been offered for resale to domestic buyers, owing to losses resulting from depreciation of foreign money. The cash market in Kansas City declined 4 to 5 cents a bushel, feeding grades selling at \$2 to \$8 cents a bushel. To the feeder who soon must enter the market for a supply of oats, the current market offers an excellent opportunity for purchases. Seed oats eased off slightly, but the best grades still command about \$1 a bushel. In the speculative market values were depressed about 6 cents a bushel, below 77 cents a bushel for the May delivery, the lowest figure in more than three months.

Being influenced by the pressure on wheat, corn and oats, extreme weakness naturally has prevailed in other grains. In the past week rye declined 25 cents a bushel, barley lost 11 to 13 cents, and the sorghum grains have fallen as much as 25 cents a hundredweight. Further recessions in kafir and milo are generally predicted, owing to the free movement from Kansas, Oklahoma and Texas to the Kansas City market.

Mill Offals Irregular

A very irregular course was followed by the mill offals. In the shorts market a tight condition developed as a result of efforts of speculative operators to accumulate the product. This element succeeded in obtaining supplies, and at the same time succeeded in forcing values up as much as \$5 a ton from the recent low level. The trade for some time has been anticipating an enormous demand for spring farrowing the latter part of February and March. However, from a top of \$51 a ton in Kansas City for gray shorts, the market receded \$2 to \$3, and there is doubt as to whether a broad feeding demand will really develop. Brown shorts are quoted around \$44 to \$45 in Kansas City. Bran followed shorts, rising to \$42 a ton, sacked, basis Kansas City, but later receding to around \$40 to \$41, these figures being paid for March and April delivery as well as for spot offers.

Pressure on hay, particularly the cheaper grades, was relieved to an extent by the slightly reduced movement to market. Whether the falling off in arrivals means that the peak of the movement has been witnessed is doubtful, though more numerous complaints of car shortage, poor condition of country roads and approach of spring work strengthen the belief that receipts will continue to decrease. Some prairie sold as low as \$11 a ton, with the best grades at double this figure. Alfalfa ranged from \$20 to \$38, and tame hay sold at \$23 to \$30.

Feeding Skimmilk to Hogs

Skimmilk for hog feed will soon be a thing of the past, in the opinion of E. O. Hanson, member of the staff of the dairy division at University Farm. "Skimmilk," Mr. Hanson says, is already being sold in various forms, such as milk powder, casein, and cottage cheese. Demand for it is increasing rapidly because of its food value, although it contains no fats. About 17 pounds of cottage cheese can be made from 100 pounds of skimmilk. An analysis will show that cottage cheese is as nourishing, pound for pound, as lean beef.

"Suppose beef to be worth 18 cents a pound and cottage cheese to be of equal value; this would mean that the value of one quart of skimmilk is 6.12 cents. At this rate, skimmilk is too valuable to be used for hog feed."

Stockmen Look to Europe

Talk of Lessened Foreign Demand Affects Prices

BY SAMUEL SOSLAND

CATTLE, hogs, sheep and other livestock markets have begun to wrestle more generally than at any other time since the armistice of 1918 with the problem of Europe's reduced purchasing power. Surprising declines in cattle last year in the face of reduced receipts on markets centered attention on this problem. The break in hogs in the fall of the past year also revived interest in the foreign exchange problem. Now, however, with depression in foreign exchange more serious than at any other time in history and with assertions that Europe's money has lost so much in purchasing power that the consumers of the Old World must buy less food here, the foreign exchange problem has assumed greater prominence. The trade in cattle and hogs and other livestock, particularly the hog market, in wrestling with it, is uncertain as to the outcome. But the trade is cautious.

What are the facts which are at hand and on which some judgment may be formed?

There is a lot of talk about less buying by Europe, especially in the hog market. And there is also talk about the purchasing power of American consumers being affected adversely by lessened buying of all classes of American goods by Europe. This, briefly, is the reason for the sharp declines which were recorded in livestock prices last week and for the growing conservatism of commission houses as to the outlook for the market.

To understand the meaning of European buying and its effect on American prices, a glance at a few figures is desirable. Official figures announced a few days ago by Washington show that the United States exported 2,025,000,000 pounds of pork products in 1919, compared with 2,250,698,000 in 1918 and 1,020,778,000 pounds in 1913. The exports last year were equal to the product of between 14 million and 15 million live hogs. In the case of beef exports, the output as officially reported for 1919 amounted to 346 million pounds, against 749 million pounds in 1918 and about 40 million in 1913. The beef and beef product exports last year were equal to about 577,000 live cattle, compared with around 1,248,000 head of live cattle for 1918.

Extent of Competition

A study of the foregoing figures shows the extent of the competition which our markets, including Kansas City, have had the past two years from foreign buying of pork and beef. The drop in beef exports last year as compared with 1918 was one of the big factors in the drop in prices.

Now, with talk of a further reduction in buying by Europe, especially of pork, there is more concern over prices. Hog salesmen have explained this situation to many of their customers. Packers have been putting emphasis on it. If Europe can manage to buy more pork or a moderate volume, hog markets will improve. If Europe, as feared, must reduce her purchases because her money is worth so little that the cost runs too high, then the competition for live hogs will wane. Europe is our principal foreign customer.

Meat markets are in the same position as other markets depending partly on foreign trade. It is said that if the other markets have a reduced demand and lower prices, the labor they employ may find fewer hours of employment and lower earnings in the end, so it is held that the domestic demand for meat may be affected.

Commission men, bankers and others connected with the livestock marketing business are studying these problems. They say they are dominant. These influences are so important that they demand the careful consideration of every producer.

Decrease in Livestock

One helpful influence is the fact that the annual report of the United States Department of Agriculture on the number of cattle and hogs on farms and ranges shows a decrease for the past year. The total number of beef cattle is placed at 44,385,000 head, compared with 45,085,000 a year ago. The num-

ber of hogs is placed at 72,909,000 against 74,584,000 at the opening of 1919. The number of sheep is given as 48,615,000 head, against 48,866,000 a year ago. These are, however, small decreases. The hog supply is the second largest in history. In 1913, the year before the European war, the United States Department of Agriculture reported the number of cattle in the country as only 36,030,000 head and the number of hogs as 61,178,000 head. In 1913 the number of sheep was reported as 51,482,000. In the case of cattle and hogs there is no room for shortage talk in the face of these comparative figures together with the lessened demand from Europe. The estimates on horses and mules also lack bullishness. The mule report shows 4,995,000 head in the country, a decrease of only 1.1 per cent for 1919.

How Much Meat for Export?

All foreign lands bought pork equal to the product of over 14 million live hogs last year from the United States. The foreign countries bought in the same year the product of about 577,000 live cattle. Europe was the main buyer.

If Europe buys less meat, competition will be reduced and prices adversely affected. There is nervousness in markets for meat animals over the extent of European buying.

International trade conditions also influence domestic demand, so the position of Europe is one of the big factors in the trade in all livestock.

The horse report shows 21,109,000 head, a decrease of 1.4 per cent as compared with a year ago.

For weeks this department has pointed out that it was time to be very conservative in handling cattle and that, while stockers and feeders have been available at lower prices, the level of the market was not cheap for the buyer. The market has been on the downgrade, and last week cattle declined again severely. Some buyers came into the stocker and feeder market on the new low level since the close of the European war. Here and there these buyers were heard to express the opinion that the prices they paid were cheap. This applied all right in comparison with the prices of recent months, but that is not the basis on which to gauge the market. The basis on which to gauge it is the demand and supply outlook, not on the past. Cattle prices lost 25 cents to \$1 last week on the Kansas City market. In instances the declines on beef steers were placed at \$1.50. And there was again a better demand for stockers and feeders than for fed cattle. The bulk of the sales of fed steers were at \$10.50 to \$12.50—less than these cattle cost some months ago as feeders. One feeder who sold two loads of steers told me he lost \$1,800 on the lot. But some of the best feeding cattle sold at \$12.50 and \$12.75 in the same week. Many stocker steers sold at \$9 to \$10.50. These stockers sold up to \$15 a year ago, but the manner in which the fat cattle market is acting does not indicate that they are cheap by any means. The top sale on fed cattle the past week in Kansas City was only \$14.50, but even this is no criterion of the market. The criterion is the bulk of sales of short-fed steers. A few fat cows sold up to \$11, but the bulk brought \$8 to \$9. Yet sales of stock cows were quoted largely at \$7.50 to \$9. After selling at a top of \$17 early veal calves closed last week at a top of \$15.25.

Moderate bullishness in the hog market has temporarily given way to uncertainty. Europe needs pork badly and has been buying in quantities sufficient to hold the market quite firm. But the scare which has developed as to the possibility of less buying by Europe has made some of the moderate

First Annual Tri-State Holstein Show and Sale

At the Union Stock Yards Sale Pavilion
South Omaha, Neb., Feb. 24, 25 & 26

100 HEAD, 85 Cows and Heifers and 15 Bulls

Every One a Show Animal

And a Producer that has been specially selected by the Tri-State committee as qualified to enter this great show and sale.

Every Cow Has a Creditable A. R. O. Record

The heifers are by 30-lb. sires and out-of-dams eligible to the sale. The bulls are mostly by 30-lb. sires, several out of 30-lb. dams, one of them is a

Son of Niva Kalmuck Nebraska's Champion 45-lb. Cow

Five cows have A. R. O. records above 30 lbs. in 7 days.

Two cows have 7-day records above 29 lbs.

Twenty cows have 7-day records above 25 lbs.

One heifer, Nebraska's 2-year-old champion, has a record above 23 lbs.

Eight heifers have 2-year records above 20 lbs.

Twenty cows and heifers are bred to

The World's Champion Long Distance Sire, Sir Ormsby Akkrummer Hengerveld

His sire is a son of the world's champion yearly record cow

Duchess Skylark Ormsby

His dam has a 7-day record of 39.56 lbs. of butter and 620.6 lbs. milk. She is about to complete her yearly record which will undoubtedly exceed 1200 lbs. of butter.

40 Head are from the Noted Friesland Farm Herd Owned by B. B. Davis, Omaha

He has consigned many of his choicest animals which include

Three 30-lb. Cows, a Son of the 45-lb. Cow, Niva Kalmuck

and one of his herd sires, Alcartra Hengerveld Segis De Kol, son of the \$50,000 bull, King Segis Pontiac Alcartra.

His dam is Meta Hengerveld, a 30-lb. daughter of Hengerveld De Kol; he is a proven sire suitable for service in any herd in the country.

Some are bred to

King Echo Sylvia Waldorf

whose two nearest dams average 889 lbs. milk and 38.68 butter in 7 days. His sire is a son of May Echo Sylvia the only cow in the world to produce over 1,000 lbs. of milk in 7 days.

Some are bred to King Pontiac Konigen a son of King Segis and the sire of the 43.59-lb. 4-year-old Lady Netherland Pontiac.

Three are bred to a son of the 37-lb. cow Erma Pietertje De Kol Beets. Two are bred to King Segis Lyons a son of King Segis and the sire of ten 30-lb. daughters; one of them above 38 lbs.

Twenty prominent breeders of Nebraska, Kansas and Wisconsin have entered the contest for highest honors in show and sale ring.

Prof. H. H. Kildee of Ames, Iowa, will judge the cattle Tuesday, February 24th and they will be sold with their ribbons Wednesday and Thursday, February 25th and 26th.

All lovers of purebred cattle are invited to come to the show and sale and also to the

Banquet at the Castle Hotel, 6:30 P. M., February 24th

The annual meeting of the Nebraska Holstein-Friesian Club will be held immediately following the banquet. Everybody is welcome. Write for catalog to

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Sunflower Herd's Seventh Annual Sale of

Registered Holsteins

Topeka, Kansas, Friday, March 5

Sale at Fair Grounds

70 Head Registered Cattle

We invite you, so does LORD KAY HENGVERELD FAYNE 217511 (for he will be there to make your acquaintance, and to demonstrate what a fine "Daddy" he is, for there will be over 30 head fine cows and heifers to bring calves by him), however, he won't be sold. You can't find a better place to buy immense big, extra well bred heifers to calve this spring. A lot of heifers from 30 to 34-lb. sires, some bred to a 30-lb. bull. Three heifer calves from a 34-lb. sire. A young cow sired by a 31-lb. sire and from a 30-lb. dam. A two-year-old heifer that is sister to the World's Record twins (one twice over 30-lbs. at 3 years, the other 31-lbs. at 4 years) a show heifer, too. 25 head of big fine individual well bred cows, either fresh, springing or milking heavily now. A few good young bulls. SIZE, QUALITY and BREEDING in this sale. 60 Day Tuberculin Retest Privilege. Don't fail to be on hand. Write for catalog to

F. J. Searle, Owner and Manager
Oskaloosa, Kansas

Auctioneers—Haeger, Crews, O'Brien.

N. B. 20 head high grade springers will be sold also.

A Live Wire County

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32 Polands

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Zink Stock Farm

Tried sows, spring and fall gilts, and a few boars of each breed. These are good hogs, the kind that have put Stafford County on the hog map. Get your catalog today and plan to attend this sale. Address, mentioning this paper,

Stafford Co. Purebred Livestock Assn.

S. N. Myers, Secretary, Stafford, Kansas.

Auctioneers: Coln. Snyder, Waggoner and Keenan, J. T. Hunter represents the Kansas Farmer and Mail and Breeze.

Bargains In DRAFT STALLIONS

Our horse barns have been torn down to make way for city residences. We have a few high-class Belgian, Percheron and Shire stallions for sale right. We offer special inducements to dealers who can handle them all. Now is the time to push the draft stallion business. Horses were never so scarce.

Woods Bros. Co., Lincoln, Neb.
A. P. Coon, Manager

20 BIG, REGISTERED BLACK JACKS

Ages from 2 to 8 years. Height from 15 to 16 hands. Can show more bone and weight than anybody. In October we shipped a carload of the finest big registered jacks we could find in Tennessee to our farms. They are acclimated now and ready to make good.

We also have several 15 and 16-hand that have made stands here on our farms. We can show colts or mares in foal. Must sell this stock this season. We can ship on the Santa Fe, Missouri Pacific or Frisco. Address, J. P. Malone, Lyons, Kan., (new location) or M. H. Malone, Chase, Kan. Will meet trains at Lyons or Chase.



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R. 1, Pawnee Rock, Kansas

Mammoth Jacks, Percheron Stallions and Mares

A lot of big boned jacks, 3 to 5 years old, weight up to 1200 pounds, 15 to 16 hands. Also a fine lot of Percheron stallions, blacks and greys, weight up to 2400 pounds. A lot of large mares, 3 and 4 year olds, showing colts. Will sell one or a carload. All stock guaranteed.

Al. E. Smith, R. 1, Lawrence, Kansas.
40 miles west of Kansas City.



Jacks and Jennets

15 large mammoth black jacks for sale, ages from 2 to 6 years; large, heavy boned. Special prices for early sales. Twenty good jennets for sale. Come and see me.

Phil Walker, Moline, Elk County, Kansas

For Sale Registered Percheron Mares

and fillies, 2 coming 4 years old, 2 coming 3 years old; well broke; sound; all black. Also a few choice stallions coming 2-year-olds and yearlings; all registered; blacks; sound; size and quality. Large black jack, 8 years old, 1050 pounds, prompt and sure. Will buy an extra good herd horse.

A. J. WEMPE, FRANKFORT, KANSAS.

3 REGISTERED PERCHERON STALLIONS at draft gelding prices.
C. E. WHITTLESEY, Mound Valley, Kans.

Stallion and Jack for Sale

Imported Percheron, dark dapple gray, 7 years old, weighs 1960, plenty of action, gentle. Knox Napoleon, dark brown jack with mealy points, 15 hands, weighs 950. Will prove both these animals fertile under the microscope. For particulars write, HENRY MOORMAN, SOLOMON, KANSAS

For Sale, Reg. Percheron Stallion

Perfection 122699, coming 4 years old. Strong in the blood of brilliant with several noted sires in pedigree. A good individual and gentle. Broke to work.

C. Walter Sander, R. 2, Stockton, Kansas

Percherons—Belgians—Shires

State Fair prize-winning stallions and registered mares bred to Champion stallion for sale. Also extra heavy black Mammoth Jacks.

Fred Chandler, Rt. 7, Chariton, Ia.



Coburn Farm Percherons

Percheron Mares and Stallions—all blacks. Mares, yearlings up to mature ages. Stallions, yearlings, two-year-olds and one extra 6-year-old, a ton horse. Two-year-olds weighing 1,800.

Mahlon Greenmiller, Pomona, Kansas, (Franklin Co.)

Pleasant View Stock Farm

2 good big jacks that get good mules and my French Draft stallion. Investigate if you want profitable jacks and stallion. M. R. Peterson, Troy, Kan., Doniphan Co.

Five Registered Percheron Stallions

for sale. 1 coming 5 years; 2 coming 4 years; 2 yearlings. All blacks. F. J. Bruns, Nortonville, Kan.

REGISTERED SUFFOLK STALLION

22-months-old, out of an imported dam and by a son of Ashmoor 3447. For sale at farm price. For pedigree and price write Dan D. Casement, Juniata Farm, Manhattan, Kansas.

Imported Percheron Stallion for Sale

Weights 2000 pounds; black with star. Will sell or trade for land, city property, cattle or mules.

P. B. DAVIS, SCOTTSVILLE, KANSAS

For Sale or Trade

good, large, black jacks; one purebred 2000-lb. Percheron stallion. JOHN TUTCHER, PARSONS, KAN.

DARK GREY PERCHERON STALLION

Coming 3, will weigh over a ton at maturity. From imported sire and dam, well broke to work, price \$400.

J. T. Mowrer, Lost Springs, Kansas

bulls wary. They are waiting for more light on what Europe is going to do in the matter of buying. If one could answer this question, one could easily forecast whether hogs will advance or decline. Pending the answer to this question, stock hogs should be purchased very conservatively. The writer has been moderately bullish on hogs. There is still hope of a better market in the spring, but the sudden severe break which has been recorded in the value of European money makes for more caution on the part of feeders. On the basis of European buying before last week, the outlook was bullish on hogs. There is still a big domestic demand. So, if Europe shows signs of not cutting off her buying too sharply, then hogs will go up in price moderately. On the Kansas City market last week hog prices broke about \$1, to a top of \$14.25, but stock hogs sold up to

\$14.50 at the close. Stock hogs have sold as high as \$16 this year, also fat hogs.

