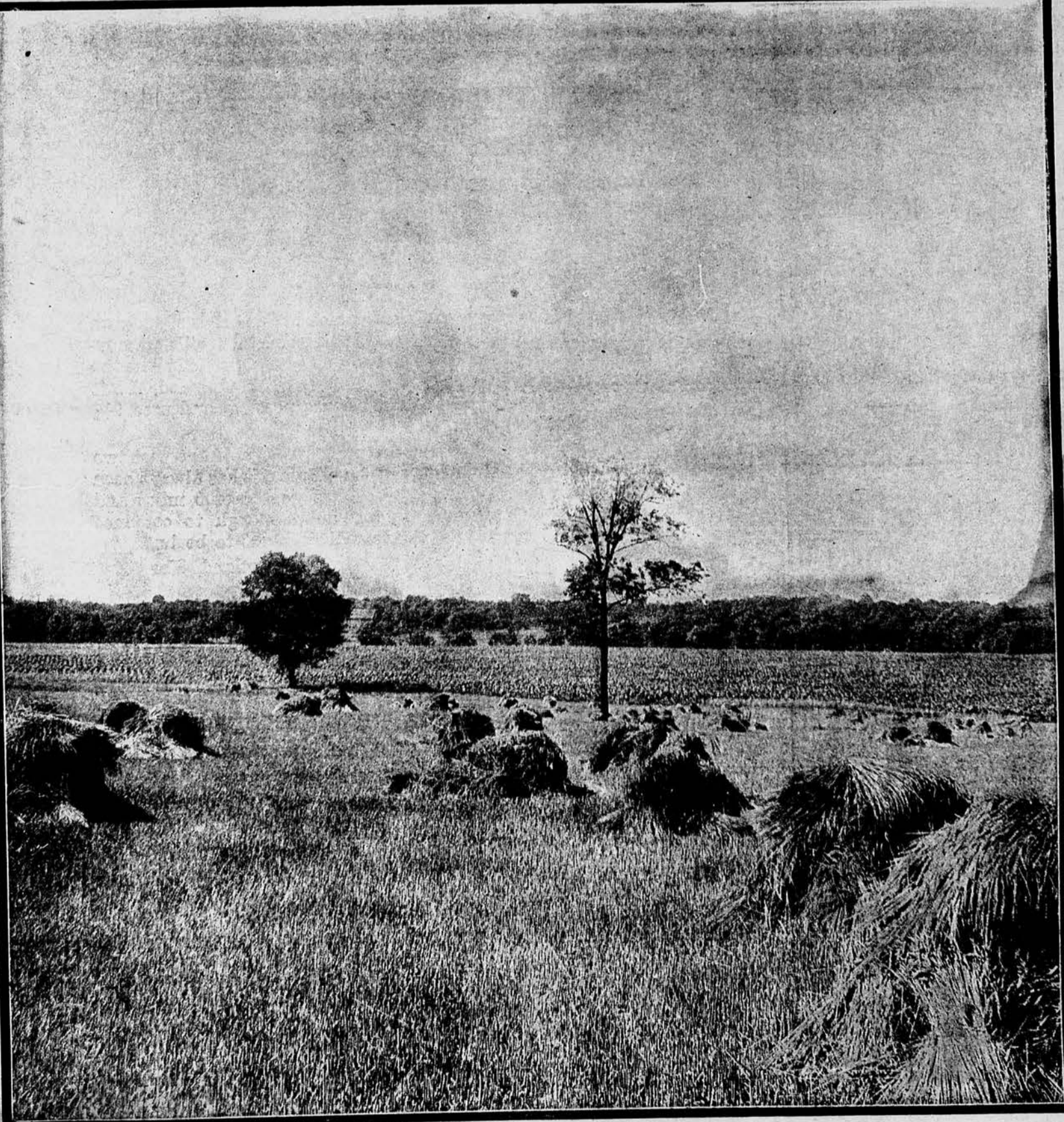


THE FARMERS MAIL AND BREEZE

Volume 43

July 12, 1913

Number 18



"Out There in Kansas"

Double the R. F. D. Circulation of Any Other Kansas Farm Paper

What Farmers Are Thinking

You are cordially invited to air your opinions in this column, but the Mail and Breeze reserves the right to condense such statements as far as possible to give other contributors a chance to say something. Short, crisp expressions of opinion on matters of interest or consequence to farm folks are welcome. All contributors must take their turn.

True Co-operation is Simple.

Mr. Editor—True co-operation, tersely stated is, "Each for all of us and all for each of us." We want this idea instilled into the minds and hearts of millions of farmers. Give us enough of this idea and the millennium will dawn. This is the Golden Rule stated in another form. It is a fundamental principle of the Equity Union. The man who lives this principle cannot be a bad man. He will be a good neighbor and an honorable citizen.

To be really effective a farmers' Exchange must have the unflinching support of its members. In order that we may have loyal members we are always busy instilling the principles of the Equity Union into their minds and hearts. But our most potent force for holding our members is our plan of co-operation. This is stated in our text book. I ask every farmer to send 10, 2-cent stamps for the Equity textbook and read our co-operative plan which unites the farmers and keeps them united. We are fighting for a movement that is sure to win. Victory will surely perch on our Banner if we persevere.
Greenville, Ill. C. O. Drayton.

Mitchell Farmers Insure Themselves.

Mr. Editor—Mr. Hatch in his "Jayhawker" column inquires why a mutual company in Kansas can't insure as cheaply as a Nebraska company.

They can and do. In Beloit, Mitchell county, we have one that was organized 1898. Aside from one small assessment, made as we were starting, it has insured its members for 1 per cent, for each five year period against fire, lightning and tornado. Out of that 1 per cent we have accumulated \$4,000 that we are lending to the banks.

Reasons? Two. One is luck. The other is that we are running a local company only, employ no agent and put on no frills.

Mr. Hatch ought to get busy and organize a Kansas mutual for his county.
Blue Hill, Kan. W. F. Ramsey.

Make the Referendum Universal.

Mr. Editor—I believe Mr. Capper could do an immense amount of good and make his papers very popular by advocating "No law a law till voted by the people." The legislatures to propose the law and the people to vote on every law. Make a universal referendum. This would stop a great deal of corruption in legislatures. The people would soon take away the governor's pardon power and the inheritance tax laws.
Shawnee, Okla. D. Boothe.

Better to Tax the Narrow Tire.

Mr. Editor—Mr. Lampton would forbid the narrow tire. It seems to me that would work a great wrong on the owners of the narrow tire vehicles, compelling them to throw them away or have them made over. I doubt if a law of that kind would stand. By taxing the narrow tire you would be getting paid for the damage and encouraging the use of the wide tire. What I was aiming at was to get some help out of the boys and young men who own a horse and buggy and, no matter what condition the roads are in, drive around and cut them all up. If they are able to own a horse and buggy they are able to contribute \$1 per year for the privilege of using it on the roads which they help wear out with it.
Danville, Kan. M. H. Osborn.

Studying at Home by One Who Does.

Mr. Editor—I read the article in the Mail and Breeze on overloading children with study. I think it a good plan for pupils to bring their books home if they have a quiet place with plenty of good

light and ventilation in which to study. My teacher told me I would have to study my multiplication tables at home. I did and knew them by heart in two weeks. I always studied one lesson at night, consequently had more time to put on my other lessons. I finished up the eighth grade before I was 15 and always got good grades in school.

I am only a young man of 19 now and would still be going to school but for sickness of my parents. However, I have studied at home and surrounded myself with good books and papers, and hope some day to finish my education and make something out of myself.
Hathaway Williams.
Chetopa, Kan.

One more chance for the homeseeker. Next October 350,000 acres of the North Platte forest range, in Grant and Adams counties, Neb., will be thrown open to homestead entry. The area will come under the provisions of the Kinkaid act, allowing homesteaders to file on 640 acres. The points of registration will be determined later.



What a Buick Has Done For Others, a Buick Will Do for You

Records of the past are the best promises for the future.

At the beginning of the 1913 season there were 110,000 Buicks on the road, and every one of those 110,000 Buicks has a record.

It is nothing unusual to see a Buick which has run from 25,000 up to 100,000 miles, and even more. And you never hear of a worn-out Buick.

"I started out in my model 17 Buick in six inches of snow on the morning of February 3rd to post some sale bills. I covered 94.4 miles over roads nobody else had traveled since the snow, and was in high every minute, up hill included. I left my motor running all the time I was posting, and used 9 1/2 gallons of gasoline for the trip.

"I have watched several other makes of cars in the past two years, and every time I have seen a Buick, it has always been doing the work. When a Buick has gone 30,400 miles and still seems as good as new, it is quite enough to convince me that Buicks are built the way they ought to be built."

J. H. Graber, Portland, Kansas.

The Famous Buick Overhead Valve Motor is guaranteed to have more power and more speed than any other type of motor on the market. It will pull stronger on low grade gasoline than any other type of motor ever built and the fuel consumption is less.

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BUICK MOTOR COMPANY

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THE FARMERS MAIL

AND BREEZE

AN AGRICULTURAL AND FAMILY JOURNAL FOR THE PEOPLE OF THE GREAT WEST



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WE MUST MAKE KANSAS SOIL TAKE UP MORE RAINWATER

I CONSIDER the conservation of moisture in the soil and its use in crop production, the greatest of all questions confronting Kansas farmers at the present time. We are producing smaller yields today from our land than we did 20 years ago, mainly because our soils are becoming deficient in humus and, therefore, deficient in plant-food nitrogen and capacity to hold water.

The substance which gives to soils their water-holding power is humus, decayed or partially decayed vegetable matter such as corn stalks, wheat straw, weeds, etc., when turned under. The longer land is farmed continuously without returning vegetable matter to the soil the less humus it contains, and the less water it will hold.



W. M. Jardine.

In Kansas our annual rainfall varies from about 16 inches in the extreme western counties to 40, or a little better, in the extreme eastern tier. This amount, except in the western third of the state, would be ample for producing profitable crops every year, if it came at the right time and in the right manner.

HOW WE CAN HOLD THE BIG RAINS.

A year ago, while I was at Lyons, Kan., 9 inches of water fell during three or four hours. It was the first rain of any consequence in that territory for six or eight weeks. At Richfield, Kan., 8 inches of rain fell in three hours approximately one-half of their total yearly average and the first rain that had amounted to anything in six months. Practically all of it was lost in surface run-off. For unless our soils are in a loose, open, porous condition, so they will absorb moisture readily, much of the water precipitated in heavy downpours is lost. By plowing under green-manuring crops such as cowpeas, rye, winter vetch or any kind of green crop, likewise by applying barnyard manure and plowing under straw, corn stalks, etc., we can increase the water-holding capacity and available plant-food of

Use the Straw, Plow Green Stuff Under, Spread Manure—the Way

BY W. M. JARDINE
Kansas Agricultural College

almost any of our soils. The more humus or the more decaying vegetable matter added to a sandy soil, the greater will be its water-holding capacity. A sandy loam—one of our most fertile soils and the easiest to handle—differs mainly from a sandy soil because it contains a greater percentage of humus.

THIS HARDENS THE SOIL SPONGE.

A soil cropped continuously to the same crop will have its humus exhausted. In a Minnesota experiment the native virgin soil was found to contain 3.97 per cent humus, .36 per cent nitrogen and had a water-holding capacity of 62 per cent. A similar soil which had been cropped 23 years, contained 2.59 per cent humus, .19 per cent nitrogen and had a water-holding capacity of 54 per cent.

These figures show we should avoid continuous cropping without regard to restoring vegetable matter to the land, the substance that makes soils hold water, causes mineral plant-food to become soluble and produces plant-food nitrogen.

If Kansas farmers could adopt a more diversified cropping system which would admit of the growing of more livestock, yields could be doubled, at least. Farmers who are working along this line now are producing fully double the average for the state. There are such farmers operating in almost every county.

Our results here, on the agronomy farm of 320 acres, show conclusively what can be done by adding barnyard manure and the plowing under of cowpeas, straw, weeds, cornstalks, etc., to increase the productiveness of the soil. In three years' time our yields have been increased several fold, and at small cost. Our conditions are similar to those of most of the eastern two-thirds of Kansas.

This is our rotation, where it is our purpose to

grow corn, wheat and oats: First, corn; second, oats; third, wheat.

Our oats stubble is plowed deeply as soon as the oat crop is removed, and kept tilled and free from weeds until planting time—October 1-15. After harvesting the wheat the land is double disked and seeded to cowpeas. The cowpeas are plowed under just before frost. During the last three years as much as 1½ to 2 tons to the acre have been turned under.

The cowpeas may be planted either in rows with the corn planter or with the grain drill, part of the feed cups being stopped up, or they may be seeded broadcast. With the drill 1 peck of seed will sow an acre, seeded broadcast 1 bushel will be necessary. Either practice is good. Plowing cowpeas under deeply just before frost, puts the land into excellent condition for corn the next year.

A HUMUS RESTORING ROTATION.

This is our rotation where alfalfa is grown and usually left down four years: A stand of 6 to 8 inches of green alfalfa is plowed under probably 4 or 5 inches deep. In the spring the ground is planted to Kafir or corn, or both, according to the acreage of either crop the farmer wishes to grow. The second year, usually, corn is grown, and wheat drilled in the cornstalks that fall as a third crop after alfalfa. This sequence of crops may be repeated for three more years when the land is prepared and seeded again to alfalfa.

