

KANSAS FARMER

For the improvement

of the Farm and Home

Volume 51, Number 27.

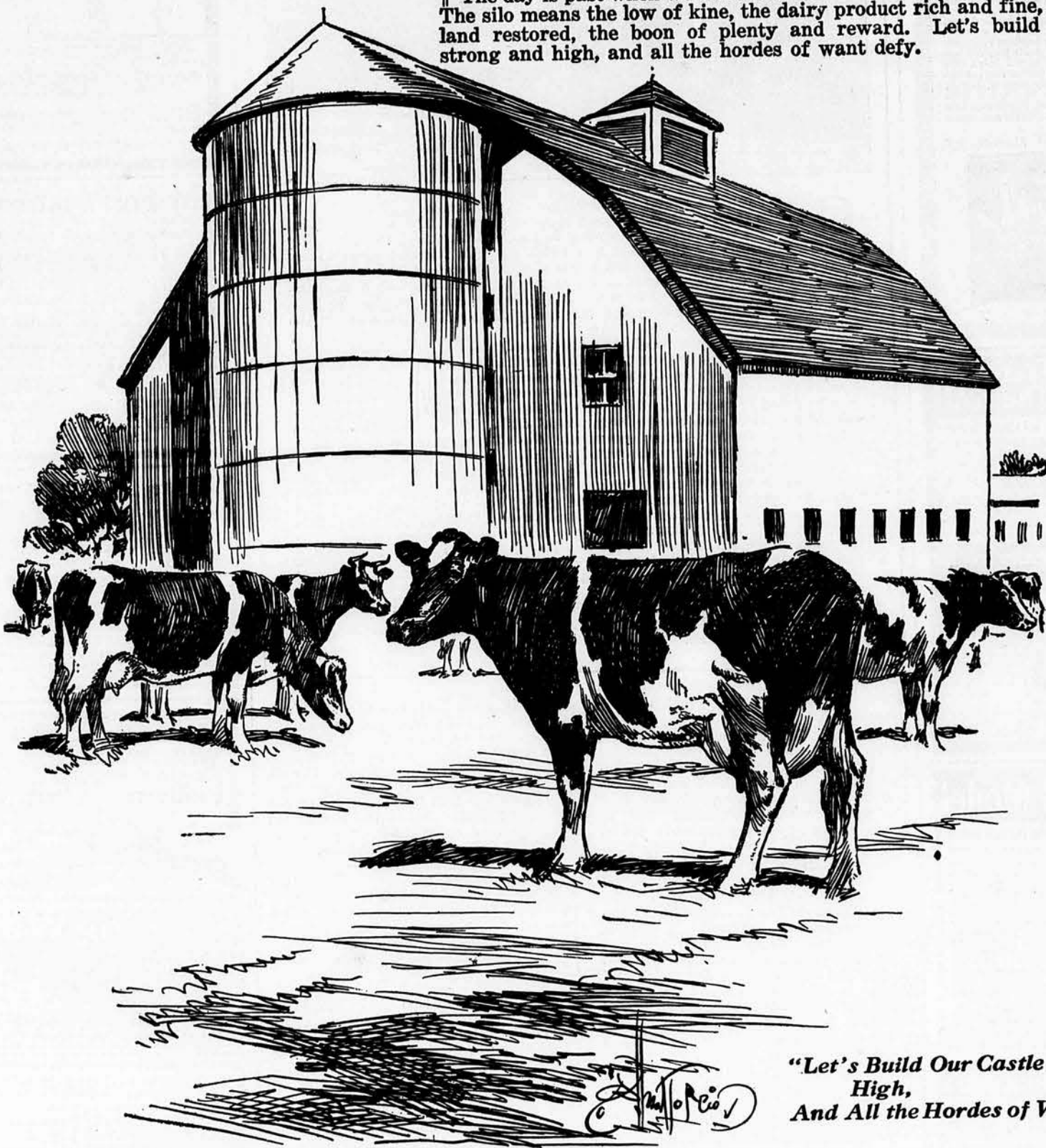
TOPEKA, KANSAS, JULY 5, 1913.