After having advanced so sharply, it was only natural for lambs and sheep to recede last week. This they did. A break of as much as \$2 was recorded, but about 50 cents of this was recovered. There was a sharp break in feeding lambs in line with the action of fed offerings, the close being \$1 lower, to \$18 on fleshy feeding lambs. They are too high for a conservative investment. Lambs closed with a top of \$19.50 last week.

Horses and mules are quoted mostly steady, with a new record sale of a pair of mules in Kansas City at auction last week at \$1,075. A break in cotton prices is, however, not favorable to the market, altho the South still has a great purchasing power for the present.

Farmers Oppose Class War

Year's Co-operative Business 150 Million Dollars

BY GEORGE C. WHEELER

A DETERMINATION on the part of the organized farmers of Kansas to fight radicalism in every form was an outstanding feature of the annual convention of the state farmers' educational and co-operative union held in Hutchinson recently. Delegates and members of the 1800 locals of the organization from every section of the state were present at this meeting, representing a total membership of more than 100,000. An increase of 10,000 in membership was reported for the last year.

All thru the program, both in the closed and open sessions, appeared evidences of the sanity of American farmers. Farmers see the dangers of class warfare and the efforts of radicals to sweep organized farmer movements into the one big union of the I. W. W.'s of any other similar group. As one speaker said, "There is only one big union in this country, and that is the 100 million strong over which floats the stars and stripes."

Farmers Will Stand True

"The farmers of America have always stood true to the cause of their country in battle," said President McAuliffe. "But this new contest is not a contest of arms, but a contest of judgment against irrationalism; a contest of order against disorder; but in this, as in all other contests, wherein the principles of democracy are at stake, the American farmer can be counted upon to be lined up on the side of right."

Disrupting influences at work in the Kansas farmers' union came to a showdown when nominations for president were made. In nominating Maurice McAuliffe to succeed himself, Alfred Docking of Manhattan pointed out his great value as a leader in these trying times thru the close touch he has established with governmental agencies in Washington where he has frequently been called for conferences. When the votes were counted Mr. McAuliffe was found to have received a two-to-one majority.

Locals Make Big Profits

Self help, thru a pooling of individual effort in handling the business of buying and selling the raw materials of agriculture, is the big job which the farmers' union is working out, and it is making remarkable progress along this line. A conservative report of the business transactions of the many co-operative enterprises show that the volume of business done in the last year exceeded 150 million dollars. Practically every co-operative enterprise made money for its members.

In listening to the many reports that were made and hearing the discussions, we were impressed with the business-like methods being adopted. Local co-operative enterprises were urged to stick to the cash method. A thorough modern auditing association has been created, which periodically audits accounts of all associations desiring the service. It provides uniform systems of accounting and other help. It would seem practically impossible for a co-operative business association to fail if it but uses the means available, employs a competent manager and sticks to true co-operative principles at all times.

Greater co-operative enterprises are being planned. Already there are several co-operative flour mills operated by farmers' union local business associations, and a milling committee recommended that steps be taken to establish several regional mills of 1,000 barrel daily capacity. Caution was urged in putting in more "midnight mills," as they are called. Definite plans on the milling project were deferred until some time in April when the committee is expected to bring in a complete report to a directors' meeting to be called at that time.

Another new business development is co-operation in shipping and handling livestock. A number of local shipping associations are doing business successfully, and insuring fair prices to men who have only a small number of animals to ship. A co-operative livestock commission firm has been doing business on the Kansas City market for more than a year. From a small and struggling concern it has become one of the strongest at the Kansas City yards, handling during 1919 2,263 cars of cattle and a total of 2,665 cars of all classes of stock, valued at 5½ million dollars. About 25 per cent of the commissions collected will be pro-rated back to its member patrons, or used for the creation of a reserve to their credit.

Governor Applauded Loudly

The evening meetings were open and large audiences were in attendance. Governor Allen told of the industrial court bill and disclaimed any great credit for possessing unusual nerve in daring to demand such a tribunal. He said he knew he had the people of Kansas standing back of him, and particularly the farmers, and felt sure even the miners would soon find the court a far superior weapon to the strike.

In the report of the legislative committee a graduated land tax was favored as the only means of checking speculative increases in land values. The county unit system of taxation for school purposes was favored, opposition to all price-fixing power expressed, but a demand made that enforceable laws be passed to prevent and punish profiteering in the necessities of life. The legislature was asked to pass an anti-discrimination law and a law embodying the principles of the Torrens land title system. A demand was also made for some just means of enforcing distribution of cars for shipping grain in elevators and in sight on farms. The convention pronounced itself in favor of a law permitting the formation of co-operative banks.

In national legislation the convention indorsed the principles of the Kenyon-Kendricks bill and the Capper-Herman bill, clearly giving farm co-operative associations the right of collective bargaining, asked for enlargement of federal loan act, extending more privileges to the man without land, continuation of high taxes on excess profits of corporations until war expenses are paid, and declared sympathy with the movement to prevent undesirable aliens getting into this country, urging deportation of all resident aliens plotting against our government. Opposition was expressed to the Cummins Rail-

road Bill, and it was declared that the present status of the railroads should continue until Congress worked out a just solution to all parties.

A move of special significance was the starting of plans for a state building to house the offices and records of the organization and stand as a symbol of what agriculture means to the state. Already several thousand dollars have been sent in by the various locals. This money was placed in a special fund and every local urged to begin at once a campaign for voluntary subscriptions to the fund.

The directors were also authorized to appropriate whatever seemed to be the just proportion of Kansas to the temple of agriculture, a building to stand in Washington as the home of agriculture. This move is being promoted by the national board of farm organizations, a federation of farm organizations with which the national farmers' union is affiliated. Charles A. Lyman, its secretary, spoke on the work the national board is doing in representing farmers in Congress and before governmental agencies. He said that it now represents 2 million organized farmers.

Other speakers at the open meetings were J. C. Mohler, secretary of the state board of agriculture, who spoke on the cost of producing wheat, Senator Delaney, speaking on hard roads, Miss Loraine Wooster, state superintendent of public instruction, W. P. Lamberton, speaker of the Kansas house of representatives, Ben Hagler, member of the legislature from Sedgewick county, and Eunice Smith, formerly an officer of the 140th infantry, who spoke in behalf of the American Legion.

John Tromble of Beloit was unanimously re-elected vice-president. Dan Thurston, Delphos, secretary; Grant Bliss, Stockton, treasurer, William G. Skanson, Vliets, state lecturer, John Sheel, Emporia, conductor, M. V. Gates, Logan, door-keeper and V. C. Anderson of Wellington and O. M. Lippert to the board of directors. The next meeting will be in Topeka where the convention must be held according to the constitution on the years in which the legislature is in session.

Livestock Associations Formed

Fifty-nine livestock breeders' associations, with a reported membership of 1,524, were organized during the last fiscal year with the help of United States Department of Agriculture ex-

tension specialists. In addition numerous calf clubs were organized among the boys and girls. Much of the work is being done in regions where the beef-cattle industry is practically new.

One of the purposes of beef-cattle extension activities is to eliminate scrub bulls and replace them with pure breeds of good quality. The federal workers co-operate with the state agricultural colleges thru their extension divisions and particularly with county agents.

Care of the Foals

A strong foal will be on its feet and trying to nurse in less than an hour from birth. Such a foal needs no help, but a weak one will have to be held up to suck until strong enough to do so without help. Wash the udder of the mare with a lukewarm 2 per cent solution of coal tar disinfectant and then rinse off with warm water before the foal is allowed to suck for the first time. The external organs, tail and hind parts of the mare should be washed with a similar solution once a day for the first week or so after the birth of the foal.

Keeping the udder free from infective matter in this way tends to prevent the foal from scouring, for that condition of the bowels often is due to germ infection of the intestinal tract by way of the mouth. Disinfection of the navel cord also tends to prevent scouring. At birth the intestine of the foal contains a sticky mass of fecal matter. This should come away promptly and usually this is accomplished by the first milk (colostrum) which possesses purgative properties.

To assist nature, either insert a small tallow dip candle (made for this purpose) in the foal's rectum, or within an hour from birth, give an injection of either warm water, warm slippery elm bark tea, flaxseed tea, sweet oil, or a mixture of equal parts of cream, molasses and warm water, and repeat in 12 hours if required. Harm may be done by injecting a large quantity of strong, soapy warm water with an ordinary "horse syringe." A fountain syringe is to be preferred and it should have a small, hard rubber nozzle, or a small, clean rubber hose and funnel. Smear vaseline or lard on the nozzle and in the rectum before giving the injection. If the bowels do not move within 24 hours from birth and the foal seems sick, shake up 2 to 4 tablespoonfuls of pure castor oil in milk, or a mixture of equal quantities of castor oil and sweet oil, according to size of foal, and give as one dose. Then continue the injections at intervals of 6 hours.

In case the mare dies or has no milk the foal may be raised on cows' milk, if the attendant conducts the work patiently and intelligently. Choose the milk of a cow that has recently calved, preferably one which gives milk low in butterfat, for mares' milk, while rich in sugar, is poor in fat. Sweeten the milk with molasses or sugar and dilute with warm water. Give a little of this prepared milk at short intervals from a scalded nursing bottle and large rubber nipple. Be careful to keep the bottle and nipple scrupulously clean. Add an ounce of lime water to each pint of the prepared milk and allow half a cupful once an hour at first.

As the foal grows, gradually increase the amount of milk fed and lengthen the intervals between meals. In a few days food may be given six times a day and, later, four times daily. The foal will soon learn to drink from a pail, if allowed to suck the attendant's fingers at first.

Until the bowels move freely, give rectal injections night and morning. If the foal scours at any time give 2 to 4 tablespoonfuls of a mixture of sweet oil and pure castor oil shaken up in milk and stop feeding milk for two or three meals, allowing sweetened warm water and limewater instead. Let the foal lick oatmeal as soon as it will eat and gradually increase the amount and add wheat bran. In five or six weeks some sweet skim milk may be given and the amount gradually increased daily until, in three months or so, it may be given freely three times a day in place of new milk. The foal at this age also will be eating freely of grass, grain and bran.

At all times supply pure cold drinking water. Let the foal run out in a

800 Herefords

In the big 5-day auction known as
The Annual Hereford Round-Up

Kansas City, Mo., March 1-2-3-4-5

The Hereford Round-Up Sale is under the direct management of the American Hereford Breeders' Association.

400 Bulls—400 Females

Consigned by 102 consignors representing 11 states

They range from the highest class of cattle to the plainer sorts you can buy at your own price. This will be the biggest sale ever held. Big sales always mean bargains. This sale will mean more bargains than ever before.

Send For Your Catalog Today

mentioning the Kansas Farmer and Mail and Breeze. This is your big opportunity to buy Herefords either singly or by the carload. The catalog in itself is an annual chapter in Hereford history. As a breeder or beginner you need it. Get your catalog. Attend the sale. Get some of the bargains. Be sure to mention the Kansas Farmer and Mail and Breeze when writing.

R. J. Kinzer, Sec'y, Kansas City, Mo.

Auctioneers—Col. Fred Reppert and Assistants.
O. W. Devine represents Kansas Farmer and Mail and Breeze.

HEREFORD CATTLE

Blue Ribbon Stock Farm HEREFORDS

200 cows, heifers and bulls—200. Chief herd sire, Don Balboa 14th 596021 by Don Carlos, a bull with over 40 Gudgeon & Simpson crosses. Mated with 60 two-year-old heifers sired by Sir Dare 417529 by Paragon 12th. We have what you want and the prices are in line.

Lee Bros., Harveyville, Kan.
Wabaunsee County

Southard's Monarch Herefords

Write for my new mail order plan for selling Monarch Herefords. You get the best, express prepaid, you to inspect animals before you pay. Also ask for my big spring sale catalog; 200 head. For 30 days, I will send all who write about my new selling plan a picture of the mighty Monarch.

J. O. SOUTHARD, COMISKEY, KAN.

PLEASANT VIEW STOCK FARM Herefords, Percherons, Durocs

For sale, five bulls from 10 to 12 months old, by Dominie by Domino. A nice string bull calves and six bred cows. A nice young stallion. Address,

Mora E. Gideon, Emmett, Kan.
(Pottawatomie county)

POLLED SHORTHORNS.

POLLED SHORTHORNS

175 in Herd
Young Bulls For Sale
J. C. BANBURY & SONS
Phone 2803. Plevna, Kan.

10 Polled SHORTHORN Bulls

Big husky reds and roans 12 to 20 mos. old. Priced to sell. Can spare a few females.
O. M. HOWARD, HAMMOND, KANSAS.

SHORTHORN CATTLE.

Genuine Herd Bulls by Master of the Dales

and out of

Collynie Bred Cows

Master of the Dales bulls are proving themselves splendid breeding bulls and we can show you a few real bulls of first class herd heading character.

They are a practical, husky and well grown lot that will appeal to breeders wanting bulls of real merit.

H.M. Hill, LaFontaine, Kan.

Milking Shorthorns

(Of the Best Bates Breeding)
We have bred them exclusively for 20 years and find that if you want beef and milk under the same hide you certainly can get it from the Bates bred Shorthorn.

Bulls for sale. Write for descriptive list.
O. M. Healy & Son, Route 1, Muscatine, Ia.

FOR SHORTHORN BULLS

All ages. Address

HUNT BROS., BLUE RAPIDS, KAN.

CEDAR HEIGHTS SHORTHORNS

Five bulls for sale, pure Scotch, splendid individuals. Ages 12 to 20 months. Farm joins Topeka on the west. **HARRY T. FORBES, R. 8, Topeka, Kan.**

New Buttergask Shorthorns

For sale—Bulls, Scotch and Scotch topped, ready for service. Also bred cows.
MEALL BROS., CAWKER CITY, KANSAS
Mitchell County

FOR SALE, 4 SCOTCH and SCOTCH-TOPPED SHORTHORN BULLS

from 12 to 18 months of age, red and roan. Also some Scotch bred females with calves by side. Come and see them. **H. C. GRANGER, Lancaster, Kansas.**

Scotch and Scotch Topped

bulls. Serviceable ages. Red, roans and white. Some real herd bull material. Visitors met at U. P. or Rock Island trains.

Jacob Nelson, Broughton, Kan. (Clay Co.)

Saline Valley Shorthorns For Sale

Registered bulls, all reds, 6 to 20 months old. For descriptions and prices write **O. O. Runyan, Ogallala, Kan.**

GROSNICK FARM SHORTHORNS

Good husky bull at a low price. Herd headed by Color Bearer, grandson of Avondale. **O. E. R. Schulz, Ellsworth, Kansas.**

HEREFORD CATTLE.

Anxiety and Fairfax HEREFORDS

Females bred to sons of Bright Stanway and Perfection Fairfax. Herd header bulls ready for service. Open heifers. Write today to
J. R. GOODMAN, WHITE CITY, KAN.

HEREFORD COW BARGAINS

Twenty 5-year-old bred cows at \$200 per head. A few young bulls at \$85 to \$125 per head. All registered. Prices for immediate sale.

Fred O. Peterson, R. 5, Lawrence, Kan.

Discriminating Hereford Buyers We Offer NOW

Is coming yearling bulls, Columbus, Anxiety strains. Bred character and proper conformation. Unimpaired but in better than pasture condition. 7 registered, 5 unregistered, but equally well bred. All high class farm bulls. If you want one or more of the 12 yearling bulls write now to **W. C. Cummings, Hesston, Kan.**

What's in a Name?

\$100, \$50, \$30, \$20 for the best four names for sons of Monarch. Think it over and suggest a name to me by mail at once.

SOUTHARD'S MONARCH HEREFORDS
Ask for my new mail order plan and public sale catalog of spring sale.

J. O. Southard, Comiskey, Kan.

Registered Herefords

3 young cows out of a daughter and a grand-daughter of Caldo 2nd, bred to a son of Beau 10th. A 4-year-old herd bull. For sale at farm prices. For pedigrees and prices write **DAN D. CASEMENT,**
Manhattan, Kan.

HEREFORD BULL

10 registered bulls, 9 to 15 months old.
RAY E. HANNA, CLAY CENTER, KANSAS

Jefferson County Shorthorn Breeders

A carefully selected offering
40—Thrifty Shorthorns—40

Valley Falls, Kan., Tuesday, Feb. 24

A carefully selected offering of useful cattle in fine condition, drafted from the best herds in the county. 20 cows, 15 heifers, five bulls.

20 thick fleshed cows, a number with calves at foot, others heavy springers. 15 choice heifers, several safe in calf. Five rugged useful bulls, from eight to 15 months old, decidedly the best lot ever offered in the county.

These cattle represent such sires as Dale Cumberland, Gwendolines Lad, Sultan Supreme, Silk Goats.

The catalog tells the whole story. For one address,

E. S. Mitchell, Sale Director, Valley Falls, Kan.

From Everywhere

The 250 show Shorthorns which will be sold in the Third National Shorthorn Congress Sale at Chicago, Feb. 17, 18, 19, are representative of the breed's best productions in all parts of the United States. Every animal competing for the \$5,000 prize awards will be sold at auction.



It is the great get-together event for Shorthorn folks and all others who are interested in bovine improvement.

You and your neighbors are cordially invited to attend and take advantage of the occasion to extend your acquaintanceship among progressive folks from all parts of this country and abroad.

The meetings and banquets will be addressed by prominent Shorthorn authorities.

American Shorthorn Breeders' Association
13 Dexter Park Ave., Chicago, Ill.

SHORTHORN

Bulls for Sale

4—Scotch Bulls—4

Some herd bull material here. A few good Scotch topped bulls. All good individuals. Bred right and priced right.

C. H. White, Burlington, Kansas.

Shorthorn Dispersion

Private Sale.

Have 1 herd bull, 16 cows and 12 young bulls at private sale. Herd bull Brilliant Type by Cumberland Type; a 2-year-old red bull. One Scotch cow with bull calf 3 months old at foot. 15 Scotch topped cows, 12 will have calves in February, March and April. The young bulls are from 6 to 12 months old. Write for list giving age and breeding. I will be pleased to show you these cattle. Parties will be met at train when notified.