The exact number of crops to grow after alfalfa before putting the land again into this crop, will vary to meet the needs of the farmer and depend on the character of his crops. Usually after plowing up alfalfa the field is cropped to intertilled crops, or wheat, for five or six years before seeding it down again. If possible barnyard manure is applied to the alfalfa just before plowing it under. A light top-dressing, say 4 to 6 tons to the acre, usually is ample. Occasionally when manure is plentiful a light application is given to a corn crop.

In this way the land is given a light dressing of barnyard manure every five or six years and one green crop is plowed under, such as the 6 or 8 inches of green alfalfa. With such a system there is little danger of depleting the soil's humus or destroying its physical condition.



Plowing under cowpeas for green manure at Kansas Agricultural College, thereby increasing the water-holding power and fertility of the soil. The longer land is farmed continuously, without returning vegetable matter to the soil the less water it will hold.

The Farmers Mail and Breeze

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WE GUARANTEE that every advertiser in this issue is reliable. Should any advertiser herein deal dishonestly with any subscriber, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farmers Mail and Breeze."

SPECIAL NOTICE TO ADVERTISERS.

Changes in advertisements or orders to discontinue advertisements must reach us not later than Saturday morning, one week in advance of the date of publication. We begin to make up the paper on Saturday. An ad cannot be stopped or changed after it is inserted in a page and the page has been electrotyped. New advertisements can be accepted any time Monday. The earlier orders and advertising copy are in our hands the better service we can give the advertiser.



PASSING COMMENT by T.A. McNeal

HARDSHIPS OF THE FARMER'S LIFE.

Sometime ago an investigation was started in Wisconsin, under the direction I believe of the state agricultural college, for the purpose of getting the facts in regard to farm conditions and farm life.

It was the purpose of the investigation not to pick out isolated cases that were particularly favorable on the one hand or particularly unfavorable on the other.

An average rural town was selected and the investigator set to work to find out from personal contact with all the farmers in that township just how the farmers were living, whether or not they were prospering and if there was a disposition to leave the farms and go the cities and towns, why such a disposition existed.

It is evident that the investigation was thorough so far as that township was concerned. The report is a plain, unvarnished recital of the facts as the investigator found them. These farmers are not poverty stricken. They are enjoying a fair degree of prosperity, and yet it cannot be said that the conditions are satisfactory. Boiled down, the principal trouble seemed to be too much hard, grinding toil and too little opportunity for reading or healthful recreation. Diversified farming makes rather more profit for the farmers as the investigator found, but it adds to the burden of the work, and help is hard to get. The successful farmers, he found, work from daylight till dark and after. Their wives have to work as hard or even harder than their husbands. It is not to be wondered at that they grow weary of these long hours of work and no play. If they go away even for a day they feel that they are neglecting some work that ought to be done and probably have to work that much harder afterward in order to make up for the time lost. So the young men and young women, with a natural longing for change and recreation, go away. The farmers' wives wearied with their burdens that grow heavier instead of lighter as the years go on, conclude that it would be a relief if they could get to town. They encourage their husbands to rent the farms and move to town and cannot be blamed for that, but that means rented farms and deterioration. The farms run down, the buildings get out of repair and the country as a whole suffers.

The only trouble about the report is that it does not seem to suggest a remedy. There is no doubt about the truth of the statements made and you would be likely to find a good many of the same conditions in almost any farming community.

The other day a very intelligent and prosperous farmer called at this office. He has no complaint to make about his financial affairs. He has a half section of good land and I imagine that his note of hand without other security would be amply good at any bank that knows him for \$10,000, or almost any other amount he might want to borrow for

temporary purposes, but he told me that for 30 years he had been tied down to his work practically every day, winter and summer. He is now getting past middle life. The burden of work does not lessen. On the other hand it rather tends to increase. He finds it nearly impossible to employ efficient help. If he is fortunate enough to get a good hand it is only a little while until the man has an opportunity to do better than working for farm wages, even good farm wages, while the ordinary hand that he may be able to hire is apt to be careless and unreliable. He is up against it, to use a slangful expression. He must either continue to be a drudge and his wife must be a drudge or they must leave the farm.

All this talk that is sometimes indulged in about modern machinery making the farmer's life one continuous round of ease and joy makes me weary. It is true enough that with modern machinery a farmer can accomplish vastly more than he could accomplish when he used to work with the old clumsy hand tools, but the cost of modern machinery makes it necessary to farm on a more extensive scale in order to make a profit on the increased cost of equipment. So on the whole the man who tries to run a farm and keep it up as it ought to be kept up, while he does not have to do as much heavy labor as his father did in his day, has to put in as many hours. It is not so much the hardness of the toil that is discouraging, as the fact that there is no let up to it. The well managed farm means work practically every day from January first to December thirty-first.

What is the remedy? Mr. Faris of Osage county suggests a co-operative plan. He would have, we will say, an entire township organized as a corporation, the members of the corporation holding stock in proportion to their investment. In the center of the township would be the community house or houses where the members of the farming corporation would live. At convenient places in the township would be stations where necessary supplies would be kept, machinery stored, provender put up to feed the stock kept in that particular section. The farming would be done by steam and electricity for the most part and expense of individual teams and plows eliminated. Trolley lines would be established from the central community to the various stations so that the laborers could be quickly transported to and from their work. The work of one steam plow or rather engine pulling a gang of plows would easily do the work of 30 horses and 10 men. The steam gang plow would only require the time and labor of two men and would do the work better than where the plowing is done with teams of horses. By this system of combination, carried out in all the lines of farming he believes that a vast amount of labor could be saved and waste eliminated. The community feature would supply the social features that are necessarily lacking where each farm family is living by itself.

There may be valid objections to Mr. Faris's plan. Maybe it would not work out so well in practice as it looks on paper, but at least I would like to see it tried.

DOES NOT BELIEVE IT WILL HELP MUCH.

Writing from Gorin, Mo., Dennis Kittle says:

"As to Mr. Doolittle's bill I do not think it would be a success or accomplish what he desires. When a young man is starting out and has little or nothing in the way of capital, then is when he needs help. But if the government will only lend him 60 per cent of the value of the land, how would the young man secure the other 40 per cent. This bill would be a help to those who do not so much need the help.

"In this county it is no trouble to get a loan on improved land at from 5 to 6 per cent with commission. Loans are made to about one-half the value of the land. Twenty-one years ago I bought 80 acres of land at \$23 per acre and had a few head of stock, but money was scarce and cattle and horses were cheap. I got a loan on the farm of \$1,300 at 8 per cent and borrowed \$400 at 8 per cent on personal security. One neighbor had confidence in me and lent me the money needed. In those days if I got in a close place I would have to give security to get \$25 at the bank and pay 12 per cent interest or more. Now I own 300 acres of good land. Of course I am in debt, but I can go to the bank any day and borrow \$3,000 at 7 per cent or all that the bank is permitted to lend to one individual, by simply signing my wife's name on the note as security, and that is because the law requires two names on the note.

"Now if a person owns a farm, large or small and lives on it and lives honestly he should not be compelled to pay any more than Mr. Capper, who is printing so many good papers, but he should pay the same in proportion to his wealth.

"I believe that government loans might be made through the postoffice department, that 1 per cent would pay the necessary expenses and that the loans should be made on 10-years' time and prompt payment of interest required."

THE TARIFF ON SUGAR.

It is certain that the tariff bill now pending is not going to be modified so far as the sugar schedule is concerned. It will provide for a reduction of tariff to 1 cent a pound for three years and free sugar after that.

The other day I was talking with a gentleman

connected with the Garden City sugar factory. While of course his opinions like those of every other man are influenced by self-interest, I believe he honestly believes that free sugar will result in the closing down of every beet sugar factory in this country. He gave some figures that seemed to prove his contention, unless it will be possible to cheapen the cost of production below what it costs at present. There would seem to be only three ways in which the cost can be reduced. Improved machinery may be invented so that with the same amount of sugar the factory can turn out a greater amount of sugar. Second, the price paid for labor in the factory may be reduced, or third, the price of beets may be reduced. The present price to the farmer is about \$5 or possibly \$5.50 a ton. If the price were reduced \$1 a ton it would of course very materially reduce the cost of production. Whether beets could be raised at that price by the farmers and they make a profit I do not know.

In a recent speech in the senate, Senator John Sharp Williams of Mississippi said that he had no doubt that free sugar would mean the closing of every sugar factory in the South. Now if that is true and if it will result also in the closing of the beet sugar factories, then the result will not be of benefit to the people of this country. While I have favored free sugar, I am satisfied that if it should result in killing the sugar manufacturing business in this country the final result would not be cheaper sugar. If I were a member of the senate and believed as Senator Williams says he does, that removing all the tariff will destroy the sugar business in this country, I would not vote for the bill Williams says that he intends to vote for it anyway.

THE CORN PROSPECT AND THE WEATHER.

It is never wise to count your poultry before it is incubated nor to figure on a corn crop in Kansas before August. It looks now as if the state will have a great corn crop, but if the weather continues hot and dry through July that hope will be knocked out. The corn is well set and well worked. A dry June is a good thing for corn, but a dry July, in the words of Abe Furimutter, "Why that is different again."

And what worries us is that we know that there is enough moisture in the atmosphere any time to make a crop if the atmosphere can only be induced to leak at the proper time. I firmly believe that in the time that is to come, the time of discoveries more wonderful even than any of the discoveries of the past, man will be able to command the atmosphere to make it rain at his will. That is, to my mind, nowhere near so improbable as was the statement made 25 or 30 years ago that the time would soon be when men could talk over hundreds of miles of space without even the medium of a wire. We have seen that prediction of science fulfilled and I believe that the man or woman who lives a half century from now will see the elements subjected to the command of man. Rain will come when it is needed and parching drouths, destructive floods, fierce wind storms and winter blizzards will be things of memory.

HOPE OF THE WESTERN COUNTIES.

Answering a letter of inquiry from a man in Illinois the editor of the Gove City Gazette paints rather a somber picture of conditions in that county. For three years the crops have been almost total failures and this year promises nothing better.

And yet I believe that Gove county, like all the counties of western Kansas has great possibilities and that the time will come when its farm lands will produce great crops. It is a parallelogram 30 miles wide and 36 miles long. It is traversed from east to west by two principal streams, the Smoky Hill river and Hackberry creek with their various branches. Big creek also runs through the north-east corner of the county. Its total area is 1,080 square miles. In 1911, one of its driest years, the total rainfall for 12 months amounted to something less than 12 inches. Even that small amount fell within a few weeks so that for the greater part of the year there was a total lack of precipitation. How much of what little rain fell, ran away into the streams and gulches, I do not know, but it is safe to say that a large proportion of it did. That did the country no good. What actually fell and went into the sun-baked earth was not sufficient to produce any sort of a crop. Even such hardy crops as Kafir and milo were almost a total failure. If, however, one-quarter of the nearly 12 inches of rain that fell during the 12 months could have been impounded, it would have been sufficient to fill more than 100 reservoirs in the county, each half mile square and 10 feet deep. That amount of water in reservoirs would have irrigated a large part of the land in the county sufficiently to make the growing of almost any sort of farm crops entirely possible.

Taking into consideration their windings, the Smoky Hill and Hackberry creek each have a total length in the county of perhaps more than 60 miles. If dams could be made say every 2 miles along those streams and then if other dams were made at reasonable intervals along these tributaries and still other dams thrown across the numerous gulches found in the county, it would be possible to form considerably more than 100 great reservoirs well distributed over the county. These numerous reservoirs would not only collect a large part of the surface water that now goes to waste, but would re-

Ways=Means=Results

Worked Out by Mail and Breeze Readers

Anyone Tried Canadian Peas?

Mr. Editor—Has any reader of the Mail and Breeze found Canadian peas a suitable crop for southeastern Kansas? What of the value and quality of feed they produce and how much should they yield an acre? What are the best methods of planting and harvesting them? When should they be planted and when harvested? Please answer through the Mail and Breeze.

W. J. S.
Fulton, Kan.

Describe Your Silage Lifter

Mr. Editor—Knowing the Mail and Breeze is ready to help at all times, I want to say you could confer a blessing on your farmer readers here by asking those who have pit silos to describe their methods of taking out the silage. The silo is the thing for western Kansas but for many the cost is too high to build them of concrete or staves. The pit silo is our best holt, but getting the silage out of them is the big problem. If you can bring out some good ideas and devices they would be instrumental in encouraging many persons to build pit silos.

Samuel Teaford.
Norton, Kan.

New Way to Stop Halter Pullers

Mr. Editor—Often I have seen pictures and read directions on curing the habit of halter pulling in horses, but have found a simple chain halter the best thing yet. I bought 60 feet of No. 0 flat, steel coil chain and made halters of it to fit the horses that had the pulling habit. I used their leather halters for patterns and made the chain halters the same size. A snap and open link took the place of the buckle on the leather halter. I riveted a piece of leather to the head band to keep the chain from rubbing the top of the head. I used some of the same chain for tying the halters to the manger. These halters are as light as those of leather but they will cure any horse of the pulling habit, once he puts his weight against them a time or two.

P. H.
Larned, Kan.

Sheep a Small-Farm Opportunity

Mr. Editor—I notice someone would like to see more about sheep raising on small farms published in the Mail and Breeze. I believe the small farmer with from 40 to 80 acres in diversified crops, can make sheep raising the most prolific source of his income. This is certainly a proper question to raise in this time of higher prices for meat.

It is better to advise the beginner what not to do. In stocking up don't buy at the lowest possible prices without regard to quality and don't buy stunted or diseased sheep at any price. Do not expect sheep to support themselves on barren glades or treeless and waterless plains and bring desirable results. They cannot thrive without plenty of wholesome water, and shelter from sun, rain or storm, summer or winter. The average sheep raiser, under just laws would be liable to prosecution for cruelty to animals. One practice alone that would make a strong case, is acting on the theory that the morning dew affords enough moisture to meet the needs of sheep through the day.