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THEY built their towers in days of old, and guarded them with knighthood bold. With moat and wall, and turret high, with coat of mail, with battle cry, they kept their flaunting flags unfurled, and bade defiance to the world. But now their swords are dull with rust, their castles crumble into dust.

¶ Today we build the silo tower; and farmer knighthood is in flower to drive away grim foes that taunt, and shield the world from famine gaunt. No castle on the craggy ways so strong as these of modern days. A silo on each Kansas farm would give the landscape grace and charm.

¶ The day is past when we can cheat the soil with ceaseless crops of wheat. The silo means the low of kine, the dairy product rich and fine, fertility to land restored, the boon of plenty and reward. Let's build our castle strong and high, and all the hordes of want defy. —"Brad."



"Let's Build Our Castle Strong and High,
And All the Hordes of Want Defy"

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Has doors that you never have to take out, but instead can open and close on hinges. Doors can't sag, stick, bind or freeze in, yet are always air-tight, and protect the silage from freezing in winter and drying in summer.

Big, extending malleable hinges form a safe and convenient ladder—steps 15 inches apart, 17 inches wide and 7 inches deep. Positively highest grade material and construction.

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Lightest Running Silo Filler Made

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The Silo Filler With the Direct Drive

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Underground Silo is Practical

B. H. M. BAINER

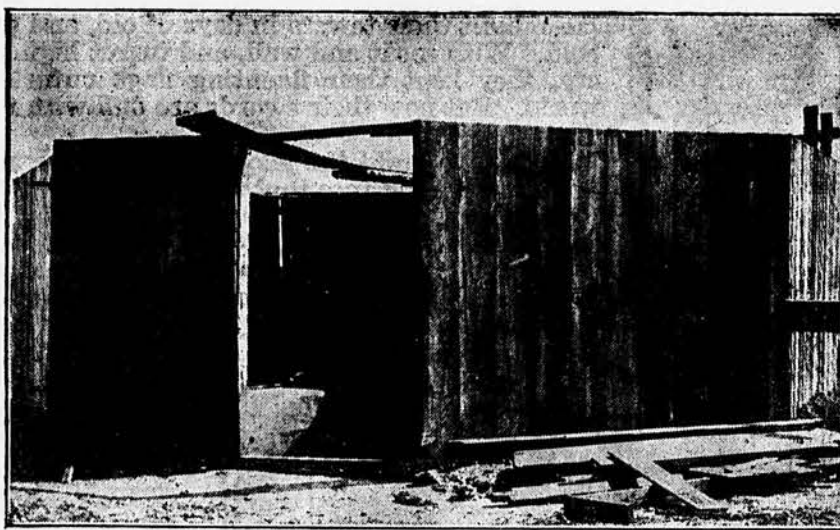
THE underground silo is distinctively a western type. The western farmer and live stock man finds it possessed of many interesting and worthy features. It is exceptionally well adapted to those districts having limited rainfall, and in such localities may with impunity take the place of the silo usually constructed on top of the ground.

No longer an experiment, the underground silo has a value that has been fully demonstrated during the past few years in Kansas, Colorado, Texas and New Mexico. The writer personally knows of several underground silos in constant use during the past several years, with perfect satisfaction to the owners. At present I know of at least 12 in the plains country of Texas and Eastern New Mexico. This silo, properly constructed, has proven to keep the

size of the hole in proportion to the herd to be fed.

A hole that is 16 feet in diameter and 32 feet deep will hold 100 tons of silage, which is sufficient to feed from 25 to 30 cows for six months.

