

KANSAS FARMER

FOR THE IMPROVEMENT



OF THE FARM AND HOME

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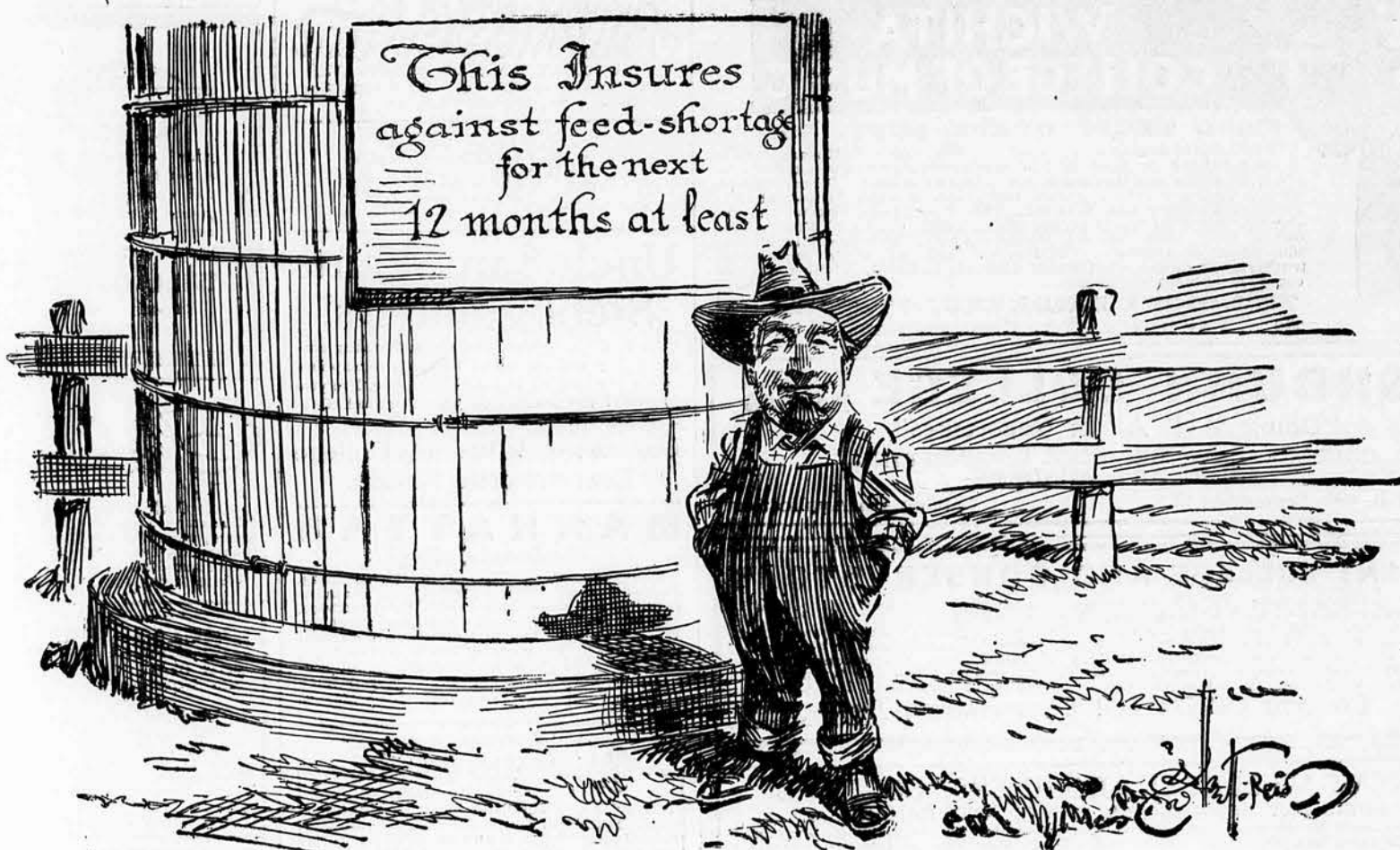
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KANSAS FARMER

EDITORIAL

DIGESTIBILITY OF FEEDS.

Storrs (Connecticut) Experimentation gives the results of some experiments, which prove conclusively that the facility of digestion of feeds is an important factor in feeding.

In an average two animals (cows of 800 pounds weight) required for maintenance 6½ pounds of corn meal and 4½ pounds of digestible hay. The same animals required 13½ pounds of hay containing 13½ pounds of digestible nutrients. In other words, one pound of digestible nutrients in corn meal was found equivalent to 1.57 pounds in mixed hay. Stated in another way, 57 per cent more of digestible nutrients were required to maintain an animal on hay than when derived from corn meal. The reason for this is that the cow has to eat more, expend more energy in chewing, has to drink more water and warm it up in order to digest the hay than to digest corn meal.

Corollary from the above statement of facts is revealed in another experiment: An increase in the proportion of grain to roughage in the diet of milk cows tends to facilitate digestion, and is followed by an increase in production.

Another fact brought out was that skim milk meal did not produce the same results as the same amount of skim milk, and for like reasons. Skim milk is easily digested, but skim milk meal is not so readily digestible.

Similarly, in feeding pigs on skim milk alone, 230 pounds of digestible nutrients were required for 100 pounds of gain in live weight, 258 pounds from milk and shorts and 294 pounds from shorts alone.

Therefore, it appears that the value of feed depends on three things: composition, its digestibility and facility of digestion. In a general way, milk is more easily digested than concentrates than roughage, than late cut hay, ensilage than clover, oats straw than rye straw. Making up rations, therefore, it is to keep in mind not merely the amount of digestible nutrients, but the facility of digestion as well.

In years like this that the word "trained agriculturist" shows in contrast to that of the haphazard farmer. The evidence is on every hand in the wheat field, the corn field, the potato patch, etc. The wheat and corn farmers have in years past attracted the attention of the state Agricultural College expert, but not until this year have the potato growers given attention. J. R. Cooper, who has had charge of experimental work of potatoes in the Kaw valley this summer, says that, although his experiments are not all completed, he has been able to convince him that the yield can be greatly increased by the use of the "spud belt." With potatoes yielding only 50 to 75 bushels to the acre in the Kaw valley this year, Cooper's experimental plot of 12 acres near Lawrence averaged more than 100 bushels to the acre. There is yet no report on experimental work near Lenape and Bonner. The experiments included the use of fertilizers, sprays and other things that will show what is and is not desirable in growing potatoes in the Kaw valley.

The succeeding year results in establishing a new record in the price for breeding stock. Ellendorf, Lexington, Ky., last week paid \$1,000 for a Jersey bull. This is the highest price ever paid for a bull. This particular bull has known as a sire of heavy milkers, and much as his heifers sold in the sale at prices as high as \$1,000, it is fair to concede that the buyers of the bull know well their business.

It is possible for a man on 40 acres of the average Iowa land to produce \$1,000 worth of butterfat a year from his herd, and at the same time produce from his other cows as much as the man who does keep cows.—Prof. G. L. McKay.

With which is combined FARMER'S ADVOCATE, established 1877.
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GET THE TITLE TO A GOOD FARM.

A subscriber, who is a renter, asks if he should buy land now. He conveys the idea that he has for several years past hesitated to buy a farm because of high prices asked for land.

If you want to own a farm—a thing you should buy by all means own if you are going to farm—buy now. We do not mean to buy tomorrow or next day, but buy just as soon as you can look around and determine where, in your judgment, you can get the best values. In some sections land is selling for much more money, in proportion to its producing capacity, than the land in other sections. You can't afford to pay big prices for land because it is situated in a popular locality—possibly made so because it has been boomed. Find the best land you can, considered so from all viewpoints, and buy.

You will have to pay good prices for good land. The days of low priced land in this country are passed. Increased population can't help but force up land prices. In the year 1850 the available area of this country was 2,995,772 square miles and the population was 23,191,876 people. In the year 1908 the Bureau of Commerce and Labor placed the available area at 3,026,789 square miles, and the estimated population as 87,189,392.

The land area is fixed; here and there a few more acres will be made available, but the population is increasing toward the 150,000,000 mark, and land values will conform to that basis. It will not require half the time to increase from 100,000,000 of population to 150,000,000 that it did to increase from 50,000,000 to 100,000,000, and that was done in 30 years. The land bargain counter is fast disappearing and young men had best look out to get a foothold before all the reasonable priced goods are sold out.

Great Britain has \$6,000,000 to expend in improving its agriculture, and as part of the amount has been set aside to determine if tobacco can be grown in England and Scotland, the expert who has tobacco in charge, A. V. Campbell, plans to spend nine months in this country and Canada, and in that time will visit Virginia, the Carolinas, Kentucky and other tobacco growing states. Many people will think money could be spent to better advantage than investigating the possibilities of tobacco culture, but no reader who is posted on the activity of the British government will make the claim that its agricultural possibilities are not developed to the fullest extent.

The rough feed outlook is very much improved. Since last week's KANSAS FARMER was written the editor has made a trip through the central third of the state and that section will produce an abundance of roughage. There will be some corn, too. Central Kansas people are prosperous, contented and happy.

THE OUTLOOK—COMMENT.

A trip last week through central Kansas convinces this editor that the rough feed problem, regarded as serious during the early summer, has been successfully solved. Corn is late and at the present stage of its growth is in good condition. Favorable conditions from this time will result in a big corn crop, while a less favorable condition with reference to moisture cannot deny a sufficient amount for feed. Forage crops are looking fine and sorghum and kafir corn will now cut an average yield of forage. The oats crop was only fair, but the straw long enough to save well, and the millet yield was good on early sowed fields.

The daily press indicates that the above condition, particularly with reference to corn, exists in many localities, and our correspondence with many farmers is substantially that there will be plenty of feed. The season has been such, however, that feed conditions are exceptionally spotted, but practically all localities have had rains. The less favored sections must depend on catch crops, and the recommendations of KANSAS FARMER for two weeks past, if carefully and diligently pursued, will assure a sufficient amount of roughage.

A little dry scare such as Kansas has this year had, will serve well to call attention to better soil tillage methods. Good farming is showing to good advantage this year, compared with slipshod methods. An extra plowing of corn will in many fields make a crop, and which fields otherwise would have nothing. Any farmer who plants corn can grow a crop if it rains a plenty—he can't help but get a crop. Real farming is that whereby a crop is produced under less favorable conditions, and this year crops here and there are being made by a combination of good farming and otherwise unfavorable conditions.

This season's fear of feed shortage has emphasized the necessity of the silo. A good many silos are being sold, but not so many as will be sold next year. Many farmers who have never seriously considered the silo are thinking deeply about it. Some are buying. The few sold will next year sell several. A farmer will insure his growing wheat crop against hail and his stacked grain against fire. Why isn't it equally important to insure the live stock against a feed shortage? The silo will provide such insurance.

You cannot afford to farm without an alfalfa acreage which will supply all the alfalfa hay needed and a little more. On nearly every farm where alfalfa is grown there are a few stalks of hay left over from other years. A farmer recently remarked that he did not have to grow alfalfa this season—he had accumulated practically one season's hay. That's a comfortable feeling to have when every neighbor is wondering what he is going to do for feed if it does not rain.

VALUE OF FATS IN DIET.

The tendency of today is to exclude as much as possible the fatty portions of animal foods. Pieces of fat are carefully cut off the slice of ham, mutton or beef, and only the lean parts are eaten. For some unaccountable reason the eating of fat is regarded by some as vulgar. Such attitude displays an ignorance of physiological facts. Cold feet, hands, fingers, ears and chilblains would in many instances be avoided under a generous diet of fatty food.

A digestible fat favors nutrition considerably; it spares much waste of the tissue-forming elements of food. When lean meat alone is eaten large quantities are required in order that nutrition and waste may balance one another, but if fat be added the demand for flesh is less. Besides, therefore, giving an advantage in regard to making good the repair of the body, the use of fat is economical from a dollars-and-cents viewpoint.

The absorption of large quantities of fatless meat, again, tends to overload the blood with nitrogenous waste products. In anemic persons the partaking of an easily digested fat is commonly followed by the best results; nutrition is greatly improved and the condition of the blood is often restored to normal. It is well known, again, that easily absorbed fats, such as butter, cream, cod-liver oil, bacon fat and dripping, are especially valuable to sufferers from wasting diseases. The introduction of old-fashioned and well-prepared suet pudding into the diet is in perfect accordance with scientific teaching, and from the dietetic point of view, especially in the feeding of young, growing people, does probably a really beneficial service to the country.

The assumed aversion to fat on the part of a great many people is silly, for there can be little doubt that a reasonable proportion of fat in the diet is calculated to preserve the standard of health. Cases of true repugnance or intolerance do, of course, exist, but on the whole they are rare.

THE NEIGHBORHOOD BULL.

The editor called on a farm neighborhood a few days ago in which the sentiment in favor of dairying is developed to a much greater extent than in any other section of Kansas. A number of farmers are improving their dairy herds with marked results. Each is a small farmer, keeping not more than six to eight cows, but striving to have good cows. Each little herd has at its head a pure-bred Holstein bull, each costing probably \$100. The bull investment is in the neighborhood of \$600, and the expense of feed, pasturage and care is no small item.

The average farm dairyman has no business keeping a bull for a half dozen cows. To do so is the height of extravagance. If the farmer is growing common stock, he can get the service for not more than \$1 per cow from as good a bull as he will keep. If the farmer has in mind a well-defined idea of improvement in his herd, he must and should have his own bull, especially so if he is the only farmer in the neighborhood breeding his particular kind of stock.

But in the neighborhood in question the six farmers can use the same bull, and by buying in partnership, they can have a better bull at a smaller investment. The farmers are near neighbors and the bull could be moved from one farm to the other with little trouble. The farmer keeping the bull during the season when no breeding is done should be paid by each of the other owners in proper proportion, or the bull could be passed around from farm to farm for a year's period. The neighborhood bull is an economy and a success if just a little co-operation is employed.

NARROWER HIGHWAYS.

The time will come when a rod of the country road will revert to each of the abutting farms. In the older countries the roadways are barely wide enough to allow the passage of wagons, and the roads are maintained in perfect condition. As economy is necessary in the use of land, in just that proportion will the extravagance of a 70-foot roadway decrease.

THE SILO FOUNDATION

The foundation for a silo may be simple or extensive according to the wishes or size of the pocketbook of the builder. The foundation illustrated by the cuts in this article is of concrete, and a better foundation cannot be built. The sample general plan, however, will suffice for the building of a stone foundation, and which will be equal to the concrete. The stone may be had on the farm, and if so, the stone will make a cheaper construction.

If building a stone foundation, work off ground as shown by Figure A, and follow Figure B in digging the trench. Fill trench with broken or whole rock to four or five inches of ground surface. Then begin laying a stone wall. Use a rich cement mortar. Extend stone above ground far enough to prevent accumulation of dirt and manure around end of staves, setting on foundations. When marking off ground drive a stake in the center of the spot located for the silo. The top of this stake should be level with the desired height of foundation. Spike a board or bar, having a length of a little more than one-half the diameter of the silo, on this stake, then nail on two cleats with points one foot apart as in Figure A. This will serve as a guide in marking off a line on the ground where the foundation wall is to be built.