Great Bend, Kan. C. C. Hotchkiss.

A Rule For Mixing Concrete

Mr. Editor—The first thing is the proper proportion of materials. A simple method for determining this is to apply the "water measurement."

Take a wash tub and a small bucket and find out the number of buckets of sand necessary to fill or nearly fill the tub. Next determine the number of buckets of water that are necessary to entirely fill the voids in sand, being careful in this measurement to bring the water just to the surface of the sand. The number of buckets of water determines the amount of cement for the quantity of sand. Next measure the broken stone or gravel into the tub the same as the sand in the first step, apply the "water measurement" and this gives the amount of the mixture of sand and

cement necessary for the quantity of broken stone used.

For example. Suppose we put 18 buckets of sand into the tub and it takes 6 buckets of water to fill the voids, then the proportion of cement to sand is 6 to 18, or 1 to 3. Again we put 15 buckets of the broken stone into the tub and find that it takes 9 buckets of water to fill the voids, then the proportion of sand to broken stone is 9 to 15, or 3 to 5. Our total mixture, therefore, should consist of 1 part cement, 3 parts sand and 5 parts broken stone.

O. P. Pennock.
Colorado Agricultural College.

An Eastern Kansas Farm Home

They say a young farmer hasn't much of a chance to get a foothold in the more populous agricultural counties of northeastern Kansas where land is high in price. Perhaps this is partly true at the present time. Twenty-two years ago Fred Engler, a reader of the Mail and Breeze, began farming for himself in Shawnee county. He is now the owner of a well stocked 400-acre farm on which is the modern farm home shown elsewhere on this page. The house has an air-pressure water system, furnace heat, and acetylene gas lights. Other buildings on the farm are a machinery shed 16 by 40 feet, a barn for 20 head of



Results of a modest beginning at farming in Shawnee county 22 years ago. Farm home of Fred Engler, an eastern Kansas reader of the Mail and Breeze. The house has an air-pressure water system, furnace, bath and acetylene lights.

horses, 5 milk cows, and having a capacity for 1,200 bushels of grain and 50 tons of hay.

A Marshall County Serum Test

Mr. Editor—The use of hog cholera serum is a much discussed subject. Our experience with it last fall and winter may be of interest. We had a great deal of cholera in our neighborhood and on November 12 one of my neighbors vaccinated his hogs, using the simultaneous method. His hogs never showed signs of cholera. About the same time cholera appeared in my brother's herd of 26 hogs and by December 16, 24 of them had died. He bought two of my neighbor's vaccinated sows and put them in his pens. On December 20 one of his two remaining hogs died between the two vaccinated sows. The other, a boar pig, got well. The two vaccinated sows never showed a sign of sickness and farrowed April 20.

I had 140 hogs at the same time—81 on the south side of the yard and 59 on the north side about 20 rods away. On December 18 those on the south side began showing signs of sickness and one died six days later. On December 26 I shipped them out and two days later vaccinated the remaining 59 according to Dr. Schoenleber's directions. In this herd were 12 18-months-old sows, and 47 fall pigs about 2 months old. On January 13 I vaccinated the pigs again, with serum and virus. The whole lot did well until the middle of February when I lost four of the 12 sows and nine of the pigs. Then came the snow storm early in

March and all that were sick at that time died. I lost no more hogs after that, but all the remaining sows lost their pigs this spring.

Arnold Dwerlkotte.
R. 1, Marysville, Kan.

Windmill Irrigation is Cheap

Mr. Editor—I know by experience water can be pumped from a depth of 50 feet into a reservoir, at a cost of about 1 1/4 cents a hundred barrels of 50 gallons each. I have a 6-inch well with a 3-inch cylinder and an 8-foot windmill wheel. This outfit will, on an average, throw about 500 barrels of water into a reservoir every week. It is on the work of this outfit that I based the foregoing estimate. With a larger well, a 6-inch cylinder, and a 12-foot wheel I believe the cost could be greatly reduced.

I like Mr. Walker's idea of promoting irrigation in western Kansas, as expressed in a recent Mail and Breeze. Like a great many others I felt the special appropriation made by the state would amount to little except to furnish some ready cash to the board members and a few others. But since reading your comment I have a bright hope, great and lasting good may be the final result of this appropriation.

It is my opinion the irrigation board can establish at least 300 experimental pumping plants with the money appropriated. That would give eight or nine to every county in the western third of the state. Let them install these plants and require the farmers to plant the crops, make the reservoirs, and distrib-

blowing is by listing and by plowing with a disk plow, the latter because it leaves the stubble, etc., partly uncovered which breaks the force of the wind at the surface.

I believe disking both before and after plowing will add to rather than detract from the chances of a crop. Early working of any seedbed is best for several reasons. One that should not be overlooked is that the stubble and trash turned under early will have rotted and therefore be available for plant food for the new plant's growth. Again if nature has favored us with rains the early plowing will have settled down and will retain moisture better than fresh plowed open soil.

A man may theorize and experiment in western Kansas and part of the time he hits it with bumper crops. When he does so he begins to take notice of himself and expects his neighbors to do likewise but in another year his rules may not produce the same results at all. My opinion is that western Kansas will prove an exception to any man-made set of rules inside of 10 years.

R. 1, Fowler, Kan. J. S. Hartman.

Subsoiling of Blowing Soils

Mr. Editor—It has always been a problem here to prevent "blowing" of light soils, but still get the ground worked as well as if it had been plowed. After 20 years of farming we have finally developed a system which beats anything else we have tried. In preparing wheat ground we use our listers—preferably the two-wheelers—take off the moldboards and fit on one of the 30-inch lister shares or "ridge busters."

When we first tried this we hitched on six good horses and put this tool down about 8 inches. That was as deep as the horses could pull it the first year but now we are working deeper. We drive so as to leave a very small ridge, or none at all, between furrows. The ground is then disked and harrowed twice.

On our Kafir ground we use an ordinary 14-inch share, turning the casting over and putting the beam under the frame, which allows us to get down from 10 to 12 inches with the same power. In preparing a field that has been in rowed crops we simply subsoil between the old rows and list shallow later.

With our corn ground, which is always heavy bottom land, we cut the stalks, subsoil north and south with the same share we use in wheat ground, and list east and west.

The longer we follow this system the better we like it. The soil holds the moisture, makes cultivation much easier, prevents blowing, and surely gets results. After seeing the difference between our crops in 1911, one of my neighbors subsoiled part of his corn ground last year with such favorable results that he subsoiled the whole of it this spring.

Cunningham, Kan. W. H. Sellon.

What About Alfalfa on Upland?

Mr. Editor—Has any reader of the Mail and Breeze tried to raise alfalfa on upland in the western half of Kansas? That is, land not subirrigated, where the water is 30 to 40 feet deep? If anyone has done this I should like to hear from him through the paper. My reason for asking this is because I have 100 acres of alfalfa on land of that kind here in Oklahoma. It was put out in May, 1912, and as the ground was very weedy we had to cut it twice. After the second cutting, the weather turned dry in the fall so there was no crop.

This spring the alfalfa came out and made a fine stand but the weather has been unusually dry. We cut it May 1, but it made a very light crop. At present (June 21) the growth looks nice and green but is only about 4 inches high. I attribute this to the absence of spring rains. Many tell me my alfalfa, being on upland and 30 feet to water, will never pay me, even if I should obtain a good stand. So I should like to hear from alfalfa growers in western Kansas.

A. W. Mountain View, Okla.

[The Mail and Breeze of June 28, page 6, contained an account of an alfalfa patch in Sherman county, western Kansas, which might be cited to disprove your advisers. This alfalfa, grown on upland 60 feet to water, was 37 inches in height when cut early in June. The patch is 5 years old. The older the stand the farther the roots extend downward and the more moisture they get from the soil.—Ed.]

We all like the Mail and Breeze very well and surely want it to keep coming.—F. G. Hiebert, Hillsboro, Kan.

Seedbed Making Out West

Mr. Editor—Conserving the moisture we already have, beats planning how to conserve what we are looking for in the future. Land which has been double-disked while there was plenty of moisture can be plowed from 10 days to two weeks later than undisked land, so it seems reasonable that double-disking is a means of holding the moisture we already have. My experience has been that harrowing right after the plow also helps to retain moisture and does not seem to increase the danger from blowing until after a rain puddles it down.

The object of sub-surface packing is to prevent evaporation by uniting the loose soil with the subsoil and closing up the dead air spaces. If there is moisture when we plow, the sooner the ground is packed the more moisture it will retain. I think the roller and sub-surface packer have different missions to fill. The roller does good work in crushing clods during a dry time, when one has to force conditions, but the packer should be used while there is moisture to save. Conserving moisture is one thing and preventing soil blowing another. Two good ways of preventing

JAYHAWKER FARM DOIN'S

BY H. C. HATCH, GRIDLEY, KANSAS.

We like to get the experiences, views and opinions of "our folks" on any farm or livestock subject particularly if seasonable and likely to help some of us who may need the information. Your letters are always welcome. Subscriptions to Farmers Mail and Breeze or other good publications for best letters received. Address Editor Farmers Mail and Breeze, Topeka, Kan.

Going more than three weeks without rain, as this neighborhood has, makes the farmers wish for moisture. We hope to be thoroughly wet up before this is read.

There is a good deal of moisture in the corn fields and corn is growing well and has a good color. At this stage corn does not need a great deal of moisture; it is when it is tasseling and silking that the ground needs to be well soaked.

We have often heard it argued that showers in a dry time did little good; that they dried up at once leaving the corn more wilted than ever. It is said that nothing but a general rain is of any value in breaking a prolonged drouth. Just the same, we will take all the moisture that comes along, whether in large or small quantities, and be thankful for it.

This week we received a letter and a sample of a plant from a Mail and Breeze reader. He had never in his life seen a cowpea growing but this spring sent to a seed house and got some, which he sowed broadcast. The seed looked so much like beans that he was suspicious and when the peas came up the plants were so like beans that he became convinced he had been "done". The sample he sent was a cowpea showing fine, thrifty growth.

PHOTOGRAPHY REVOLUTIONIZED

BY NEW INVENTION.

Films, Plates and Dark Room
Made Unnecessary.

New Camera Takes Finished
Pictures in Two Minutes.

Mr. Edmond F. Stratton, of New York City, has invented a camera that takes and completes pictures ready to see in two minutes. It does away with the expense of buying films or plates and the trouble, expense and delay of having them developed and pictures printed by a photographer.

This camera, which is called the Gordon Camera, is being manufactured by the Gordon Camera Corporation, 749A Stuyvesant Building, New York, N. Y. As they are desirous of making it known in every locality, they are making a special offer to our readers. For a limited time they will sell Model H at \$5.00 and Model B at \$7.00. The regular price of Model H, which takes pictures 3x4 1/2 inches, is \$8.00, and the regular price of Model B, which takes pictures 3 1/4 x 5 1/2 inches, is \$10.00. Whichever one you order enclose 90 cents additional to cover parcel post, sensitized cards and developing powders.

The sensitized cards are wrapped for daylight loading, and the powders make the developing solution to be put into the developing tank, which is inside the camera. Model H is 5 1/2 x 9 1/2 x 10 inches in size and weighs 3 lbs. 7 oz. Model B, 6 1/2 x 9 x 10 1/2 inches and weighs 4 lbs.

The cost of taking pictures with the Gordon camera is almost nothing in comparison to all other cameras. Extra sensitized cards for Model H can be bought for 2 1/2 cents each (cards for Model B, 3 cents each,) and 10 cents worth of developer will develop over 40 pictures. The Gordon Corporation sells flash-light lamps for \$1.00, which will enable you to take pictures at night in your own parlor, or out of doors.

The operation of this new camera is so simple that any person of ordinary intelligence can easily take pictures with it after reading the directions sent with each one. When ordering a camera under this special offer be sure to mention that you are a reader of THE FARMERS MAIL AND BREEZE.

It was more than 6 inches tall, and stocky. If nothing worse happens, this inquirer is going to have a lot of fine cowpea hay this season.

The cowpea really is a bean and the soy bean is really a pea. That is, so far as looks go. In reality the bean-like cowpea tastes just like a pea and there is no question but that it belongs to the pea family. No bean could make so palatable a quality of hay as this pea.

We are not so well acquainted with the soy bean. Except once, we have never given it a trial on any but a garden scale. That year we planted 4 acres to soy beans, getting them in the ground about June 15. They came up all right but something about them seemed to attract the rabbits. We are satisfied that half the rabbits in the township came on an excursion to our soy bean field and if they had return tickets they had at least a 60-day limit. At any rate, they staid long enough to eat up all the soy beans on that field.

Since then we have heard it is hard to raise soy beans in small quantities on our western prairies. The rabbits eat them almost before they get started. If everyone raised them there might be enough to go around but we don't like to undertake the job of furnishing all the rabbits of the township with soy beans. Their appetites are too good. Rabbits will eat cowpeas to some extent but it is seldom that the damage makes much of a showing on a field of any size. In western Kansas, where the rabbits are thicker, they might do more harm. In this locality the rabbits have never been so numerous as they were before the big snow of 1912.

It has been almost five years since this part of the county has had any bad washing rains. For this reason the roads are in good condition, the grades have not suffered and this summer we have been driving to town on the best roads we have ever traveled over since coming to Kansas. This travel is made better because practically all the culverts are now made of concrete and instead of the 6-inch lift which the plank culvert usually shows, the concrete culvert is hardly noticed when you pass over it.