Warren Watts, Clay Center, Ks.

ELMHURST SHORTHORNS

I have been breeding registered Shorthorns for 15 years using the blood of such bulls as Gallant Knight, Hampton's Best, Lord Mayor, Lavender Viscount and Avondale. Several good young bulls for sale. Also 10 to 15 very desirable females. An excellent chance for a "round" herd.

W. J. SAYRE CEDAR POINT, KANSAS

Vail & Scott's Shorthorns

Scotch and Scotch-tops for sale. Includes our herd bull bred by Owens Bros., Homestead, Iowa; 2 yearling and 4 10-month-old bulls—good rugged fellows.

VAILE & SCOTT, POMONA, KANSAS

Salt Creek Valley Shorthorn Cattle

Pioneer Republic County Herd
Established in 1878

For Sale: A splendid two year old Scotch bull, solid red, wt. at maturity 2500 lbs. Also a fine Scotch youngster and 10 Scotch tops. Ages from six to 16 months.

E. A. Cory & Sons, Talmo, Kan.

Amcoats Shorthorns

Scotch and Scotch Tops. Some choice females to sell. Bulls ready for service: Six, two pure Scotch, four Scotch topped.

S. B. Amcoats, Clay Center, Kan.
Visitors met at Rock Island or Union Pacific Depots.

Bulls Bulls Bulls

8 two-year-old bulls, by Secret's Sultan and Master Butterfly. 12 yearling bulls. Reas and roans.

Can ship over Mo. P., U. P., Rock Island.

W. F. BLEAM & SONS, Bloomington, Kan.

PEARL SHORTHORNS

Bulls, Scotch and Scotch topped, six to 18 months, for sale. Reds and roans. Can ship over Rock Island, Santa Fe, Missouri Pacific and Union Pacific.

C. W. TAYLOR, ABILENE, KANSAS
DICKINSON COUNTY.

Shorthorn Cattle

For Sale—Five young Scotch bulls and ten head of females, bred or calves at foot.

H. H. HOLMES, R. F. D. 28, Topeka, Kan.

lot or grass paddock for exercise. Acustom it to be handled daily. Feed small quantities of nutritious food often, keeping all food vessels clean, and the foal should thrive and develop well.

Progress in 20-Year Experiment

The 20-year breeding experiment which the Bureau of Animal Industry, United States Department of Agriculture, is conducting in co-operation with the Kansas Agricultural Experiment station at Manhattan, has been in progress since September 1, 1915. The principal objects are to determine whether the milking tendency in beef cattle in transmitted mainly by the dams thru the male line of descent, and to what extent this milk-giving function of the dam influences the beef character of the progeny. Several steers and bull calves have shown unusual merit and have become prize winners of importance.

Experiments of the kind mentioned are particularly adapted to co-operative federal and state work. The great length of time necessary for satisfactory results in cattle breeding and the need for records of official character make it difficult for individual breeders to conduct the work in a manner like that to be of general value to the industry.

Stocks of Hides Increase

Increased stocks of hides and skins on December 31, 1919, compared with the same date in 1918, are shown for the principal classes, with the exceptions of sheep and hog skins, by the monthly report of the Bureau of Mar-

same degree of popularity as the older and more numerous breeds. There are so few of the Mulefoot hogs in the country that even were they better than the other breeds, the fact could not become very generally known since there would be so few opportunities for the public to see and learn about them.

"To illustrate the small opportunity which the general public has to learn about this breed, I will give the following comparative figures:

"During 1918 about one-third of a million hogs of the various breeds were recorded in the United States. Of this number 92,286 Durocs were recorded and about 105,000 Poland Chinas, not including Spotted Poland Chinas. During the same period the registration of the Mulefoot hogs reported by the American Mulefoot Record association was 309.

"The breed has some good qualities and a few exhibits are made at some of the state fairs each year. The breed is not immune to cholera, but may have some degree of natural resistance."

Feeding Hogs for Growth

C. F. B., Kingman county, asks for suggestions on feeding a young hog for rapid growth and the development of good bone.

There is no special secret about feeding hogs so they will grow out to proper size and with good strong bone. It is a matter of giving plenty of feed and not too much of any one thing. In other words supply a variety of feeds. Exclusive corn feeding will not grow a hog out properly because corn is lacking in some of the things needed. A hog fed exclusively on corn is almost certain to be weak in bone and to de-

HOW WE LOSE ADVERTISERS

Livestock Service Capper Farm Press:

"In regard to my card in the Kansas Farmer and Mail and Breeze, I am about sold out and it brings so much inquiry that I have decided not to use the space for a while till I get caught up with my other work. It has taken practically all of my time for the past two months to answer inquiries and crate and ship hogs. THOS. WEDDLE, Breeder of Spotted Poland Chinas, Wichita, Kansas, January 21, 1920.

kets, United States Department of Agriculture.

Increases, in percentages, were: Cattle hides, 11.4; calves, 31.9; kip skins, 70.9; horse hides, 135.6; horse fronts (whole), 1,353.8; horse butts, 92.1; kangaroo or wallaby, 196.6; goat, 126.9; kid, 116.3; cabretta, 126.5; and buffalo, 801.1. Decreases included: Horse shanks, 39.5 per cent; deer and elk, 29.1; sheep and lamb, 35.4; pig and hog skins (pieces), 40.7; and strips, 17.5. With a few exceptions the December, 1919, figures also show increases over those for November 29, 1919.

Total stocks on December 31, 1919, included: Domestic and foreign cattle hides, 7,206,511, classified as follows: Packer green salted, 3,389,022; country green salted, 1,062,035; dry and dry salted, 95,312; foreign, 2,660,142. Totals for calf skins were 794; for kips, 1,107,891; goat, 15,218; sheep and lamb, 9,138,679; and cabretta, 2,092,029.

To Control Sheep Diseases

The rapid increase in sheep raising in Nebraska has brought with it a demand for more information, especially about sheep diseases. United States Department of Agriculture Farmers' Bulletin 713 deals with sheep scab, one of the oldest, most contagious and most injurious diseases affecting sheep. If not curbed soon after it is introduced into a flock it spreads with great rapidity and does serious damage. The bulletin deals with the symptoms, contagiousness, treatment, dipping, cleaning and disinfecting premises, and dipping tanks. It may be obtained from the Nebraska University, Lincoln.

Not Many "Mulefoots"

Answering a recent inquiry as to why Mulefoot hogs are not more widely popular, the livestock editor gives the following facts:

"Replying to your inquiry about Mulefoot-hogs will say, that it would not be possible for them to enjoy the

velop fat at the expense of growth.

Our correspondent says nothing about the age of the hog in question, or what feeds he has on hand or can buy. If the hogs are fall pigs of September farrow they should be weighing 35 or 40 pounds apiece and be well able to shift for themselves if having enough feed and provided with warm sleeping quarters having dry floors kept as free from dust as possible. Somewhat more care and attention must be given to fall pigs than to spring pigs, since they are necessarily in close quarters more than the spring pigs. The larger portion of the grain fed can be corn or some corn substitute such as kafir, milo, barley or oats. These feeds should be ground to give the best results. They are only slightly inferior to corn in actual feeding value, altho some of them are not quite so keenly relished by the hogs as corn. The protein and mineral matter necessary for proper growth is lacking in these grains and other feeds must be supplied to make up the deficiency. There is nothing better or more economical for supplying protein than tankage or meat meal. Pigs of this age can make use of tankage or meat meal profitably to the amount of about 10 per cent of the total ration. By using a self-feeder with the different feeds in separate compartments the pigs will balance their own rations about right, providing there is always plenty of corn or whatever grain is being fed in the feeder.

More rapid gains can be made by increasing the variety of the feed supplied. Adding shorts, for example, to a corn and tankage combination and semi-solid buttermilk which can be purchased from the large creameries will quite materially increase the gains and also make them cheaper with the present prices of these feeds. In a test made at the Kansas Experiment station last fall with fall pigs the feeding of semi-solid buttermilk at 4 cents a pound in addition to other feeds more than paid for itself in the increased gains. In one lot shorts, linseed oil meal and semi-solid buttermilk were fed as supplements to corn and the pigs required only 3.9 pounds of feed to each

pound of gain made during a 90-day period. The pigs gained at the rate of 1.31 pounds daily. All the feeds were supplied in separate compartments of a self-feeder except the buttermilk which was fed by hand, giving the pigs all they would eat twice a day. It was diluted with water but no other feed was added to make a slop. The average amount eaten daily by each pig was about 4 pounds.

If the pigs are being developed for breeding purposes do not fail to encourage their taking a reasonable amount of exercise. If alfalfa or cowpea hay is available keep some before them constantly in a suitable feed rack. This adds variety to the feed and there is nothing that can be fed a hog which is better for producing strong vigorous frames and hard flinty bone. The self-feeder will save labor and all tests indicate that it is fully as economical a method of feeding hogs as the hand method.

Goat Flock Graded Up

Saenen and Toggenburg blood predominate in the flock of milk goats used for experimental purposes by the Bureau of Animal Industry, United States Department of Agriculture, at its farm at Beltsville, Md. A report of the bureau shows that 12 does are being milked, and that the flock of female yearlings and kids amounts to 20 head, most of which have either seven-eighths or fifteen-sixteenths Saenen or Toggenburg blood. Lower-grade animals of the earlier crosses have been removed from the flock.

Armour Sales Pass Billion

Gross sales of Armour & Co. for the fiscal year ending November 1, 1919, according to a recent announcement, were 1,038 million dollars, and the net income was \$14,098,506, according to the annual report to stockholders. This was the first year in the history of the company when the gross sales passed the billion dollar mark, the report said, the figure comparing with gross sales of 861 million dollars in 1918.

Mules Sell at Ft. Scott

Jim Godman, Devan, Kan., sold in the recent Ft. Scott sale, one team of coming 2-year-old mules for \$900 and a team of yearlings for \$605. The latter were by a jack bred by H. T. Hineman & Son, Dighton, Kan. He bought at Wichita, January 29, 11 mules for \$3,675 to resell.

Enroll for Better Livestock

A noteworthy result of the "Better Sires—Better Stock" movement is the mutual interest in purebred sires already manifested by persons having varying degrees of experience in the livestock business.

Records of the United States Department of Agriculture just made public

show that persons agreeing to use only purebred sires in all classes of livestock kept include general farmers, ranchmen, prominent breeders, and members of boys' and girls' clubs. In Vermont the first person to enroll was the commissioner of agriculture. About 10 per cent of all names on the records are those of women.

Progress in Morgan Horses

That the breeding of Morgan horses at the Morgan Horse Farm of the United States Department of Agriculture is making excellent progress is shown by a report of the Bureau of Animal Industry. The farm is located at Middlebury, Vt. At the end of the last fiscal year there were on hand 9 mature stallions, 11 young stallions, 80 mares and fillies, and 7 geldings (including 8 draft work geldings), a total of 57 animals.

A test in feeding weanling colts all the grain and hay they would eat has given excellent results in growth and development without harmful effects. The average daily feed consumed by the colts in this test was: Oats, 8.52 pounds; bran, 8.39 pounds; alfalfa, 8.25 pounds; timothy, 4.91 pounds.

Object Lesson in TB. Control

The District of Columbia is an excellent example showing that bovine tuberculosis is vulnerable to a definite campaign of eradication. The report of the Chief of the Bureau of Animal Industry, United States Department of Agriculture, gives the following striking percentages: In 1907 tuberculin testing in the District was undertaken and more than 18 per cent of the cattle were found to be tuberculous. Tests made in 1919 on all cattle in the District showed a percentage of only 0.63 of 1 per cent affected. This is lower than any previous year and the disposal of the last reactors makes the District practically a tuberculous-free area.

Hogs Need Mineral Mixture

Experience has taught the stockman that a mineral mixture is a good thing to keep before the hogs in the winter time.

G. Bohstedt, of the animal husbandry department of the Wisconsin University has just made a mixture to feed to the hogs in the agricultural college herd. It consists of:

200 pounds powdered charcoal; 100 pounds of wood ashes; 100 pounds of air slacked lime; 100 pounds of ground rock phosphate; 50 pounds of salt; 10 pounds of sulfur; and 5 pounds of copras.

A mineral mixture such as this is not considered necessary in the summer time, for a pig that is fed a balanced ration, is on good pasture, and has all the salt and water he wants, he declares.

THE LIVESTOCK SERVICE

of the Capper Farm Press

Founded on four great papers, each excelling in prestige with the farmers and stockmen of its territory, the four covering, respectively, the states of Kansas, Nebraska, Missouri and Oklahoma and adjacent sections of adjoining states.

FOR BUYERS: When livestock of any kind is wanted, look thru our advertisements and write those breeders who seem likely to have what you want, always mentioning this paper. Write this department direct at any time, describing the livestock desired and we will be glad to help you locate it.

FOR SELLERS: Those who have livestock for sale, will find that advertising thru one or more papers of the Capper Farm Press is the most businesslike and effective means of locating buyers. Ask this department for any desired information, on the subject of livestock selling, always giving number and description of animals for sale. If help is wanted in the preparation of advertising copy, give such other information as can be used to attract the interest of prospective buyers. Such matters as the time of year, cost of feed, condition and value of animals and time available for selling, should be considered in deciding how to advertise. You may need only a three line advertisement or it may be to your best interest to use a full page. This paper may afford you ample service or you may need the whole Capper Farm Press. Give us full particulars and you will get honest and competent advice.

It is a good idea to keep in touch with your territory manager as much as possible. His judgment, experience and constant travel and observation always will prove valuable to you. Inquiries and instructions to headquarters can be addressed:

Livestock Service of the Capper Farm Press, Topeka, Kan.

T. W. MORSE, DIRECTOR AND LIVESTOCK EDITOR

OFFICE AND TERRITORY MANAGERS:

E. S. Humphrey, Main Office, Topeka, Kan.
John W. Johnson, Kansas, 820 Lincoln St., Topeka, Kan.
J. T. Hunter, S. W. Kan. and W. Okla., 427 Pattie Ave., Wichita, Kan.
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H. P. Steele, Iowa and N. E. Neb., 203 Farnam Bldg., Omaha, Neb.

Northwest Kansas Polled Shorthorns Breeder's Sale

An offering of Polled Shorthorns drawn from several herds in Northwest Kansas. Sale in town

Lebanon, Kan., Friday, March 5

Consignors:

Geo. Hammond, Smith Center, Kansas. R. L. Taylor & Son, Smith Center, Kan.
D. S. Sheard, Esbon, Kan. H. A. Johnson, Red Cloud, Neb.
T. S. Shaw, Glade, Kan. Willson & Davidson, Lebanon

The offering is a good one as follows:

12 cows with calves at foot—six heifers coming two years old, sold open, five heifers coming yearlings, Three herd bulls and 13 young bulls old enough for service. Reds and roans. Some of the best families of the breed are represented in this sale.

You are interested in calf clubs

A called meeting of the Northwest Kansas Shorthorn Breeders' association will be held in Lebanon in the evening of the sale. You are invited whether you are a member or not if you are interested in Shorthorn cattle. The question of calf clubs will be taken up. Catalogs for the sale ready to mail. Address,

T. M. Willson, Sale Mgr., Lebanon, Kan.

Auctioneers: Joe Shaver, Col. Ryan; J. W. Johnson, Capper Farm Press.

Lebanon is on the main line of the Rock Island west of Belleville. It is in Smith county and all night trains stop there. The catalog gives you full information. Write for it at once.

A Dispersal of Shorthorn Cattle

The herd comprises 75 head and is being sold on short notice in very ordinary condition.

Sale at our farm 7 miles southwest of
Lindsborg, Kan., Tuesday, March 2

The offering consists of seven bulls, including the herd bull, Columbian Dale, a straight Scotch, Tomson bred bull; 46 bred cows and heifers—22 open heifers. A majority of these cattle are either Scotch topped or carry a strong mixture of Scotch blood. Herd founded 15 years ago. Good useful cattle that will make good anywhere. Catalogs are ready to mail. Address

Anton Peterson, R.D.2, Lindsborg, Kan.
J. A. Morine, McPherson, Kansas

All cattle tuberculin tested.

1886—Tomson Shorthorns—1920

Headquarters for Herd Bulls

We offer a large number of extra good bulls that are ready for service. They are some of the champion Village Marshal by Cumberland Marshal; Beaver Creek Sultan, a grandson of Whitehall Sultan; Gregg's Villager, one of the great sons of Villager; Imp. Newton Champion, Imp. Lawton Tommy and Diamond Baron.

They are of the most fashionable strains out of imported and home bred dams of the Augusts, Marigold, Jilt, Victoria, Roan Lady, Lavender, Orange Blossom, Duchess of Gloster, Sunnyblink and other very select tribes. They are nearly all roans and of extra good individuality. Come and see them.

TOMSON BROS.

Carbondale, Kansas or

Dover, Kansas

R. R. Station Wakarusa on

R. R. Station Willard on

Main line of Santa Fe

Main line of Rock Island

ABERDEEN ANGUS CATTLE.

**MARTIN'S ANGUS**

20 Bulls, 12 to 30 months old. Cows of 3 and 4 year old cows, bred, at \$125. Come or write.

J. D. MARTIN & SONS
R. 2, Lawrence, Kan.

Cherry Vale Angus Farm

Offers 6 bulls, ranging from 8 to 23 months old, also Herd Bull Roland L. No. 187220. Write for prices.

J. W. TAYLOR, R. 8, CLAY CENTER, KAN.

Special Angus Offering

30 registered young cows bred to show bulls. 15 three-year-old heifers bred, 35 yearling heifers. Younger bulls serviceable ages. A few two-year-olds.

SUTTON FARM, RUSSELL, KANSAS

RED POLLED CATTLE.

FORT LARNED RANCH

200 HEAD OF REGISTERED RED POLL CATTLE

A number of choice one and two-year-old bulls and heifers from one to three years old.

E. E. FRIZELL & SONS, FRIZELL, KAN.

Milk-Butter-Beef RED POLLED

We can now furnish a few young bulls from large, thick-fleshed cows, yielding 9,000 to 13,000 pounds of milk per year. One of our bulls will increase the production of your herd.