Dig out the earth, as in Figure B, to the desired depth you wish the foundation wall. This should be 12 to 18 inches deep in order to secure a good footing. Pack this ditch full of concrete (a good mixture can be made by using one part of Portland cement, three parts sand and one part broken rock, or another mixture is one part

Substantial Foundation Can Be Built By Farm Labor From Farm Materials

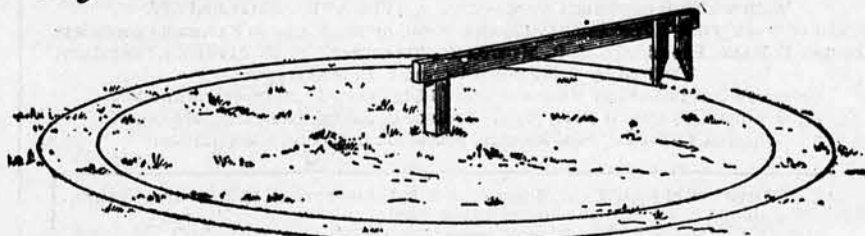


FIGURE A

cement and four parts sand) to the level of the ground; then drive short stakes about outside and inside edge

foundation level, or the silo will not go up straight. This is important. It is a good plan to set four bolts



FIGURE B

of wall and bend half-inch boards around, making form, as in Figure C. Be sure to get the surface of

in foundation wall as shown in Figure C, about four inches from outside, which can be used for anchoring down

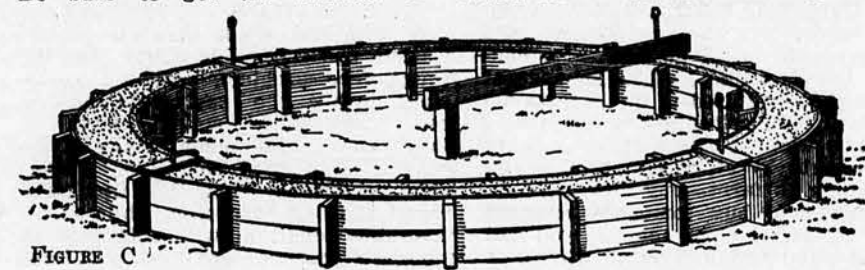


FIGURE C

the bottom of the silo and prevent from skidding off the foundation heavy wind.

It is not necessary to put a cement bottom in a silo; the ensilage will keep quite as well resting on earth.

Scratch a line around the top surface of the foundation, which indicates the diameter of the silo, and place where the ends of the staves will rest.

A silo should be located with aim in view to reduce the work feeding to a minimum. North side barn is preferred.

As ensilage is fed principally during the winter season, when the silage is in the barn or under cover, it is best to locate the silo adjacent to the barn, with the door or opening facing toward the barn, so that the delivery chute will connect with the feed alley.

If the silo is designed to feed silage in sheds away from barn, an opening may be made at bottom of delivery chute, where ensilage can be taken out.

This will enable the feeder to supply the stock both in barn and from the same opening.

It is sometimes desired to increase the capacity of the silo by extending it a few feet into the ground.

If this is done, proceed as instructed in building foundation and excavate the desired depth. Three to four feet in the ground is plenty deep for convenience. This silage must be thrown out the lower door, and a lift of two to four feet is as much as convenience will permit. A foot of depth of silo of 16 feet in diameter will store approximately five tons of ensilage in the silo bottom.

LIGHTING FARM HOMES

Rural Electric Lighting By B. F. Eyer Prof. Electric Engineering K. S. A. C.

A series of tests were made by the Department of Electrical Engineering, Kansas State Agricultural College, recently to determine the operating characteristics of rural electric lighting outfits, suitable for farm lighting and small power. The tests were made and the data obtained by Messrs. D. G. Roth and J. E. McDowell, senior Electrical Engineers. The outfit consisted of a one horse power gasoline engine, a 420 watt dynamo, (746 watts equal to one horse power) switch board and 16 cells of lead storage battery, having a capacity of 10 amperes for 7 to 8 hours.

The development of the low voltage (32 volts) tungsten ("Mazda") lamps has reduced the number of storage battery cells for lighting to 16, and the cost of the outfit is therefore greatly reduced.

The low voltage tungsten lamp is manufactured in eight candle-power sizes and larger. The light given by these lamps operated from a storage battery is equal to the best. The light is moreover perfectly steady and safe, no danger from fire or explosion. The light may be placed wherever wires can be run and in places where a flame-light would be unsafe.

The 10 ampere storage battery outfit when fully charged will furnish electrical energy for an installation consisting of the following:

	No. lights.	Candle power.	Hours per week.
Kitchen	1	20	12
Three bedrooms ..	3	8	6
Dining room ..	2	16	10
Living room ..	2	20	12
Parlor	2	20	8
Bath room	1	20	7
Barn	2	8	7
Cattle shed	2	8	7
Lawn or porch ..	2	8	8

The above assumed installation may be varied to suit any distribution desired. If the lamp hours are not increased beyond the above estimate, the battery will furnish the necessary electrical energy for one week. It is then necessary to fully charge it. This will require 8 hours continuous running of the gasoline engine. The one horsepower gasoline engine consumes 1.4 pints per hour while charging the battery, requiring 11.2 pints for a complete charge, or approximately 23 quarts of gasoline per month for lighting.

The lighting may be done from the

dynamo alone, without the use of the storage batteries. In this case the gasoline engine must be in continuous operation to drive the dynamo, or the capacity of the storage battery may be practically doubled by operating the dynamo and the fully charged storage battery together. The switchboard is arranged to do this by means of the switches. The accompanying illustration shows the complete plant set up and ready for operation.

The cost of the complete installation, F. O. B. point of shipment, is approximately \$600.00.

An outfit may be obtained having a smaller lighting capacity for \$400.00. I believe it is the best to install the 10 ampere size. The batteries are not likely to be over-worked and made short-lived. These prices do not include the wiring from the plant to the lights in the residence and other buildings. It is not best to run the wires farther than 250 to 300 feet from the battery unless a large size of wire is used, and this increases considerably the cost of installation. Where the buildings are not more than 100 to 125 feet apart, the wires may be run on brackets attached to the buildings without the use of poles. The use of an occasional pole, however, greatly improves the stability of the line.

Not only can the farmer light his house and other buildings perfectly with an electric outfit, but he may enjoy the cool breeze of an electric fan in the hours of rest and slumber during the hot summer days. An 8 inch fan, suitable to operate on this low voltage system, requires not quite as much energy to operate as two 20-candlepower tungsten lamps. The tired housewife may, while enjoying the electric fan, do her ironing by means of an electric flat iron or run the sewing machine by electric power. However, we must keep in mind that a 4-pound electric flat iron consumes about 280 watts per hour or more than 10 times as much as a 20-candlepower tungsten lamp, and if run 5 hours would consume one-half of a

battery charge. The ordinary washing machine may be operated by an electric motor, and the wringer, too. The motor for washing will consume about as much as six 20-candlepower lamps. For wringing, as much as 8 20-candlepower lamps.

A 1/2-horsepower motor will consume about 175 watts per hour, equal to 7 20-candlepower lamps. This motor will operate a small vacuum cleaner.

The ordinary farm house can be wired for \$20 to \$30 or more, depending upon the kind of fixtures selected.

The batteries and engine can be run by any careful person. The battery should be supplied from time to time with distilled water to keep the lead plates always immersed. I estimate that the average life of the lead storage battery is from 6 to 8 years, depending upon the care given it. The entire battery of the 10-ampere rating can be renewed for approximately \$150. A 60-cell storage battery has been in service in the Electrical Engineering Department, Kansas State Agricultural College, for more than five years, and has cost for repairs, one renewal of the battery fluid or electrolyte, costing \$24 for 60 large cells.

Another outfit tested consists of a 4-cylinder gasoline engine directly connected to a 3-kilowatt, 110-volt dynamo. No storage battery is used in connection with this set. Sufficient gasoline is supplied to carry the load for any time desired. The engine is started, and without further attention will carry a load of lights and motors of one to two horsepower, without further attention until a supply of gasoline is needed.

The advantage of this set is that the voltage is standard 110 volts and hence standard lights, motors, fans and flat irons can be readily secured, and, too, less expensive wiring is required. The regulation is good. That is, the electric pressure is sufficiently constant to give a steady and uniform light. The cost of this is considerably more than the storage battery outfit. The best outfit obtainable

is undoubtedly the cheapest, even a considerably greater first cost. This is due to greater reliability and decreased depreciation of the first machinery and apparatus.

Deep Plowing.

This editor has for years maintained the idea that the best result demanded deeper plowing than is usually done in this section. Occasionally you will find a farmer who plows deeper than his neighbors, and the advantages are apparent, but the extension of the deep-plowing idea is slow. Results at the Kansas Experiment Station show largest yield of wheat from deep soil tillage, and now Ex-Hoard of Missouri—and there is no better farmer in the world than he tells us of experiments with deep plowing for corn. He says:

"Last spring we determined to know something practically on the subject, so we purchased one of Spalding deep tilling machines. The machine weighs 1,300 pounds; plowing is done by two 24-inch disks. The forward disk cuts the row at any desired depth and the one follows, completing the depth 12, 16, 20 or 24 inches. We determined to plow about three-fourths of a 12-acre piece of corn ground 12 inches deep. The balance of the piece had been plowed the fall before with ordinary plows about six inches deep. The big plow was easily drawn by three good horses. At the outset, we saw what we had never before seen on our land really and thoroughly plowed. The top and bottom soil was not in separate layers, the under soil was top, but the whole depth was mixed together in a most satisfactory way. This land was fitted for planting to ensilage corn with the rest of the field.

"So far we are forced to admit that the deep plowed portion is showing the best. The corn is of a strong growth and much the deepest in the field. It has stood the dry, hot weather much the best, we think, and there is no evidence of any setback to the crop whatever. This encourages us in the determination to plow all of our arable land, once at least, 12 inches deep, and that as soon as possible.

THE REARING OF CALVES

By G. L. McKay, Recognized Authority On Farm Animal Feeding

The quarter section farmer can no longer afford to allow a cow to spend all summer rearing one calf. The hand fed calf is as good as the suckled calf and costs less money. Skim milk and grain are much cheaper than butter fat in whole milk.

One of the most important revenues dairying is the rearing of calves, whether for veal or replenishing the dairy herd.

The little farm separator is a blessing to the calves, owing to the fact that by its use, sweet, warm milk is always to be had. If the object is to build up the dairy herd, by proper care in the choice of the sire and by careful attention to the rearing of the calves, the dairyman who is compelled to start with a herd of ordinary cows may within a few years raise the average production of his herd to a marked extent. On the other hand, carelessness in breeding, in calf raising, is bound to result disastrously to the herd, or at least to keep it at a standstill, as far as improvement is concerned.

In breeding a full-blooded sire to a grade, the first cross is more than 50 per cent; the second is more than 75 per cent; the third cross is 87½ per cent and the fifth cross would naturally be a full blood. So it is possible for everyone to build up their herds at a comparatively little expense by using sires of some dairy herds with their ordinary cows.

One of the common mistakes made in the localities where whole milk is sold for market purposes, or to confectioneries or cheese factories, is the failure to raise any calves. In this case the milk producer depends upon buying cows to replace those discarded from his herd. The excuse for this practice is that the cost of raising the cows is too great. Under such a system a dairyman will almost invariably produce milk year after year without improving his herd in the least.

When more cows are required, they are purchased from a shipper or dealer, and without any information available regarding the merits of the animals beyond what can be determined from appearances.

The dairy cows to be placed on the market through such channels are almost certain to be of very ordinary grade, since a cow whose value as a milk producer is known, is not offered for sale at the market price. The only sure means by which the average quality of dairy herds in the hands of practical dairymen can be materially improved is by the raising of their own cows by using pure-bred dairy sires and saving the heifers from the best cows.

In raising a calf, we should consider that we are raising a baby, and the nearer we can approach the care and treatment accorded to the human offspring in a practical way, the better will be the result.

It has been demonstrated in a number of places that just as good calves can be raised on skim milk as on whole milk, or as calves that have run with their mothers. The calf that runs with its mother will usually show up better the first few months, but in two weeks after it is weaned it will not be any better than the calf that has been raised on sweet skim milk, fed warm, and with intelligent care. An examination of the following table will reveal the fact that there is very little difference between skim milk and whole milk, outside of fat, and the latter can be easily substituted by the addition of corn meal, oil meal or flaxseed meal:

	Whole milk.	Skim milk.
Water	87.10	90.50
Fat	3.90	.10
Casein and albumen	3.40	3.67
Sugar	4.70	4.95
Ash	.70	.78

The raising of the calf on skim milk is economical, because it is possible to make this substitution of a comparatively cheap grain for butterfat, which has a commercial value for human food out of proportion to its food value for a calf. The parts of the milk which furnish the growth-making material are the casein and albumen, the former of which is seen as a white curd when the milk is soured. From this material is made muscle and bone, nerve, hair and hoof, and this remains in the skim milk.

The calf fed on skim milk is not generally so fat during the first six months of its life as the one nursed by the cow. It often has, however, rather a better development of bone or muscle, and the difference between

the two cannot be seen two weeks after weaning time.

The following table shows the amount of whole milk, skim milk, grain and hay fed, and gains made by calves raised on skim milk at the Storrs (Conn.) and the Missouri Experiment Stations:

FEED REQUIRED FOR A SKIM-MILK CALF THE FIRST 180 DAYS.					
	9	8	Spring calves	Spring calves	Fall calves
Number of animals	9	8	2	2	2
Length of period	180 days	180 days	180 days	180 days	180 days
Breed	Dairy B.	Dairy B.	Jerseys.	Holsteins.	Jerseys.
Weight at beginning	59	65	55	84	51
Pounds of whole milk	90	220	334	400	367
Pounds of skim milk	301	2908	2422	3660	2331
Pounds of hay	337	618	111	115	275
Pounds of grain	127	...	90 days	90 days	...
Pasture	...	...	268	390	250
Weight at end	284	315	1.31	1.19	1.10
Average gain per day (pounds)	1.25	1.25	1.19	1.64	1.10

The above table shows that the calf can get along with as little as 90 pounds of whole milk, although more is usually fed. The skim milk fed varies, as a rule, between 2,300 to 3,000 pounds and, while calves can be reared without grain when skim milk is fed, better results can be obtained if some grain is fed in addition to the skim milk.

Fall calves need 300 to 600 pounds of hay the first six months, depending upon how much other feed is given. Spring calves may be put on pasture, or they grow equally well if confined the first three or four months and fed hay.

In the figures given the Jersey spring calves average 268 pounds at six months, while the fall calves average 250. The records for the same calves show that at 1 year of age, the spring calves average 360 pounds, while the fall calves reached 440.

COMPARISON OF WHOLE AND SKIM MILK CALVES.

The following table from Bulletin 126 of the Kansas Experiment Station gives the comparative gains made by the three lots of 10 calves each fed on skim milk, whole milk and nursed by the dam:

Experiment	No. of calves	Days per head	Aver. daily gain	Cost per 100 lbs.
Skim milk	10	154	233	1.51 \$2.26
Whole milk	10	151	287	1.86 7.06
Running with dam	10	140	248	1.77 4.41

The calves raised by the dam and those fed whole milk made a slightly better gain than those fed the skim milk, but it was at a much greater expense, as shown in the table. The skim-milk calves consumed 122 pounds of grain per 100 pounds gain, while the whole-milk calves, 58 pounds of grain and 31.8 pounds of fat in the milk. At this rate 100 pounds of grain were equivalent in feeding value to 48 pounds of fat. The economy of substituting the butterfat by grain is apparent, hence the market value of butterfat is usually from 20 to 30 times that of corn meal fed to supplement skim milk.

In the experiment quoted the calves, which were steers, were later put in the feed lot and all fed for seven months. The best gains were made by the skim-milk lot, followed by the whole-milk lot, while the lot raised by the dams stood last.

Some difference of opinion exists as to the length of time a calf should remain with its mother before being taught how to drink. The sooner the calf is taken from the cow, the easier it will be to teach to drink. If the cow's udder is caked, it will be well to leave the calf with its mother until this condition is removed. The first milk given by a cow is known as colostrum and runs very high in protein.