In the 8 miles between this farm and our market town of Gridley, there are now only two or three plank culverts left, and these will be replaced with concrete as fast as they can be reached. The township board, we understand, has agreed to put all the road money this year into building concrete culverts and will not have any grading done. While it is true that a concrete culvert is fine for automobile travel, we never could see why it was not just as fine for horse drawn vehicles. What is good for one is good for the other. A big load of hay draws much easier over a good automobile road than over a road full of humps and hollows. We are glad to say, however, that the feeling against making bad roads good, just because it would make them good for autos, has about died out. There never was any of this feeling in Gridley territory; there is as little of the moss-back about the folk in this part of Kansas as may be found anywhere in the state.

We have Irish Cobbler, Rural New Yorker, Bliss Triumph, Early Six Weeks, Burbank and Eureka growing in the same field. The land is just the same, the potatoes were planted at the same time and all have been given an equal show. In other years we have had plenty of weeds in our potatoes but this is one of the years when there are no weeds in the field, at least, not yet. And the Eureka is so far ahead of all the other kinds that there is no com-

parison. Is there any other variety of potato not in this list which any of our Kansas readers have tried and found good? If so we should like to know what it is and we will give it a trial next year. We don't want to be standpat if we can help it.

For a number of years the Eureka potato has been our standby. It seemed so much better than any other kind here that we were content with it and tried no other variety. But after growing these potatoes for several years we thought perhaps we were too much standpat in this matter and that some other variety might be better. This year we have six different varieties growing on this farm and are more strongly convinced than ever that Eureka is the best kind.

Last winter a brother had a water system put in on a farm he owns in another county. The water is lifted out of a shallow well and forced about 70 rods to the top of a hill. The elevation must be at least 60 feet. After it had been in use for some time, the man living on the place reported the windmill was lifting pump, platform and all up with every stroke. We went to examine it, thinking perhaps the pump was too short or too long, but inspection showed the pump has a 3-inch cylinder instead of 2 1/2, which should be used when water is to be forced through a pipe. A smaller cylinder was procured and this morning the change was made. In spite of the fact

a hard wind was blowing, the mill did not lift the pump up at all. The fact that the pump had too much to do caused the trouble. Now we knew better than to put a 3-inch cylinder to work on a job like this, having had a little experience with waterworks systems, but the pump was put in by another man. He should have known better but probably he didn't use his thinker.

All Five For \$1.25

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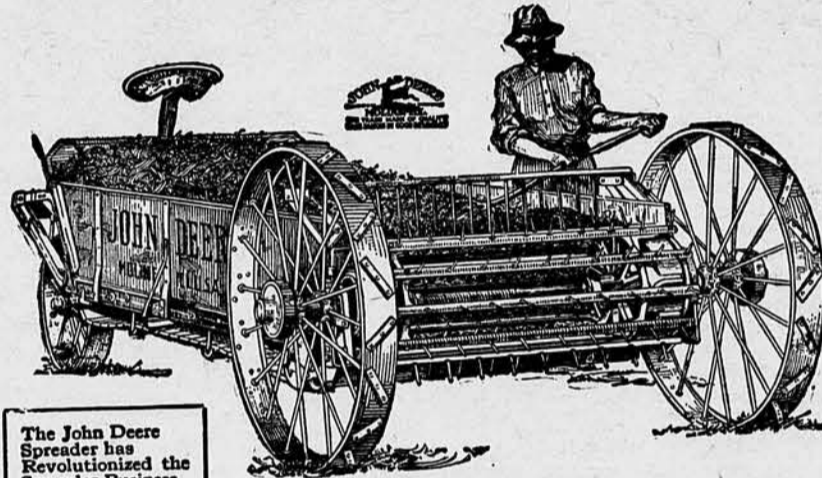
POULTRY CULTURE, a "chicken magazine" full of practical, pertinent, timely and terse talk about the scientific money-making side of poultry raising. Edited by Reese V. Hicks, considered America's greatest poultry expert.

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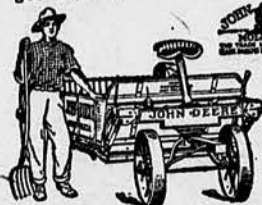
It does away with some two hundred troublesome parts. It makes the spreader low down. It permits the use of big drive wheels. It does away with clutches, chains and adjustments. It puts all the strain and stress of spreading on the rear axle, where it belongs, not on the sides and frame of the spreader.

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John Deere Plow Co., Moline, Illinois

A Boy Breeder of Horses And How He Saved to Buy a Stallion

(Part of it being a personal letter to the editor.)

Editor's Note.—It sometimes surprises the old codgers to find there is depth and purpose in a boy, as well as a noble appetite for grub. More old codgers would find this out if they would give the boys half a chance to develop an interest in the farm, or specialize in growing corn, or raising a steer calf, or pig, as their very own. The writer of this comprehensive little sketch on the origin of the Percheron horse, is a son of C. W. Lamer, the Kansas horseman. He didn't intend the personal part to be printed. This year he has become a breeder of horses himself, having bought his first stallion. He is getting his education at Kansas Agricultural college, and the first thing you know will be showing some of his stuff in the show ring.

I AM going to be a farmer and have started the foundation for a family of horses that I hope to be proud of some day.

I have always wanted to own a good Percheron stallion and for 10 years saved my money to buy one. Last year when my father left for the old country, I gave him all the money I had saved and told him to buy me the best Percheron horse he could get. In this way I became the owner of Kangourou (92360) 91241. This horse was 3 years old May 25 and weighs



H. B. Lamer.

1 ton and 40 pounds. He is now at the head of our stud on the Pioneer Stock Farm at Lindsborg, McPherson county, and we have 50 mares engaged to breed to him this season.

As I have found the history of the Percheron horse interesting I have written out some of the facts for the Mail and Breeze, thinking other farm boys who read the paper will find them as interesting as I have, and maybe, other readers who may not be acquainted with Percheron history.

Horses were first brought to France for the purpose of war. In 732 when the French knights defeated the Saracens they captured their horses. These were of the Arabian type. The French crossed their own mares with the Arabian stud acquired from the Saracens and continued this breeding until 1826, laying in this way the foundation for a horse that should have plenty of action, quality and strength.

After the railroads came, and travel by coach grew less, there arose a demand

for heavier horses. This led to the use of Flemish stallions, the heaviest horses the French people had at that time. The province of La Perche being favorable for the growth of strong active horses the Percheron type was originated in this way. Though the people of France raise several famous breeds of horses and export them to America, none compares with the Percheron in popularity or in the number exported.

The imported Percheron draft horse comes from the old province of La Perche. This province is in the north central part of France and is about 100 miles square. The land is very rolling and has a poor water supply, but is noted for its excellent grass and abundant crops. The climate is mild and excellent for stock raising.

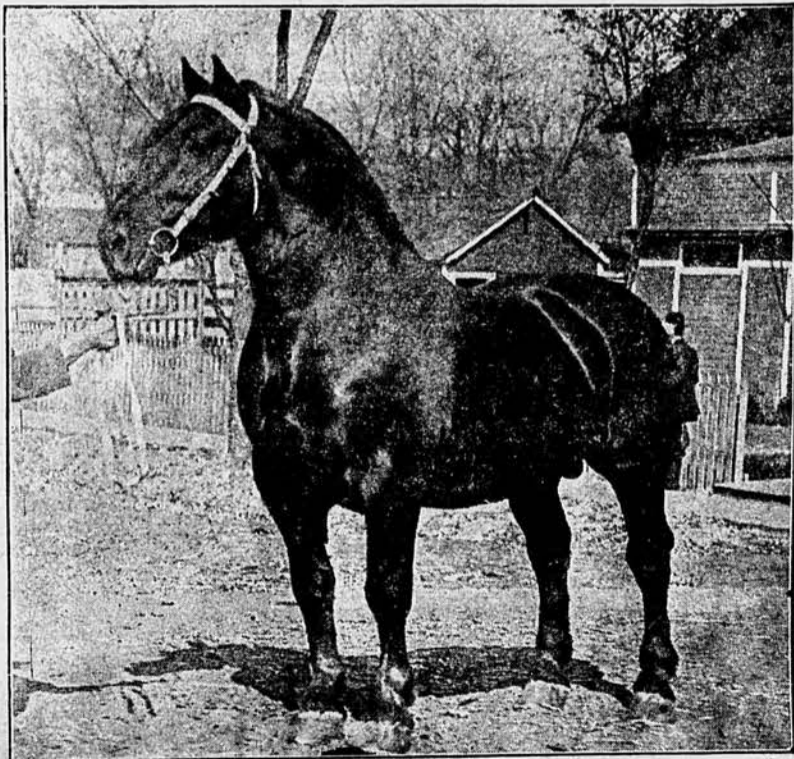
About 80 or 90 years ago the object of the horse breeders of La Perche was to produce a draft horse of medium weight which could pull a heavy load at a rapid rate. At this period the people of France wanted a strong, rangy horse of extra good action, full of vigor and gray in color. As a horse with these qualities the Percheron was in great favor with the farmers of France. But the demand in America was for the heavier, blockier type, for a horse that had a good flat bone. This demand led to the development of the Percheron horse of the present time which stands from 15 to 17 hands high, weighs from 1,700 to 2,200 pounds, and has a good flat bone and plenty of conformation. The Percheron horse of today is the best type obtainable for farm purposes and therefore finds a good market.

The French government inspects all horses that stand in France. A colt must be more than 30 months old before he may be used for public service. If a colt fails to pass inspection it is branded with the letter R, which means refused. The French Percheron society uses the brand SP.

The first importation of Percherons to America was made in 1839 by Edward Harris of New Jersey. The next in 1851 by Fullington & Martin of Ohio. The most noted horse brought over in this last named importation was Louis Napoleon. In 1856 he was sold to a Mr. Dillon of Normal, Ill. This horse was 15½ hands high and weighed about 1,600 pounds. He is said to have been one of the most noted horses ever brought to America because of his breeding and to have sired 400 studs that were used successively.

There is good authority for the statement that in 1866 there were 5,000 Per-

(Continued on Page 15.)



A picture of Young Lamer's stallion was to have accompanied this article but the one taken was a failure. In order to show the Percheron type this picture of another horse has been substituted.

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Conducted for Farmers Mail and Breeze BY DR. F. S. SCHOENLEBER, Professor of Veterinary Science, Kansas Agricultural College.

Our readers are invited to consult Dr. Schoenleber in an advisory way in case of trouble with livestock. Be sure to state the history of the case, location of the disease and the conditions under which animal has been kept.

Ailing Pigs.

I have some pigs nearly 2 months old and for two or three weeks one of them has been weak in the hindparts, part of the time dragging its hind feet along.

Paralysis of the hindparts is a common condition in pigs. The actual cause has not been determined. Give 10 grains of powdered nux vomica in a little milk to the affected pigs daily.

Udder Infection.

About a week ago one of my cows began giving lumpy milk and on examining her udder found large lumps in it.

Your cows have an infectious form of inflammation of the udder. It usually results in the destruction of the affected parts. These cows should be kept separate from the other cows and be milked last.

Lump Jaw.

Can lump jaw be cured and is milk from a heifer affected with it good to use? Would a calf from such a cow be liable to have the disease?

Lump jaw in cattle is caused by a fungus which enters the animal's body through decayed teeth or other wounds. It is not contagious and seldom passes through the system.

Eye Infection.

I have a Mexican mare pony that got her eye hurt about a month ago. It ran for a while and then seemed to be all right but I have since discovered a pink looking spot in the right corner of the eye.

Treat the pink looking spot on the horse's eye by placing in the eye daily, a small piece of cotton saturated with the following solution: Protargol, 10 grains, and rain water sufficient to make 1 ounce.

Cholera Symptoms.

A disease has broken out in several bunches of hogs in this locality. They first get off feed, stand around, get thin in flesh, and die in the course of about two weeks.

From the description of the symptoms I am strongly of the opinion your hogs are affected with the intestinal form of hog cholera. I would suggest you have them treated by the serum alone method until the disease is controlled and that in the course of a month or six weeks you use the simultaneous method of vaccination.

Kidney Trouble.

I have a mare that I think had a touch of the horse disease last summer. Ever since that time she has been urinating frequently. It comes in small quantities, sometimes clear, at other times dark, and often it is bloody.

Your mare is undoubtedly affected with inflammation of the kidneys and as the condition is of old standing the chances of recovery are rather poor.

would suggest you give the mare with her feed two powders daily, each having the following composition: Boric acid, 1 dram; tannic acid, 1 dram; powdered nux vomica 1 dram.

Ailing Pigs.

I have some 2-months-old pigs, the largest of which break down in their hindparts like hogs with kidney worms.

It has never been positively determined exactly what causes paralysis of the hindquarters in pigs. It may be due to intestinal worms, kidney worms, or tuberculosis of the spinal cord.

Inflamed Kidneys.

I have a horse that had some trouble with his kidneys last summer, passing water very frequently. He got better through the winter but is now getting worse again.

From the description of the symptoms I am inclined to believe possibly your horse may be affected with acute inflammation of the kidneys.

- Tannic acid, 1 dram. Boric acid, 1 dram. Powdered nux vomica, 1 dram.

Keep this up for three or four weeks as it may benefit the animal.

Treatment for Stiffness.

What can I do for a horse that is more or less stiff and is falling off in flesh? He is 12 years old and weighs 1,250 pounds.