20th Century Stock Farm, Quinter, Kansas

COBURN FARM RED POLLS

Red, Poll Cattle—7 Bulls, 10 to 15 months old, also weaned bull calves and a few heifers, calves up to 3 years old. 90 head in herd.

Maillon Greenmiller, Pomeroy, Kansas, (Franklin Co.)

Red Polls

1 coming 3-year-old bull and 2 bull calves. Well bred good individuals.

C. Walter Sander, R. 2, Box 9, Stockton, Kan.

RED POLLS.

Choice young bulls and heifers. Write for prices and descriptions.

Chas. Morrison & Son, Phillipsburg, Kansas.

FOSTER'S RED POLLED CATTLE

Choice young bulls, priced reasonable.

C. E. Foster, R. 4, Eldorado, Kansas

JERSEY CATTLE.

Hillcroft Farms Jerseys headed by Queens' Fairy Boy, pronounced the best bred Jersey bull in Missouri, a Register of Merit of Raleigh's Fairy Boy, the greatest bull ever imported. 54 tested daughters, 56 tested granddaughters and 34 producing sons. Choice bull calves for sale. Reference Bradstreet.

M. L. GOLLADAY, PROPR., HOLDEN, MO.

REGISTERED JERSEYS FOR SALE

"Hood Farm Breeding." My herd bull Royal Missel's Torono, also three choice bulls by him, ready for service; a few females. Have rented my farm and want to sell.

S. S. SMITH, CLAY CENTER, KANSAS

Registered Jerseys For Sale

Bulls or cows. O. E. Cochran, Kincaid, Kan.

REGISTERED JERSEY BULL CALVES,

sired by Oakland's Sultan 2nd, \$50.

PERCY LILL, MT. HOPE, KANSAS.

FOR SALE—Registered yearling Jersey bull, solid color, fine breeding. Write for price, picture, pedigree. A. H. Knoepfel, Colony, Kan.

CHESTER WHITE HOGS.

**Raise Chester Whites**

Like This
the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at six months old. Write for my plan—More Money from Hogs.

G. S. BENJAMIN, R. F. D. 1 Portland, Michigan

Herd Boar Material

10 September boars by Don Tip Top and Don Combination. I want to move them in the next 30 days.

ARTHUR MOSSE, LEAVENWORTH, KAN.

Kansas Herd Chester White Hogs.

PRINCE TIP TOP CHESTER WHITES

The big kind that have proven their worth. We can fill your wants for anything in better Cheaters. Prince Tip Top heads the herd.

HENRY MURR, TONGANOXIE, KANSAS

CHESTER WHITES

Choice fall boar pigs, and a few bred gilts. E. E. SMILEY, PERTH, KANSAS.

SUNFLOWER HERD CHESTER WHITES

Bred sows and gilts; boar pigs; priced right.

C. H. Cole, North Topeka, Kansas.

CHESTER WHITE BOARS AND GILTS

For sale. Sired by Bob Tip Top, Best of breeding. W. H. Lynch, Neosho Rapids, Kan.

O. I. C. HOGS.

REGISTERED O. I. C. PIGS FOR SALE
W. K. Mueller, R. 4, St. John, Kan.

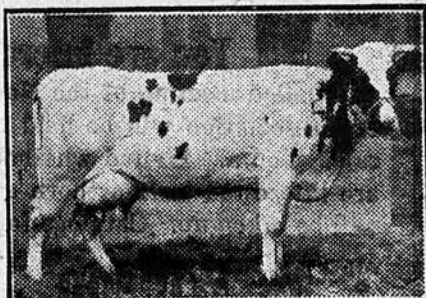
O. I. C. BRED AND OPEN GILTS, priced to sell. E. S. Robertson, Republic, Missouri.

WHEN WRITING TO OUR ADVERTISERS PLEASE MENTION THIS PAPER

Holstein Dispersion Sale Brings \$55,000

135 Head Average \$407.25

Practically every Kansas record for a public sale of Holstein-Friesian cattle was broken in the Neale dispersion, Manhattan, Kan., February 5 and 6. In this sale, which A. S. Neale was making to give his sons a larger share in the business and provide for other business readjustments, he sold practically every important animal in the herd excepting the chief herd bull, Lakeside King Segis Alban De Kol, and one young bull by that famous sire. As is the custom in Holstein sales, all calves were sold separate from the cows, so that the average of \$407.25 for 135 head means considerably more an animal than the same average figured on the usual basis for beef cattle sales. In the offering of 135 head about 25 were calves ranging in age from 1 week to 11 months, which were sold as separate lots. The only calf which was not sold separate from its dam was less than 10 hours old. Prices ranged from \$50 up to \$1,850. The most interesting incident as to prices occurred



The \$1,850-Model Segis Erica.

when five members of the Glista family, consisting of one 10-year-old cow and her four daughters sold for an even \$7,000, the top price \$1,850 being paid by O. H. Wathen, Jeffersonville, Ind., for Model Segis Erica, 7 years old. In connection with the sale of this family of cows, two of their heifers were sold, one at 11 months and one at 16 months, for \$1,200 and \$600 respectively. Bidders were present from 15 or 20 states, altho the attendance of Kansas Holstein breeders was far below expectations. Practically all of the breeders of Kansas had attended the show, sales and meetings at Wichita the week before and dozens of them were reported ill with influenza while a larger number were kept at home by the rush of work incident to the illness of others and their absence the week before. These causes cut normal competition for cattle selling from \$350 to \$700 and doubtless reduced the total of the sale by \$10,000. It was the genuine and undisputed value of the cattle sold, which compelled prices that were paid. Evidence of this fact was found in the presence of distinguished bidders among whom were Senator F. L. Martin, Hutchinson, Kan.; Fred Pabst, proprietor of the Pabst Stock Farm, Oconomowoc, Wis.; O. H. Wathen, Jeffersonville, Ind.; and Dr. W. H. Mott, Herington, Kan. Pabst Stock Farm was after the choicely bred calves and youngest heifers and was the heaviest buyer of this class of cattle, paying from \$300 to \$800 for the youngsters which came up to their requirements.

The top price for young bulls was

\$950 paid by J. M. White, Topeka, Kan., for King Segis Model Butter Boy, an 11 months old calf. This was sold as the choice bull calf by Mr. Neale's famous bull, Lakeside King Segis Alban De Kol. From this price bulls sold down as low as \$50 for little calves, nearly all of them being bargains.

It was unfortunate that the week's series of meetings at the Kansas State Agricultural college had to be called off to protect the students from a possible spread of influenza, as the circumstances under which the cancellation announcements were made undoubtedly kept away a great many who had planned to attend the sale. Their absence, however, only served to emphasize the value of the offering sold and the estimate which hard-headed business men put on such cattle as the prime agencies in a real money making business.

All sale arrangements were good, the working out of the details having been in the hands of Mr. Neale himself and Col. L. R. Brady of Manhattan, whose talent in that line is well known. The actual selling was done by Col. Hager, with pedigree reader Woods assisting and Colonels Ball, Newcom and Mack in the ring. We give below, not a complete list, but only a list of representative transactions:

BULLS

Butter Boy Artis Veeman, two years, Jones & Young, Manhattan, Kan. \$ 625
Bull calf, nine months, Everett Hays, Manhattan, Kan. 150
King Segis Model Butter Boy, eleven months, White & Wood, Topeka, Kan. 950
Admiral Genesta Prilly, one year, W. H. Mott, Herington, Kan. 200

FEMALES

Calf, nine months, Fred Pabst, Oconomowoc, Wis. 400
Calf, nine months, Fred Pabst. 400
Calf, ten months, Williams & Ferril, Seneca, Kan. 450
Grandview Mahomet, seven months, C. E. Wood, Topeka, Kan. 500
Knollen Clothilde, Concordia two years, Allen M. Blair, Soldier, Kan. 510
Diamond Lake Pearl, five years, Al Seaborn, Manhattan, Kan. 410
Spring Brook Edith 2d, eight years, E. L. Kerr, Mt. Sterling, Ia. 300
Glista Erica, ten years, Collins & Barnhorn, Sabetha, Kan. 1350
Model Segis Erica, seven years, O. H. Wathen, Jeffersonville, Ind. 1850
Glista Fidelia, five years, O. H. Wathen 1300
Model Segis Glista, Eldella, eleven months, O. H. Wathen 1200
Model Segis Glista, Eudora, one year, Sen. F. L. Martin, Hutchinson, Kan. 625
Glista Fontaine, seven years, Will Crenshaw, Harper, Kan. 900
Heifer, one year, Fred Pabst. 800
Pauline Segis Colantha, five years, G. F. Leeman, Watertown, Wis. 520
Calf, two weeks, Fred Pabst. 300
Model Segis Louise, one year, Sen. F. L. Martin 450
Mubroco Ona Johanna, two years, Al Seaborn 520
Mubroco Johanna Madam, Segis, two years, Amos Smith. 510
Mubroco Segis Nudine, two years, J. A. Engle, Talmage, Kan. 460
Vinita Anna De Kol, thirteen years, C. L. Clayton, Wakefield, Kan. 250
Johanna Oosterbaan, ten years, Al Seaborn 410
Johanna Oosterbaan 2d, eight years, Sen. F. L. Martin. 410
Johanna Thorndyke Segis, eight years, Amos Smith. 550
Fancy Johanna Segis, ten years, Frank Bongartz, Ellis, Kan. 355
Pet De Kol Burton, nine years, Barrett S. Smith, Edmonds, Okla. 280
Fancy Beets, eight years, Milton Williams, Seneca, Kan. 450
Beattie Nudine Segis De Kol, seven years, O. H. Wathen. 775
Oaa Segis, ten years, Sen. F. L. Martin 410
Mollie Wayne Johanna Segis, nine years, Milton Williams. 460
Madam Fedora Johanna Segis, eight years, Amos Smith. 620
De Kol Burton 3d, eight years, F. S. Hackney, Wellington, Kan. 750
Lady Segis, eight years, A. S. Alferman, Olathe, Kan. 610
De Kol Segis 2d, eight years, Sen. F. L. Martin 550



Glista Erica 134897, and Four Daughters of the Famous Glista Family Developed at Cornell University, Which Brought \$7,000.

HAMPSHIRE HOGS.



Pine Gold 1st 70578—No. 39 in sale

Whitaker and Darby's HAMPSHIRE

at public auction at

Marshall, Missouri

Tuesday, March 2

60 bred sows and gilts. A choice offering of tried sows and fall yearlings bred to farrow in March and April. One of the best lots of Hampshires to be sold this season. Sired by such boars as Cherokee's Ideal, General Tipton, De Kalb King Jr., and other noted breed sires. All immuned. Bred to General Foch, Eddie Tipton, Wickware Jr. 2nd, Missouri Boy and Liberty Boy.

Write, mentioning this paper, for the illustrated catalog, giving complete information of the herds and sale offering. All mail bids addressed to O. W. Devine in our care will be given careful attention and the best possible bargain secured for you.

Remember the sale will be held at

Marshall, Missouri

On C. & A. and Mo. Pacific—good train service. For catalog write

Whitaker and Darby
Miami, Missouri

Col. Thos. E. Deem, Auctioneer



Bernice—Champion Sow in 1916.

Hampshire Bred Sow Sale

Our offering was select last year, this year it is 50% better. You will want to attend this sale.

Cameron, Missouri, March 3, 1920

A choice lot of sows and gilts bred to General Pershing, the undefeated grand champion of 1919. Our other herd boars: Luna's Nehawka Lad by Nehawka Lad and out of Luna F. R.; Thurman Lieutenant by Lieut. Wickware and out of Mount-tain May.

Send for the catalog, mentioning this paper.

C. I. Ward, Cameron, Missouri

Start Right With Silver Hampshires

Buy your breeding stock from herd that stands supreme in SHOW RING AND BREEDING PEN. For sale—Bred sows and gilts, also boars, one or a carload. Buy by mail. "Silver guarantee" back of every hog. Drop postal card today for price lists.

Wickfield Farms, Box 55, Ostril, Iowa
F. F. Silver, Prop.

Whiteway HAMPSHIRE
On Approval
Special short time prices on bred sows and gilts. Popular breeding. Special fall pig offer. F. B. Wempe, Frankfort, Kan. (Marshall County)

MESSINGER BOY HAMPSHIRE
200 registered and immuned hogs. Write WALTER SHAW, R. 6, WICHITA, KANSAS

Hampshires—Spotted Polands

Boars of both breeds, ready for service, \$30 to \$50. Also bred sows and gilts of both breeds. C. W. WEISENBAUM, ALTAMONT, KAN.

POLAND CHINA HOGS.

HILL'S BIG TYPE BRED GILTS

Poland China spring gilts sired by our new 1,000 pound herd boar, King Joe 2d and from big, well bred sows, safe in pig for March and April farrow, to Hill's Col. Jack a wonderful prospect by the \$10,200 Col. Jack and from a \$575 Big Tim sow.

High kind at low prices; good gilts at \$65; choice at \$80. Immuned and guaranteed to please.

W. H. HILL, MILO, KANSAS

The Deming Ranch Polands

Sows and gilts bred for March and April litters. As good as they grow. Bred to Big Bob's Jumbo, Big Jones Again, The Dividend and Kansas Guardsman.

THE DEMING RANCH, OSWEGO, KAN.
H. O. Sheldon, Supt. Swine Dept.

POLAND CHINA BRED SOWS AND GILTS

also fall pigs. We won 49 premiums at the state and county fairs on our 1919 show herd. We show our breeding hogs and breed our show hogs. Satisfaction or money back.

PLAINVIEW HOG AND SEED FARM,
Frank J. Rist, Prop., Humboldt, Neb.

75 Big Type Poland Fall Pigs

Priced in pairs or trios not akin. Best breeding. ALL IMMUNED. I guarantee satisfaction or refund your money.

ED SHEEHY, HUME, MISSOURI

Big Bred Poland Females

Sired by A Big Timm and bred to son of Big Bob Wonder and Model Wonder. These good sows and gilts are right in every way. Write your wants.

JAMES ARKELL, JUNCTION CITY, KAN.

Boars for Sale at Private Treaty

Choice grandsons of Caldwell's Big Bob (grand champion of world) sired by Black Bob Wonder and by King Bob. Pigned in March, April and May. Immunized.

W. C. HALL, COFFEYVILLE, KANSAS

Big Type Polands

Have some very choice young boars for sale. Can also spare a few more gilts. Most of the pigs are by Captain Bob.

Frank L. Downie, R. 4, Hutchinson, Kansas

Big Black Polands

Spring boars that are heavy boned and have plenty of length \$35 to \$40. Good, growthy fall boars that are ready to ship \$20. All stock registered.

E. M. WAXDE, R. 2, BURLINGTON, KAN.

POLAND CHINA BRED SOWS

One tried sow, two fall yearlings, some top gilts, all safe with pig to farrow in March. Priced to sell.

T. CROWL, BARNARD, KANSAS

Big, Growthy Poland Gilts

Bred in the 1200-pound A Longfellow and A Wonder Hercules. JAMES NELSON, R. 1, Jamestown, Kan.

Purebred Poland Sows and Gilts

Bred for early March litters. Also fall pigs of either sex. A. W. Howell, Macksville, Kan.

BECKER'S POLAND CHINAS

For sale. Few bred gilts, also fall pigs.

J. H. Becker, R. 7, Newton, Kansas.

8 BIG TYPE POLAND BOARS, serviceable age, \$50 each. Sowers Bros., Dunlap, Kan.

SPOTTED POLAND CHINA HOGS.

Big Boned Spotted Poland Chinas

THE HOG OF THE HOUR

Bred and raised by a breeder of 35 years experience. A strong line of gilts, either bred or open, especially selected from my large herd. They are beauties, registered and ready to ship to you at attractive prices. Address

WM. HUNT, OSAWATOMIE, KANSAS

REGISTERED SPOTTED POLAND BOAR

10 months old, weighs 275 lbs., good bone, conformation, and breeding, color 50-50. First check for \$50 sets him. JOHN CAMPBELL, PORTIS, KANSAS.

AYRSHIRE CATTLE.

Linddale Farm Ayrshires

Our bull calf offerings are the best we have ever had, they are all out of A. R. cows or cows now on test and are sired by one of our herd bulls who are both sons of world record cows.

Write for prices and descriptions.

JOHN LINN & SON, MANHATTAN, KAN.

CAMPBELL'S AYRSHIRES

Young Ayrshires, both sex, bulls ready for service, heifers bred or open. Finlayston and Armour strains.

ROBERT P. CAMPBELL, ATTICA, KAN.

2 Registered Ayrshire Bull Calves

out of A. R. dams by Cavalier's College Master 17730. For sale at farm prices. For pedigrees and prices write Dan D. Casement, Juniata Farm, Manhattan, Kansas.

REGISTERED AYRSHIRES FOR SALE

3-year-old bull, extra good; 4-year-old cow fresh Jan. 18. \$200 each. Thos. Riordan, Conway Springs, Kan.

SHEEP.

FOR SALE—95 ewes, 50 lambs, through lambing by Feb. 15. Adam B. Mal, Wakeeney, Kan.

Prilly Walker Johanna Rue, one year, Fred Pabst	500
Genesta Johanna Rue, one year, W. H. Mott	800
Genesta Burke De Kol, eight years, D. S. Engle, Abilene, Kan.	1125
Genesta Burke Pontiac, three years, W. H. Mott	1030
Pet De Kol Segls 2d, five years, Will Crenshaw	500
Girta Korndyke Johanna Rue, G. A. Glnrich, Clay Center, Kan.	285
Heifer, ten months, J. M. White, Topeka, Kan.	210
Neta Pontiac Butter Girl, three years, R. E. Harp, Arkansas City, Kan.	250
Aaggle Segls Johanna Rue, one year, G. A. Glnrich	290
Creamelle Inka Jewel, one year, Allen M. Blair	370
Pietertje Korndyke Beauty, one year, P. A. Barney, Silver Lake, Kan.	500
Beauty Segls Korndyke Clothilde, three years, A. Samuels, Topeka, Kan.	300
Mubroco Pomona Segls, two years, D. S. Engle	420
Maid Berah De Kol, four years, Allen M. Blair	420
Heifer, four months, J. A. Engle	155
Heifer, nine months, J. A. Engle	500
Heifer, one year, Winwood Dairy Farm, Burlington, Kan.	200
Sylvia of Maple Grove 2d, three years, R. E. Harp	325
K. L. T. K. Prilly, four years, Frank Bangartz	200
Josephine Mahomet, eleven years, C. L. Clayton, Wakefield, Kan.	245
Prilly De Vries Johanna, two years, M. T. Pope, St. Marys, Kan.	340
Pearl Hartog Pontiac De Kol, two years, A. S. Alferman	310

Adams & Mason's Sale.