It is especially suited to the requirements of the young calf, as it has the property of acting as a physic and stimulates the digestive organs.

A calf should be fed at first very small quantities of milk at frequent intervals. Under natural conditions, the calf takes its milk frequently,

and in small quantities, from its mother. The calf's stomach at this time is not suited for holding a large amount, and an excessive amount always results in indigestion and scours. For the first two weeks, five or six quarts, or about 10 or 12 pounds, per day is all the largest calf should be allowed to take. A small calf, as a Jersey, does not need more than 8 or 10 pounds per day on the start. This may be fed in two feeds per day, or better, in three, for two or three weeks. As the calf grows somewhat older, more milk can be used, but at no time does it need more than 16 to 18 pounds, or 8 or 9 quarts per day, but it is safe and economical to feed as high as 20 pounds to a large calf, if skim milk is plentiful. Overfeeding is undoubtedly one of the most common causes of inferior calves. It is a mistake to think that because the cream has been removed the calf needs more of the skim milk, or that because the calf is not doing well, it is not getting enough milk and to allow it to gorge itself, which it will readily do if given an opportunity. A good rule is to always keep the calf a little hungry.

Some provisions must be made for making certain that each animal gets its share and no more. Some drink twice as fast as others and if fed together one will be overfed and the other starved. The plan sometimes used of feeding a bunch of calves together at a long trough is very unsatisfactory for this reason and should never be followed. Another precaution that should be followed is to have the milk warm and sweet when fed. Nature furnishes the milk to the calf in this condition, and we must carefully imitate her here. Nothing will so quickly and effectively upset the digestion of a calf as feeding warm milk at one feed and cold milk at another. For the first few weeks the calf is especially sensitive to the temperature of its food. After it is 3 months old or more, the milk may be fed somewhat cooler, if care be taken to have the same temperature all the time. Even then, however, the best results are secured when the milk is fed warm. The temperature of the milk should be that of blood, or nearly 100 degrees, Fahrenheit. In this matter, the feeder should exercise great care and not go by guess or feeling the milk, but should actually use a thermometer often enough to know what blood heat feels like. If a hand separator is used, the milk may possibly be fed while still warm enough if used immediately after separation, but it will usually be necessary to heat it some artificially if used for young calves during cold weather.

For the first few weeks the calf should be fed part of its mother's milk. However, in raising calves of these breeds producing a very rich milk, the calf will thrive better if the whole milk given during the first two or three weeks be diluted some with skim milk. Then the ration may be gradually changed to a skim-milk ration by putting in a little amount of skim milk at first and gradually increasing the amount day by day until at the end of a week all the whole milk has been eliminated.

Until the calf is from 3 weeks to a month old it will pay to feed in the skim milk a small amount of ground flaxseed, about a teaspoonful in the morning and evening, which may be increased to about one tablespoonful. Flaxseed is rich in oil fat and is a good substitute for butterfat; it is also soothing to the digestive system. The calf should be taught to eat grain as soon as possible, and the easy way to do this is to put a handful of ground corn in the pail of skim milk morning and evening. It will not take the calf long to understand that this is good feed, and in a short time the ground flaxseed can be discontinued and the corn alone used to balance the skim milk. As long as the calf is getting skim milk, there is no necessity of feeding oil meal. Oil meal is rich in protein, as is skim milk. Corn, on the other hand, is rich in fat-producing constituents and, therefore, best calculated to balance skim milk. Wheat middlings can be used to advantage as the calf gets older, mixing it with corn. Shelled corn can be gradually substituted for ground corn. It is well for the calf, at this stage, to do its own grinding, as the working of the jaws causes the saliva to flow more freely and thus materially aiding the digestion.

If calves are inclined to scour, a little blood flour, about a teaspoonful, can be mixed with the milk. Later on this can be increased to a tablespoonful.

As the calves approach weaning time, if corn is the grain ration fed, a change can be made to advantage with part oats, bran or oil meal. Otherwise the ration may become too wide and not contain a sufficient amount of growth-making nutrients. Calves will begin to eat hay, if it is put before them, as soon as they will eat grain. For young calves, timothy hay is often preferred to clover or alfalfa, as the latter are rather too laxative and help to produce scours, the most common difficulty in calf raising. When turned out to grass, the calves are as well supplied as can be with rough feed, but care should be taken to get them on grass gradually, so they will not get off their feed.

One common cause of sickness in hand-raised calves is feeding from dirty pails or cans. Every utensil which comes in contact with milk to be used for feeding should be kept clean and scalded as thoroughly as though the feed were to be used for the owner's family. A good rule is to keep the calf pails as clean as the milk pails. In feeding grain, no more should be fed than would be eaten up clean. If grain is allowed to remain in a trough, it often becomes damp and partly decayed and may cause sickness, just as a dirty pail often will do.

Another point to be kept in mind is that the young calf must be kept in a clean stall, well bedded, while in the barn. Experience has taught many men that a calf will not do well in a damp, dirty pen or stall. The calf needs all the sunlight it can get, and a well-lighted stall is always best.

In arranging a barn, the sunniest part should be reserved for the calf pens. In the summer the calf should have access to a small pasture with plenty of shade. An abundance of clean water should be accessible at all times, or at frequent intervals, as the calf is not satisfied with milk alone as a drink, and wants to drink a little water at a time quite often during the day. This thirst for water is often overlooked when calves are raised by hand, and, as a result, the calf is thirsty as well as hungry, and gorges itself with milk when it has a chance. Salt should be within reach when the calf is old enough to eat grain and hay.

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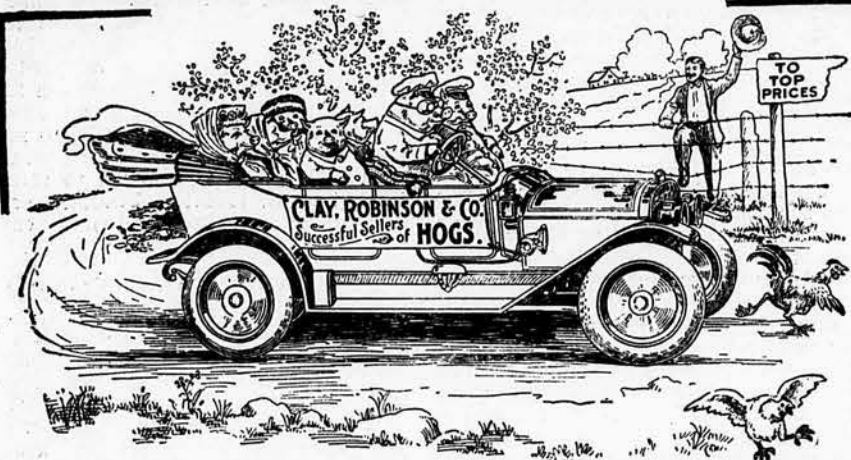
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It pays to keep animals in the most thrifty condition possible. Whenever an animal gets into a run-down condition he will more readily take disease. This, then, must surely mean that his vigor is impaired. We have long ago learned that neglect in caring for stock does not make them more hardy. We see this in our Indians of today. Not one in ten is free from disease. If exposure made them more hardy this would not be the case. This matter of stamina in our domestic animals has not received the attention at the hands of breeders and farmers that their best interests demand.

It is expensive on the part of the swine breeder to attempt to grow and develop the runts in any litter. From past experience I am convinced that it will be beneficial to kill off the runts. They not only fail to pay for feed, but they are a constant menace to the balance of the litter and the health of the herd. They are inviting to every disease germ. They have so little resisting power that they are a fruitful source of the beginning of a disease that may get beyond control, then infecting the balance of the herd. It is an economical measure as well as a prudent one for safety to destroy at once the imbecile runts.

Profit in Baby Beeves.

J. H. Runner, prominent farmer and stock feeder of Green Mountain, Ia., showed up on the Chicago market recently with 20 head of choice Hereford yearling steers that tipped the scales at 788 pounds and found a buyer at \$6.25. Mr. Runner said: "On October 20 they were taken away from their mothers, tipping the beam at 350 pounds, put in a dry lot and given a light ration of oats, oil meal and all the clover hay they wanted. Taking to this ration readily, they did not lose a pound of the calf fat. The feeds were gradually increased and given them about two months and a half, after which they were started on chopped corn, oil meal and clover hay, fed three times a day. This ration was given for about six months. When they got on full feed they were consuming $4\frac{1}{2}$ bushels of chopped corn per head per day and 25 pounds of oil meal per head per day. On May 29, at home, they averaged 750 pounds, a gain of 400 pounds over their weight when taken away from their mothers. I have always found it profitable to make baby beeves, but it is necessary to see that the calf fat is not lost and to have them fat when put on the market."

Seven Essentials.

Forest Henry enumerates as follows the things that tend toward constitutional vigor in breeding, feeding and handling domestic animals: First, breeding from mature sires and dams. Second, no inbreeding. Third, feeding all young animals in a rational way and not feeding for sensational gains. Fourth, giving all breeding animals and young stock opportunity for abundant exercise. Fifth, feeding all brood animals and young, growing animals on a growing feed rather than on a fattening feed. Sixth, housing them in light, well-ventilated stables. Seventh, by seeing that they are well fed the season through—never starved and never overfed. These will cover the main points to be observed in rearing healthy stock on the farm.

Sowing Wheat Between Corn Rows.

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"The dairyman's gold mine—good cows, corn silage and alfalfa," is the way a great truth is stated by Wilbur J. Fraser, of the Illinois university.

Must Keep Up Milk Flow.

Under average farm conditions cows are fresh in the spring, give a good flow of milk while the pastures are good, but when hot weather and short pastures come the flow drops one-half or two-thirds and the cows are almost dry at the beginning of winter. It is almost impossible to restore the flow of milk to the original amount after it is once allowed to run down from lack of feed. To make large returns from the cow a large yearly production must be had, and to do this the flow of milk must be kept up ten or eleven months in the year. The cheapest and most efficient feed to supplement pastures during this period is probably corn, either green or in the form of silage.—C. H. ECKLES, Missouri.

This paper does not desire to become "chesty" in having so much to say about the silo. The fact is, however, that the silo will save many a herd of live stock the coming winter. On a great many farms the corn is now growing and is large enough to fill a silo with all the good feed the farm live stock will require this winter. If the corn is cut and shocked and the usual 40 per cent is lost in handling and from damage to the weather it will not get far in supplying the animals. Besides a ton of this same corn placed in the silo will be worth much more as a feed compared with the fodder. You cannot afford to overlook a full consideration of the silo.

A bulletin by the Minneapolis experiment station sets forth a condition as true of Kansas as of Minnesota, the state for which it is written. The bulletin says:

"By record-keeping and a careful weeding-out of unprofitable stock, combined with an equally careful selection of purebred sires, and good care, the average production of the Minnesota cow can be raised from 160 pounds of butter to twice that amount. With a million cows, the latter figure would mean an addition to the dairy revenues of our state of from \$30,000,000 to \$40,000,000 a year. And the instrumentalities for attaining this result are so simple—the scales, the Babcock test and the suiting of the ration to the cow—that it seems hardly possible that many of our dairymen will be long content with any inferior system."

VERMILION, KAN., July 15, 1911.

Dear Sir: Will you please tell me what is the matter with one of my turkeys and the remedy?

The turkey was first taken with sleepiness and would fall to sleep while it was being fed. Then the eyes became affected. They were gummed up. I would bathe them and they would open, but he seemed not able to see. I doctored the eyes and now they are all right, but his feet are affected. They are scabby and swelled and the toes are curled up. We have applied carbolized vasoline, linament and turpentine to the feet, but it has no effect. Up to the last few days it has had a good appetite, but now it scarcely eats at all and is sleepy. Its conditions are sanitary.—George Miller.

Ans.—The gummed eyes would indicate roup, but we cannot account for the sleepiness, unless the turkey was affected by the extreme hot weather. We would advise keeping him in the shade for a while and feeding sparingly, though providing all the grit and charcoal he will eat. For scabby legs rub with any kind of grease in which a few drops of carbolized acid have been placed. For roup in turkeys see KANSAS FARMER of July 15.

A high grade, guaranteed durable live rich red barn paint is sold by the Sunflower Paint & Varnish Co. of Ft. Scott, Kansas, direct to the consumer at only 85c per gallon in 5 gal. cans freight prepaid. This is a paint proposition worth considering by every farmer. This is a reliable company and now is paint season. Try this paint.

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Before they bought I H C manure spreaders, they found that they were simple in design—unusual in strength—and remarkably efficient.

They found the power transmitting mechanism the most durable used on any machine, because the beater gear was held in a single casting which prevented the gears from springing out of alignment and cutting the teeth. They found that the long, square, chisel pointed teeth insured positive pulverizing of all manure; that the teeth were long enough to tear the manure to pieces before it wedged against the bars; that the teeth did not rim the bars; that the beater was large enough in diameter so it did not wind. They found that the rollers which supported the apron were large, that the apron moved easily; and that self-aligning roller bearings on the main drive axle not only reduced the draft but prevented the axle from binding, and cutting the axle brackets, a fault not uncommon to spreaders.

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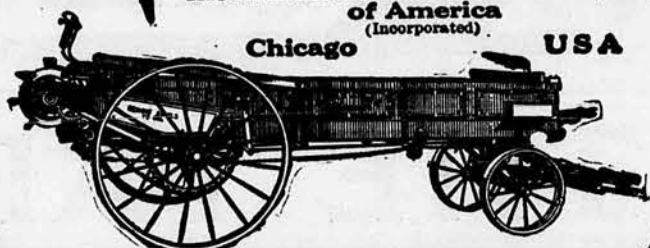
The purpose of this Bureau is to furnish farmers with information on better farming. If you have any worthy question concerning soils, crops, pests, fertilizer, etc., write to the I H C Service Bureau, and learn what our experts and others have found out concerning these subjects.

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You have choice of these three styles. Each style is made in several sizes to meet every condition.

Don't plant another crop before you see the I H C local dealer. Let him tell you all the facts. Let him point out the many advantages of an I H C spreader. Pick out the one that suits you best. Get catalogues from him, or, if you prefer, write direct for any information you desire.

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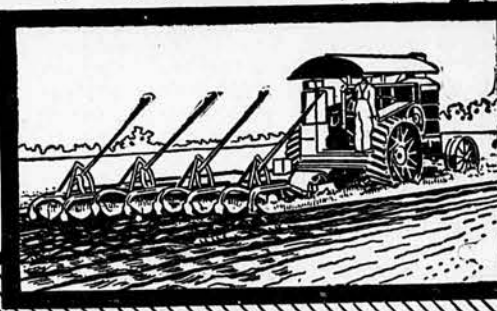
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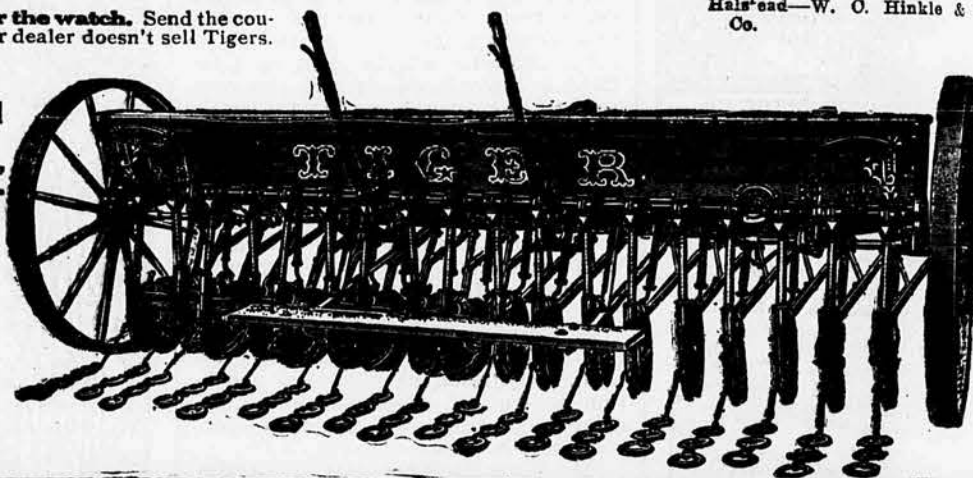
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THE FARM



The Atchison Globe of July 11, 1911, printed the following item:

"The KANSAS FARMER contains several interesting articles this week on Spanish peanuts as hog feed, disking immediately after the harvester to prevent evaporation and well prepared seed for successful wheat growing. The KANSAS FARMER stands very close to the Agricultural College as a practical educator."