For the unthrifty condition of your horse have a graduate veterinarian make an examination of the teeth. In addition you should feed the horse a large tablespoonful of powdered saltpeter twice daily.

Tongue Infection.

I have a 3-year-old Jersey cow that began to lick or lap water before she freshened. Her tongue has black spots on it.

I don't think that the black spots on the cow's tongue indicate any particular disease. You should have your cow tested for tuberculosis and if she is free from this condition a good tonic powder would probably be of value.

- Powdered nux vomica.....2 ounces Powdered ginger.....3 ounces Powdered sulphate of iron.....2 ounces

Add enough artificial Carlsbad salts to make 1 pound. Give her 2 tablespoonsful twice per day in the feed.

We look for the Mail and Breeze as regularly as we do Sunday.—H. D. Howell, Hunter, Kan.

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The correctly adjusted machine to cut for shock or silo. Works in all kinds of corn and on all kinds of soil. No breaking off of ears or pulling of stalks. Absolutely safe. Cut from five to ten acres a day with one man and one horse.

Kerrick, Ill., Nov. 18, 1912.
I take great pleasure in recommending the Perfect Corn Harvester to anyone who has corn to cut. I used two machines purchased from you in corn that would make 60 bushels per acre. Two machines, two men and two mules cut 40 acres of corn averaging 60 bushels per acre and cut 96 shocks per day. 16 hills square, and fed three car load of steers every day, besides doing other chores, and were all through with their day's work by six o'clock every night. I would be glad to have you refer anyone to me for any further information. Very truly, L. H. Kerrick.

Send today for booklet on "Cutting Shock of Silo Corn."
LOVE MANUFACTURING COMPANY,
Dept. 18, Lincoln, Ill.

Dairy Farming

CONDUCTED FOR FARMERS MAIL AND BREEZE BY A. G. KITTELL.

This department aims to be a free-for-all experience exchange for our folks who keep milk cows. We are glad to hear from you often. A Mail and Breeze subscription and other prizes awarded each week for helpful or interesting letters or bits of dairy news.

Streaky butter is one result of working it when too soft.

The runty or pot-bellied calf is a product of irregular or over feeding.

When necessary to mix new milk with that of a former milking, it is best to let the new milk cool first.

A wet blanket or canvas over the cans on the way to town will add that much to the quality of cream or milk.

None of the new fangled churns have yet put the old fashioned barrel churn on the shelf.

The cow left to skimp along on short feed while dry will be that much longer in coming to her best milk flow after she freshens.

This is a good time to put out root crops in vacant spaces. Rutabagas, mangels, sugar beets, and turnips all are good and will furnish succulent feed six or seven months hence when there is no other to be had except from a silo.

The cream buyer gets a slice of profit, the railroad gets two slices, and the creamery and merchant each get one slice, making in all five slices of profit between the farmer and consumer.—Mrs. B. M., Hays, Kan.

A Separate Well Wheel For the Cream. [Prize Letter.]

Mr. Editor—For 20 years we have been hanging our cream in the well but it was not until this season that I adopted an idea that makes an easy job of it. My cream can holds about 3 gallons and when full it was a difficult task to raise or lower it. I now have a pulley put up on the frame near the pulley for the water bucket and it is an easy matter to draw up the cream can or anything else I may want to hang down the well to keep cool.

I have a large spike near the corner of the curb and after lowering the can the rope is swung over this spike to hold the can over on one side out of the way of the water bucket.

In buying a new cream can, get one with a cover that comes down over the outside. You can then fill up the can and no rain or dripping water can get in as with covers that fit down on the inside. Have a small stand near the well on which to set your cream can and you will be surprised how much it will save your back. I have a second stand near the screen door and when my hands are full I can empty one to open the door, without stooping.

To prevent cream spattering while churning I melted the bottom and small round cover from a quart tin can. This was set over the opening for the dash with the large opening down. There is no more spattering now and the tin can is easily washed.

I have found that to fill milk crocks half full or less, will give me more cream than if the crock were filled up. That is, two crocks half full will yield more cream than one crock full of milk. Yes, it makes more work washing crocks but it pays.

I have a four-legged milk stool with the seat long enough to hold the bucket. I sit on the stool sidewise as in riding horseback. This leaves the hands free to do the milking and with the right limb one can hold the pail firmly by pressing it against the strip on the outer edge of the seat. Sitting this way, one can also grab the pail and jump instantly in case of necessity.

Hattie Weld Andrews.
Greeley, Kan.

Please renew my subscription to the most valued Mail and Breeze.—Walter Flick, R. 1, Hunnewell, Kan.

DE LAVAL CREAM SEPARATORS

Save Much Time and Labor in Summer

BESIDES greatly increasing the quantity and improving the quality of cream and butter DE LAVAL cream separators save much valuable time and labor.

This great saving of time and labor counts for more in summer than at any other season and often alone saves the cost of a separator, aside from all its other advantages.

As compared with any kind of gravity setting the saving of man's time and labor and usually woman's drudgery with a DE LAVAL is a big item in its favor.

As compared with other separators the DE LAVAL saves much time and labor by its greater capacity, easier running, easier handling, easier cleaning and freedom from need of adjustment or repair.

These are merely some of the advantages which make a DE LAVAL cream separator the best of all summer farm investments, as every DE LAVAL agent will be glad to explain and demonstrate to anyone at all interested.

See the nearest DE LAVAL agent at once or if you do not know him write us direct for any desired information.



THE DE LAVAL SEPARATOR CO.
NEW YORK CHICAGO SAN FRANCISCO SEATTLE

Easy to Run



Simple to Set Up
A 10 year old boy could set up a Blizzards Ensilage Cutter. Comes in three pieces. Can't be put together wrong. Self feed table. Almost runs itself. Big capacity with small power. The

BLIZZARD Ensilage Cutter

elevates to any height in any direction. Rigidly guaranteed. Lasts many years without repair expense.

These Books Free
(1) "Why Silage Pays" (2) 1913 Catalog (3) "What Users Say."
Write today for any or all of these books mentioning whether or not you have silo.

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1913 Blizzards
What Users Say

Saves Time!

Only Filler whose power and capacity ratings are made on a gasoline engine basis. Don't be deceived by steam ratings and lose many hours by having to operate a steam-rated Filler with Gas Power. The

Whirlwind Silo Filler

has strongly braced, under-trussed frame; patent start, stop and reverse mechanism. Fan case independent of working parts. Knife Head and Blower Wheel one solid, single piece. Adjustable front-plate. Feed table just waist high. No table strain on working parts. A tip-top, high-quality machine throughout, and priced right. Send postal for latest Catalog 51.

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(70)



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Can be used for store house.
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Save \$25 to \$40.

Bigger Silo Profits

Cut one half off your Silage feeding work with the Hinge Door Silo. Doors operate on hinges. Write for our catalog on

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Two famous makes. Best construction in both.
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SEND IN YOUR NAME

Only \$2 Down One Year to Pay!

\$24 Buys the New Butter-Fly Jr. No. 1. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 90 qts. per hour. Made also in four larger sizes up to 5-12 shown here.

30 Days' Free Trial Earns its own cost and more by what it saves in cream. Postal brings Free folder and "direct-from-factory" offer. Buy from the manufacturer and save half.

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Keeps flies and other insects off of animals—in barn or pasture—longer than any imitation. Used and endorsed since 1885 by leading dairymen and farmers.

\$1 WORTH SAVES \$20.00

in milk and flesh on each cow in a single season. Heals sores, stops itching and prevents infection. Nothing better for galls. Kills lice and mites in poultry houses.

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Minneapolis, Minn.—No. Kansas City, Mo.
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The Awakening.

[Written for Farmers Mail and Breeze.]

I've been in the city six months now
I'm tired of looking for work
Tired of worry, wondering how,
I'm going to pay my board;
Tired of reading the want column page,
Tired of life, that's all,
It seems as though I'd lived an age
Since I came here just last fall.

I've been dreaming a dream of the old
home place
Before I began to roam
And in my dreams my mother's face
Smiled and called me home.
Strong though I am, the tears will come,
Despair is plain in my face;
But I've hardly the nerve to turn and run,
Admitting failure—disgrace.

There's a place in this world for everyone
And the city claims its share,
But I'm going back to the old farm home
Where there's plenty to eat and to spare.
I'm going back where the grass is green,
Away from the city's noise,
Away from this mere existence,
Back to life and its joys.

—C. H. Bailey,
1005 Washington St., Kansas City, Mo.

Gilman Wanted in Corn Work

J. M. GILMAN, of Leavenworth county, a not infrequent contributor to the Mail and Breeze, has been appointed an assistant corn investigator in the department of agriculture at Washington.



J. M. Gilman.

The position pays a salary of \$2,500 a year. Mr. Gilman will assist C. P. Hartley, also a Kansan, who has charge of this work in the department. As a farmer in Leavenworth county, near Springdale, Mr. Gilman has made more than a statewide reputation as a corn breeder.

He has been an active member and officer of the Kansas Corn Breeders' association and, with one or two other members of that organization, has frequently maintained Kansas's reputation as a producer of improved seed corn by sending prize-winning exhibits to the big shows. His sons have won prizes at the state corn show and in the Capper contests.

Protection Against Typhoid

For years Mr. Gilman has tested, studied and experimented with a large number of field crops on his farm. His last article written for the Mail and Breeze and published early in the spring, was based on a field study of the sorghums. Years ago Mr. Gilman was county superintendent of schools in Leavenworth county and a good one. He represented the country districts of Leavenworth in the last legislature.

It used to be a serious question what caused typhoid fever. Now we know its source is a germ carried from one place to another, or from one person to another, usually in water or milk. Town people have to watch the milk supply. Generally their water supply is tested for them. Farm folks have to watch their water supply themselves. Drainage by ground seepage of slop water, privies, or manure piles, into the water supply creates a typhoid well. Milk from a farm where there is a case of typhoid fever, or where the cows are drinking typhoid water, is almost sure to carry with it the germs of the disease. Flies—often transmit the germs from infected centers; on their feet.

Statistics of the state board of health show there is more typhoid fever in the country, in proportion to population, than in town. This may seem strange, but in the country all the drinking water comes from wells. The germs of typhoid fever which you swallow, may come from the next farm, or from across a range of hills 20 or 30 miles away. If the same vein of water is tapped by the wells of several different families every family will swallow the typhoid germs, and more than likely someone will be taken sick. If there is an epidemic of typhoid fever in your neighborhood, or even one or two cases, it will be well to look after your water supply.

Boiling is a sure way of making polluted water safe, but it is rather slow. Dr. Allen McLaughlin of the United States public health service has found the best and cheapest way of disinfecting water is with chloride of lime. He says: "With reasonably clear water from 3-10 to 6-10 of 1 part of available chlorine to 1 million parts of water will destroy germs like those of cholera,

typhoid, dysentery, and colon bacillus. This is a very small quantity, about 1/8 of a grain to a gallon. Chloride of lime will not change the color of turbid water, but its power to promptly destroy disease germs makes it invaluable, especially in case of an epidemic due to polluted water."

It will be well when using the chloride of lime to thoroughly dissolve and strain it, as it has a tendency to remain in small lumps on the surface of the water. This is the typhoid season, and for the sake of health it will be well to take every precaution.

Why We Need a Twine Plant

Mr. Editor—Have you noticed that farmers are compelled to pay a very high price for binder twine this year? Last year we bought penitentiary twine for 7 cents a pound and trust twine was selling for 8 cents. This year I could not get state twine and had to pay 12 cents a pound for trust twine, an increase of 5 cents a pound over last year.

Last fall one of our local dealers who handles trust twine, advised me to buy my 1913 supply of twine then as I would have to pay more than 10 cents a pound this year. Now I should like to know how he knew the state twine plant would be destroyed this year. When will the state twine plant be in operation again?

H. J. Kipers.
R. 1, Benton, Kan.

Few persons doubt that the state twine plant at Lansing saves the farmers of Kansas a cent or two a pound on their binding twine every year it is in operation. To a certain extent the price of twine depends on the supply of the raw material, sisal. It may be your local dealer had some inside information about the sisal supply.—Ed.

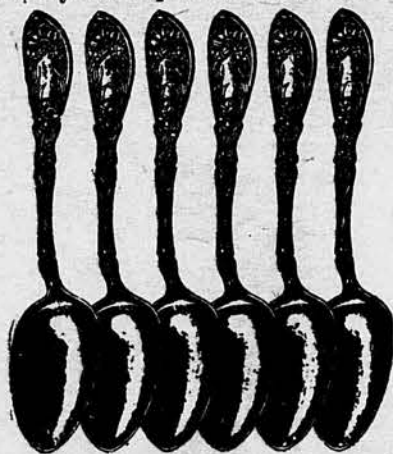
Shipping Hogs in Hot Weather

In shipping hogs this time of year, "don't overload" is good advice. A man who has been shipping hogs for 40 years says he has never known a summer in which so many hogs have died in transit. His way of avoiding this trouble is given in his own words: "Before loading I clean the car, bed it with sand only, wetting it well, then fill eight bags with 50 pounds of ice each, and adjust them to the cross bars in top of the car. This will cool the car and keep your hogs cool until they arrive at the yards and by so doing you will have no dead hogs."

A great many of the weeds now present in prairie grass are of the tumbleweed kind. If cutting is put off for a time they will ripen, dry up and blow away. But should the weather continue of the dry order, the quality of the grass will not be quite so good.

SIX SILVER NARCISSUS TEASPOONS FREE.