The earth wall of the successful underground silo should be covered with cement. If the earth wall stands well, without danger of caving, a 1 to 2-inch covering of rich cement plaster on the dirt will be found sufficient. If there is danger of the wall caving or not standing well, the cement should be from 2 to 3 inches thick. In the construction of this latter or thicker cement covering, a wooden or metal form is required to hold the plaster in place until it sets. This form need not be over three feet high, which requires that the wall be constructed in sections of three feet each. Under this method the bottom



OUR illustration shows the above-ground portion of a pit silo 18 x 18 on the farm of R. B. Sterrett of Gove County. This silo was filled last fall with kafir, and owing to the fact that feed was especially abundant last winter the silage was not used. Mr. Sterrett plans to lay in a supply of cattle late in the summer when pasture will be short and many will be hastening stock cattle to market, oftentimes at a sacrifice. Having this reserve supply of silage available, he is in a position to take advantage of this condition and can easily realize large returns on the crop thus stored.

When we first began to observe the use of pit silos four years ago we regarded it as a pretty poor makeshift for a silo. The more we studied the proposition, however, the more we became convinced that the Western Kansas farmer, laboring under the disadvantage of small working capital, was justified in putting in this type of silo. While they have some disadvantages, they cost but little in actual cash. To the Western Kansas farmer this one fact oftentimes means the difference between having a silo and not being able to secure one at all.

The Extension Division of the Agricultural College has taken up the matter of thoroughly investigating the pit silo proposition, and as a result has prepared a short pamphlet giving the most important points in connection with the construction and use of this type of silo. This pamphlet is now in the hands of the printer and will soon be ready for distribution. Even though the pit silo may have its limitations, KANSAS FARMER heartily endorses its use by the farmer of the West who has heretofore been greatly handicapped in his efforts to profitably handle live stock.

As remarked by one of our correspondents from Kearney County, the pit silo may be the salvation of the live stock farmer of our western territory.—G. C. WHEELER.

silage as well as the average over-ground silo.

It is not the purpose of this article to speak of the comparative values of underground and overground silos. Neither do I wish to speak of the relative merits of the silos, except to say that the underground construction will be found to justify all reasonable claims made for it.

That the underground silo is the plant for the farmer and stockman of limited means, there cannot be the least question. It can be constructed very cheaply, conservatively estimated, I believe, at \$1 per ton capacity. It may be said with truth and a spirit of fairness that it does not blow down or dry apart, and can be constructed by the farmer himself. Expensive machinery is not needed in filling the underground silo.

The \$1 per ton capacity includes the digging of the hole, cement and finishing or plastering. With this type of silo even the renter cannot afford to be without it.

CONSTRUCTION.

This underground silo is especially well suited to dry sections, but it is not such a success in wet ground, or where the water is near the surface. The walls should be even and perpendicular, the depth about twice the diameter, and the

section is made first, and then the form is moved up three feet, and so on until the top shall be reached.

In order to save necessity for scaffolding for the thin or plastered wall, the cement should be applied at the time of digging the silo, beginning at the top and going downward as the excavation progresses. Finally wash or paint the wall with pure cement and water.

Silage used for beef production gives a large income per acre. When a farmer lacks capital but has well filled silos he can borrow all the money he needs for feeders at a low rate. Silage fed to fattening cattle will bring profits quickly.

The Rock Island Silo Train will start August 4 at Colorado Springs, stopping at every town between Colorado Springs and McFarland. From there it will go to Tucumcari and from Tucumcari to Sayre, Okla., and will cover all Rock Island Territory in Oklahoma. This train will carry exhibits showing various types of silos, silo filling machinery, etc. Lectures will be given at each station on the proper time for cutting the various crops for silage purposes and how best to get maximum returns from the feeding of these crops in the form of silage.

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But don't experiment. Get the genuine. Insist upon Lewis' Lye, the purity and full strength of which is absolutely guaranteed—the only 98% lye made and sold by manufacturing chemists.

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KANSAS FARMER

With which is combined FARMER'S ADVOCATE, established 1877.