Secretary H. L. Cook has arranged with the Superintendent of the Haskell Institute at Lawrence to have a choice selection from their herd of Guernsey cattle on exhibition at the Kansas State Fair in Topeka, September 11-15. These cattle will be the first animals of this popular breed ever shown at our State Fair and will be in charge of the Indian boys from the school.

The Common House Fly.

This fly, called "Typhoid Fly" on account of its being known as a carrier of typhoid germs, is one of the most filthy insects with which we have to contend. It also carries the germs of tuberculosis and other diseases, and is a menace to the health of the family. It breeds in fresh horse-manure and other filth, hence, when the stable is near the house, flies are apt to be more numerous. Use screens on the windows; resort to the use of sticky fly paper; keep garbage-pails and privy vaults securely closed; if possible, keep stable manure covered. Some farmers' wives hang sticky fly paper, sticky side out, on the outside of their screen doors, at the top, which in warm weather catches flies which

gather there. Flies are attracted and can be killed by the following solution: Place in a room two teaspoonfuls of formaldehyde (formalin) in a pint of water. Flies drink this and shortly die. This not only kills the fly, but serves to disinfect the insect after death. Intestinal discharges from patients suffering from typhoid, or any other fever, should be sterilized before being emptied into sewer or cesspool.—F. L. WASHBURN, Minnesota University.

New Alfalfa Club.

A few weeks ago over in central Illinois, Mr. A. P. Grout, a wealthy farmer and business man who had been experimenting with alfalfa for several years and who had finally attained marked success in growing it, wishing to further the growing of alfalfa called a meeting of friends and neighbors at his farm to show them what could be done with this crop.

He invited several men prominent in the field of modern scientific farming to be present and take part in the meeting. Professor Hopkins, the well known soil specialist of the University of Illinois, Col. C. T. Mills of Springfield, Ill., A. J. Glover, editor of Hoard's Dairyman, Hon. Eugene D. Funk of Bloomington and others were present, and after an interesting discussion and inspection of a fine field of alfalfa, a temporary organization was formed which will later be made permanent. Hon. F. D. Coburn, of Kansas, was elected an honorary member of the club in recognition of his valuable work in promoting alfalfa culture.

The Shawnee County Alfalfa Club has a right to feel honored in having

its work followed by prominent agriculturalists in other states. So far as known this was the first club organized for this purpose and it has remained alone in the field until now. The organization of this club was due to the efforts and influence of the late Bradford Miller, who took an enthusiastic interest in its work as long as he lived.

It was but natural, therefore, that Shawnee county should take the initiative in organizing an association for the purpose of studying and discussing alfalfa and its growing and feeding. It has been asserted that every farm in Shawnee county can produce alfalfa, and certainly a trip over the county in any direction will confirm the assertion.

The Small Thrasher.

"In a recent number of the KANSAS FARMER you advocated the use of a small threshing outfit as a profitable investment for the farmers and, as I have had a little experience in the matter, I can fully sustain this claim.

"I own a small threshing outfit that I bought about nine years ago and have used it every year since. I consider it the most profitable investment the farmer can make. I can go out and thresh my grain just at the right time and when it is most suitable to me.

"I use a five horsepower stationary gasoline engine, mounted on an old horsepower truck, to run a 22-inch cylinder grain separator and this has all of the modern improvements of the big separators except the self-feeding attachment. I can thresh 25 to 30 bushels of wheat per hour with the help of my three children, two girls, 17 and 14 years old, and a boy of 11 years. The boy takes care of the grain spout and straw carrier.

"My running expenses generally amount to about 1 cent per bushel. In winter time I have used my little threshing outfit to thresh cane seed and kafir corn for my neighbors and it has always given these people satisfaction.

"My repair bill to keep the outfit in A1 shape amounts to less than \$2 since I bought the outfit and it looks as good as new. Whenever I am done using it, I clean it up and put it

away in the shed.

"I feel that if I can, by my experience, induce farmers to do their own threshing, I know they will save in five years, the cost of the outfit, besides keeping weeds and smut out of their grain.

"In 1902 I sold my wheat for cents per bushel more than my neighbors received, because I had threshed before the rainy season, so it did not get to sprout. Last year I sold my wheat for 2 cents bushel above that of my neighbors though it tested the same, but because my wheat was free from smut, not to mention the larger yield per acre over smutted wheat."—Gust Hahn, Dresden, Kan.

NOTE.—Let us hear from KANSAS FARMER readers on this subject.—EDITOR.

The Problem of Soil Fertility.

Several of the leading western farm papers have lately contained editorial remarks upon the importance of animal excreta as a fertilizing material for our impoverished lands. These editorials have pointed out the fact that in the cities of Louis, Kansas City, St. Joseph, Omaha thousands of carloads of manure, the cleanings from the big stock yards, that is badly needed as fertilizer for thousands of acres of hungry land is being wasted each year. The agricultural colleges of Missouri, Kansas and Nebraska are also leading off the matter and it now appears that the subject will be taken up in the lecture work among the farmers this summer and fall.

It is remarkable that the growers west of the Mississippi have been so slow in taking hold of so important a subject. The farmers of Illinois, Indiana and Iowa have been regularly for years shipping the entire output of manure from their big stock yards of Chicago and other large cities to the east. Tens of thousands of tons of this material has been hauled out of the state, and some of the railroads operating out of Chicago have even constructed spur tracks into the populous farming communities to facilitate the delivery of the manure.

Now, why is it that 10,000 to 12,

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roads of the very same kind of
ure is permitted to go to waste
year in the principal packing
ers of Missouri, Kansas and Ne-
ska? Is it because the lands of
e states are naturally so fertile
they are not susceptible to fur-
improvement? It would not seem
in view of the winter wheat statis-
for 1910, which show that the
rage yield per acre for the group
posed of Nebraska, Kansas and
souri as only 14.83 bushels, while
average for the group of states
sisting of Iowa, Illinois and Indi-
was 17.26.

There is no agricultural county of
old world which would permit such
wasting waste of fertilizing material
this. The farmers of those densely
cultivated lands are under the neces-
sity of deriving the largest possible
come from the few acres of land
which they tend and every particle
matter with fertilizing material in
is carefully husbanded and made
in blades of grass or two heads of
in where one grew before. The
ults are shown in the vast superi-
ity of their lands after centuries of
ivation to our lands, which are
comparatively new. As examples, the
res for Germany's wheat yield for
0 are 29.55 bushels per acre and
ese for Great Britain are 32.32
shels per acre, while the yield for
United States the same year was
y 14.13 bushels per acre and the
hest average yield for any state,
st of Wyoming, was only 25 bush-
per acre. Other causes than soil
ility doubtless operated also in
ng about this great difference
ween European and American
eat yields, but soil fertility was the
eatest factor of them all.

Let us pause and ask if it will pay
e western farmer to fertilize and
ld up his lands to twice their pres-
nt producing capacity, as the neces-
y for producing large yields to
upport an overcrowding population
is compelled the European farmer
build up his.

It is not the purpose of this article
go into a technical discussion of
imal manures and their effects on
l and crops, for nine farmers in
ery ten must have noticed those
ects time and again. I simply de-

sire to call attention to the fact that
vast quantities of this material are
being wasted and that prices includ-
ing transportation charges at which it
can be delivered at distances of from
25 to 250 miles place it within reach
of every farmer who desires to use it.
I feel safe in saying, also, that the
editors of the farm papers and the
authorities of the agricultural col-
leges will be glad to advise with farm-
ers who desire information about
these manures.—L. A. Markhorn.

Ensilage in Dollars and Cents.

It is difficult to write the value of
ensilage in terms of money for the
reason that many of its properties
which have an actual obvious value
cannot be so measured. For instance,
while an analysis will show probably
no more food units than many another
food, ensilage has succulency, giving
it much of the properties of grass.
This means that the stock will eat
more of it, and assimilate it more
readily. Still one cannot express that
value in figures. It takes far less
storage space than hay or other feeds,
pound for pound of nutrient quality, a
saving in storage space and the cost
of buildings and their maintenance.
Large herds can be fed in a short time
with a little labor, clearly a saving.
Another and far greater consideration
to the dairy farmer is the increased
production of milk from the feeding
of ensilage. It has been proven be-
yond controversy that cows may be
made to produce milk in a constant
quantity the year around by the feed-
ing of ensilage. Yet many of the
creamery men will tell you that they
are receiving more than half of their
butter-fat in three months of the year.
By the silo the farmer is enabled to
put butter-fat on the market when it is
worth the most. The silo is one of
the scientific developments which is
making the farm a source of dividends
the whole year round.

In one of the most productive
dairying districts of Wisconsin many
of the dairymen own no pasture.
They feed winter and summer on en-
silage. The success of the Wisconsin
dairymen is a sufficient argument.
The necessity of the silo is highly
apparent. The reduction of pasture

acres, the high cost of corn and feeder
cattle has made it a serious question
if there is a profit in making beef out
of corn. In fact, many stock feeders
have suffered actual losses.

The value of feed has been doubled
in the last ten years. The cost of
corn is more than twice as high. The
farmer is not getting twice as much
for his stock. Still he is getting about
as much as he can expect to get. The
problem has reduced itself to scien-
tific feeding and the elimination of
waste. The silo is a solution of that
problem.

The writer, recently, at Nebraska
Experiment Station, figured the cost
of production of ensilage, compiled
from reports of silo users in Iowa, Ne-
braska, Kansas and Wisconsin, as fol-
lows:

COST OF GROWING.	
Rent of land, per acre.....	\$ 4.50
Plowing and harrowing, per acre	2.00
Seed corn, per acre.....	.25
Planting, per acre.....	.30
Harrowing and cultivating, per acre.....	2.25
Total, per acre.....	\$ 9.30
Average yield, per acre.....	13 tons
Cost, per ton, to grow.....	.72

COST OF FILLING SILO.	
Eleven men at \$2 per day.....	\$22.00
Seven teams at \$2.25 per day...	16.75
One traction engine, per day...	7.50
Engineer.....	2.50
Coal.....	2.00
Board for men.....	6.00
Total.....	\$56.75
Silage cut per day, 75 tons; cost to put in silo, per ton.....	.75

INTEREST AND DEPRECIATION.	
Interest on money invested in silo.....	\$25.00
Interest on money invested in machinery.....	12.00
Depreciation and repairs on silo and machinery, per year.....	30.00
Taxes and insurance.....	6.00
For 150-ton silo.....	\$73.00
Interest and depreciation, per ton.....	.48

SUMMARY.	
Cost of growing, per ton.....	.72
Cost of putting in silo, per ton..	.75

Interest and depreciation, per ton.....	
Total cost of corn silage, per ton.....	\$ 1.95

The above figures are liberal. In
many cases this cost can be reduced.
We find that this valuable feed, which
is worth from \$5 to \$8 per ton in ac-
tual feeding value, can be produced
for \$2.

There are two important questions
before the stock farmer. One is, "Can
I produce something that will bring a
higher price?" and the other, "Can I
reduce the cost of production?"—Prof.
A. L. Haecker, Nebraska.

Let the Hens Rest.

Did it ever occur to you that the
hens enjoy a vacation in the summer
quite as much as you do, and that a
few weeks of rest are highly benefi-
cial to them? It is a fact, whether it
has occurred to you or not, and these
are the days that can be devoted to
this purpose with good profit. The
probabilities are that the hens are not
laying much anyhow, and if they are,
eggs are not bringing high enough
prices to make them profitable, so
the small income will not be missed
if the hens are given a complete rest
for a few weeks. Not only should
they be given a rest, but they should
be given a complete change of habits.
Separate the males from the hens
and put them in different quarters and
different surroundings. Make the
hens feel that they are to do nothing
but enjoy life for a while. Every day
or so spade up a part of their runs, so
as to give them fresh ground and the
opportunity of hunting for bugs and
earth worms. After they get tired
scratching in it, they will use the
places for dusting purposes. Put the
drinking fountains in the cool shade
of trees and keep them supplied with
fresh water and throw them some of
the unused vegetables from the gar-
den once in a while, or some delicacy
from the table, which the family is
unable to use. A few weeks of this
kind of treatment will put the hens
in splendid shape for the highly profit-
able work that is immediately ahead
of them, to fill the winter egg basket.

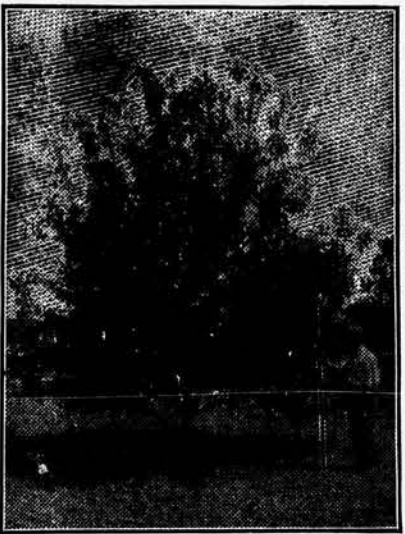
Double Orchard Profits

PLANT TREES WITH

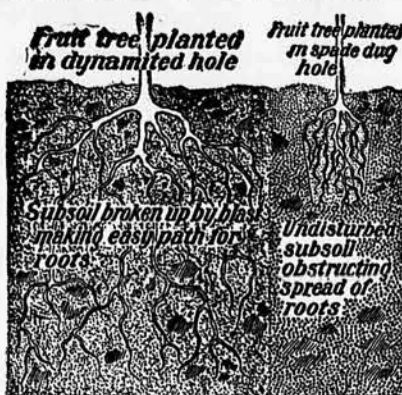
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Red Cross
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DYNAMITE

Learn the methods used by Hale, "The Peach Tree King," and other leading orchardists.



6-year-old apple tree, planted with dynamite



6-year-old apple tree, planted with spade, in the same plot

To learn how progressive farmers are using dynamite for removing stumps and boulders, planting and cultivating fruit trees, regenerating barren soil, ditching, draining, excavating and road-making write now for Free Booklet—"Tree Planting With Dynamite, No. 195."

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Store-keepers wanted in every town and village to take and forward orders for dynamite and blasting supplies. Not necessary to carry stock. Large sale possibilities. Write at once for our Dealers' Proposition.

DU PONT POWDER CO., DEPT. 195, WILMINGTON, DEL.

WE WANT A GOOD MAN OR WOMAN—TO ACT AS GENERAL AGENT.

Selling our new and winning meritorious household necessity. It is easy to sell an article that people actually need in daily life. Appeals to the housewife on account of being economical; repeats quickly and sells the year around. Yields large profits to the agent. We want to hear from applicants having a good standing in their community and those willing to hustle. The opportunity affords you a permanent and pleasant business. If you have the ability to sell goods, send full particulars. If you desire a sample send five 2-cent stamps for regular 25c package.