I have just consummated a most remarkable purchase whereby I secured at a ridiculously low figure 5,000 sets of beautiful Silver Plated Narcissus Spoons made by the famous Oxford Silver Plate Company. Each spoon is extra heavy, full



standard length, extra deep bowl and with beautifully embossed and engraved handles. I am going to give a set of these handsome spoons absolutely free, postage paid, to all who send just \$1.00 to pay for a year's subscription to my big farm weekly, The Farmers Mail and Breeze. Send your subscription order at once and secure a set of these beautiful and serviceable spoons. State whether you are new or old subscriber. Time will be extended one year if you are already paid in advance. Address Arthur Capper, Publisher Mail and Breeze, Topeka, Kan.

P & O

Light Draft Plows

P & O Light Draft Plows have been used in ever increasing quantities by three generations of American Farmers, spanning a period of 71 years, from 1842 to the present day.

Why? Because we have always insisted on the thorough working out of three cardinal points of merit, upon which rests the foundation of the success of P & O Plows: Strength, Simplicity, and Ease of Operation. These three features with us are something more than a mere choice of words, and they mean just what they say.

Strength—in the use of material, heavy when necessary but not cumbersome, braced, reinforced and ribbed where the strain is greatest. **Simplicity**—in the studied effort to build plows and other tillage implements that are shorn of all superfluous parts, and still give every needed adjustment. **Ease of Operation**—in the position and counterbalancing of levers, the absence of jerking and jarring, either on the driver or the horses, and that general air of finish so difficult to describe, but which characterizes all P & O implements.

P & O Light Draft Plows, all styles and sizes, from Walking to Engine Gangs, either Molds or Discs made for all kinds of soil, for work under all conditions and under any circumstances, and **BACKED BY AN UNQUALIFIED GUARANTEE.** Ask your local dealer for P & O Light Draft Plows and then insist on getting them. When you spend your money for plows, get the best—the P & O line.

PARLIN & ORENDORFF CO., Canton, Ill.

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Get Your Canadian Home From the Canadian Pacific

We will make you a long-time loan—you will have 20 years to pay for the land and repay the loan—you can move on the land at once—and your Canadian farm will make you independent.

20 Years to Pay

Rich Canadian land for from \$11 to \$30 per acre. You pay only one-twentieth down—balance in 19 equal annual payments. Long before your final payment comes due your farm will have paid for itself over and over. This advertisement is directed only to farmers or to men who will occupy or improve the land.

We Lend You \$2000

for erecting your buildings, fencing, staking well and breaking. You have twenty years in which to repay this loan. You pay only the banking interest of 6 per cent.

Advance of Live Stock on Loan Basis

The Company, in case of approved land purchaser who is in a position and has the knowledge to take care of his stock, will advance cattle sheep and hogs up to the value of \$1,000 on a loan basis, so as to enable the settler to get started from the first on the right basis of mixed farming. If you do not want to wait until you can complete your own buildings and cultivate your farm, select one of our Ready-Made farms—developed by C. P. R. Agricultural Experts—with buildings complete, land cultivated and in crop, and pay for it in 26 years. We give the valuable assistance of great demonstration farms—free.

This Great Offer Based On Good Land

Ask for our handsome illustrated books on Manitoba, Saskatchewan and Alberta—mention the one you wish. Also maps. Write today.

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FOR SALE—Town lots in all growing towns—Ask for information concerning openings.

Running Water

in House and Barn at ever temperature Winter or Summer at Small Cost.

Send Postal for New Water Supply
 Catalogue and Plans, 100 pages
 with 100 illustrations
 for 10c
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Give that air of prosperity necessary to success. Get a pair and identify yourself with SUCCESS.

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SAVE 1/2 Direct to User by Mail
 Rod your own buildings. "Made Right" Lightning Cable is pure soft copper and extra heavy. We have no agents.

Shipped on Trial
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 Directions, Foot
 System guaranteed satisfactory or goods returned at our expense. Write today for catalog.

8 1/2 C.

IOWA LIGHTNING ROD CO. OF DES MOINES, ILL. 813 North Liberty St.

12 Beautiful 7-Color 10c Scenic Post Cards

We now have ready for distribution a series of 36 of the most gorgeous scenic post cards ever printed. These cards are made direct from photographs covering all the most important points of interest in Colorado—Mountains, Pea's, Lakes, Valleys, Mines, famous buildings and places—practically every scenic spot of greatest interest is included in this wonderful series of post card views. The cards are printed on finest stock in from five to seven colors producing the most beautiful effect imaginable. These cards have an educational as well as artistic value as they provide true-to-life illustrations of the most-talked-of points throughout this mountain wonderland. Get a complete set for your album or collection, another set to mail to your friends—36 different views.

BARGAIN OFFER. These cards would ordinarily retail at 2 for 5 cents, and they are worth it, too. We are wholesale distributors and just to get these beautiful cards introduced in all parts of the country we will for a limited time send postpaid 12 all different Colorado View Cards, for only 10 cents, or 26 all different for 25 cents. Send your order today—Stamps or coin. Address:

COLORADO SELLING CO.,
 1624 Seventeenth St.,
 Denver, Colo.



FOSTER'S FORECASTS

(Copyright 1913 by W. T. Foster.)

Washington, D. C., July 12.—Last bulletin gave forecasts of disturbances to cross continent July 15 to 19 and 19 to 23; warm waves 14 to 18 and 18 to 22; cool waves 17 to 21 and 21 to 25. Remarkable for sudden and great changes in temperatures. These will be of greater than usual force and the last one will be severe on the north Atlantic and will inaugurate the great storm period due for last half of July. Our storm and danger signals for all parts of the continent are displayed for July 19 to 31.

Next disturbance will reach Pacific coast about July 23, cross Pacific slope by close of 24, great central valleys 25 to 27, eastern sections 28. Warm wave will cross Pacific slope about July 23, great central valleys 25, eastern sections 27. Cool wave will cross Pacific slope about July 26, great central valleys 28, eastern sections 30.

This will be a severe storm all the way across continent and in eastern states; on north Atlantic it will be a furious storm following July 27. We continue to advise great care and a careful observation of the indications that always precede severe storms. One of the surest signs of the approach of dangerous storms is a dark blue sky. Great storms draw the moisture from the atmosphere leaving it to appear as it does when viewed from a high mountain.

A hurricane will probably organize east of the Windward islands on July 21 and by 25 will probably be in the Caribbean; by 28 it will be in the Gulf of Mexico. These tropical storms usually move northeastward off our Atlantic coasts.

A Boy Breeder of Horses

(Continued from Page 9.)

cherons in this country, Illinois having the greater number, Ohio, Iowa, Michigan and Wisconsin ranking next in the order given. Nearly 4,000 Percheron horses were imported to the U. S. between the years 1851-1883. Illinois received 1,834; Ohio, Indiana and Michigan 577; Minnesota 424; New York, Pennsylvania and New Jersey 280; Missouri, Kansas and Nebraska 186.

You will notice that most of these horses were bought for the East. It is much different now. The West now owns 40 per cent of all the Percheron horses in the U. S., and in 1906 there were 30,000 Percherons in this country, a much larger number than any one of our other breeds can show.

In France, in 1883, the Percheron breed was in the hands of the Society Hippique Percheronne and it published its first studbook the same year. Up to 1906 the Percheron Society of America had published nine volumes of the American studbook. The first two volumes were published by the Percheron-Norman Horse association. The Percheron Registry company, established in 1904, has published three studbooks.

In 1902 the American Percheron Horse Breeders and Importers association was organized. In 1905 it became the Percheron Society of America and has its headquarters at the Union Stock Yards, Chicago. In 1904 another company was organized at Columbus, O., called the Percheron Registry company. In 1905, at Plainfield, O., the American Breeders & Importers Percheron Registry association was organized. H. B. LAMER, Salina, Kan.

Not Many "He" School Teachers

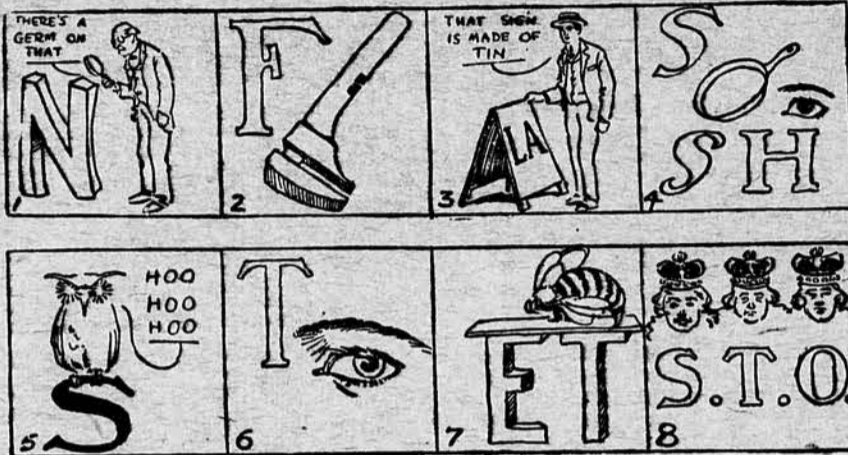
In one of his perfectly proper homilies to farmers, during his recent automobile tour, Governor Hodges had this to say:

One thing for which I must criticize you and even my own county, Johnson, is the meanly, nasty salaries you pay to country teachers. These men who are training your children and fashioning your future citizenship are getting less pay than coal shovelers.

The governor shows what may be called a first-hand, unfamiliarity with his subject, or is mixed in his gender. These underpaid men school teachers he talks about are mostly girls or women, as farm folk well know. To put it in the governor's favorite way the rural school teachers of Kansas are 80 per

A Puzzle For Mail and Breeze Boys and Girls

THE pictures in the upper row, Nos. 1, 2, 3 and 4, illustrate what languages? Nos. 5, 6, 7, 8 in the second row illustrate what wearing apparel? These are easy. You won't have a bit of trouble. A set of post cards will be awarded for each of the best 10 solutions received by Friday, July 18. To your solution attach your name and address, then mail to Farmers Mail and Breeze, Topeka, Kan., being sure to mark in the lower left hand corner "Puzzle Department". ENCLOSE NO OTHER BUSINESS WITH YOUR SOLUTION. Prizes are awarded not only for your skill in solving the puzzle but for the neatness, originality, and general care taken in preparing the answers.



The puzzle in June 28 Mail and Breeze represented (1) seagull, (2) owl, (3) pelican, (4) pheasant. The prize winners are Bessie M. Bowen, R. 1, Leon, Kan.; Susie Harnish, R. 1, Peabody, Kan.; Floribel Lancaster, R. 1, Ottawa, Kan.; Blanche Taylor, R. 2, Neodesha, Kan.; Arnold McClure, Hill, Okla.; George K. ating, Fulton, Kan.; Amanda Bohlen, R. 1, Cordell, Okla.; Joy Richardson, Jerocho, Kan.; Ruth Stevenson, Anthony, Kan.; and Charlie Ingram, Cherokee, Okla.

cent women and about 20 per cent men or boys.

Legal Weights in Kansas

I am going out as separator tender for a threshing outfit and would like to have you give me the legal Kansas weights for the small grains and seeds.—G. C. Pottawatomie county, Kansas.

These are legal weights in Kansas: Wheat 60 pounds, rye 56, oats 32, Kafir 56, rice corn 56, milo 56, cane seed 50, millet 50, barley 48, buckwheat 50, beans 60, corn on ear 70, shelled corn 56, shelled dry peas 60, flaxseed 56, alfalfa seed 60, clover seed 60, timothy seed 45.

Choosing High Grade Schools

Recently a widely known educator, who has given much thought to the subject of business education for farm boys and girls, said: "An up-to-date farmer would not buy a broken-down wagon, nor a blind horse, nor an antiquated plow just because it is cheap. For the same reason he is not going to buy a scholarship for his boy or girl in a business college because it guarantees positions, nor because a business college solicitor approaches him with a contract all ready to be signed up. He is going to investigate the school just as he would investigate a horse he was going to buy. That is why the business colleges of reputation are getting the boys

and girls from the modern farms who wish to prepare themselves for farm bookkeeping and accounting. It would probably surprise the average man to know what a large number of farm boys and girls are seeking special business training in the big business colleges, with the sole thought of applying their training to the business affairs of the farm."

A little fine earth on the dropping boards will make them easier to clean and it is also more sanitary.

SCHOOLS AND COLLEGES

Business Course for Farmers Six Months Work in

Practical Agriculture with laboratory and research work. Business Practice, Farm Management, Farm Accounting and the Common School Branches. Keeps the boy on the farm, shows him the pleasant and profitable side of farming. May enter from 8th grade. Occupy 4 big buildings in beautiful campus at edge of small city. Moral surroundings excellent. For most satisfactory results, investigate.

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S. R. Feil, Pres. I'll prove to you what I have proved to thousands of farmers if you will just send me the coupon today.

Arthur Holloway, Monticello, N. Mex. writes me—"Was losing 5 to 6 sheep a day when the "Sal-Vet" arrived. Within 30 days I had no more wormy sheep. I had to pay for it, but I have lost only one." W. J. Hill, Hays, Kan. writes—"Sal-Vet" saved me 18 times what I paid for it. E. L. Glover, Woodstock, Minn., writes—"Before using "Sal-Vet" I lost quite a number of lambs from worms. This year I have lost none." A. A. Blodgett, Plaster, Ill., writes—"My lambs were dying at the rate of one or two every day. After I began feeding "Sal-Vet" I lost but one and that was nearly dead when the remedy arrived." Sal-Vet will do equally as well for you.

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Sal-Vet is a wonder working medication which farm animals can run to freedom and DOUBT THEMSELVES. It causes no itching, no starving, no trampling, no trouble to feed.