Published weekly at 625 Jackson St., Topeka, Kan., by THE KANSAS FARMER COMPANY.
ALBERT T. REID, President, JOHN R. MULVANE, Treasurer, S. H. FITCHER, Secretary.

T. A. BORMAN, Editor in Chief; I. D. GRAHAM, Live Stock Editor.

CHICAGO OFFICE—First National Bank Bldg., Geo. W. Herbert, Inc., Manager.
NEW YORK OFFICE—41 Park Row, Wallace C. Richardson, Inc., Manager.

Entered at the Topeka, Kansas, postoffice as second class matter.

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SILO FOR WESTERN KANSAS.

More and better live stock is one of the most pressing needs of present day agriculture in Kansas. This is just as true of the western portion of our state as it is of the older and more settled portions. Live stock farming has ever been associated with the permanent in agriculture. Without the animal no system of cropping can be devised that will convert more than a small portion of the available soil fertility into such form as to permit of its use directly in the supply of human needs. Soil fertility depends upon the following of systematic rotations in cropping, and the domestic animals must always be looked to as a means of converting these various crops and their by-products into marketable form.

In the early development of our agricultural lands, the growing of single grain crops have often been profitable for considerable periods of time. The effects of such systems of farming upon the producing power of the soil have been disastrous. Steadily decreasing yields have almost invariably followed such farming methods. Exclusive grain farming has left its trail of worn-out and depleted farms from New England to the middle west. In order to check this tendency toward decreasing yields, it is becoming more and more apparent that live stock farming must be followed to a far greater extent throughout our entire state than it is at the present time. In the extreme western portions of our state grain crops are so uncertain as not to be depended upon as a profitable source of income.

Systems must be devised and the farmer must become familiarized with the proper procedure to follow in order to secure profitable results in live stock farming under existing conditions. The proper working out of such systems of farming will tend to introduce far greater permanency in our agriculture than where grain crops are looked to as the only source of income. John Fields of the Oklahoma Farm Journal asks his readers the following question: "Are you a farmer or a cropper?" And goes on to define them as follows: "A farmer makes sure feed crops and the good live stock to consume them the principal part of his business. Incidentally he may grow some wheat or cotton or broom corn to sell.

"A cropper keeps no live stock except work animals. Each year he takes a shot at a big acreage of some crop which was high in price the year before. He may be a cotton grower, a wheat grower, a corn grower or a broom corn grower, but he has not much use for kafir, milo, cowpeas, peanuts, or similar crops." Kansas needs more farmers and could well spare several thousand croppers.

The agriculture of Western Kansas presents many problems difficult of solution. In far too many cases the farmer gambles on the chance of an especially favorable season giving him a good wheat crop, ignoring to a great extent the feed crops which are far more sure in that section of the country. These feed crops call for live stock farming of some kind and some system which will secure the maximum feeding value of the crops grown. Probably in no section of our state is the silo so essential to the establishment of a permanent system of profitable farming as west of the hundredth meridian. Statistics from our Kansas State Board of Agriculture covering a number of our western counties, show that through a long period of years the dry feed from sorghum crops have yielded larger gross returns per acre than wheat or other grain crops. These feeds placed in the silo would be almost trebled in value. The western third of our state is strictly a dry land proposition, and the proper utilization of the feed crop which can be counted upon with so much greater assurance than any of the grain crops, constitutes almost the only means of profitable farming throughout the whole territory. In the main a farmer in this territory,

will be compelled to grow such feed crops as he can, relying upon the silo as a means of storing these feed crops and handle and feed animals as the surest means of securing a livelihood. There will come years when, even the feed crop will be extremely short. The silo will undoubtedly become an important factor in connection with the storing up of a surplus of feed in the years of plenty to tide over the years of short feed crops. The live stock farmer without the silo is almost at the mercy of the season, since one bad feed year may make it necessary for him to sacrifice at a loss herds and flocks of animals which it may have taken him several years to develop to a high standard. As an emergency measure the pit silo will undoubtedly be a great assistance to the live stock farmer of the west. Its advantages and limitations should be carefully studied by those concerned, and likewise careful attention should be given to all the information available concerning the use of various sorghums for silo purposes. Much information along these lines is finding place in KANSAS FARMER columns.