FAMOL PRODUCTS CO., 1237 Famol Bldg., Wash. D C

ELM GROVE POULTRY FARM

Barred Rocks, R. C. & S. C. R. I. Reds, S. C. White Leghorns and Plt Games. Write for prices.

ELM GROVE POULTRY FARM,

Wichita, Kansas.

S. G. Buff Orpingtons

I won first on pen at Topeka 1911 show against 12 competing pens; also won at the other leading shows of the country. I have the large, heavy-boned kind. Send for my 1911 mating list; am ready to sell you eggs for hatching.

EVERETT HAYES, R. 4, Hiawatha, Kansas.

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WEST DODD—who originated and perfected the Dodd System.

POULTRY

Will you please tell me the average number of eggs that go to make a pound, also your opinion of selling eggs by weight?

Ans.—Hens' eggs vary in weight from 1 1/4 to 2 1/4 oz., and some specimens have been exhibited weighing over 4 ounces, but the average weight is about 1 1/4 ounces, which takes 9 to make a pound. Justice at once says that eggs ought to be sold by weight, for it is manifestly unjust to the breeder of large egg laying fowls to be compelled to sell such eggs at the same price as small eggs are sold for. But the custom of selling eggs by the dozen has prevailed so long that it would be a very hard matter to change it. Of course, utility would say, sell them by the dozen, for it is much less trouble and bother than to sell them by weight. To sell eggs by weight would entail on the storekeeper selling by retail a little extra time, but not enough to counteract the injustice of the method of selling by the dozen. During warm weather the storekeepers are now obliged to candle all the eggs they buy and sell, and it would not be as much trouble to weigh them as it is to candle them. The Iowa legislature has passed a law compelling everyone to sell eggs by weight, and it may come to that in Kansas before long. At present there is no inducement to breeders of the large egg laying strains, but rather a premium offered for the small egg producers. It undoubtedly takes more feed to produce a large egg than it does to produce a small one and the provider of the former ought to be paid accordingly. We have often noticed the injustice of selling eggs by the dozen, when a farmer comes into a store with a basket of large eggs, then another comes in with a basket of small eggs, about half the size of the former, then they are both given about the same amount of money.

To Hasten Molting.

Every poultry raiser knows the value of having the hens out of the molting period before the winter season sets in, if there are to be any eggs for market while prices are high. And those who intend exhibiting their fowls at the fall fairs know that unless the fowls are through their molt and have their new feathers, it will be useless to show them and expect to win any prizes. Therefore a few lines on how to hasten molting will be of service to the farmer who wants eggs in winter and to the fancier who wants to exhibit his fowls.

Recently there was conducted at the West Virginia Experiment Station a series of tests for a method of hastening the molting period. This method consisted principally in withholding food, either wholly or in part, for a few days, which stops egg production and reduces the weight of the fowls, and then feeding heavily on a ration suitable for the formation of feathers and the general building up of the system. The experiments began August 5 with two pens of Rhode Island Reds and two pens of White Leghorns, about two years old. One pen each of Rhode Island Reds and White Leghorns received no food for 13 days, except what they could pick up in their runs, which had been sown to oats in the spring. These runs were 15 feet wide and 100 feet long, and nearly all the oats had been picked from the heads before the beginning of the experiment. The other two lots of fowls were fed as usual on mash, beef scraps, corn, wheat and oats. After the expiration of 13 days all four lots of fowls were fed liberally. Each lot of fowls contained 20 hens and two cocks. Thirty days after the test began, the "no-food" pen of Rhode Island Reds had practically a new coat of new feathers, had begun to lay and within a week from that time one-half of the hens were laying regularly, while the other lot of Rhode Island Reds were just beginning to molt and the egg production had dropped down to two or three eggs per day. Both lots of White Leghorns were a trifle slower in molting than the Rhode Island Reds, but otherwise the treatment affected them in the same way. The experiment proved that mature hens, which are fed very sparingly for about two weeks and then receive a rich, nitrogenous ration, molt more rapidly and with more uniformity and enter the cold weather



**I'm the
Early Riser's
Friend**

I'm for the farmer who believes in the advice of old Ben Franklin: "Plow deep while sluggards sleep."

I'm for the farms whose owners want big yields.

I'm for hard-to-get-up farm hands. I'm to get them in the fields on time.

I keep watch-time. I am reliable and lasting.

There's not another clock that's made like me or that's as good.

Price? \$2.50. Yes, but I am worth it. See me at your jeweler's. You'll say so, too.

Be "first in the field" every morning. Get the farm hands out first, too. Depend on me—

BIG BEN

Care of WESTERN CLOCK CO., La Salle, Ill.

If your jeweler doesn't sell me, I'll come express prepaid on receipt of \$2.50

(71)

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From Tire Trouble!**

A complete outfit of Goodyear Repair Accessories will end the long delays miles from a repair shop—and tire worries are gone—true enjoyment of the trip is yours, for then tire troubles have no terrors.

Twenty miles from a repair shop with a crippled tire—that state of the tour these expensive Goodyear accessories become tremendously valuable to the motorist. And the car gets home without delay.

Goodyear Protection Patch is for use when the cut is clear through the casing. An outside boot fits firmly over the casing and laces over the rim with a thong. An inside patch, snugly fitted inside the casing, protects the inner tube and the tire's fabric.

If it's a rim-cut, simply fit a handy Goodyear Rim-Cut Patch inside the casing—and the journey is resumed.

Goodyear Quick Repair Gum will quickly heal a cut in the tread or inner tube—the easiest, quickest, surest way to patch inner tubes is with the Goodyear Self-Cure Repair Outfit.

Our Inside Tire Protectors, Inner Tube Bags, Lever Handle Grips, Sifter Top Take Tubes and other accessories are motoring necessities. Sound satisfaction is to be had from only the Goodyear accessories, for they are the best that money can produce—yet their cost to motorists is insignificant.

Your dealer or garage man can give a full outfit for you. Tell him you want the biggest-value Goodyear accessories. Write today for valuable leaflets of instruction, to

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With one horse you can bale a ton an hour with our wonderful Daisy. Self-feed, condenser, bar-sided hopper, and self-threading device, reduce hand work, and materially increase the baling capacity. We have hundreds of delighted users. Write today for circular K-167 which gives testimonials, prices and details of five days' free trial.

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QUINCY, ILL.

DAISY FLY KILLER



er of winter in better condition than similar fowls fed continually during the molting period on an egg-producing ration.

The Best Rubber Boots Ever Made

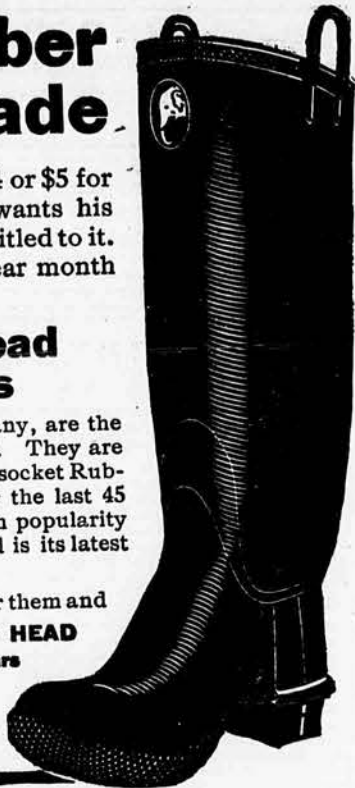
When a farmer spends \$4 or \$5 for a pair of rubber boots he wants his money's worth—and he's entitled to it. He wants boots that he can wear month after month.

The Elephant Head Rubber Boots

a new brand by an old company, are the best rubber boots ever made. They are manufactured by the Woonsocket Rubber Co., whose boots for the last 45 years have led all others in popularity—and the Elephant Head is its latest and best product.

Sold everywhere. Ask for them and Look for the ELEPHANT HEAD Trade-Mark—which appears also on all our shoes.

Woonsocket Rubber Co.
Woonsocket, R. I.



This New Press Enables Hay Balers to Clean Up \$10 a Day

With hay at its present price and a new Sandwich Motor Press, any live fellow can clean up \$10 a day. Baling hay is a delightful occupation, and you can make more money during the six months' baling season than most men make in a whole year. The few hundred dollars you invest in an outfit brings 4 to 8 times as big returns as the same amount put into farming or a retail business.

The Motor Press is a combination Sandwich All-Steel Belt Power Press and high-grade gasoline engine. Complete and compact. Works like light—easy to move—always ready for work—no setting up of engine required. Chain drive. No belts to adjust, or lose power. Easy to start or stop press instantly.

Outfit of best, most substantial construction throughout. Steel press—axles, wheels and platform reinforced throughout. 8 H. P. hopper-cooled engine—brake test, 8 H. P. Tank underneath. Equipped with batteries and magneto, combination seat, battery and tool box, and standard gasoline pump. If you have engine, buy Press alone. Any standard hopper-cooled engine can be used.

Sandwich All-Steel Motor Press

This outfit bales 2 1/2 to 3 1/2 tons per hour. Has self-aligning equipment. Takes double charge of hay. No condenser box, needs no foot tamping—feels direct from fork. No bal-

ple, strong and light of draft. Should you desire a smaller outfit—one less expensive and having capacity of, say 1 1/2 tons per hour, we can furnish it, using either a 4 or 5 H. P. gasoline engine.

We make presses with or without engines—wood frame and steel frame, horse power and engine power, in all sizes up to 5-ton per hour capacity.

Drop us a line today for new book, about the Astounding Profits in Hay Baling. Let us tell you more about this wonderful Sandwich Motor Press.

Write for Free Book on Hay Baling (2) **Bales 3 1/2 Tons Per HOUR** **Sandwich Mfg. Co.** 441 Spruce St., Sandwich, Ill.

Endurance Red Barn Paint

Save money on your painting, and get better paint. Our Endurance Red Barn Paint No. 52, at 85c. a gallon, freight prepaid in 5-gallon cans, gives you utmost paint value. Absolutely guaranteed for spreading and lasting qualities—is a strong, live, bright, rich red. You can't buy a better paint even at \$2 a gallon. Our price saves you all dealers' profits, traveling men's salaries and expenses, etc. You save all that for your pocket. It will do you more good there than it would in the pockets of others. Make no mistake. We guarantee every gallon. We are a responsible firm, are

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We sell direct to the consumer only

We make our own paint and we make our own prices. Our customers know the meaning of that. Mr. R. W. Ramsey, Redfield, Kansas, recently wrote us:—"In May, 1910 I painted my large barn with your Red Barn Paint. A heavy rain storm followed the night we finished painting, but the paint showed no injury. Then it passed through the extreme hot weather of last summer, and again through heavy, blowing rains and storms of the summer and fall, and then passed through the cold weather of this last winter. It has not been affected in the least by the elements, and remains bright, and compact." We can furnish testimonials by the hundreds like this from nine western states. 1 gallon will cover close to 300 square feet, two coats. This is paint season. Don't delay. Send order now to—

Sunflower Paint & Varnish Co., Ft. Scott, Kan.



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The most centrally located popular priced Hotel in the city. One-half block from Emery, Bird, Thayer Dry Goods Co.

European Plan, \$1 per Day and Up



MAPLEINE FLAVORING

Use it like lemon and vanilla. A delicious syrup is made by dissolving white sugar in water and adding Mapleine. Grocers sell Mapleine; if not, send 35c for 2oz. bottle and recipe book. Write to Dept. O CRESCENT MFG. CO., Seattle, Wash.

HOME CIRCLE

The Crossroads.

There sits a woman in a lonely place,
Where All Souls' twilight ever bends and
broods;
With hungry hope and fear upon her face,
She gazes down those gloomy solitudes,
There at the crossroads, peering to and fro,
Straining her glance across the shadows
gray,
Lest any little traveler she might know
Come by that way.

For long, so long she has waited; now and then

A tiny figure looms along the road,
Shy, scarce awakened from the world of men,
Seeking uncertainly its new abode,
And eagerly she stoops, she scans its eyes,
Asking some look, some tender answering
sign,
And still she lets it go again and sighs,
"Not mine, O God, not mine!"

But some day, surely, in a golden hour,
The sweet, familiar shape shall be descried,
Delaying here and there for berry or flower,
But drawing ever nearer to her side.
No need of greeting between child and
mother,

When heart on heart is folded close and
fast,
In that one clasp, each blended in the other,
That pays for all the past!

—Pall Mall Gazette.

When making jelly, skim the fruit, as it boils, into a fine wire sieve, using a silver spoon. The clear juice will go through into the kettle while the scum will remain.

When hot, moist woolen cloths are needed to relieve pains, an easy and successful way to heat them is to dampen slightly and place over fire in an old steamer. They can be kept hot with very little fire, and by keeping some in the steamer while others are in use, you can change them in a moment. Heated in this manner, it does away with the painful method of wringing with the hands.

It is said that mice have a great antipathy for peppermint oil and that some of it placed around their haunts will keep them away. As a good many are continually fighting these little pests, the suggestion may be worth trying. There are many objections to the use of poisons for the elimination of mice, and this discovery, if effectual, will be of benefit to many who are troubled in this way.

8958-8955. A Stylish Calling or Afternoon Gown.

Striped serge suiting in white and black, with facings in white satin, is here shown. Ladies' Waist Pattern 8958 and Ladies' Skirt Pattern 8955 furnish the models. The skirt is composed of three gores, with an insert at each side seam. The waist is made in surplice style and has a chemisette



of net, outlined by deep satin revers that form a shawl collar over the back. The waist pattern is cut in five sizes, 32, 34, 36, 38 and 40 inches bust measure. The skirt pattern is five sizes, 22, 24, 26, 28 and 30 inches waist measure. It requires six yards of 36-inch material with one yard 20-inch "all-over" lace or net for a medium size. This illustration calls for two separate patterns, which will be mailed to any address on receipt of 10 cents for each in silver or stamps.



JAP ROSE

"The Original Transparent Soap"

Skin and clothing are entirely different things. Naturally they require entirely different soaps. Jap Rose is essentially a skin cleanser. Made from the purest vegetable oils, blended by our own process. Perfect for the bath. Lathers freely in hard or soft, cold or hot water.

Sold by dealers everywhere

Refuse Imitations
Look for the Jap Girl
on every package.

A Large Cake 10c



Plain as
two plus
two



If you use full strength spices—Tone Bros.—you get full value for every cent. But it is simple arithmetic that if you use inferior spices of half strength, you lose half your money. Study spice economy and buy

TONE SPICES

Stock carefully selected, then thoroughly cleaned to give you full weight of actual spice. Ground by up-to-date machinery, and then into sealed boxes that keep the strength. That's spice—better isn't possible. Look for the cannon on the box, and you'll be right.

10c at Your Grocer's—any kind.
If he can't supply you, send 10c for full size box.
TONE BROS., Des Moines, Ia.
Blenders of the famous OLD GOLDEN COFFEE.

YALE FRUIT PRESS

Best, most practical, durable press for making Jellies, Jams, Grape Juice, Cider, Wine, Fruit Ices, stuffing sausages, etc. No woman has strength to press fruits with her hands, besides without a press half the flavor, which only great pressure brings out, is lost. All steel and iron plated. Clamps to table, etc. With a few turns of wheel, materials are put under 2,000 lbs. pressure. 4 qt. size \$3.95



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\$10.00 Sweep Feed | \$14.00 Galvanized Steel Wind Mill.

We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.

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W. E. Price, Proprietor.

Dealer in registered horses. Three very fine stallions to SELL AT ONCE. Also the best stud colt in the state. Write for description of stock. I can suit you.