The Great Worm Destroyer

Sal-Vet costs only 1-12 of a cent a day for hog or sheep and a little more for lambs and calves. I make no charge if it fails to do just what I claim.

The Great Live Stock Conditioner

Send Me Money—Just The Coupon

Fill out the coupon, tell me how many head of each you have and I will send you a box of Sal-Vet to last you about 30 days. If it doesn't do what I claim I'll cancel the charge—you won't owe me a penny. Address S. R. Feil, Pres., The S. R. Feil Co., Chemists, Dept. FMB, Cleveland, Ohio 4320.

Price: 25 lbs. \$5.50; 50 lbs. \$10.00; 100 lbs. \$18.00; 200 lbs. \$32.00. No orders filled for less than 40 lbs. on this 30 day trial offer. Never sold in bulk; only in 25-lb. marked Sal-Vet packages. Shipment for 30 days trial on basis of 1 lb. of Sal-Vet for each sheep or hog, and 4 lbs. for each horse or head of cattle, or 10 lbs. for each cow without handling regular size packages.

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The WOMEN FOLKS

Conducted by Mabel E. Graves



We want this department to be of practical use to the women who read Farmers Mail and Breeze. If you have any favorite recipe, any helpful hint, whether it concerns the family, the kitchen, the children, the house; or if you have anything to say which would be of interest to another woman, send it to the Home Department editor. Prizes for the three best suggestions received each week will be, respectively, a set of triple-plated teaspoons in the beautiful Narcissus design, a year's subscription to the Household magazine, and a year's subscription to the Poultry Culture magazine.

If you see a cluster of orange colored eggs on the under side of a tomato leaf pick the leaf and crush every egg. These are the eggs which will develop into tomato worms.

In the Mail and Breeze of June 28 on Page 2 the question is asked, "Are we giving too little or too much space to any matter or subject pertaining to the farm or farm home? If you think the Home Department is getting too much space or too little space now is the time to say it."

Dr. Crumbine says the best kind of cracker for Fourth of July is a soda cracker. Perhaps he's right. That's the kind the Topeka boys had, anyway. Not a fire cracker was heard all day long. One mother early in the morning discovered her small son preparing to smash the electric light globes, and on her remonstrating he said, "But mother, I've got to make a noise with something!"

Start Your Christmas Now.

Pick your nasturtium seeds when green and fill them into little glass jars such as mustard or pickles or olives come in. Make a mixture of equal parts vinegar and water, add a teaspoonful of salt to each quart of this mixture, and pour over the seeds. Cork the jars and dip in hot sealing wax or paraffine. At Christmas time wrap in white crepe paper, tie with bright orange or nasturtium-colored ribbon, and present to some friend who has not raised this appetiser. Let certain nasturtium plants go to seed so you can gather them, and put several of the blossoms in each bottle. These same jars are very attractive filled with the white button onions with several bright red peppers mixed through them. Cover with the same pickle and seal the same. Everyone is pleased with them as Christmas gifts. Perry, Okla. Florence A. Richardson.

Screen Door That's Always Open.

An ounce of prevention being worth a pound of cure it stands us in hand to keep guard against the fly. Cleanliness is the first precaution.

Leave nothing around the pests. All openings should be screened, and doors to be of very much value must be latched. But what woman with hands in the bread, or perchance upstairs dressing, can refrain from a frown of annoyance when the hooked screen is impatiently rattled from the outside? Or what man hurrying to the house for needed repairs just in the "busiest possible time" can refrain from unpleasant remarks when another delay awaits him at his own barred door? Why not save time, steps and annoyance by attaching a strong string to the screen hook on the inside, passing it through the wires above and tying a small weight of some kind to the outer end? With such an attachment all anyone needs to do is to pull the string, which will lift the hook; and he can let himself inside with no bother whatever to the busy housewife. Frances H. Brown, Mount Pearl, Colo.

A Cure For Snake Bite.

Reading of the death of a little child caused by snake bite has brought to my mind a recipe I have never known to fail. Break an egg into a cup and beat it up just a little, then stir thick with gunpowder so it will spread on a cloth. Apply to the wound and change every half hour for two hours, then every hour for six hours. Give the patient a little whiskey and some good liniment that has whiskey

in it. This is for the bite of rattlesnake or any other kind of snake.

Mrs. Elizabeth Roberts.

R. G. Howard, Kan.

How to Make a Baby Jumper

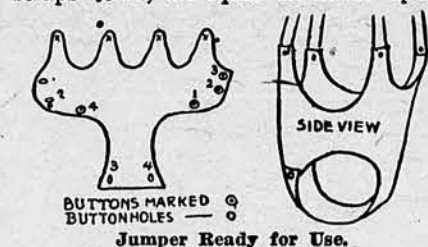
BY MRS. BELLE HENDERSON.

Every mother of a small child should have a baby jumper for the little one. The boughten ones are nice, but not to be compared in point of actual merit with the old-fashioned homemade affair.

In the one shown here both legs and arms have plenty of chance to exercise without strain, and every movement gives just that much added strength.

Such a jumper will require two yards of some stout material, four large buttons, a wooden barrel hoop and a spring. Tear the cloth into strips, each two yards long, fold down the rough edge, turn together and stitch the whole length on the machine. This will give the four straps by which to hang the jumper. Cut out the jacket of a size that will fit. Put an extra thickness of cloth where the buttons and buttonholes come, and bind all round with a narrow piece of the goods. Work the buttonholes with coarse cotton thread to make them strong.

Sew one end of each strap to the jacket, and fasten the other ends together over the hook in the spring. Cover the hoop with denim and put inside the straps, halfway between the jacket and the hook, and tack the straps to it, at equal distances apart.



Jumper Ready for Use.

The jumper should be long enough that the child's toes will just touch the floor nicely. Button the jacket round the child, pull it down well, bring the long end up between the legs from the back and button to the front of jacket.

A child can use this from the time he is 5 months old until he can walk, and it is equally good for older children that cannot walk. My little girl 9 months old could not use her legs and this jumper helped her to learn to walk. The child may be afraid at first, but leave him there only a little while at a time, and he will soon enjoy it. My little boy, 9 months old, plays in his jumper for two hours at a time.

[Every evening when I go home I see a year-old baby out on the porch bounding up and down, dancing from side to side, having the time of his life in his jumper. His probably came from the store, but it is made exactly like the one described here. —Editor.]

Makes Rose Beads Just Right.

A letter to the editor from Hattie M. Dye of Caney, Kan., says: "Your letter on how to make rose beads lacked mention of how to take care of the pulp, and how to polish the beads. Keep the pulp in a cool place. Soak the beads in olive oil for several hours, or strain the beads and put olive oil on a piece of black stocking and rub until polished. I apply the oil several times when they are not soaked."

Beans Keep This Way.

When I am canning beans I always put them up this way: Prepare beans as for cooking, fill tin cans and cover with cold water. Set cans on stove and lay lids on

loosely. Let boil until they can be pierced easily with a toothpick, then seal while boiling hot. They will be as nice when opened as when canned. When wanted for use pour off water, heat, and season. Mrs. Lida Smith, Humansville, Mo.

Dressmaking Lessons Free

Complete Illustrated Course of Lessons Given to Women Readers of This Paper for a Short Time Only.

We have just published in one large volume one of the most valuable and most comprehensive courses of instruction in home dressmaking ever written. This course of lessons covers practically every phase of the subject of dressmaking. It tells you how to make most every garment, from the simplest house apron to the most elaborate evening gown.

This valuable book, "Every Woman Her Own Dressmaker," will be found of great assistance to beginners as well as experienced dressmakers. You can turn to this book and find a satisfactory answer to practically every dressmaking question which might come up. It illustrates and fully describes 200 very latest styles for ladies and children. It gives valuable instructions on fitting and finishing—instruction needed by every woman. Here are some of the interesting subjects taught in these lessons:

- How to sponge and shrink wool goods.
- How to shrink wash materials.
- How to make a tailored coat at home.
- How to make a plain shirt waist by the newest and easiest method.
- How to make a boned lining.
- How to make stylish suits, skirts, waists, dresses and dressing saques.
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We are giving these valuable dressmaking books away absolutely free just to introduce our popular publication. Send us your name and address at once, together with 4 cents in stamps to cover mailing expense, and secure one of these valuable books before the offer is withdrawn. Address ARTHUR CAPPER COMPANY, Dept. DM-11, Topeka, Kansas.

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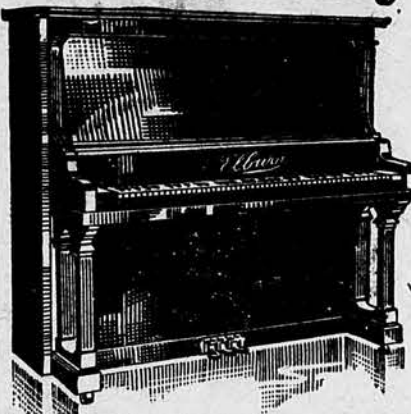
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Steinway, Vose, Kurtzmann, Elburn Pianos on comfortable payments. Write for catalog and prices. High class guaranteed Player-pianos, \$435 and up. Call or write.

What They Think of Good Pianos

Gentlemen—I feel that I am indebted for a very great many courtesies in connection with my piano contract and I am very appreciative. Trusting to have further pleasant business relations with your house and assuring you that my piano is still in most excellent condition—Prof. D. F. Conrad, head of the piano department of Central College of Lexington, says it is the best Vose piano he ever played on. I am (Signed) B. M. LITTLE, Supt. Lexington, Mo. Lexington Public Schools.

J. W. Jenkins Sons Music Co., Kansas City, Mo.

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MARKET PROBABILITIES

(Written Specially for Farmers Mail and Breeze.)

Much smaller receipts than had been expected for over the three day holidays turned prices of livestock up the first of the week. Cattle prices were generally 10 to 15 cents higher. Killers had counted on much larger supplies, and trade hesitated for a time until they could change to a higher price level. Increased movement is forecasted for later in the week. The plain kinds net a good inquiry owing to general scarcity. Top steers ranged from \$8.75 to \$9.

A four day market for livestock last week was the shortest session of the livestock exchanges ever reported. The actual market could have been crowded into the first three days of the week, without interrupting prices as they stood at Wednesday's close, yet the three day market was important, as it opened up the trend of conditions that will control the market for the month. The one thing most important was that general showers to heavy rains fell in the central West and west Oklahoma was the most favored and in places reported above 8 inches. Kansas points especially the big pasture section received a soaking, and Missouri rains were of the slow, steady kind that went into the ground without waste. Nebraska and the northwest received a good soaking, so much that the average condition for the week ending July 5, is above normal for the season of the year. Drought conditions were eliminated from the livestock market, crops of all kinds were benefited, and the movement of cattle made dependable on demand.

The factor of next importance was the heavy movement of southern cattle, seasonable, but affording an opportunity for killers to play the big supply from that section, against the fair to good kinds from above the quarantine line. This factor influenced Kansas City and St. Louis markets to a decline of 25 to 40 cents. The choice steers were off about 15 to 20 cents. Wednesday the Chicago market was unable to care for 10,500 cattle at anything like steady prices. Shippers there were out of the market on account of the extreme heat, and local killers were not anxious for any more cattle than they could kill before Thursday's close. Prime fat cattle at all points were scarce but the trade ignored this fact and turned prices down. Killers are acting more cautiously now than at any previous time this year. Grass has figured prominently in beeves now coming, and until they can get a full test on average killing they will regard all new bunches offered with adverse prices. The season having been dry this far what flesh fat cattle have gained is hard. When grass receives excessive moisture the cattle are soft and "washy" liable to an excessive shrink. With the continuation of present conditions, September and later months should uncover a liberal supply of grass fat beeves.

It is the opinion of the trade that last week brought in the annual July break and that for the rest of the month considerable improvement will be noted. Southern cattle will not be in larger supply at any time in the near future than in the early days last week. Cattle that are deficient in flesh are due for a further decline. July and August have always been months for culling out the me'er-do-wells and throwing them on the market, at most any price. For that reason the spread in quotations will widen downwards, and average cost of beef be cheapened but moderately by the lower price range.

Canning Season at Hand.

The most important part of the mid-summer season is the canning industry. In the next three months packers will have to get the bulk of the common cows, worn out bulls, rejected calves and all such inferior parts of beeves that cannot be turned into fresh beef, and store it in cans after a cooking process. Such meat is thoroughly inspected and is doubtless wholesome food. Last summer the supply for canning purposes was far below normal, and this season there will be little if any increase. Five to ten years ago "canner" cows sold at \$1 to \$2.25, last summer, few below \$3.50, and at the beginning of the present season prices are \$3.85 to \$4.50. Doubtless there will be some increase. Medium cows and heifers were quoted off 25 to 35 cents last week and the choice dry lot kinds were down only 10 to 15 cents. Few of the last named class will be available from now on, and fancy baby beef will be a market novelty. Veal calves have not been offered as freely as was expected. Countrymen are holding most of the heifers, and only the common steers are being marketed. Bulls were quoted down 25 cents.

Stocker Prices Remain Firm.

Persistent strength in prices for stockers and feeders in the face of declining prices for fat steers was unseasonable for this time of the year. July usually sees a material price reduction in thin cattle, but at last week's close such kinds were stronger in price. Rains revived demand, and unless the supply shows a material increase in the next few weeks there will be little change in quotation. A good many calves have been contracted for fall delivery in the big range

sections and the scarcity of older cattle fore-shadows a light fall supply.

Hog Prices on a Firm Basis.