Adams & Mason's Poland China bred sow sale at Gypsum, Kan., last Friday resulted in an average on 41 head of \$132.80. While the bad condition of the weather and the roads detracted from the sale considerably, it was nevertheless a fairly good sale. The offering was one of greatest quality and the reputation as a sire and his winnings in the 1919 shows caused Giant Bob to be a big factor in making this sale the success that it was in the face of the unfavorable conditions. Wonder Timm, a splendid sire but not out on the show circuit, was also a big factor in the sale. Big Oakland and Big Buster were also favorites with many. Below is a partial list of the buyers:

1—Jack Jones, Dodsonville, Tex.	\$305.00
2—J. W. Darling, Gypsum	130.00
3—J. W. Darling	130.00
4—C. V. Throckill, Gypsum	112.50
5—F. C. Weatherhead, Hamburg, Ia.	295.00
6—M. B. Cross, Merced, Cal.	400.00
7—J. B. Young, Richards, Mo.	225.00
8—J. R. Veach, Solomon, Kan.	77.50
10—A. Herlock, Lincoln, Kan.	80.00
21—John Heller, Hunter, Kan.	125.00
22—Ross & Vincent, Sterling, Kan.	155.00
24—E. H. Walton, Salina, Kan.	147.50
26—Heart of America Farm, Kansas City, Mo.	150.00
29—H. E. Myers, Gardner, Kan.	145.00
30—Howard Shouts, Parkerville, Kan.	140.00
31—John Heller, Hunter	100.00
33—Wm. Hayes, Hunter	125.00
35—O. W. Heller, Hunter	137.50
38—Fred Tinkler, Gypsum	162.50
39—Fellbush, Abilene, Kan.	112.50
40—J. A. Spillman, Gypsum	127.50
42—M. E. Moore, Kanopolis, Kan.	115.00
43—E. H. Walton	150.00

Clarence Dean Has Good Sale.

The Poland China bred sow sale of Clarence Dean, Weston, Mo., was held at Dearborn, Mo., February 4. Forty-three head of sows and gilts averaged \$101. The top price of \$275 was paid for No. 2 in the catalog, going to H. O. Craig, Gardner, Kan. The offering was presented in splendid breeding condition. No sensational prices were recorded yet the averages were very fair and low enough to permit of liberal investment among farmers and breeders. Clarence Dean always sells more real honest hog for the money than most breeders making sales, but he is always satisfied with a small profit in his sale. Mr. Dean announced another bred sow sale to be held on March 22 and invited all farmers and breeders wanting more good seed stock to be on hand and buy some real money makers. Following is report of the representative sales:

1—B. B. Turner, Dearborn, Mo.	\$175.00
3—Ed Sheehy, Hume, Mo.	170.00
4—H. C. Biglow, Gardner, Kan.	190.00
6—C. V. Hull, Platte City, Mo.	105.00
7—C. B. Herington, Parkville, Mo.	120.00
8—J. H. Anderson, Frazier, Mo.	90.00
9—Ed Sheehy	130.00
10—A. B. Dean, Dearborn, Mo.	125.00
15—H. C. Biglow	110.00
18—C. B. Herington	80.00
25—W. H. Carkham, New Market, Mo.	85.00
27—Harry Moore, Gardner, Kan.	155.00
28—Jack Howett, Lawton, Mo.	97.50
29—S. B. Robinson—Frazier, Mo.	90.00
31—Clay Mains, Dearborn	80.00
33—Gerst Boyston, Dearborn, Mo.	95.00
36—E. A. Young, Dearborn	80.00

Glissman's Holstein Sale.

Glissman's sale, at South Omaha, was well attended on Tuesday, January 27, and while the offering as a whole was young and in thin condition they brought a nice even run of prices. There were no sensational high tops and prices ruled fairly even thruout the sale. Fifty-one females sold for an average of \$242.60 and the eight bulls averaged \$207, making an average on the entire offering of 59 head \$237.75. We give below a representative list of sales:

1	\$330
2	325
3	325
4	330
5	260
6	190
8	300
9	305
10	300
12	270
14	215
15	275
16	280
19	155
20	160
21	190
22	165
25	130
31	135
50	190
64	175
69	135
89	175

Seever's Average Fair.

S. D. Seever & Son, Smith Center, Kan., sold Herefords at that place last Monday under very unfavorable conditions. It had rained most of the night before and a disagreeable rain and sleet fell all day Monday. J. O. Southard, Comiskey, Kan., who

Harry Wales' Bred Polands

will be a premier offering of bred tried sows and gilts. The sale will be held at

Harrisonville, Mo., February 25th

45 Head consisting of 3 tried sows with litters by Wales' Big Bob; 3 tried sows bred to Wales' Big Bob; 25 gilts bred to De-liberator; and 14 gilts bred to Long Bob 2nd.

Sires of the offering—	Out of sows sired by—
Wales' Big Bob	Wales' Big Bob
Smooth Col. Jr.	Smooth Col. Jr.
Bennett's Timm	Iowa King
Iowa King	Baker's Jumbo Bob
Master Orphan	Big Bone Model
Whitmore's Wonder	Gregg's Big Bone
Buster's Model	Bob's Quality
Chartier	Frazier's A Wonder
and others.	Master Orphan

And They Are Bred to

Wales' Big Bob Long Bob 2nd
DELIBERATOR

The Great Son of Liberator—the phenom

The 25 gilts, granddaughters of the noted Big Bob, bred to this outstanding son of Liberator, the most noted of all Poland sires, should be attractions in any sale.

Herd is immune. All pigs sold registered and papers furnished the day of the sale. Send your mail bids to O. W. Devine in my care. Get your catalog of this sale today. Please mention this paper when writing.

REMEMBER—The sale will be held at Harrisonville, Cass Co., 35 miles south of Kansas City.

Harry Wales, Peculiar, Mo.

Auctioneers—Cols. Andy James and C. N. Henry.

POLAND SALE!

At the Dr. Harkey farm on the Pittsburg Highway, 3 miles south of Overland Park, Kan., 6 miles southwest of city limits of Kansas City, Mo., on
THURSDAY, FEB. 19

40 BRED SOWS AND GILTS sired by Orange Master, Orange Master's Model, Miller's Columbus, by Smooth Columbus, H. M.'s Wonder by Wonder Joe and out of sows sired by Expansion King, Orange Master, Dorris Expansion and Monticello Boy, Jr., by Major B. Hadley, Jr.

Gilts are the big-boned, stretchy kind, carrying the very best blood of the breed bred to sons of W.'s Giant, Giant Jones and Monarch 2nd.

DR. W. C. HARKEY, Lenexa, Kan.

H. M. DONHAM, Stanley, Kan. A. J. JAMES & SONS, Lenexa, Kan.
Col. Andy James, Auctioneer.

BERKSHIRE SALE

of 50 Choice Tried Sows and Spring and Fall Gilts Part of Our Show Herd Included

Thursday, Feb. 26, 1920



We have cataloged a very select lot of sows and young gilts mated to five different boars

HANDSOME DUKE 17TH
HANDSOME DUKE 18TH
HANDSOME DUKE 30TH

All three of these boars were made Grand Champions at one or more of the prominent State Fairs where exhibited this fall.

BARON PREMIER 145TH

RAVINIA'S DOROTHY'S EPOCHAL

A double grandson of Epochal, and Junior Champion at three State Fairs this year.

The offering will include twenty fall yearlings, twenty junior yearlings and a few tried sows, including Duchess 483rd purchased by us from N. H. Gentry when a gilt.

The entire offering is of our own breeding with the exception of three head. All are young, in the best of breeding condition, and are just right to go on and make money for their purchaser. The entire offering is cholera immuned. Remember the date. Make your plans now to attend this sale or send bid to O. W. Devine, my care, and I guarantee satisfaction. For catalog write, mentioning this paper.

Sale at Farm

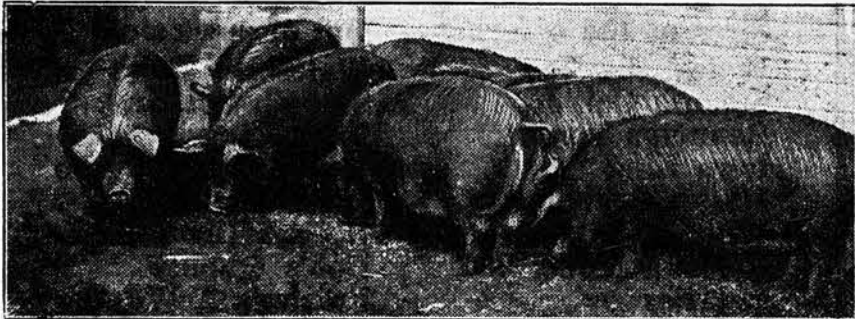
T. A. Harris & Sons, Lamine, Mo.
Sunnyside Farm

H. W. Flook & Chas. Pedigo

will sell a great line up of bred Duroc females at

Stanley, Kan., February 21, 1920

40 large spring gilts bred to the great boars: Van's Col., Beattie's Orion 3rd, Faultless by Lincoln Chief and other good ones.



A Sample of Our Offering.

We are selling an extra fine bunch of sows and gilts sired by Commander's Wonder, H & B's Pathfinder, Flook's Col., and other good boars and out of sows by I Am Golden Model 2nd, Longview's King the Col., and Commander's Wonder. This is positively the best offering of Duroc sows and gilts to be sold in eastern Kansas this season. Some wonderful granddaughters of the mighty Pathfinder will be sold. Van's Col by Van's Orion Cherry King at the head of the herd. Write for catalog, mentioning this paper. Send mail bids to O. W. Devine in our care. Come to our sale. We guarantee a good offering of well bred Durocs.

H. W. Flook & Chas. Pedigo, Stanley, Kan.

Auctioneers: Cols. Homer Rule and J. E. Jamison

Popular Duroc Jersey Breeding

50 bred sows and gilts—Pathfinder, Sensation, Orion, Great Wonder I Am, Col. and Golden Model and other noted families. Sale in pavilion at

Emporia, Kansas, Monday, Feb. 23

Thirty of them bred to Pathfinder's Model by Pathfinder. Twenty head bred to Sensation Orion by Great Orion. Everything immune and an offering that has been bred and fed with their future usefulness always in mind.

Orders to buy should be sent to J. W. Johnson, in care of Mr. Loomis, Emporia, Kan.

For the catalog address at once,

John Loomis, Owner, Emporia, Kan.

Auctioneers—James T. McCulloch, Clay Center, Kan.; W. W. Otey, Winfield, Kan.

Note: Good connections will be made for the Gordon & Hamilton sale at Horton the next day.

W. L. Fogo's Champions DUROC JERSEY BRED SOWS

45 head, 10 tried sows, 8 fall yearlings and 26 spring gilts. Also two April first boars.

Sale at farm near town,

Burr Oak, Kan., Saturday, Feb. 21

(Jewell County)

Two sows, half sisters of Great Wonder I Am, one out of Golden Uneeda, and her fall gilt, a splendid show sow.

A string of splendid Gano bred sows. Selling some of my show herd.

My winning at Wichita, January, 1920

Twenty-one shown. Won eight firsts, seven seconds, one third, champion on junior sow and first and second on young herd. First on young herd bred by exhibitor. First young herd, get of sire, first young herd produce of dam.

Everything bred to Fogo's Invincible and others to High Sensation Jr.

Catalogs ready to mail. **W. L. Fogo, Burr Oak, Kan.**

has known Mr. Seever a long time, was there in the capacity of sales manager. In his opening talk he gave Hereford breeders his ideas about the future of the business and his talk was both useful and interesting. Mr. Seever was selling a good useful lot of cattle just in ordinary condition. In fact some of them were not in as good shape as they should have been to sell to advantage. Mr. Southard sold a consignment closing the sale with a general average of nearly \$175, which was considered very good considering the unfavorable conditions.

Wade's Polands Average \$230.

Wade makes \$230 average. The offering was a very even one. The sows were good ones up to the end and sold for a very even range of prices. E. D. Houston, Welfare, Tex., was a good buyer, getting several head. The top was a Long Prospect sow, going to Tony Kindler, David City, Neb., at \$505. The sale was conducted by Col. A. W. Thompson in his usual capable manner. Below is a representative list of sales:

1—Ed Holste, Ulysses, Neb.....	\$300
3—J. D. Hassie, David City.....	300
5—J. O. Anderson, Lexington.....	375
6—E. D. Houston, Welfare, Tex.....	275
7—J. G. Hutchinson, Crete, Neb.....	500
9—Frank Patton, Garrison, Neb.....	160
10—Jake Deets, Boone, Neb.....	135
11—Fred Damrow, Haxton, Colo.....	300
12—A. A. Jones, David City.....	255
13—Titman & Son, Aurora, Neb.....	200
14—J. G. Hutchinson, Crete, Neb.....	195
15—L. B. Wagoner, David City.....	225
18—Dave Hawitt, David City.....	250
23—Earl T. Adams, Valparaiso.....	210
25—L. R. White, Lexington.....	195
26—W. W. Boyer, David City.....	225
27—J. J. White, Ulysses.....	215
28—E. C. Forest, Mount Vernon, Ia.....	250
29—E. D. Houston.....	310
31—Peter Schram, Taylor, Tex.....	170
32—C. H. Thomas, St. Edwards.....	210
34—Frank Curda, David.....	175
35—H. J. Joehansen, Loup City.....	175
41—W. W. Boyer.....	155
44—Fred Damrow, Haxton, Colo.....	140

Kansas Duroc Association Sale.

The Kansas Duroc Jersey Breeders' association sale at Manhattan, Kan., last Friday, was probably as well attended as the consignors believed it would be a day or so before the sale. The "flu" epidemic hit the sale hard and together with the unfavorable conditions of the roads it was a serious handicap to the sale. However, 40 sows and gilts sold for an average of \$87.50, and half of that number averaged nearly \$150. The offering was an improvement on last season's offering and was presented in good breeding condition. The consignors were among the best known breeders in the state and a number of them have bred sow sales of their own coming off in the near future. The Home Coming week meetings had all been called off and this, of course, kept many away that would undoubtedly have been interested in the sale. Roy E. Gwin, who managed the sale for the association, did efficient work in looking after the affairs of the breeders consigning and all of them were pleased with the manner in which the sale had been handled. The top of the sale was \$455, paid by D. C. Asher, Lawrence, Kan., for number 17, King's Grand Lady, a granddaughter of King's Col. and a September yearling of outstanding merit. She was consigned by G. M. Shepherd, Lyons, Kan. Below is a partial list of the buyers:

1—H. A. Johnson, Perry, Kan.....	\$165.00
2—B. W. Gonyers, Marion, Kan.....	70.00
3—Stants Bros., Hope, Kan.....	142.50
13—B. W. Gonyers.....	200.00
14—M. R. Peterson, Troy, Kan.....	90.00
16—C. T. Dayhoff, Burlingame, Kan.....	97.50
17—D. C. Asher, Lawrence, Kan.....	455.00
21—V. C. Searle, Tecumseh, Kan.....	87.50
24—Jesse Carlat, Auburn, Kan.....	165.00
29—A. C. Asher.....	200.00
30—F. J. Moser, Sabetha, Kan.....	100.00
35—J. H. Parker, Ottawa, Kan.....	70.00
39—Stants Bros.....	72.50
40—Frank Stewart, Leonardville, Kan.....	70.00
41—Jesse Carlat.....	70.00
43—B. T. Thirsk, Winfield, Kan.....	90.00

Jones Sells Under Handicap.

John W. Jones, Minneapolis, Kan., who sold Duroc Jersey bred sows at Salina, Kan., last Thursday, was unfortunate in drawing another bad day. His sale one year ago was damaged by the impassable conditions of the roads and by a severe cold spell. Thursday his sale was badly handicapped by rain, which put the roads in central Kansas in very bad condition. However the sale went off as advertised and resulted in an average of \$80 on 48 head. The offering was good and with a fair chance should have resulted in double that amount. Below is a list of some of the principal buyers:

1—Ross M. Peck, Gypsum, Kan.....	\$100.00
2—Clarence Healy, Hope, Kan.....	100.00
3—L. J. Healy, Hope.....	90.00
4—V. L. Olson, Salina.....	85.00
5—Brice Muer, Salina.....	75.00
6—Grant Dunn, Salina.....	67.50
8—J. A. Creitz & Son, Beloit, Kan.....	90.00
9—L. J. Healy.....	85.00
10—H. Sands, Salina.....	65.00
11—Milke Karber, Gypsum, Kan.....	98.00
12—A. T. Young, Salina.....	85.00
13—Ralph Hood, Salina.....	85.00
14—John P. Johnson, McPherson, Kan.....	100.00
17—Roland Jones, Concordia, Kan.....	100.00
18—J. P. Young.....	85.00
20—Grant Dunn.....	77.50
34—T. E. Vestal, Kipp, Kan.....	100.00
44—W. P. Graves, Salina.....	87.50

Rolla Brownlee's Duroc Sale.

R. C. Brownlee held his Duroc sale at Holden, Mo., February 5. The sale was well attended by farmers and breeders. The offering was presented in only fair sale condition. Many of the gilts were thought too small for their ages and none of the offering was fat. While no sensational prices were paid the offering, which was a closing out sale of the herd, averaged \$85. The herd boar, Uneeda Pathfinder, topped the sale, going to A. L. Churchill, Vinita, Okla., for \$200. The top female went to Walter Jackson, Holden, Mo., for \$135.

Holsteins.