THE BEST IMPORTED HORSES, \$1,000 each. Home-bred, registered draft stallions, \$200 to \$600 at my stable doors. Address **A. LATIMER WILSON, Creston, Iowa.**

HOME-BRED DRAFT STALLIONS \$250 to \$600; imported stallions, your choice \$1,000. **F. L. STREAM, Creston, Iowa.**

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Up-to-date Poland China hogs. Write your wants. **H. N. HOLDEMAN, Meade, Kans.**

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BIG SPRING ANGUS CATTLE.

Jasper Auldridge & Son, Pattonsburg, Mo., Proprietors.
Breeders of pure bred Angus cattle and Duroc Jersey hogs.
Breeding Stock for Sale.

ANGUS CATTLE

Allendale Farm, Savannah, Mo.
W. A. Holt, Prop.
Breeder of pure bred Angus cattle—a few choice young bulls for sale. Prompt answer to inquiries.

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FOR SALE—SIX-WEEKS-OLD JERSEY bull, out of daughter of Silverline Lad and sired by Oneris Eminent, a Golden Lad bull.

JOHNSON & NORDSTROM, Clay Center, Kan.

CHOICE JERSEY BULL CALVES. In age from 3 to 12 months; the best of breeding, colors and individuality.

HENRY E. WYATT, Falls City, Neb.

FOR SALE. Yearling Jersey Bull, sired by Beatrice Stockwell and out of richly bred and good producing cow. Also cows and heifers.

S. S. SMITH, Clay Center, Kan.

FOR SALE—Ruby's Financial Count, son of Financial Count No. 61316; the dam is Ruby's Fontaine No. 212924, a 45-pound cow recently sold for \$350; gave 45 pounds of milk per day with second calf, milk testing 5 1/2 per cent, and with last calf at the age of 6 years gave 44 pounds of milk for a long period of time, milk testing 5 1/2 per cent. The dam and grand dam of this cow are both 40-pound cows. Ruby's Financial Count is 3 years old and fit to head any herd. Financial Count is a half brother of Financial Countess, a cow with a butter record of 935 pounds and 10 ounces in one year. This young bull is sure, gentle and a fine individual. **W. N. BANKS, Independence, Kansas.**

LINSCOTT JERSEYS

Offers a few choice cows in milk and some bred heifers. Milk and butter records accurately kept.

R. J. LINSCOTT, Holton, Kansas.

SHORTHORN CATTLE**Houx's Polands and Shorthorns**

50 big type Poland Chinas, March and April pigs, sired by two extra heavy boned boars. Priced at farmers' prices. Ready to ship, order now, and get choice. Description guaranteed. Also a few choice Roan Shorthorn bulls to offer. Sired by King Challenger 312040, a son of White Hall King 222724. Prices reasonable. Come or write.

W. F. HOUX JR., Hale Mo.

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Lathrop, Missouri.
Milking Shorthorn cattle, bred hornless, Berkshire hogs. Oxforddown sheep. Bourbon Red turkeys. Young breeding stock for sale. A herd of 35 bred Oxforddown ewes to go at a bargain if taken at once. Address

J. H. WALKER, Lathrop, Missouri.

Pearl Shorthorns

40 BULLS, 6 to 20 months old; straight Scotch and Scotch topped—mostly red. Can spare a few females, same breeding.

C. W. Taylor, Enterprise, Kan.
R. R. Station, Pearl, on Rock Island.

TENNEHOLM SHORTHORN CATTLE—Bred for beef and milk; breeding as good as the best; of Scotch and Bates lines. We use them as dairy cows and find them very profitable. A few young bulls and some females for sale. Write **B. S. Myers, Chanute, Kansas.**

ALFALFA SHORTHORNS

Young stock for sale. Also Silver Laced Wyandotte eggs for sale.

JOHN REGIER, R. 1, Whitewater, Kansas.

SHORTHORN BULLS

20 head strong, vigorous young bulls, 12 to 16 months old, will be priced single or in car load lots. Also a few highly bred Scotch bulls, well suited for herd headers, priced to sell.

W. A. FORSYTHE & SON, Greenwood, Jackson County, Missouri.

HERD BULL For Sale

Victor Orange 312530, a Scotch Orange Bosson, sired by Victorious 121469.
H. F. COFFER, Savannah, Mo.

ELM GROVE FARM.
Shorthorn cattle and Percheron horses. Write for description and prices.
ISAAC NOVINGER & SONS
Kirkville, Missouri.

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Brookside Farm, Savannah, Mo., breeders of Hereford cattle. Herd headed by Hesold 101st No. 162685 and Horace No. 300428, he by Beaumont. Young bulls for sale. Mail orders given prompt attention.

WARREN LANDERS, Savannah, Mo.

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Headed by Christy 234417, Prairie Donald by Beau Donald 7th, and Sir Morgan by Onward 18th. Cows of Anxiety 4th, Hesold, etc., breeding, including imp. animals. Over 100 head in herd. Few choice young bulls and some good females for sale.

TOM WALLACE, Barnes, Kansas.

RED POLLED CATTLE

RESER'S RICHLY BRED RED POLLS. The only dual purpose cattle. Headed by Waverly Monarch, tracing to prize winning stock. Cows came from the best herds of two states; 7 choice bulls, some of them of serviceable age, and 7 cows and heifers. The heifers and bulls sired by a 2,000-pound sire. Visitors welcome. **J. B. RESER, Biglow, Kan.**

RED POLLED CATTLE

The only dual purpose cattle and the most profitable for the farmer. Choice bulls for sale.

U. E. HUBBLE, Stockton, Kan.

COBURN HERD of Red Polled cattle and Percheron Horses, Young stallions, bulls and heifers for sale.

Geo. Groenmiller & Son, Pomona, Kan.

POLLED DURHAM CATTLE**BELVEDERE X2712-195058**

Son of the \$1,500 Grand Victor X1635 160365 heads my herd of Double Standard Polled Durhams. A few extra good, blocky, thick-fleshed young bulls for sale. Inspection invited. Farm adjoins town.

D. C. VAN NICE, Richland, Kansas.

HOLSTEIN CATTLE

SUNFLOWER HERD HOLSTEINS. ARE YOU THINKING of that registered bull you will need for fall and winter service? RIGHT NOW is the time to get in touch, for if you wait until you do have to have him, they may be gone. THE BEST BRED and BEST lot of individuals I have ever had to offer, aged from one month to ONE year. Also females for sale ALWAYS. DON'T wait; investigate this today.

F. J. SEARLE, Oskaloosa, Kan.

FOR SALE

REGISTERED HOLSTEIN BULLS, five to ten months old, from best heavy milk-producing families. Send for list.

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(Continued on page 14.)

BARGAINS IN LANDS

FARMS FOR 61 FARMERS IN COLORADO

Out of that level strip of alfalfa, between Colorado Springs and Pueblo; along that beautiful stream which flows from the mountains, called the Fountain and skirted by a heavy growth of timber and paralleled by the Rio Grande, Santa Fe and Southern Railroads, also that beautiful auto boulevard from Kansas to Denver.

Write me today for a map of this land and full particulars which will cost nothing. Do it now. O. W. LOVAN, Room 26, Independence Bldg., Colorado Springs, Colorado.

NESS COUNTY "SNAPS"

Write for our list of Special Bargains. We have some prices that will surprise you. Remember that Ness County adjoins the banner wheat county of Kansas for 1910. County map and literature mailed on request.

FLOYD & FLOYD, Ness City, Kansas.

WHAT have you to trade for land or city property? Hale, Coffeyville, Kan.

BUY OR TRADE with us. Exchange book free. Bersie Agency, El Dorado, Kan.

IMP. and unimp. land in western Kansas. W. G. Ruth, Scott City, Kansas.

WE TRADE OR SELL ANYTHING ANYWHERE. The Realty Exchange Co., 18-22 Randall Bldg., Newton, Kan.

WANTED—WILL BUY GOOD FARM from owner only; state particulars. Address CONRAD, Box 754, Chicago, Ill.

I MAKE a specialty of Ford county land and Dodge City property. P. H. SUGHRUB, Dodge City, Kansas.

WANT TO BUY a quarter section of smooth land in western Kansas; must be cheap; will assume. CAVEREALTY CO., Salina, Kan.

EXCHANGES—Lands, city property, stocks and more. What have you to offer? FOSTER BROS., Independence, Kan.

200-ACRE WHEAT FARM at a bargain if sold at once. Write for our farm list. WHIPP & CO., Concordia, Kan.

100 A., 90 IN CULT.; 20 alfalfa, rest pasture; 4½ mi. from town; exchange for general mdse. J. A. KASPEREK, Belleville, Kan.

GET OUR BOOK OF 500 FARMS and properties everywhere to trade. Graham Bros., Eldorado, Kan.

IT'S FREE. Southeastern Kansas Home-seeker. If you want land send for it. Address THE ALLEN COUNTY INVESTMENT CO., Longton, Kansas.

ESTABLISHED 1885—Write for free list. Park H. Thornton, Real Estate Dealer, Coldwater, Comanche Co., Kansas.

FARMS FOR SALE IN CLOUD AND surrounding counties in Kansas. All prices, from \$30 to \$100 per acre. Glad to send you the list. Concordia Land Co., Concordia, Kansas.

200 ACRES, 14 miles south of McPherson, Kan.; good farm; price \$90; exchange for mdse.; mostly alfalfa land; imps. good. J. M. Clubine, Durham, Kan.

FOR SALE OR TRADE—Properties of all kinds. Lands \$15 to \$75 per acre. 40 years' residence. W. H. Kaltenbach, Toronto, Woodson Co., Kansas.

EASTERN KANSAS BARGAINS—Improved stock and grain farms; \$30 to \$65 per acre; write for list free.

J. E. CALVERT, Garnett, Kan.

SOME OF THE FINEST FARMS in Kansas for \$30 to \$70 per a. Close to excellent town; raise corn, wheat, alfalfa, all kinds of crops; fine water at 8 to 35 ft. Write for free list. W. C. ALFORD, Hazleton, Kan.

FOR TRADE—A \$20,000 stock of general mdse. Wants Kansas land at actual value. Good town with fine country around. Taylor & Bratcher, Coldwater, Kansas.

10 DOLLARS PER ACRE UP TO \$25 buys best improved farms in Wichita county, Kansas. WHEAT KILT LAND CO., LEOTI, KAN.

CHOICE ALFALFA LAND, for sale or exchange. Exchange propositions are made a specialty. UNITED LAND COMPANY, 902 Schwabert Bldg., Wichita, Kansas.

160 ACRES, 3 miles of Towanda. A snap at \$7500. Other good farms in western Butler county. Write for particulars. G. W. MOORE, Towanda, Kansas.

FOR SALE—Five sections of level farming land in the great rain belt of Colorado; soft water on each section; shallow water all over; one set of good improvements; fine colonization property. Write J. L. RECTOR, Calhan, Kan.

WRITE FOR MY BIG LIST OF CHEAP cattle, horse and sheep ranches. I have improved farms worth the money on terms to suit in the sure wheat belt. Agents wanted to co-operate. J. C. WHARTON, McCracken, Kansas.

STAFFORD COUNTY, KANSAS. One of the best farming sections in the state; write me for descriptions and full particulars about some of the fine farms I have for sale in this section; good crops all the time. A. L. McMILLAN, Stafford, Kansas.

FINE HOME, 48 a., one mile of this city, about 38 a. now in cultivation, bal. pasture, 6 room house, new barn 34x60 and hay loft; two wells and mill and other outbuildings; good orchard and all second bottom land. Priced to sell at \$5,500 cash. E. F. Dewey, Blue Rapids, Kan.

15,000 ACRES CHEAP LAND, Kit Carson County, Colorado for sale or exchange. Good relinquishments cheap. This is the rain belt of Colorado. Good soil, good water, good crops, everything prosperous. Write for particulars. GIBSON & NELSON, Flagler, Colo.

STOP RENTING

Here are 160 acres 8 miles Fall River, Kansas, 85 acres cultivation, balance native grass; 3-room house, common stables, orchard, good water, close school; this farm lies in nice valley; cash price \$4,000; will take \$1,000 in good work and driving teams as part pay. W. A. Nelson, Fall River, Greenwood County, Kansas.

BARGAINS in Kansas farms; \$30 to \$90 per acre; sale or ex. Write for list. MORROWVILLE LAND CO., Morrowville, Kan.

FARMS, RANCHES and City property for sale and exchange. Merchandise stocks a specialty. A. N. BONTZ, Wichita, Kansas.

240 A. 3 MILES ESBON, KAN.; a bargain at \$57 per a.; good improvements. J. A. COLE, Esbon, Kan.

GET MY list of a few choice bargains in Hamilton county, Kansas, land. Walter & Walter, Syracuse, Kan.

BAGAINS in Southern Kansas farms, unimproved lands and stock ranches. Prices \$25 to \$70 per acre. E. K. Longley, Howard, Kansas.

LAND IN FORD COUNTY and the Southwest at \$4 per acre up. Wheat lands a specialty. BROWN & VERNON, Dodge City, Kansas.

BUTLER, HARVEY AND SEDGWICK CO. LANDS.

Plenty of rain and everything looking fine. Come and pick out your farm on next March settlement. All kinds of exchanges. Send for new list.

EBERHART & MELLOR, Whitewater, Kan.

100—CHOICE DICKINSON AND CLAY CO. FARMS—100

80 acres 3 miles from town, 70 a. under plow, alfalfa land, 20 pasture and meadow, 5 room house, good well, barn and other buildings. \$2000 cash; rest to suit; 25 a. wheat included. Write for list. J. J. Bishop, Wakefield, Kan.

FARM LOANS

\$3,000,000 to loan on improved farms in east half of state; lowest rates; easy terms. Write or call on

DAVIS-WELLCOME MTG. CO., Topeka, Kan.

LIVE AGENT WANTED

in your locality to assist in selling corn, wheat and alfalfa land. We own thousands of acres in Pawnee and adjoining counties. Write for proposition on our own ranches.

FRIZELL & ELY, Larned, Kansas.

IF YOU MEAN BUSINESS and have real estate and merchandise of any kind for sale and exchange, and are willing to pay a commission should I make you a deal, write me at once of what you have and desire. I have several very attractive propositions to offer you for a home or investment; am doing a general exchange business. Carl G. Anderson, Athol, Smith Co., Kansas.

BLUE EARTH COUNTY, MINN., FARM. 160 acre well improved farm, with good black loam soil with clay sub-soil; can be bought on easy terms at a bargain; for views of buildings and particulars, write C. E. BROWN LAND CO., Madelia, Minn.

A GAS BELT BARGAIN. 244 a., 5 miles of town, good 5-room house, barn; 110 a. in cultivation, 25 in meadow, balance pasture; limestone soil; everlasting spring; a fine stock farm; \$244 per year rental from oil and gas lease. Where can you beat this? Price, quick sale, at \$25 per acre. New land list free. M. T. SPONG, Fredonia, Kan.

THE BEST TOWN TO LIVE IN. If you would like to live in the most beautiful city in the West, with unsurpassed education, business and religious advantages, in a city clean, progressive, where real estate values are low, but steadily advancing, where living expenses are reasonable, a city with natural gas at lowest price, address the

SECRETARY of the COMMERCIAL CLUB, Topeka, Kansas.

FOR TRADE

235 acres 4 miles of Garnett, Kan.; 70 acres in cult.; 25 pasture, balance meadow; 5 room house, barn, etc. Price \$15,000; mortgage \$5,000; wants mdse. 80 acres 3 miles of Greeley; good farm, well improved. Price \$5,200. Wants western Kansas land. SPOHN BROS., Garnett, Kansas.