Hog prices were up 15 to 20 cents the first of the week, reaching new high levels for the season. The top price in Chicago was \$9.25, St. Louis \$9.15, St. Joseph \$8.95, Kansas City \$8.92, Omaha \$8.90.

Thursday Chicago quoted top hogs up to \$9.05, St. Louis up to \$9, and other western markets as high as \$8.77. Average prices at each market were at the high point of the past two months and for the week were the highest of the year. In the four days last week prices varied only 10 to 15 cents, and this narrow movement is thought by many to indicate that prices are in for a general advance. Pork sold up to \$21 and lard up to \$12, the highest since 1910. Packers say that current receipts of hogs, though liberal for this season of the year, afford little above requirements for fresh pork and that lard stocks are being reduced rapidly under large export requirements. June receipts at the five western markets were about 120,000 larger than in the same month last year, the first month this year to show an increase over the same month last year. Many believe the June increase was at the expense of the July run. Light receipts this month will mean higher prices up to the beginning of the winter packing season. Unless hogs are forced to market this summer on account of sickness next winter's packing season will develop a big movement of hogs.

Sheep Trade Lacks Force.

An analysis of the sheep market last week shows a decline of 50 to 75 cents

in the first two days, to a new low level for the year, and a regain of 25 cents in the next two days; an indifferent demand from both killers and countrymen, common quality in the offerings; a let up in the movement of southern lambs; an increased supply of range sheep and the beginning of the mid-summer market. Demand, however, was so uncertain that all these conditions have to be reaveraged and placed in the market next week on the basis of supply. Whether demand for killing sheep is going to show any improvement or not is puzzling the talent. Killers have been rather erratic all spring, and the only hope for an improved market is to come from increase country requirements. A good many stock and feeding sheep will be available this month and the big movement of range sheep fall in August and September. Good crops of all kinds in the corn belt will make a broad demand, as prices for thin sheep indicated at the present time are relatively lower than for stock and feeding cattle.

The Movement of Livestock.

The following table shows receipts of cattle, hogs and sheep at the five western markets last week, the previous week and a year ago:

	Cattle	Hogs	Sheep
Kansas City	39,450	41,750	24,600
Chicago	33,500	30,000	63,000
Omaha	7,000	43,200	22,300
St. Louis	17,000	35,000	23,700
St. Joseph	4,500	20,000	6,900

Total	101,450	230,950	140,600
Preceding week	108,650	346,200	150,500
Year ago	88,300	266,500	112,500

The following table shows the receipts of cattle, hogs and sheep in Kansas City thus far this year and the same period in 1912:

	1913	1912	Inc.	Dec.
Cattle	761,495	680,313	81,182	.....
Calves	40,425	48,186	.....	7,761
Hogs	1,353,829	1,404,529	.....	110,700
Sheep	1,016,689	1,065,792	.....	49,102
H. & M.	44,345	44,346	.....	501
Cars	54,224	53,335	889	.....

The following table shows receipts of livestock in St. Joseph thus far this year compared with the same period in 1912:

(Continued on Page 19.)

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605 Livestock Exchange, Kansas City, Mo.

Bovee's Compound Horizontal Furnaces at Manufacturer's Prices

Save 40% of fuel and cost. Burn perfectly coal or wood. 16-inch doors. Heavy coal grates—large combustion chamber—compound radiator.



Long travel of heat. Easy to operate. Most practical heating plant for all buildings, especially for farm use.

Will soon save cost in fuel.

Write for particulars.

Bovee Furnace Works,
188 8th St. Waterloo, Iowa

Buying a Wind Mill

is making contract for several years water supply. The mill that delivers the most water, the greatest number of years, at the least expense, proves the cheapest. The Challenge and Dandy Mills have proven by actual use to be the cheapest and best power known for pumping water, as the wind is free and the mills built in such a manner as to make the expense for operating practically nothing. Send for Catalog No. 62.

CHALLENGE COMPANY 131 RIVER ST. BATAVIA, ILL.

July-August BARGAIN SUPPLEMENT

SEARS ROEBUCK AND CO.

CHICAGO, ILL.

THIS SALE CLOSSES AUGUST 31, 1913

Six Pairs Men's Socks, 79c. Guaranteed to Wear 6 Months

Genuine Amoskeag Chambray Shirts for Men, 33c

Women's Long Silk Gloves, 53c

Regular \$5.00 Quality Wool Filled Blankets, \$3.87

Two Dozen Cup Shape Pure White Pearl Buttons for 6c

Two Dozen 1/2 Pint Heavy Crystal Jelly Tumblers, 35c

One Dozen Silk Hair Nets for 19c

45-Lb. Felted Cotton Mattress, \$4.98

Greatest of all Midsummer Sales. For sixty days ending August 31st, we eclipse all previous efforts in bargain price-making.

Don't send for this book if you are already a customer of Sears, Roebuck and Co. We have mailed a copy to each and every one of the five million customers who have sent us an order since January 1, 1912.

But if you haven't bought of us since then, and if you really want to share in the greatest of this year's bargain sales, then just write "July-August Bargain Supplement" on a postal card, sign your name and address and mail to



- The Year's Greatest Bargains in Women's Dresses
- Fall Coats for Women
- All Wool Mixed Suits for Men
- Ostrich Plumes
- Shoes for Women, Men and Boys
- Baby Flannels
- All Linen Towels
- Table Damask

Special Offer on the World's Best Sewing Machine

Look for Our July-August Stove Proposition

"Ben-Hur," the Greatest Novel Ever Written by an American. Never Before Sold Under \$1.50; NOW 48c

WHAT BREEDERS ARE DOING

FRANK HOWARD, Manager Livestock Department.

FIELDMEN.

- A. R. Hunter, S. W. Kansas and Oklahoma, 1126 So. Market St., Wichita, Kan.
John W. Johnson, 829 Lincoln St., Topeka, Kan.

PURBRED STOCK SALES.

Chain dates for public sales will be published free when such sales are to be advertised in the Farmers Mail and Breeze. Otherwise they will be charged for at regular rates.

Poland China Hogs.

- Aug. 22—H. Fesenmeyer, Clarinda, Ia.
Aug. 12—John E. Lawson, Clarinda, Ia.
Aug. 12—J. W. Pfander & Sons, Clarinda, Ia.

Duroc-Jersey Hogs.

- Oct. 17—Moser & Fitzwater, Goff, Kan.
Oct. 30—A. T. Cross, Guide Rock, Neb.
Oct. 31—A. M. Rinehart & Son, Smith Center, Kan.

O. I. C. Hogs.

- Feb. 18—H. L. Bode, Friend, Neb.
Feb. 19—Chas. H. Murray, Friend, Neb.
Nov. 4—H. D. DeKalb, DeKalb, Ia.

Hampshire Hogs.

- Oct. 14—C. J. McMasters, Altona, Ill.
Aberdeen Angus Cattle.
Oct. 22—W. F. Eckles, Green City, Mo.

Hereford Cattle.

The animal husbandry department of the Kansas Agricultural college has just sold to C. J. Woods an outstanding double-standard Polled Durham bull calf sired by Matchless Dale...

pration for the support of a State Fair, the Kansas State Fair association, which is chartered under the laws of the state, will hold its annual exhibition at Topeka under prospects that indicate that the show of livestock will be equal to that of the big fairs in adjoining states.

Colonel "Tom" Callahan, one of the West's best known livestock auctioneers died at Nicholas Seim hospital, Omaha, June 27, as a result of heat prostration.

During the last 10 years Colonel Callahan had conducted some of the greatest sales in this part of the country. He was a personal friend of nearly every man connected in any way with livestock in this territory.

S. W. Kansas and Oklahoma

BY A. B. HUNTER.

H. J. Hanna of Eldorado, Kan., owns one of the especially strong herds of Duroc-Jerseys in the Sunflower state. Three strains are strongly represented in this herd.

N. E. Kansas and N. Missouri

BY C. H. WALKER.

The following is part of the letter received by Clarence Dean of Weston, Mo., after shipping a bred sow to Louisiana.

Gronniger's an Envious Record.

Thirty-three years' continuous service as a breeder of Poland Chinas, with each year's efforts rewarded by a better product, heavier patronage and a growing circle of friends...

of the breed during that period. The beams have come and the beams have gone, but it has never been known that Herman Gronniger has fallen a victim to fate or fancy.

Moser & Fitzwater's Durocs.

Starting is a small way in the Duroc-Jersey business a year or two ago, Moser & Fitzwater, of Goff, Kan., have built up a herd that would do credit to breeders who have spent years in the business.

M. A. S.—Largest in the World.

If you were going to put your money in a bank you would want to know all about the men who were back of it; if you send your boy away to college you generally pick out the school that has the reputation of having competent instructors.

that should be carefully considered by every prospective student is the fact that all students get actual practice in home farm sales.

N. W. Kansas and S. Nebraska

BY JOHN W. JOHNSON.

Chas. Morrison & Son of Phillipsburg, Kan., own probably the largest herd of Red Polled cattle in Kansas.

LIVESTOCK AUCTIONEERS.

- Spencer Young, Osborne, Kan.
W. C. CURPHEY, Salina, Kansas
COL. T. E. GORDON, WATERMILLS, KANSAS
L. J. Calloway, Lebanon, Kansas

Jas. T. McCulloch, Clay Center, Kan. Reference: The breeders I am selling for every year. Write for open dates.

L. R. BRADY Manhattan, Kansas Livestock Auctioneer. Write or wire for dates.

JAS. W. SPARKS Live Stock Auctioneer MARSHALL, W. O.

Will Myers Bolick, Kan. Is already booked on leading breeders sales in Central Kan. Choice dates still open. Write or wire.

CHAS. M. SCOTT Livestock Auctioneer. Thoroughly posted on pedigrees and values. Formerly of Scott & Singer, Poland China breeders. Hiawatha, Kan.

John D. Snyder HUTCHINSON, KANSAS LIVE STOCK AUCTIONEER Wide acquaintance and practical knowledge of draft horses and pure bred live stock, all breeds.

Col. N. B. PRICE Manhattan, Kan. LIVESTOCK AUCTIONEER Phone or write for dates. Bonney K. heads my Duroc-Jersey herd.

G. A. Drybread The Auctioneer Elk City, Kan. Live Stock and Farm Sales made anywhere. Prices reasonable. Give me a trial. Satisfaction guaranteed.

FRANK J. ZAUN AUCTIONEER Independence, Mo., Bell Phone 676 Ind. My References: America's best breeders for whom I have been selling for years. Get Zaun He Knows How

Be an Auctioneer

Travel over the country and make big money. No other profession can be learned so quickly, that will pay as big wages.

MISSOURI AUCTION SCHOOL Largest in the World. W. B. Carpenter, Pres. 1400-04 Grand Ave., Kansas-City, Mo.

ABERDEEN-ANGUS. DENTON'S ARGUS Bulls all sold but a fine lot coming on for fall trade. Write your wants. W. G. DENTON, DENTON, KANSAS

ANGUS CATTLE

Bulls and females for sale; singly or in carload lots. Address SUTTON & PORTEOUS Lawrence, Kan.

STATE FAIR-TOPEKA SEPTEMBER 8th to 12th 1913 Mammoth Livestock and Agricultural Exhibit. 5 Days' Racing with Free Attractions and Band Concerts—5 Days. Aeroplane Flights. Every Day a Big One, full of value for visitors and exhibitors. Get the Habit of Attending. EXCURSIONS ON ALL RAILROADS T. A. BORMAN, President. H. L. COOK, Secretary. \$40,000 in Premiums and Speed

These Japanese characters translated into English mean: "Two Necessities in Every Home."



Kyohei Inukai is a Japanese artist. He was born in Japan—educated in America. Inukai's fame will be world-wide in the not far future because Inukai artistically is a wonderful product of the Orient. The example of his work shown on this page, illustrates his directness of vision in voicing the message of Montgomery Ward & Company's Catalogue. When asked to convey through his art the idea behind the great Ward book of bargains, he sent in this drawing and over it he wrote in Japanese and English these words:

"Two Necessities In Every Home"

Everybody knows that the first necessity of every home is a Baby—a boy or girl, or a bunch of both. The Baby is the monarch absolute of every fireside where he sets up his throne and goes forth with ruthless hand to slay a fond mother's ribbons and put dents in Daddy's derby. How much more you feel the responsibility of home-keeping when the little fellow comes—How much more you appreciate the things that help the home, that beautify the home, that economize for the home—that help the home to prosper—for Baby's sake.

Yes, you deeply, fully lovingly appreciate that other necessity, the big, complete, varied, serviceable, convenient Saving Book of Ward's—the Catalogue of 1913—which is a boon to baby, because—

It helps father's money to go further—
It helps mother to get more of the things she wants—

It helps the home because it contains the things, the home ought to have at prices that mean Economy in the home.

In a thousand pages—a veritable wonderland of bargains—it spreads out before you all that you need, all that you can use, with a full measure of honesty

and prices so low that they double and triple the purchasing power of every purse. This Catalogue of 1913 is the triumph of 40 earnest years of service—to several generations of thousands of families—now extending to millions a complete shopping guide to the best merchandise of the world. The more you use it, the more you will become attached to it, the more it will prove a positive necessity in your home.

Although these many years, the work of thousands of people and hundreds of thousands of dollars have been necessary to make this great Catalogue of 1913 possible, yet it costs you not a penny. Its helpfulness, its economy are yours just by cutting out the coupon on this page, signing your name to it and mailing today.

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Cut along—would like to receive your 1913 Catalogue.
Send it at once without expense to me.
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