Feb. 17-18—Iowa, Nebraska, Kansas combination sale. Dwight Williams, Mgr., Omaha, Neb.
Feb. 24-25-26—Tri-State Holstein Show and Sale, Omaha, Neb.
Feb. 24—Edw. L. Hutchins & Sons, Salina, Kan.
Mar. 5—F. J. Seare, Oskaloosa, Kan. Sale at Topeka.
Mar. 19—C. E. Pearce at So. Omaha, Neb. Dwight Williams, Sale Mgr.
Mch. 25-26—Annual sale Holstein-Friesian Association of Kansas at Topeka. W. H. Mott, Sales Mgr., Herlington, Kan.

Shorthorn Cattle.

Feb. 20—Kelley & Mitchell, Gardner, Kan. Sale at Ottawa, Kan.
Feb. 24—Jefferson Co. Shorthorn Breeders' Valley Falls, Kan. E. S. Mitchell, Valley Falls, Sale Director.
Mar. 2—Ingwert Peterson & Sons, Lindborg, Kan.
Mar. 11—E. E. Heacock, Hartford, Kan.
Mar. 12—E. D. Dale, Protection, Kan.
Mar. 16—Edw. F. Gehley, Orleans, Neb.
Mar. 18—Southwest Nebraska Shorthorn Breeders' Association, Frank Carver, Mgr., Cambridge, Neb.
Mar. 25—Eastern Kansas Shorthorn Breeders' Assn., Ottawa, Kan. F. J. Robbins, Sale Mgr., Ottawa, Kan.
Mar. 30—J. P. Ray & Sons, Lewis, Kan.
Mch. 31-Apr. 1—Central Shorthorn Breeders' Assn. Sale at Kansas City, Mo.
Apr. 2—S. E. Kansas Shorthorn Assn., G. A. Laude, Sec'y. Sale at Independence, Kan.
Apr. 28—Sumner County Assn., W. A. Boya, Co. Agt., Mgr., Wellington, Kan.
Apr. 28—Northwest Kansas Shorthorn Breeders' Assn.; Sale at Concordia. E. A. Corey, Sales Mgr., Talmo, Kan.
May 14—H. C. Lookabaugh, Watonga, Okla.
June 5—A. L. Johnston, Lock Box 86, Lata, Kan., at Ottawa, Kan.

Polled Shorthorn Cattle.

Mar. 5—T. M. Willson, Lebanon, Kan.
Hereford Cattle.
Apr. 3—Carl Behrent, Oronoque, Kan., at Norton, Kan.

Percheron.

Feb. 17—M. H. Roller, Circleville, Kan.
Feb. 23—D. E. Gill, Attica, Kan.
Mar. 3—Nebraska Purebred Horse Breeders' Assn., Grand Island, Neb. C. F. Way, Lincoln, Neb., Mgr.

Jacks.

Feb. 16—G. C. Roan, La Plata, Mo.
Feb. 17—M. H. Roller, Circleville, Kan.
Feb. 23—D. E. Gill, Attica, Kan.
Mar. 18—H. T. Hineman & Sons, Dighton, Kan.

Poland China Hogs.

Feb. 17—Otdegraff & Son, R. 6, Topeka, Kan.
Feb. 17—Otto Glos, Martel, Neb.
Feb. 18—Henry Koh, Edina, Mo.
Feb. 19—Frank Rainier, Logan, Ia.
Feb. 20—Isaac F. Tyson, Harrisonville, Mo.
Feb. 21—W. A. Freweitt, Asherville, Kan.
Feb. 21—Stafford Co. Purebred Livestock Assn., Stafford, Kan.
Feb. 25—Harry Wales, Peculiar, Mo.
Feb. 27—C. B. Schrader, Clifton, Kan. Sale at Clay Center, Kan.
Mch. 2—T. M. Willson, Lebanon, Kan.
Mch. 5—Willis & Blough, Emporia, Kan.
Mar. 13—Winn Bros., Mexico, Mo.
Mar. 22—Clarence Dean, Weston, Mo. Sale at Dearborn, Mo.
Apr. 3—Carl Behrent, Oronoque, Kan., at Norton, Kan.
Apr. 28—Fred G. Laptad, Lawrence, Kan.

Spotted Poland China Hogs.

Feb. 18—Manti Hog Farms, Shenandoah, Ia.
Mch. 17—Manti Hog Farms, Shenandoah, Ia.

CHESTER WHITE HOGS

Mar. 10—F. J. Scherman, Topeka, Kan.
Duroc Jersey Hogs.
Feb. 16—John C. Simon, Humboldt, Neb.
Feb. 16—Wilcoxon & Porter, Bowling Green, Mo.

Feb. 17—E. H. Carpenter, Fontanelle, Neb.
Feb. 18—Wooddell & Danner, Winfield, Kan.
Feb. 18—H. H. Eshelman, Enterprise, Kan.
Feb. 18—Fern J. Moser, Sabetha, Kan.
Feb. 19—Gwin Bros., Morrowville, Kan., at Washington, Kan.
Feb. 20—Isaac F. Tyson, Harrisonville, Mo.
Feb. 20—B. W. Gonyers, Marion, Kan.
Feb. 21—H. W. Flook and Chas. Pedigo, Stanley, Kan.
Feb. 21—Stafford Co. Purebred Livestock Assn., Stafford, Kan.
Feb. 21—B. R. Anderson, McPherson, Kan.
Feb. 21—W. L. Fogo, Burr Oak, Kan.
Feb. 23—John Loomis, Emporia, Kan.
Feb. 24—Gordon & Hamilton, Horton, Kan.
Feb. 25—Kempin Bros. and W. H. Hubert, Corning, Kan.
Feb. 25—J. R. Grover, Sentinel, Okla.
Feb. 26—John W. Jones, Minneapolis, Kan., at Concordia, Kan.
Feb. 26—Adolph Anderson, Davenport, Neb.
Feb. 27—C. W. Johnston, Red Cloud, Neb.
Feb. 28—C. W. Johnston, Red Cloud, Neb.
Apr. 17—Rule & Woodlief, Ottawa, Kan.
Apr. 28—Fred G. Laptad, Lawrence, Kan.
Apr. 28—Sisco & Doerschlag, Topeka, Kan., at Fair Grounds.

Hampshire Hogs.

Feb. 25—Geo. W. Ela, Valley Falls, Mo.
Mch. 2—Whitaker & Darby, Miami, Mo.
Mar. 3—C. I. Ward, Cameron, Mo.

Berkshire Hogs.

Feb. 26—T. A. Harris & Sons, Lansing, Mo.

Field Notes

BY JOHN W. JOHNSON

S. M. Croft & Sons, Bluff City, Kan., are advertising 20 good registered Galloway bulls in this issue. These bulls are of varying ages, all old enough for service and well bred and good individuals. Look up their advertisement in this issue.—Advertisement.

Dan D. Casement, owner of Juniper Farm, Manhattan, Kan., has three small ads in this issue of the Kansas Farmer and Mail and Breeze. He is advertising for sale at farm prices a Suffolk stallion, two Yorkshire farm prices a Suffolk stallion, two Yorkshire farm prices a Suffolk stallion, two Yorkshire farm prices a Suffolk stallion. These bull calves and some Hereford cattle. These are all bred in the purple and if you are interested it will pay you to write Mr. Casement for pedigrees and prices on those which interest you.—Advertisement.

Jefferson county Shorthorn breeders, an association, will sell 40 head of Shorthorns at Valley Falls, Kan., Tuesday, February 24. E. S. Mitchell, Valley Falls, is the sale manager and will be pleased to hear from those who want catalogs at once. Drop him a line and he will put you on a list for a catalog. There are 20 cows, 12 heifers and five bulls. It is the intention of this group of Shorthorn breeders to hold one or two sales a year. Write for the catalog at once.—Advertisement.

John Loomis, Emporia, Kan., will sell Duroc Jersey bred sows in the pavilion at Emporia, Monday, February 23. This is the day before the big Gordon & Hamilton sale at Horton, Kan., and you can attend both sales. Mr. Loomis is selling in this sale 50 sows and gilts and 30 of them are bred to a good son of Pathfinder, Pathfinder's Model. The other 20 are bred to Sensation Orion, the good spring boar he bought in the F. J. Moser sale at Sabetha, Kan., in October. The best of breeding predominates.

in this sale offering of Duroc Jersey sows and gilts. Write for the catalog at once.—Advertisement.

You should look up the advertisement in this issue of the Tri-State Holstein-Friesian show and sale at South Omaha, Neb., February 24, 25 and 26. It gives lots of information about what the sale will contain. It appears in this issue of Kansas Farmer and Mail and Breeze. There are 100 head in this sale, 85 cows and heifers and 15 bulls. It is the big three state show and sale and you want the catalog sure. Address, Dwight Williams, sales manager, Stock Yards Station, Omaha, Neb.—Advertisement.

This is the last call for M. H. Roller's closing out sale of jacks and jennets and Percherons at Circleville, Kan., Jackson county, Tuesday, February 17. Mr. Roller is quitting because of his advanced age and is selling every jack, jennet and stallion on the farm and offers his breeding establishment for sale at the same time. Remember this is one of the oldest breeding establishments in the west. Mr. Roller has bred jacks for 40 years. Go to Holton and stay all night and you will be taken to Circleville and returned in the evening.—Advertisement.

W. L. Fogo's Duroc Jersey sale advertisement appears in this issue of the Kansas Farmer and Mail and Breeze. Any breeder would have been mighty well pleased to have gotten away with the goods like Will Fogo did at Wichita at the big show. In his bred sow sale, February 21, he is putting in some of these good things and they are not the only good ones he is putting in. He is selling 45 head in all and there are eight fall yearlings and 26 spring gilts. Write him at once for the catalog. The advertisement appears in this issue.—Advertisement.

B. R. Anderson, McPherson, Kan., is, as you probably know, the proprietor of Royal Herd Farm, the home of big type Duroc you already know, the proprietor of Royal Grand Wonder and still the home of many Royal Grand Wonder sows that are truly wonders as producers. In this sale, February 21, Mr. Anderson is selling 50 bred sows and gilts bred to Royal Sensation and Royal Pathfinder. This is popular breeding and the kind that is selling so high everywhere. The sale will be held in McPherson, Kan., Saturday, February 21. It is a fine lot of bred sows and gilts. The advertisement appears in this issue. Write him today for his nice catalog.—Advertisement.

F. J. Moser's big Duroc Jersey bred sow sale is next Wednesday, February 18. It will be held in Sabetha, Kan., the home of Fern Moser and Joe King Orion. The new modern sale pavilion affords splendid accommodations for all who come. You have very likely read his advertisement in the Kansas Farmer and Mail and Breeze and are familiar with the grand array of fancy bred sows and gilts that go in the sale. It is next Wednesday and if you miss it you will miss a great opportunity to buy the kind that is talked about and in demand. Don't wait for the catalog now but go to the sale next Wednesday, February 18.—Advertisement.

Peterson Sells Shorthorns On Short Notice.

Ingwert Peterson & Sons, Lindsborg, Kan., are dispersing their herd of registered Shorthorn cattle. It is a big sale comprising 75 head. There will be seven bulls, 46 bred cows and heifers and 22 open heifers sold. Because of a death in the family it is necessary to make this sale and the entire lot of Shorthorns will be sold in just breeding condition. Included in the sale is the herd bull, Columbian Dale, a straight Scotch bull of Tomson Bros. breeding, and a prize for someone that needs a bull. Because of the fact that this sale has but recently been decided upon, it is almost sure to be full of bargains for those who avail themselves of the opportunity. Write today for the sale catalog which is now ready to mail. Address, Anton Peterson, Rural Route 2, Lindsborg, Kan.—Advertisement.

Here for Choice Holsteins.

If you want Holsteins of the high class type, females from 30 to 40 pound sires and bred to 30 pound bulls, you should not fail to be at the Topeka fair grounds on March 5. On that date F. J. Searle, Oskaloosa, Kan., will sell a draft of 70 head from his popular Sunflower herd. This is the seventh annual sale to be held by Mr. Searle and the desirability of his cattle is evidenced by the many satisfied customers who return to his sale each year to replenish their herds. Twenty fine big cows with A. R. O. records will sell, mostly all milking heavily. A big string of young heifers of noted ancestry will sell bred to a 30 pound Model family bull; 20 head of high grade springers will sell also. More than 30 of the females are bred to Lord Kay Hengerveld Payne, a son of the \$100,000 King Pontiac Hengerveld Payne. Here is your chance, farmers and breeders, to get just the kind of cows you have been looking for. When you write for the catalog, please tell Mr. Searle where you saw his advertisement. Remember that the sale will be held in Topeka but write for your catalog to Oskaloosa, Kan.—Advertisement.

Last Call for Home Coming Offering.

John W. Jones, Minneapolis, Kan., is selling a draft of Duroc Jersey bred sows and gilts in his second sale which will be held in Concordia, Kan. Mr. Jones is taking a considerable pride in going back to Concordia with a great draft of bred sows and gilts. It was on his farm near Concordia that Mr. Jones started in the Duroc Jersey business more than 20 years ago. In making up his catalog for these two sales he played fair with both places and it was a real fifty-fifty division of the best things intended for the two sales. Possibly Mr. Jones leaned a little toward the "old home town" but both offerings are the kind of which any breeder need not be ashamed. Remember the date is Thursday, February 26, and it follows Kempin Bros. & Wm. Hilbert's sale at Concordia. You can attend that sale and

come on to Concordia. The Barrons House, the best hotel in north central Kansas, will be headquarters for red hog men on this occasion. Remember that the breeding in this sale is as good as you can find anywhere. The catalog is a very interesting little book and free for the asking and you have time to secure it by just writing John W. Jones, Minneapolis, Kan.—Advertisement.

Durocs at Horton.

Gordon & Hamilton, Horton, Kan., sell Duroc Jersey bred sows and gilts in Horton, Tuesday, February 24. They are selling 49 head in this sale and those who remember their sale of bred sows at that place last winter are sure to be interested in this sale. In their last winter sale the offering was considered, by those in a position to know, one of the real top offerings of the West last year. There will be daughters of Sensation King and others bred to him in this sale. He was sired by Great Sensation, the boar that sired the 1919 world's champion, and is more than just a half brother to the world's champion; he is a real breeder of big, classy stuff that makes good and that is deservedly popular wherever it is to be found. Golden Pathfinder, by Ideal Pathfinder, is one of the good buys in the boar line and he is mated with some of the best gilts in the sale. There will be a few fall gilts in this sale that are as good as you have seen in a long time. Remember the breeding is good and that the hogs are there individually. You will make no mistake in coming a long way to be at this sale. You still have time to secure the catalog if you write today.—Advertisement.

Gwin Bros.' Duroc Sale.

Gwin Bros., Morrowville, Kan., sell Durocs at Washington, Kan., Thursday, February 19. If you are interested in the best breed affords in popular breeding you are interested in this great sale. You have already read their advertisement in the Kansas Farmer and Mail and Breeze and very likely have the catalog. Of the 50 head in this sale there is hardly a sow or gilt that would not improve your herd. There are 20 sows in this sale that are sold because they are real sows and there are 15 fall gilts that will put you in business if you appreciate good breeding and good individuals. There are 15 spring gilts, many of them are bred to High Orion Sensation, a son of the 1919 world's champion, Great Orion Sensation. What will these litters be worth next fall? Others are bred to John's Orion, one of the really great producers of the west. Many are by him and others are top sows and gilts out of great dams and sires that were purchased in big eastern sales. It is the good ones that go in this sale and they will not be pampered up to sell but will be in the best possible condition to make good for their new owners. The sale is next Thursday, February 19, at Washington, Kan.—Advertisement.

Polled Shorthorns at Lebanon.

A sale of Polled Shorthorns will be held at Lebanon, Kan., Smith county, Friday, March 5. The sale is being promoted and will be managed by T. M. Willson, Lebanon. Tom Willson is well known to breeders of Shorthorns and especially to Polled Shorthorn breeders all over Kansas. In this sale 40 head will be sold, consisting of cows and heifers bred or with calf at foot, three herd bulls and 13 young fellows that are old enough for service. They are Polled cattle and as there are not many of these sales in the West, you'd better secure the catalog at once and plan to be there. The Northwest Kansas Shorthorn Breeders' association will hold a called meeting there the evening of the sale at which a good time is anticipated; the question of promoting calf clubs will be taken up and it is desired that every member that can possibly do so should be there. The advertisement of the sale appears in this issue of the Kansas Farmer and Mail and Breeze. Sale Manager T. M. Willson, Lebanon, Kan., will be glad to send you a catalog as soon as you send him your name. Write him today.—Advertisement.

Kansas Duroc Breeders Meeting.

The Kansas Duroc Jersey Breeders' association held its annual meeting the evening of Friday, February 6, at Manhattan. Several reels of moving pictures of a very interesting nature showing the growth and magnitude of the big National record association and "movies" of the winners at the National Swine Show as well as the homes and herds of some of the most prominent Duroc Jersey breeders over the country. It was very interesting and was appreciated by the members present. The members at this meeting voted to hang up a prize of \$500 for the first Kansas breeder that fits and exhibits a grand champion boar at the National Swine Show and \$250 for the Kansas exhibitor of a grand champion sow at the same show. The officers elected were as follows: President, G. M. Shepherd, Lyons, Kan.; vice president, Roy E. Gwin, Morrowville, Kan.; secretary-treasurer, W. W. Jones, Beloit, Kan. While there were not as many out as was expected earlier it was a good meeting of Duroc Jersey boosters considering plans for furthering the interests of their favorite breed of hogs.

Attend This Sale of Durocs.

Kempin Bros. and Wm. Hilbert, Corning, Kan., sell 40 head of Duroc Jersey bred sows in a nice warm pavilion at that place on February 25. There will be tried sows and gilts bred to King Sensation I Am; Proud Pathfinder, by Pathfinder's Likeness; Col. Orion, by Great Orion. They will be sired by such boars as Crimson Model, G. M.'s Defender, King Sensation I Am, Pathfinder's Likeness, Great Wonder Giant, Chief Critic and others of note. Remember that King Sensation I Am, the great breeding boar that is owned by Kempin Bros., is mated with many of these sows and gilts of the best of breeding. These breeders have topped their herds to secure this kind for this initial sale of bred sows and gilts. They are anxious to sell in their first sale a line of sows and gilts of real blood lines that will go out and make money for their purchasers and thus become a real advertisement for their herds. The advertisement ran in the last issue of the Kansas Farmer and Mail and Breeze. Look it up and write for the catalog. You have time if you act at once. It follows the Gordon & Hamilton sale at Horton. You can attend both sales and go on to the John W. Jones sale at Concordia on Thursday. Look up the last issue and write for the catalog now.—Advertisement.