A BUTLER COUNTY BARGAIN. Crops Never Looked Better. 160 a., 5 mi. town, all good soil, 125 cultivated, balance pasture and meadow. Two sets improvements. A snap for a short time at \$55 an acre. Send for full description. Kansas Map and new land list free.

JAS. A. THOMPSON, Whitewater, Kansas.

FINE STOCK FARM.

560 a., 100 a. in cultivation, 150 a. in meadow, remainder in good pasture; 5 room house; nice barn 106 ft. long, 30 ft. wide; other buildings; good well; orchard; on rural route 3 miles to shipping point and 5½ miles of Fredonia, the county seat, a flourishing city of 3 railroads and abundance of natural gas; very healthy and nicely located. Will take \$32.50 per a. if sold by August 1. Good terms. Address OWNER, Lock Box 926, Fredonia, Kansas.

A FINE NESS COUNTY FARM—240 acres 1½ miles from town, ½ mile to school, 160 acres perfectly smooth, 80 acres pasture land not rough, good well, NEVER DRY, all fenced and cross fenced. Price \$25 per acre. Will trade for good clean stock of mdse., groceries preferred. If interested write for list. Rutherford & Oliver, Ulica, Kan.

WATER IS WHAT COUNTS

THE BEST LAND, ALL LEVEL, SMOOTH, RICH AND FERTILE, WITH A COMPLETE WATERWORKS ON IT; GUARANTEE FLOW OF 450 GAL. PER MINUTE; ALSO A CANAL RIGHT FROM PECOS VALLEY AT BARSTOW, TEX. FOR FULL INFORMATION AND MAPS WRITE

JOHN H. WOOD

GEN'L LAND AND IMMIGRATION AGENT, ROOM 21-29, 534 KANSAS AVE., TOPEKA, KAN.

WRITE G. L. PAINTER & CO.

About Ford Co. Land. \$15 per acre up. DODGE CITY, KANSAS.

Hamilton County Lands

One quarter section, \$900. 480 acres, Bear Creek Valley, \$3,300. 100 acres Arkansas River bottom alfalfa land, \$6,000.

J. B. PRATT, Syracuse, Kansas.

WESTERN KANSAS

Wheat and alfalfa lands cheap; no sand or rock; good soil and productive; write for list; state in first letter what you wish; save delay.

V. C. CUTLER CO., Scott City, Kansas.

Splendid Quarter Section

2½ miles from good town, southern Kansas; 110 acres in cultivation, on creek, 25 acres mow land and 25 acres pasture; improved; price \$6,000; one-half cash. Address owner.

GEO. N. UPHAM

Coffeyville, Kansas

TRADES: TRADES:

City property in Osborne and Stockton for western land; land for merchandise; 80 acres Linn Co., for western land; match you on any good trade; no junk wanted. W. A. LAYTON, the Land Man, 413 New Enr. Bldg., Topeka, Kan.

Mr Small Investor: Let me tell you some profit on a few dollars invested each month in Plains, Kans., town lots. Price \$12.50 to \$50. Write me. Right now.

JOHN W. BAUGHMAN,

Desk F, Plains, Kansas.

A HUMMER—160 acres, house of 3 rooms, stable for 2 teams, cow stable, well, windmill tank, cement chicken house 10x30, 80 acres in cultivation, 80 acres in pasture, all can be farmed; rich soil, second creek bottom. Price \$3500; good terms. Send for big list. Address

STINSON & SHELDON,

Spearville, Kansas

FOR TRADE—232 A. near here; all good smooth black land; two sets of improvements on it; mtg. \$1,000; half in cultivation, an ideal home; owner wants a good hardware and implement stock; well located. Price \$85 per a. Write.

G. T. KINSEY, LeRoy, Coffey Co., Kansas.

Alfalfa Farm For Trade

640 a. 3½ mi. town; want to trade for cattle; pay you to investigate. Address

R. F. D. No. 3, BOX 75,

Plainville, Kan.

FOR EXCHANGE.

A good 160-acre farm in Woodson County, Kansas; 70 cultivated, 60 meadow, balance pasture; no rock; \$65 per acre; mtg. \$4,000. What have you for equity?

A. B. ESTEE,

Yates Center, Kansas.

Lamar Colo., NO BETTER IN-KANSAS Valley Irrigated Land. Write for map, price list and full information. GEO. A. WATSON LAND CO., Lamar, Prowers Co., Colo. (Established in 1886 at Lamar.)

Irrigated Farms in Bent Co., Colo., to trade for general mdse. Write me relative to Government lands coming under new ditch.

HARRY C. JOHNSTON,

Las Animas, Colo.

FOR SALE—COLORADO LANDS Improved, irrigated Farms, Cheap Lands, Fruit Tracts and City Property at prices that are right. Terms to suit.

C. C. COLE, Boulder Colorado.

Great Farm Bargain

Only two miles from the City of Topeka, 2 miles from street cars, on proposed extension of car line, macadam road; the greatest farm bargain in the county; a fine grain, stock or dairy farm; all alfalfa land; located right to sell all or part in five and ten acre tracts; 185 acres; 145 acres in cultivation, 12 acres alfalfa, balance pasture; practically all tillable; house, barn and other outbuildings are old; good well; this farm is right at the door of one of the largest and best markets in the state for all products; largest creamery in the world here; large packing house; wholesale and retail markets; owner old and wants to sell; only \$100 per acre, small payment down and very easy terms; a snap for the first man with the money.

THE HEATH COMPANY,

108 West Seventh St., Topeka, Kansas.

320 A. Gov't Homesteads

Exceptionally fine land, in well settled community, where good crops are raised every year. Easily worth \$5,000 to \$8,000, by proving up time. Quick action necessary to get one of these. I charge reasonable location fee—write or come at once—you can't lose if you want a good productive home.

CARL M. COOK, Limon, Colo.

FOR SALE

Half interest or separate 80 in 160-a. Colorado irrigated farm at a rare bargain to a responsible farmer who will take full charge. My partner not practical farmer. I have option on his interest. Small cash payment, liberal terms. Address

A. MORRIS,

1645 Champ Street, Denver, Colo.

CORN, ALFALFA, WHEAT lands near Emporia, Kan.; the best land in Kansas for the price; write for list.

T. B. GODSEY, Emporia, Kan.

FOR SALE—COLORADO LANDS. 120-acre well improved irrigated farm, \$75 an acre; 640 acres good farming land, well located, \$12.50 an acre; terms to suit. C. C. COLE, Boulder, Colo.

80 ACRES. \$4,200, mortgage \$3,200 at 6 per cent; easy payments; 4½ miles good town, near Topeka; well improved, orchard, too; all tillable. FOX-COOK, 104 W. 8th., Topeka, Kan.

HOLLY, COLORADO

I own 1,500 a. in various sized tracts, all in cult.; good buildings and other improvements, with old established water right. Will sell any tract on small payment down, bal. in 10 years at 6 per cent. Plenty of water all the time and best of land, all within 3 mi. of town. Come out and see this. You will not be disappointed. Best reasons for selling. You pay no commission when dealing with me.

J. S. McMURTY, Holly Colo.

THIS IS A GOOD ONE. 200 acres of all good land, located 12 miles from Wichita; 2½ miles from a good railroad town and in a good neighborhood; this is all good land, suitable for alfalfa, corn and all other crops, with 40 acres fine pasture with never-failing running water; all fine shade, 30 acres of good alfalfa; all fenced and cross fenced; ½ of the place fenced hog tight; 6-room residence, summer kitchen and milk house; fine shade and large, fine orchard; barn, corn crib, granary, hog house, etc.; this is a beautiful home, and can be bought for \$15,000; terms

EDWIN TAYLOR REALTY CO.,

107 S. Main st., Wichita, Kan.

(Continued from page 13.)

MISCELLANEOUS.

IRRIGATED FRUIT AND FARMING lands at Mosida-by-the-Lake; in the most beautiful and most wonderfully fertile valley in the whole irrigated west; splendid lands; deep, rich, mellow soil; inexhaustible water supply; perpetual water right; irrigation system now operating; many Kansas farmers as references; lands rapidly advancing in value; responsible local representatives wanted; write for particulars. Lawson & Parker, 1606 Broadway, Denver, Colorado.

BARGAIN—600-ACRE IMPROVED FARM 50 miles from Minneapolis; 8 miles from good railroad town; 250 acres under high state of cultivation, balance fenced and cross fenced, used for pasture and meadow land; 500 acres of this farm can be put under cultivation; good set of buildings, consisting of house, large barn and several smaller barns, granary, etc. Price \$14 per acre; \$3,400 cash, long term on balance, 6 per cent; can be inspected by leaving Minneapolis in the morning and returning the same evening. Schwab Brothers, 123 Guaranty Loan Bldg., Minneapolis, Minn.

LAND IN THE OZARKS OF SOUTH Missouri grows wheat, corn, rye, oats, clover, timothy, blue grass, fruit and vegetables; pure water, healthy climate; price of land reasonable; booklet free. Address J. I. Willhite, Tyrone, Texas Co., Mo.

DO YOU WANT TO BUY, SELL OR trade Oklahoma or Arkansas land? Write Carl Lovell, Waukomis, Okla.

CHICK-O, A BALANCED RATION OF seeds and grains for baby chicks; try it for your late chicks. D. O. Coe, Topeka.

EXCHANGE—QUARTER SECTION, KAN bottom, in sight of K. U., for good, smooth larger farm in eastern half of Kansas. G. Alford, Lawrence, Kan.

MUST SELL 160 ACRES, ONLY \$5 miles from good shipping point; 100 acres in cultivation, 35 pasture, 25 acres hay; 4 room house, stable, good water, orchard, spring; owner must sacrifice; sold Sept. 1, will take \$25 per acre; half cash. J. D. Kramer, Independence, Kan.

TOO LATE TO CLASSIFY.

ZION HILL STOCK FARM. The home of richly-bred Durocs, headed by Miller's Nebraska Wonder, grandson of Nebraska Wonder; 100 lbs. and March pigs mostly by this boar; reasonable prices.

E. P. FLANNAGAN, Chapman, Kan.

FOR SALE. A1 feed mill, doing a good cash business of \$150 to \$200 net each month; only one in west part of the county; splendid trade; coal bins on railroad right of way; owner selling on account of losing his wife and falling health; this will bear investigation in good, live town. For further particulars call on or address

THOS. DARCEY,

Real Estate Agent, Offerle, Kan.

THE STRAY LIST

H. N. KINKAD, County Clerk, For County, Taken up—By R. J. Edgar, D-45 City, Kan., on the 17th day of June, 1911. 1 bay mare, 2 or 3 years old, no nose and feet white, a small white stripe on nose and a small rupture on belly; value \$40.

H. N. KINKAD, County Clerk, For County, Taken up—By H. M. Gearhart, Wilroads, Kan., on the 12th day of June, 1911, 1 dun mare, 14 years old, (T. M.) left thigh, (O) on right jaw; value \$25.

FIELD NOTES

FIELD MEN.

Wayne Devine.....Topeka, Kan.
 Jesse R. Johnson.....Clay Center, Kan.
 W. J. Cody.....Topeka, Kan.

PURE BRED STOCK SALES.

Percherons.
 Nov. 14-15.—H. G. McMillan & Sons, Rock Rapids, Ia.
 Nov. 16.—H. G. McMillan & Sons, Rock Rapids, Ia.

Holstein-Friesians.
 Nov. 7-8.—H. C. Glissman, Station B., Omaha, Neb.

Herefords.
 Nov. 10.—Thos. Crawford, Butler, Mo.
 Nov. 11.—G. W. Newman, Emporia, Kan.

Poland Chinas.
 Nov. 13.—B. Wallace, Bunceton, Mo.
 Nov. 14.—H. H. Harriman, Pilot Grove, Mo.
 Nov. 15.—A. Winebrenner, Tipton, Mo.
 Nov. 16.—Ben. M. Bell, Beattie, Kansas.
 Nov. 17.—D. Willifong, Zeandale, Kan.
 Nov. 18.—B. M. Bell, Beattie, Kansas.
 Nov. 19.—S. A. Buggs, Hamilton, Mo.
 Nov. 20.—J. C. Salter, Jasper, Mo.
 Nov. 21.—B. Dillingham, Platte City, Mo.
 Nov. 22.—J. B. Dillingham, Platte City, Mo.
 Nov. 23.—L. R. McClarnon, Bradyville, Iowa.
 Nov. 24.—Frank Michael, Erie, Kan.
 Nov. 25.—P. Sear, Erie, Kan.
 Nov. 26.—W. H. Emens, Elmdale, Kan.
 Nov. 27.—A. Hobson & Son, King City, Mo.
 Nov. 28.—T. J. Dawe, Troy, Kan.
 Nov. 29.—A. R. Enos, Romona, Kan.
 Nov. 30.—Oak Hill Stock Farm, Esbon, Kan.
 Dec. 1.—J. D. Spangler, Sharon, Kan.
 Dec. 2.—J. D. Gates, Ravenwood, Mo.
 Dec. 3.—Geo. M. Hull, Garnett, Kan.
 Dec. 4.—W. B. Meriden, Meriden, Kan.
 Dec. 5.—J. J. Hartman, Elmo, Kan.
 Dec. 6.—J. E. Bundy, Goodrich, Kan.
 Dec. 7.—D. H. Spalding, Ottawa, Kan.
 Dec. 8.—J. Johnston, South Mound, Kan.
 Dec. 9.—Geo. W. Smith, Burchard, Neb.
 Dec. 10.—N. Stedem, Marshall, Mo.
 Dec. 11.—A. R. Ryestead, Mankato, Kan.
 Dec. 12.—Herman Groninger & Sons, Ben-
 den, Kan.
 Dec. 13.—W. F. Fulton, Waterville, Kan.
 Dec. 14.—A. P. Young, Lexington, Mo.
 Dec. 15.—J. Melsner, Sabetha, Kan.
 Dec. 16.—W. B. Van Horn, Overbrook, Kan.
 Dec. 17.—W. R. Webb, Bendena, Kan.
 Dec. 18.—Baker Bros., Butler, Mo.
 Dec. 19.—C. H. Halderman, Burchard, Neb.
 Dec. 20.—J. O. James, Bradyville, Iowa.
 Dec. 21.—W. V. Hoppe, Stella, Neb.; sale at
 Fall City, Neb.
 Dec. 22.—J. H. Harter, Westmoreland, Kan.
 Dec. 23.—M. T. Williams, Valley Falls, Kan.
 Dec. 24.—H. B. Walter, Effingham, Kan.
 Dec. 25.—H. C. Graner, Lancaster, Kan.
 Dec. 26.—M. Willson, Lebanon, Kan.
 Dec. 27.—E. Howard, Morrill, Kan.; sale at
 Sabetha, Kan.
 Dec. 28.—J. E. Bowser, Abilene, Kan.
 Dec. 29.—J. J. Griffiths, Clay Center, Kan.
 Dec. 30.—Verny Daniels, Gower, Mo.
 Dec. 31.—E. Klein, Zeandale, Kan.
 Dec. 32.—C. R. Palmer, Peabody, Kan.
 Dec. 33.—W. A. Frewett, Asherville, Kan.
 Dec. 34.—A. Young & Kimbrell, Glasco, Kan.
 Dec. 35.—P. L. Ware & Son, Paola, Kan.
 Dec. 36.—Walter Hildewald, Fairview, Kan.
 Dec. 37.—F. W. Barber & Son, Franklin,
 Neb.
 Dec. 38.—A. P. Wright, Valley Center, Kan.
 Dec. 39.—C. W. Jones, Solomon, Kan.
 Dec. 40.—Miller & Manderschied, St. John,
 Kan.
 Dec. 41.—J. F. Ware, Garfield, Kan.
 Dec. 42.—George W. Roberts, Larned, Kan.
 Dec. 43.—O. M. Furnas, Oxford, Kan.
 Dec. 44.—T. J. Melsner, Sabetha, Kan.
 Dec. 45.—A. L. Albright, Waterville, Kan.
 Dec. 46.—J. H. Hamilton & Son, Guide Rock,
 Neb.
 Dec. 47.—A. C. Lobaugh, Washington, Kan.
 Dec. 48.—T. J. Charles, Republic, Kan.
 Dec. 49.—H. C. Graner, Lancaster, Kan.
 Dec. 50.—1912—George M. Hull and Col. C. E.
 Bean, Garnett, Kan.
 Dec. 51.—W. E. Willey, Steele City, Neb.
 Dec. 52.—Oak Hill Stock Farm, Esbon, Kan.
 Dec. 53.—J. H. Harter, Westmoreland, Kan.
 Dec. 54.—A. R. Ryestead, Mankato, Kan.
 Dec. 55.—R. M. Bunnell, Atchison, Kan.
 Dec. 56.—E. E. Logan, Beloit, Kan.
 Dec. 57.—W. A. Frewett, Asherville, Kan.
 Dec. 58.—C. W. Jones, Solomon, Kan.
 Dec. 59.—J. J. Hartman, Elmo, Kan.
 Dec. 60.—1912—L. R. McClarnon, Bradyville,
 Iowa.
 Dec. 61.—T. M. Willson, Lebanon, Kan.

Duroc Jerseys.
 Nov. 26.—E. W. Davis & Co., Glenwood, Mo.
 Nov. 27.—E. W. Davis & Co., Glenwood, Mo.
 Nov. 28.—Pearl H. Pagett, Beloit, Kan.
 Nov. 29.—M. T. McBride, Parker, Kan.
 Nov. 30.—Grant Chapin, Green, Kan.
 Nov. 31.—Frank Elder, Green, Kan.
 Dec. 1.—W. E. Monasmith, Formosa, Kan.
 Dec. 2.—Ward Bros., Republic, Kan.
 Dec. 3.—W. E. Monasmith, Formosa, Kan.
 Dec. 4.—Geo. Philippi, Lebanon, Kan. Sale
 at Esbon, Kan.
 Dec. 5.—1912—Frank Elder, Green, Kan.
 Dec. 6.—Rinehart & Son, Smith Center, Kan.
 Dec. 7.—W. C. Whitney, Agra, Kan.
 Dec. 8.—J. O. Hunt, Marysville, Kan.
 Dec. 9.—Thompson Bros., Garrison, Kan.
 Dec. 10.—Grant Chapin, Green, Kan.
 Dec. 11.—W. T. Fitch, Minneapolis, Kan.
 Dec. 12.—E. P. Flanagan, Chapman, Kan.

O. I. C. Swine.
 Oct. 18.—J. N. George, Hopkins, Mo.
 Oct. 25.—R. W. Gage, Garnett, Kan.
 Oct. 28.—Arthur Mosse, Route 5, Leaven-
 worth, Kan.
 Oct. 30.—C. R. Champion & Son, Raymore,
 Mo.
 Nov. 4.—George O. Clark, Wilcox, Neb., and
 O. W. & E. Holtquist, Sacramento, Neb.
 Sale at Holdridge, Neb.

Berkshires.
 Aug. 17.—Chas. E. Sutton, Lawrence, Kans.

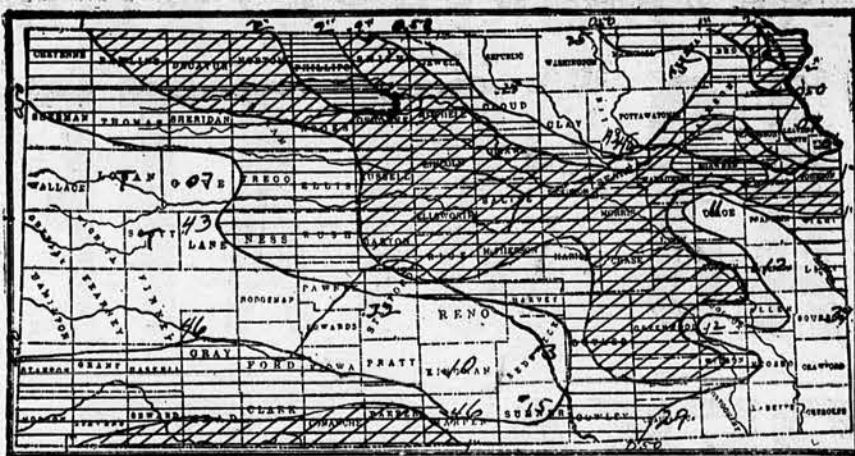
Geo. P. Philippi, Lebanon, Kan., has 100
 choice spring Duroc Jersey pigs for sale.
 These are five different breeds. His herd is
 one of the well established herds of central
 Kansas and his stock gives satisfaction.

M. T. Shields, Lebanon, Kan., proprietor
 of Pleasant Ridge Poland China herd, is in
 the market with 50 choice spring pigs,
 nearly all by his good boar Hustler 2d.
 Write him for particulars.

T. M. Willson, proprietor of the Spring
 Brook Stock farm, Lebanon, Kan., and
 his Chinese, offers for sale privately 80
 spring pigs, sired by several noted big-type
 boars, among them Big Sam.

KANSAS CROP REPORT

Rain chart prepared by T. B. Jennings from reports collected by the Weather Bureau.



UNITED STATES WEATHER OBSERVER'S REPORTS BY COUNTIES.

INCHES:
SCALE IN

Allen—Soil moist. Good growing weather
 for all vegetation.
 Anderson—Nice growing week. Corn
 coming out fine.
 Barber—All crops have improved dur-
 ing week.

Barton—Prairie haying almost completed,
 light crop. Second and third crops of al-
 falfa will be left for seed. Ground in
 good condition for growing.

Bourbon—Corn doing fine. Plowing for
 wheat. Turnips being planted. Grass looks
 fine.

Butler—Crops looking much better since
 last two rains.
 Chautauqua—Pastures are greening up.
 Corn improving. Alfalfa and kaffir doing
 fine.

Clark—Late corn and feed crops doing
 fine. Farmers plowing for wheat.
 Cloud—Corn badly damaged.
 Coffey—Corn and pasture in good shape.
 Flax about all cut. Very light crop.

Decatur—Corn improving. Cane, mfla
 maize and kaffir growing rapidly. Ground
 in good shape to plow for wheat.
 Elk—Crops doing fine. Cutting third
 crop of alfalfa. Lots of corn and kaffir
 being sowed.

Gove—Cooler, but still in need of rain.
 Greenwood—Corn looking good. Alfalfa
 good. Farmers encouraged.
 Harper—Cool and humid. Conditions fav-
 orable.

Jewell—Everything growing fine. Pota-
 toes revived considerably. Corn prospect
 good. Good apple crop.
 Johnson—Rain revived pastures and corn.
 Sorghum and millet planted. Threshing,
 with good yield of wheat. Many gardens
 planted.

Kearney—Still hot and dry. Local show-
 ers. Pasture very short.

M. T. Williams, the well-known and suc-
 cessful Poland China breeder located at Val-
 ley Falls, Kan., starts his card with this
 issue. He has 60 spring pigs sired by his
 great herd boars and out of as good a line
 of sows as can be found anywhere. Write
 him quick for prices and descriptions.

E. P. Flanagan, proprietor of Zion Hill
 Stock farm, starts card this issue on his
 Durocs. He has 100 pigs of February and
 March farrow, mostly by his herd boar
 Miller's Nebraska Wonder, grandson of
 Nebraska Wonder. His prices are right.

W. C. Milligan, the successful Poland
 China breeder of Clay Center, Kan., has a
 change of copy in this issue. Mr. Milligan
 offers anything, from tried sow with or
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50,000 MEN WANTED
In Western Canada200 MILLION BUSHELS WHEAT TO
BE HARVESTED.

Harvest Help in Great Demand

Reports from the Provinces of Man-
 itoba, Saskatchewan and Alberta
 (Western Canada) indicate one of the
 best crops ever raised on the con-
 tinent. To harvest this crop will re-
 quire at least 50,000 harvesters.

LOW RATES WILL BE GIVEN
ON ALL CANADIAN ROADS.

Excursions are run daily and full particu-
 lars will be given on application to the fol-
 lowing authorized Canadian Government
 Agent. The rates are made to apply to all
 who wish to take advantage of them for
 the purpose of inspecting the grain fields of
 Western Canada, and the wonderful oppor-
 tunities there offered for those who wish to
 invest, and also those who wish to
 take up actual farm life. Apply at once to
CANADIAN GOVERNMENT AGENT,
 125 W. Ninth St., Kansas City, Mo.

WANTED! BREAKING OUTFITS
AT ONCE!

To western farmers whose crops
 have failed this year we offer:
 Ship your outfit at once to CAN-
 ORA, Saskatchewan, and we will sell
 you land without payment down if
 you will break an equal acreage for
 us. If you want, we will rent you
 this land (cows) next year on thirds
 or halves. We know the land is good
 and will produce. We have never
 had a crop failure and we run no
 risk in making this offer. It will
 make money next year for you and
 us both. So come at once.
 For cheap excursion rates and illus-
 trated Album of Canada, write to
**SCANDINAVIAN CANADIAN LAND
 CO.,**
 Security Bank Bldg., Minneapolis.

FOR SALE

Daily newspaper plant, or will trade it.
 \$10, 18-inch cutter and sweep power; regis-
 tered Jersey bull ready for service; span
 2,500-pound horses (5 and 7 years); 2 extra
 nice registered Duroc Jersey boars, farrowed
 February.

SAYDA POLO JERSEY FARM,
 Parsons, Kansas.

KANSAS FARMER UNTIL JANU-
ARY 1, 1912, FOR 25 CENTS.

Special Trial Rate.

This rate to new subscribers only.
 For 50 cents we will send KANSAS
 FARMER until January 1, 1912, to two
 new subscribers and send the person
 who sends in the names a set of 50
 beautiful postcards. These cards are
 not cheap, but just as good as if
 you paid 5 cents apiece for them.
 Address KANSAS FARMER, Topeka,
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Paid to agents who will solicit sub-
 scriptions for Uncle Remus's Home
 Magazine all or spare time.

First class men are making
Over \$50.00 Every Week
 You can make several dollars by
 just working spare time.

Write for Full Particulars.
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Uncle Remus's Home Magazine,
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provided for every student who may enroll
 for the fall and winter terms. Highland
 Park College is a good school to attend.
 Catalogue and circulars are sent free to
 everyone who may be interested enough to
 ask for them.

Amcoats Poland Chinas and Shorthorns.

S. B. Amcoats, the popular Clay County,
 Kansas, breeder, offers 50 spring pigs, both
 sexes; also five Shorthorn bulls, Scotch and
 Scotch topped. The pigs are nearly all by
 the line-bred Expansion boar, Bell Expand,
 and out of big-type, mature sows. Mr.
 Amcoats advertises that he only saves the
 tops for breeding purposes. When writing
 him, kindly mention Kansas Farmer.

W. B. Wallace's Mammoth Polands.

The writer had the pleasure last week
 of calling on W. B. Wallace of Bunceton,
 Mo. This is probably the largest herd in
 Missouri of the large, smooth Poland Chi-
 nas, and the herd is headed by two of as
 good breeding boars as we know of in our
 travels. Grand Leader by Grand Look Jr.
 and out of Highball Lady has proven a
 great sire. His get are a distinguished type
 of the right kind. In fact, we have not
 seen this year a more uniform lot of pigs
 than Grand Leader is siring. Expansion
 Wonder 55438, by Expansion and out of
 a Johnson Chief sow, was the grand cham-
 pion Poland China boar at the Missouri
 State Fair last year, and was

YOU WILL NEVER REGRET IT IF YOU COME

KANSAS STATE FAIR

AT TOPEKA SEPT. 11 to 15

A Mammoth Exposition of
The Cream of Kansas Products
 From The Farm Factory and Fireside

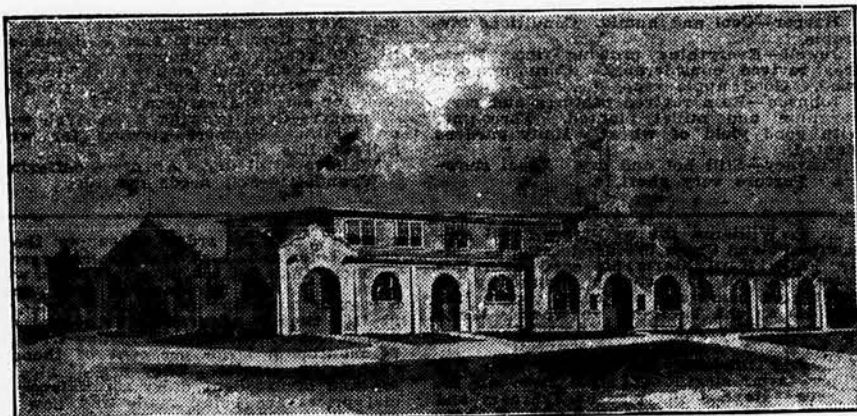
FIVE DAYS OF ROYAL ENTERTAINMENT

THE BEST

IN

**HORSES
 CATTLE
 SWINE
 SHEEP
 POULTRY**

**Acres Of
 MOVING
 MACHINERY**



THE DRAFT-HORSE BARN, STATE FAIR GROUNDS, TOPEKA, KAN.
 THIS IS ONE OF THE TEN NEW BUILDINGS ERECTED THIS YEAR AND WILL BE USED FOR THE FIRST TIME SEPT. 11 TO 15. THIS BARN IS 112x185 FEET AND ACCOMMODATES 270 HEAD OF DRAFT HORSES. THE STRUCTURE IS BRICK AND CEMENT AND THOROUGHLY MODERN.

THE BEST

IN

**GRAINS
 FRUITS
 FLOWERS
 DAIRY
 A PAIRY**

**Display Of
 FINE ARTS
 COMMERCE**

BIGGER

HANDSOME, NEW PERMANENT BUILDINGS, ENLARGED FACILITIES, FOR VISITORS' COMFORT
 MORE EXPENSIVE and VARIED ENTERTAINMENT

BETTER

A PARTIAL LIST OF ATTRACTIONS

FIVE FULL DAYS OF HARNESS AND RUNNING RACES.
 PAIN'S FIREWORKS PANORAMA, "THE FALL OF POMPEII."
 UNCLE SAM'S NAVAL DISPLAY AND BATTLESHIP MODELS.
 KANSAS AGRICULTURAL COLLEGE DISPLAY AND TROPHIES.
 GRAND OPERA, FULLY COSTUMED AND STAGED (EVENINGS).

HENRY HAMMOND AHL'S MARVELOUS PICTURE, "THE SHADOW OF THE CROSS."

LIBERATI'S FAMOUS BAND AND 70 OPERA STARS.
 PATTERSON'S COLOSSAL CARNIVAL COMBINATION.
 SCORES OF CLEAN, FREE SHOWS EACH DAY.
 CLARK'S TRAINED DOG AND PONY CIRCUS.
 KANSAS FISH WARDEN'S DEMONSTRATION CAR.

KANSAS SEMI-CENTENNIAL FESTIVAL

Will Be Held During Two Days of FAIR WEEK With Historical Pageants.

Write For Premium List, Entry Blanks, or Other Information, to

T. A. BORMAN, Pres.

TOPEKA,

H. L. COOK, Sec'y.