Shorthorn Bulls for Sale.

Harry T. Forbes, Topeka, Kan., proprietor of Cedar Heights Stock Farm, offers for sale very high quality Scotch Shorthorn bulls. He has recently sold to Geo. S. Marshall and J. A. Mussett, Basehor, Kan., a

CONYERS' Profitable Durocs

I will offer in my annual bred sow sale to be held at 1:30 P. M. at the skating rink

Marion, Kan., Friday, February 20 50 Bred Females; 2 Boars

These are good individuals, well bred and will be sold in good breeding flesh. They include:

6 tried sows of Colonel and Wonder breeding. They are proven profit producers.

44 spring gilts—10 granddaughters of King the Col.; 5 of Royal Grand Wonder breeding; 6 of King the Col. breeding out of a Graduate Col. sow (she by High Orion and a half sister to the Zink Farms herd boar) are exceptionally good; 7 by Red Cross Pathfinder; 10 by Royal Critic and 2 Defender-King the Col. gilts.

These good Duroc females are bred to the three herd boars

Valley Pathfinder, King Conyers, Royal High Wonder

Valley Pathfinder is by the Mighty Pathfinder and out of Valley Girl by Valley Col., the grand champion at the 1919 Illinois state fair. He is an April, 1919, pig, looks like his daddy and is making a real boar. We bought King Conyers in Iowa. He is by King the Col. and we consider him one of our best breeding boars. Several gilts in the sale are sired by him. Royal High Wonder is by Royal Grand Wonder (placed in first place at the 1917 Kansas state fair); he is by Great Wonder and out of Royal Orion Girl by High Orion.

Royal High Wonder sells. He is a March, 1919 boar and a good one. The other boar listed is a litter mate to Valley Pathfinder.

The entire offering is immuned by double treatment. They will make you money as they make money for me, being handled under ordinary farm conditions.

Catalogs are now ready. Send for yours today, mentioning this paper to,

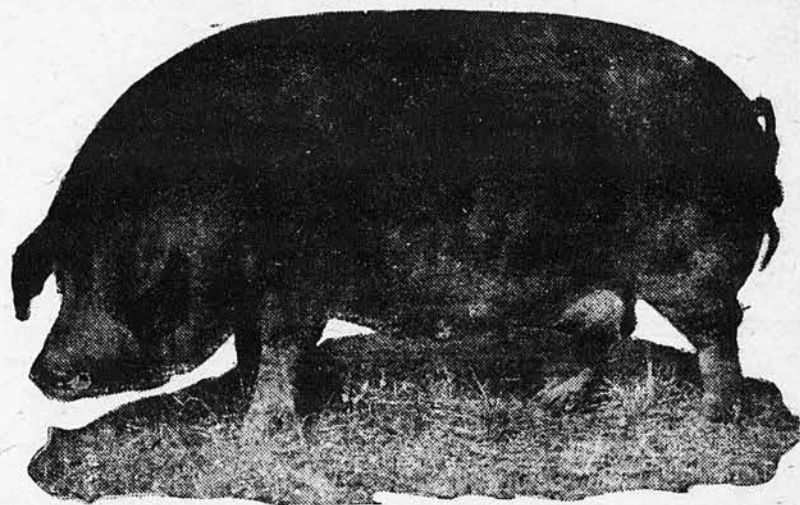
B. W. Conyers, Marion, Kansas

Attend the Anderson sale on the same trip.

McCulloch and McLinden, auctioneers. J. T. Hunter represents The Capper Farm Press.

The C. W. Johnston Duroc Jersey Sale

In \$8,000.00 Sale Pavilion
Red Cloud, Neb., Friday, Feb. 27



40 HEAD—10 Tried Sows; 12 Fall Gilts; 4 Outstanding Fall Gilts; 14 Spring Gilts

These gilts and sows are the type and quality the best of breeders desire. The spring gilts have such sires as Big Bone Wonder, King Supreme, The King, Nebraska Pathfinder, Great Pathfinder and Pal's Giant. The fall gilts are by Joe Orion 5th and three by King's Col. Supreme. The tried sows by Critic Wonder, A King the Col., Crimson Defender and Dotsey Illustrator. This offering should attract both farmers and breeders. Plan to attend this sale and buy some of these good animals. Mr. Johnston is also selling 10 good Shorthorn bulls ready for service. Write for catalog.

C. W. Johnston, Red Cloud, Neb.

Auct.—Col. Putman. J. C. Lamb represents The Capper Farm Press.

DUROC JERSEY HOGS

200 Big Bred Duroc Gilts

These are bred big. The gilts pay for themselves in after-wards. Pedigree recorded. Written guarantee they are improved and in favor.



Cracker, Rex R. Filley, Neb.

Gordon & Hamilton's Greatest Bred Sow Sale Big Type Duroc Jerseys

49 bred sows and gilts that will not be outclassed
in any sale this winter. Sale in warm pavilion at

Horton, Kan., Tuesday, February 24

Sensation King 280963, our leading herd boar, is an outstanding son of **Great Sensation**, the boar that sired the 1919 world's Champion, **Great Orion Sensation**. The tried sows are bred to him and the spring gilts either by him or bred to him.

Golden Pathfinder, is our new boar bred by O. Linninger and sired by **Ideal Pathfinder**. His dam is **Golden Uneeda**. He is a great September yearling and a wonderful individual. Many of the gilts are bred to him.

We are pleased to believe our offering on this date compares very favorably with any offering that will be made this winter. A strong statement but when you see the big stretchy, high backs and the great bone and size they carry you will agree with us that it is truly a great offering.

Orders to buy should be sent to **J. W. Johnson** of the **Capper Farm Press** in care of **Gordon & Hamilton, Horton**. Send us your name and we will send our catalog by return mail. Address,

Gordon & Hamilton, Horton, Kansas

Auctioneers—**Jas. T. McCulloch, Clay Center, Kan.**; **C. G. Streeter, Horton**; **Fred Taves, Beloit, Wis.**

Good connections from the **John Loomis** sale at **Emporia, Kan.**, the day before.

Note: Advertisers like to know where you saw their advertisement. Please mention **Kansas Farmer and Mail and Breeze** when you ask for catalog.

nice young bull, **Lavender King** by **Secret King** and out of a dam tracing to **Imp. Lavender 31st**. The five bulls he is now offering are of the best Scotch breeding and out of dams which belong to the most popular Scotch families. They are by bulls of outstanding individuality. One is a red roan sired by **Woodend Stamp** and out of a **Lovely dam**. Two are **Orange Blossoms**, both reds sired by **Secret King 505254**. Another is a roan out of a dam tracing to **Imp. Bloom 1st**, by **Secret King** by **Augusta's Villager** and out of a **Cassandra dam**. Any Shorthorn breeder looking for a real herd bull of rich Scotch breeding should come to **Topeka** and visit **Mr. Forbes** at his farm just west of **Gage park** on the 5th Street road. Phone him when you get to town and he will call for you in his auto. This is an unusually fine opportunity to select a great bull prospect from fine choice Scotch calves, either reds or roans. Write for full descriptions and prices and come to **Topeka** and see them.—Advertisement.

BY J. T. HUNTER

Conyers Sells Durocs at Marion, Kan.

B. W. Conyers, Marion, Kan., sells Durocs Friday, February 20. Mr. Conyers started in a few years ago with a few good Duroc sows and now has a good herd built up from a good foundation. Mr. Conyers has spent no time at the show game. He has been busy at farming and has raised hogs on the side and has sold them mainly at private treaty over **Kansas, Oklahoma, Colorado and Texas**. This is Mr. Conyers' second auction sale. He has good farmer type hogs that have made money for him and they will make money for the buyer. Read the advertisement in this issue of the **Kansas Farmer and Mail and Breeze** and write today for a catalog. Please mention the **Kansas Farmer and Mail and Breeze**.—Advertisement.

BY J. COOK LAMB

Durocs and Shorthorns.

February 27 is the date of the Duroc sow and gilt sale of **C. W. Johnston, Red Cloud, Neb.** This good offering consists of 10 tried sows, 12 fall gilts, four outstanding fall gilts and 14 spring gilts. They carry such breeding as **Joe Orion 5th**, **Big Bone Wonder**, **King Supreme**, **The King**, **New York Pathfinder**, **Great Pathfinder**, **Pal's Giant**, **Critic's Wonder**, **A King**, **Col. Crimmon**, **Defender** and others. The sows and gilts are the top of Mr. Johnston's herd. He has made quality and type his foundation. Mr. Johnston also is selling in this sale 10 head of good Shorthorn bulls of serviceable age. You should send for catalog at once, mentioning this paper, and look this offering over. Plan to attend the sale or send bids to **J. Cook Lamb**, the **Capper** representative.—Advertisement.

BY O. WAYNE DEVINE

Important Hampshire Sale.

Among the **Hampshire** breeders who have made a success with the great farmers' hog is **Whitaker & Darby, Miami, Mo.** They have announced **March 2** for a bred sow sale; 60 head of choice sows and gilts have been consigned for this occasion and for the convenience of the public the sale will be held at **Marshall, Mo.** The catalogs are now ready to mail out. They are interesting and give complete information of the sale offering and herds. Please write early for catalog and arrange to attend this important **Hampshire** sale. Kindly mention this paper.—Advertisement.

Poland China Fall Pigs.

Ed Sheehy, Hume, Mo., is advertising in this issue big type **Poland China** fall pigs priced in pairs or trios, not akin. **Ed Sheehy** is a young man the writer has known from a small boy. He has made a great success in breeding and selling **Poland China** hogs; he has paid for a good 80 acre farm near **Hume, Mo.**, in the last five years by raising hogs both for the market and breeding stock. Mr. Sheehy grows his hogs in a way that insures their future usefulness and he sells with a broad and liberal guarantee. If you are not satisfied you can get your money back. Any bank in **Hume, Mo.** will stand back of this guarantee. Please look up his ad in this paper and write for what you want in **Poland Chinas**.—Advertisement.

Poland China Sow Sale.

Harry Wales, the well known breeder of **Poland China** hogs, **Peculiar, Mo.**, has cataloged 50 head of choice sows and gilts for his annual spring sale on **February 25**. **Harry Wales** grows his hogs in a way that insures their future usefulness. They will not be loaded with fat, but will be in good breeding condition to go out and make money for the purchaser. A large part of the offering will be bred to one of the best sons of **Liberator**, out of a **Giant Buster** sow. This young hog is owned jointly by **Harry Wales** and **R. W. Coner, Peculiar, Mo.** A few of the sows will be bred to **Co-operator** by **Big Liberty Bob** by **Big Bob Wonder** and **Wales' Big Bob** by **Big Bob** out of **Smooth Maid** by **Smooth Big Bone**. The offering promises to be one of the best lots ever sold from the **Wales** farm, and probably is as high class a lot of individuals as will go thru any sale this spring season. Send for catalog and mention this paper.—Advertisement.

Annual Hereford Roundup.

R. J. Kinzer, secretary of the **American Hereford Breeders' association**, has announced **March 1-2-3-4-5** for five days sales of **Hereford** cattle at the fine stock pavilion, stock yards, **Kansas City, Mo.** On these dates 800 head of **Herefords** will be offered to the public. These cattle are selected from 102 herds in the corn belt and will consist of 400 bulls, both herd bulls and range bulls (the range bulls will sell in carload lots); 400 females from two-year-old bred heifers to mature cows with calves at foot and bred again. This will be an opportunity for farmers and breeders to buy high breeding cattle at prices that will insure them a nice profit. The farmer or breeder who wants to buy in carload lots cannot afford to miss this sale. The offering has been carefully selected and cataloged and will be offered in good breeding condition. The catalog is nicely illustrated and is worth reading. Please send for one today, addressing **R. J. Kinzer, Sec'y, Kansas City, Mo.**, and kindly mention this paper.—Advertisement.

BY S. T. MORSE

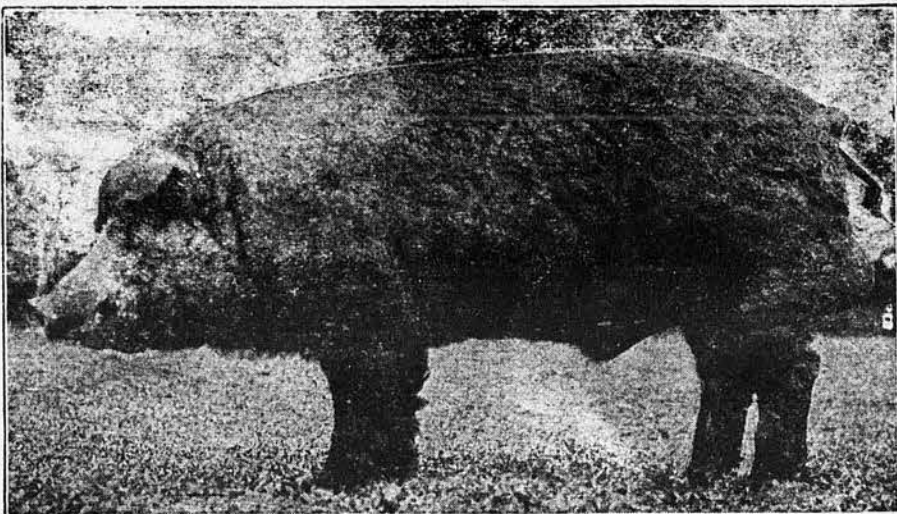
W. C. Hall, Coffeyville, Kan., is advertising some choice **Poland** boar pigs for sale. These are grandsons of the great boar, **Caldwell's Big Bob**, and are out of sows that are equally well bred and are right individuals. If you are looking for something

Royal Herd Farm Annual Bred Sow Sale

McPherson, Kan.

Feb. 21, 1920

Your last chance to buy **ROYAL GRAND WONDER** sows. They are up to the minute in breeding and individuality. The best line-up I have ever put in a sale. They are bred to **ROYAL SENSATION** and **ROYAL PATHFINDER**, direct sons of the two most noted Duroc boars living. Don't forget the date, **Feb. 21**, for I am sure you want to attend, but if you cannot, send your bids to **J. W. Johnson**. I guarantee any purchase he may make for you to be satisfactory. There is still time for you to get your catalog if you send for it today. Address,



Royal Grand Wonder.

B. R. Anderson, McPherson, Kansas

Auctioneer—**Jas. T. McCulloch, Clay Center, Kansas.**

Missouri Grand Champion Durocs

40 Bred Gilts from my State Fair Premium Sows. They are bred for March and April litters to the Best Son of **Jack's Orion King 2nd**. I offer in this lot last year's 3rd prize futurity gilt; also the 2nd prize futurity litter. Priced to sell quick. Don't delay if you want good Durocs.

CHAS. L. TAYLOR, OLEAN, MISSOURI

TIMBER HILL STOCK FARM

Big, smooth Duroc bred gilts and fall pigs. Gilts by **Valley King** the Col. (actual weight 960 pounds) and **Pathfinder** sired by **Pathfinder** Chief 2nd; bred to **Orion's King** and **Pal's Orion**. These are the big, stretchy kind. Write for illustrated circular. Breeders of Durocs for 25 years.

Lant Bros., Dennis, Kansas

When writing advertisers mention this paper

WOODDELL'S DUROCS

21 spring boars, 1 yearling boar, nearly all of them sired by **Chief's Wonder**, the boar that is breeding champions. These are good type boars, and am pricing them at farmer's prices in order to make room for my fall pigs. Write, wire or come for prices. **G. B. WOODDELL, WINFIELD, KANSAS.**

Choice March Gilts and September Yearling Sows

Guaranteed safe in pig for March and April farrow, \$85. September pigs, either sex, pairs or trios not akin. All stock recorded and guaranteed immune. **D. O. BANCROFT, OSBORNE, KANSAS.**

Boars and Bred Gilts

Sired by **Cherry King Orion**, **Reed's Gano**, **Potentate's Orion**, **Dams by Pathfinder**, **King the Col.** and **Crimson Wonder**. Immured. Priced to sell. **JOHN A. REED & SONS, LYONS, KANSAS**

Fulks' Large Type Durocs

Sired by **Uneeda High Orion** and **Nebraska Col. Chief**. Boars and gilts of March and April farrow. Immured and guaranteed to please. Some real herd boar prospects. Bred sows after January 1.

W. H. FULKS, TURON, KANSAS

Duroc Jersey Bred Sows and Gilts

For sale, sired by **Valley Col.** and **Golden Orion**; bred to the good boar **Orion Pathfinder** for March farrow. Priced reasonable and satisfaction guaranteed. **C. W. McCLASKEY, GIRARD, KANSAS.**

WOOD'S DUROCS

Spring pigs, both sexes. Great Wonder strain; registered; immured, double treatment; satisfaction guaranteed. **W. A. WOOD, ELMDALE, KANSAS**

Duroc Hog Sale

60 head of purebred hogs to sell. Enterprise, Kan., Wednesday, Feb. 18. 25 bred sows and gilts; 33 fall pigs, also herd boar. Nine high grade **Holsteins**. Send for catalog. **H. H. ESHELMAN, ENTERPRISE, KAN.** (Sale near Navarre)

February 14, 1920.

in Poland Chinas write W. C. Hall, Coffeyville, Kan., and mention this paper.—Advertisement.

For a good Scotch herd bull or for a fine Scotch topped bull write C. H. White, Burlington, Kan. He has some good ones. Prices and bulls are both right.—Advertisement.

W. H. Lynch, Neosho Rapids, Kan., is offering Chester White boars and gilts for sale. Sired by Big Bog Tip Top. Write Mr. Lynch for prices and descriptions.—Advertisement.

C. E. Cochran, Kincaid, Kan., is offering Jersey cattle for sale. He can supply you with either sex. Write him for prices and descriptions, mentioning this paper.—Advertisement.

E. M. Wade, Burlington, Kan., is offering some bargains in Poland China boars, both spring and fall pigs priced worth the money. Write him your wants and mention Kansas Farmer and Mail and Breeze.—Advertisement.

Phillip Walker, Moline, Kan., has some extra good heavy boned jacks for sale. Two to six years old. Priced right, some good big jacks for sale also. Write Mr. Walker or visit his herd. Mr. Walker is one of the old reliable breeders and can supply your wants at reasonable prices. Please mention this paper when writing.—Advertisement.

Southeast Kansas Shorthorn Sale.

The Southeast Kansas Shorthorn Breeders' association will hold their spring sale at Independence, Kan., Friday, April 2. They will sell a select offering of females and a few choice bulls. This sale will be a good one for all. G. A. Laude, of Humboldt, Kan., is the sale manager and will select the offerings. Only creditable individuals will be accepted.—Advertisement.

Duroc Bred Sows for Sale.

C. W. McClaskey, Girard, Kan., has several tried sows and spring gilts for sale privately. These are a well bred, well grown lot and are priced worth the money. One tried sow by Ideal Pathfinder; one sow by Valley Col.; one granddaughter of Orion Cherry King; gilts by Valley Col. out of an Illustration dam; others out of a dam by Elk Col. and bred to Orion Pathfinder by H. & B's Pathfinder. W. T. McBride's great Pathfinder boar. Gilts weigh about 250 pounds in breeding condition. They will go ahead and make you money. If needing something of this kind write C. W. McClaskey, Girard, Kan., and mention Kansas Farmer and Mail and Breeze.—Advertisement.

Want a Real Bull?

A combination of the blood of Imp Collyer and Avondale, two of the greatest breeding bulls ever in America, is what H. M. Hill, LaFontaine, Kan., is offering in his bull material. These young bulls are real bulls. Rugged, thick fleshed fellows with the constitution and feeding qualities you would expect to find in bulls of this breeding. The kind that breed on and make real improvement in your cattle. Visit Mr. Hill's herd at LaFontaine, Kan., and see for yourself. If you cannot go write Mr. Hill for prices and descriptions, mentioning the Kansas Farmer and Mail and Breeze.—Advertisement.

A Hog Shortage

The extent of the hog shortage in this country gradually is coming to be realized by all. In the Southwest we have been inclining toward the view that our shortage was only temporary, due to a short corn crop or two, and that reserves in plenty could be found to the North and East. We have had the figures against this belief, but figures do not always make a dent. In the past and present sale season, however, we have seen breeders from Indiana buying hogs in sales west of the Missouri River, when heretofore they seldom crossed the Mississippi.

Among other things which awakened them to the situation was the work of the agricultural extension department of the Indiana University. G. C. Christie, director of extension work, talking to the people of his state, says: "Mr. Farmer, if hogs reach the \$25 a hundred, will you be prepared to fill orders? If you are in the hog business stay in, if you are not, get in."

Does not his admonition apply equally to Nebraska, Kansas, Oklahoma and Missouri? Iowa, the greatest hog state in America, has less than its normal hog population. It is up to every pork producing state to "grow its own."

Northern Pastures a Failure

It is doubtful if stockmen who shipped cattle and sheep from the drought area of the Northwest to the cut-over land in the upper peninsula of Michigan will repeat the experiment. In many cases the cattle when finally marketed did not weigh so much as when shipped to that territory. Cattlemen send unsatisfactory reports from practically all sections of the Northern grazing territory. The cattle used to the native forage of the Northwest did not seem to be able to assimilate any great amount of nutriment from the luxuriant grasses of the North.

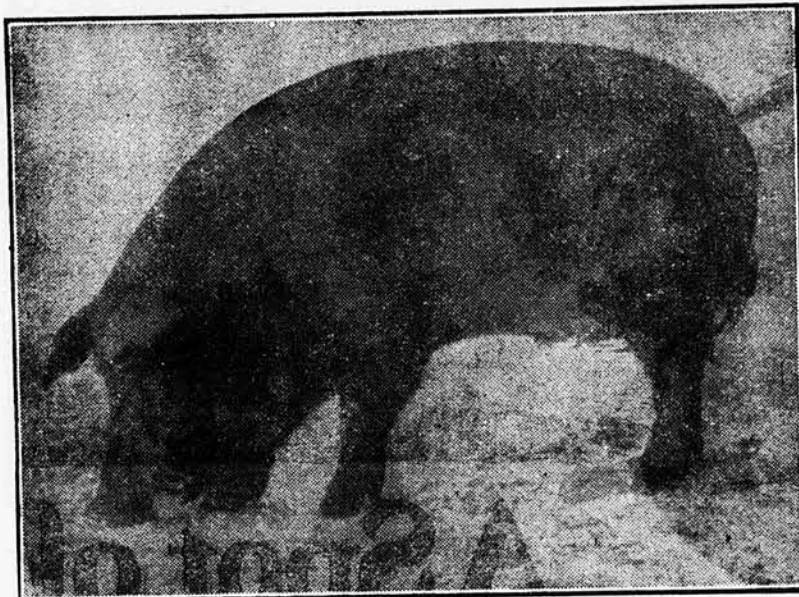
In the census even those who don't count will be interviewed by those who do.—Philadelphia Public Ledger.

KING SENSATION I AM

Sale of Bred Duroc Sows

Corning, Kan., Wednesday, Feb. 25

40 HEAD



King Sensation I Am, by King Sensation, our mammoth herd boar.

Tried sows and gilts bred to King Sensation I Am; Proud Pathfinder by Pathfinder's Likeness; Col. Orion by Great Orion.

Sows and gilts sired by Crimson Model, G. M.'s Defender, King Sensation I Am, Pathfinder's Likeness, Great Wonder Giant, Chief Critic and other good ones. DAMS by The King, Crimson Col., Select Model, Ideal Pathfinder, King Sensation, Joe Orion V and others.

SPECIAL ATTRACTION. A spring yearling sow by King Sensation, litter mate to King Sensation I Am, bred to Proud Pathfinder. This is an especially attractive offering all through, all bred for March and April litters to three of the greatest boars in Kansas. Kansas breeders are especially invited to attend this sale. Catalogs ready for mailing now. Write for one and look over the breeding of this splendid offering and the wonderful boars they are bred to. Orders to buy should be sent in our care to J. W. Johnson, Corning, Kan. For the catalog address, either,

Kempin Bros. or Wm. Hilbert, Corning, Kan.

Auctioneers—Jas. T. McCulloch, Clay Center, Kan., and others.

Good connections from the Gordon & Hamilton sale at Horton the day before and for the Jno. W. Jones sale at Concordia the day following. Advertisers like to know where you saw their advertisement. Please mention Kansas Farmer and Mail and Breeze when you ask for the catalog.

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Sows sired by the \$3,000 Fairview Orion Cherry King
Sows sired by Fairview Illustrator, the great breeding boar
Sows sired by Pathfinder, King the Col., John's Col. Orion and other noted sires.

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Spring boars; registered and immunized; Orion, Illustrator and Colonel bloodlines. Gilts and fall pigs of same breeding. Satisfaction guaranteed.
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Duroc Jerseys
Extra good bred sows for sale; also growthy open gilts and spring boars. Choice weanling pigs, pairs and trios, no akin. Nebraska Breeders Sales Co., Lincoln, Neb.

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A fancy lot of spring boars and gilts for sale. Sired by Uneda King's Col and from splendid dams. Priced to sell.
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Three tried sows, some topy gilts and all bred to two of the leading boars of the state for March farrow. Priced to sell. FRED CROWL, Barnard, Kan.

DUROC JERSEY bred gilts. Bred for March and April farrow, to Joe Orion Cherry King 2nd and First Quality, boars with size and quality. R. T. & W. J. Garrett, Steele City, Neb.

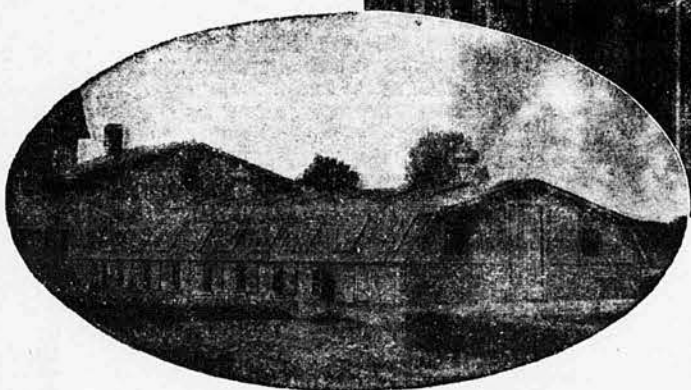
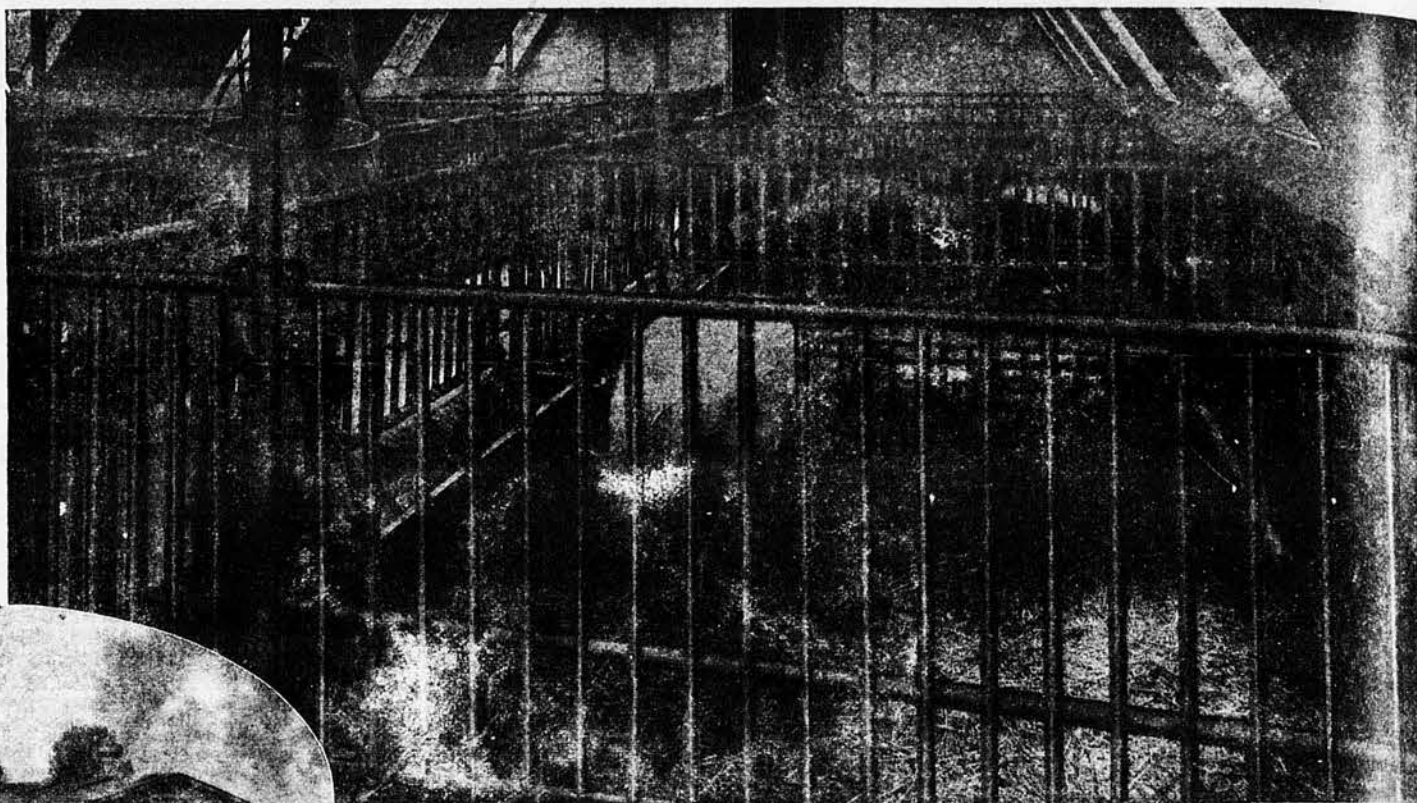
JAMES

Labor-Saving Equipment for the Hog Barn

Interior is of hog barn of Mr. T. H. Maher of Cleveland (Farm at Elyria, O.)

Exterior is hog barn at Allenhurst Farm, Hudson, Ohio.

James Equipment in hog barns includes pens, troughs, swinging panels, pig fenders, columns, swill carriers, feed carriers, manure carriers, ventilators, feed cookers, heaters, etc.



A Spot of Warmth in every pen $\frac{2}{3}$ of the Sunlit Hours



Too good to be true, you say? But it is true, as the following diagrams and explanations will show.

What this means to the big hog breeders of the country can hardly be computed—only the hog man understands what sunshine and sun warmth in February and March, especially, mean to the growth and health of little pigs.

The James Mfg. Co. does not build barns. We make labor-saving equipment for the hog barn, but as a service to the swine industry, our Engineering and Barn Planning Staff have designed a new type of hog barn which has many advantages over any other.

These advantages are fully explained in the James-Way Hog Barn Book, but the following will make it clear how—

The JAMES Sunny Hog Barn Lets the Sun Shine In



1.—The first rays of the morning sun strike the ceiling on the west side and then sweeping down the west wall, bathes it in sunlight.

2.—If the barn is placed north-west to south-east, spots of sunshine and sun warmth begin to appear on the floors in the west pens, as soon as the sun's rays fall at an angle of 7° from the horizontal.

At latitude 42, longitude 90, March 21st, for example, this would be at 6:36 a. m. If the barn is placed north and south, the sunshine on the floor begins when the sun's rays are 10° , $8'$ from the horizontal. At latitude 42, longitude 90, March 21st, this would be at 7:15 a. m.



3.—From the time the sun shines first upon the floor until a similar hour in the afternoon, there are spots of sun in one row of pens, or the other, or both.

4.—When the sun's rays are about 30° from the horizontal, as shown in Figure 4, there is a spot of sunshine in every pen in the barn, if windows



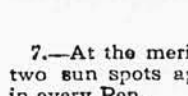
are provided in the south end.

(See Fig. 10). For two-thirds of the time therefore, between sunrise and sunset, regardless of latitude, longitude or date, there is sunshine on the floor of every pen in a Jamesway Sunny Hog Barn.

5.—At this point, two spots of sunshine appear in the west pens.



6.—As the sun approaches the meridian, the west wall gets another sun bath through the west side windows.



7.—At the meridian, two sun spots appear in every Pen.

8.—As the sun leaves the meridian, the east wall gets sunshine through the east side windows.



9.—Two spots of sunshine in each east pen.



10.— 30° from horizontal. See paragraph 4.

11.—Two spots of sun in east row. Sunshine leaves west row of pens. See paragraph 5.

12.—When the barn is placed north-west and south-east, the sunshine does not leave the floors of the east pens until the sun's rays are within 7° of the horizontal (which is at sunset). If located north to south, this occurs when the rays are 10° , $8'$ from the horizontal. At latitude 42, longitude 90, March 21st, for example, this would be at 5:24 p. m. and 4:45 p. m., respectively. For about seven-eighths of the time between sunrise and sunset, the sun can shine upon pen floors in the Jamesway Sunny Hog Barn.

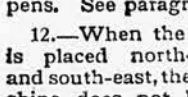
13.—Sun's rays horizontal at sunset.



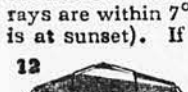
8.—As the sun leaves the meridian, the east wall gets sunshine through the east side windows.



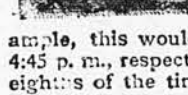
9.—Two spots of sunshine in each east pen.



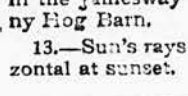
10.— 30° from horizontal. See paragraph 4.



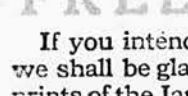
11.—Two spots of sun in east row. Sunshine leaves west row of pens. See paragraph 5.



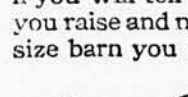
12.—When the barn is placed north-west and south-east, the sunshine does not leave the floors of the east pens until the sun's rays are within 7° of the horizontal (which is at sunset). If located north to south, this occurs when the rays are 10° , $8'$ from the horizontal. At latitude 42, longitude 90, March 21st, for example, this would be at 5:24 p. m. and 4:45 p. m., respectively. For about seven-eighths of the time between sunrise and sunset, the sun can shine upon pen floors in the Jamesway Sunny Hog Barn.



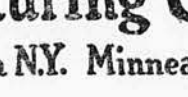
13.—Sun's rays horizontal at sunset.



14.—Two spots of sun in east row. Sunshine leaves west row of pens. See paragraph 5.



15.— 30° from horizontal. See paragraph 4.



16.—Two spots of sun in east row. Sunshine leaves west row of pens. See paragraph 5.



17.— 30° from horizontal. See paragraph 4.



18.—Two spots of sun in east row. Sunshine leaves west row of pens. See paragraph 5.



19.— 30° from horizontal. See paragraph 4.

Labor-Saving Equipment for Hog Barns

Made by the James Mfg. Co., includes steel pens with pig fenders, metal troughs, swinging panel fronts to keep hogs out of troughs at will, swill carriers, feed carriers and trucks, steel columns, manure carriers, ventilators, floor scrapers, feed cookers and heaters.

For Beef and Sheep

Beef feeding stalls and panels, ventilators, carriers, steel pens for sheep and sheep feeding racks.

For Dairy Cattle

Sanitary, labor-saving steel stalls, stanchions, mangers, drinking cups, manure, feed and milk can carriers, feed trucks, milk can trucks, swinging steel cranes, ventilators, sanitary steel pens for bulls, cows and calves, bull staffs, floor scrapers, milk stools, etc.

Barn Books FREE

The dairy barn book called "The Jamesway," 336 pages including many pages of blue prints, barn planning and ventilation, tells all about James Equipment for the dairy barn.

The 80-page "Hog Barn Book" gives full information regarding the James Sunny Hog Barn and the James Labor-Saving Equipment for hog barns.

If you want the Hog Barn Book or Sunny Hog Barn plans, state number and breed of hogs, or size of barn you intend to build.

If you want "The Jamesway" book, kindly state number of dairy cows you own.

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The James Way