THE LAND MAN.

The real estate dealer or the commonly called "land man" is a permanent and legitimate fixture in Kansas as in other states. By some people he has been frowned upon and has not been considered a welcome guest. By many farmers and many communities he is looked upon as a man who lives off the community and who renders no service in exchange for the money he gets. This is an entirely erroneous and much too common feeling.

However, the real estate man has to a considerable extent brought this feeling upon himself. Not all real estate dealers are responsible for this idea but the character and the methods of the work of a few naturally reflect upon the entire body of real estate dealers this reputation. Too often the real estate man is not honest and above board in his dealings. Sometimes he engages in sharp practice, gaining for himself an advantage at the expense of both the seller and the buyer. The honorable and honest dealer suffers, therefore, as a result of the action of the dishonest and sharp trading dealer. This situation with reference to dealers in real estate is no different from the situation with reference to members of other professions, trades or callings.

The real estate man occupies a legitimate and honorable field. It is his business to find purchasers for land for people who have land to sell. In such capacity the real estate dealer can be of tremendous service to the community. He can represent the resources and adaptability of the community honestly and favorably, thereby bringing into the community a class of farmers who will succeed under the existing conditions. On the other hand, he can, if so disposed, bring into the community the farmer who most likely will fail. The real estate dealer can and should accurately represent to the prospective purchaser the truth, both with reference to soil and climate, the adaptability of the community to grain farming, live stock farming or dairying, and as a result of having been so directed the prospective purchaser knows what line of farming he can and should undertake with the best chances for success.

It is our idea that the real estate dealer should know with an absolute certainty the adaptability of the locality in which he sells land, to the various lines of farming. In other words, he should be so well up on the agricultural affairs of his locality as to be able to say to the purchaser that this is a first class live stock farm and that for corn or wheat it is of little value. On the other hand, he should be able to say that this is a grain farm and that grain can be successfully grown upon it.

Generally speaking, we believe that the land man of the west is in the

worst repute. He has long heralded the idea that the western country is a great wheat section and that one crop of wheat will pay for the land. Such crops have been grown and will be grown again, but the inference he gives his customer is that he can expect big crops of wheat every year. This is where the wrong is done. Hundreds of people have been induced to locate in that section under an entirely mistaken idea as to the lines of farming best adapted.

It is within the possibility of the dealer in these lands to direct the settlement of this section in such way as will result in the permanent prosperity of those whom he locates. Satisfied customers and successful farmers on such lands will do more to advertise the country than anything else. We urge upon real estate dealers everywhere that they can and should reflect honestly and honorably the adaptability of the lands they sell to the various purposes and that such representations will have a greater effect in building up the various localities and in making their business good than any other one thing. It is our contention that it is as easy to sell a quarter section of land adapted only to pasture and live stock, as it is to sell a quarter section adapted to wheat and corn growing. There are settlers looking for each condition. It is manifestly better to have sold a piece of land honestly and without a misapprehension on the part of the purchaser, than it is to sell under false representations.

BOARD OF AGRICULTURE REPORT.

The State Board of Agriculture has just issued its June report on the condition of wheat, corn, oats and grasses. This report shows that the condition of wheat has declined 26.71 per cent since the report of April. Deficiency of rainfall at heading time and much chinch bug damage in the central and eastern part of the state is mainly responsible for this decrease in condition. The most severe damage is in the territory west of the 99th meridian where nearly 40 per cent of the wheat of the state is sown.

Secretary Coburn in the report, makes the following observation: "Notable facts revealed and confirmed by the detailed reports each year are that regardless of locality or season, the best tillage assures the best crops; that extensive farming by shiftless, slipshod methods gives unsatisfactory returns, and that experience is bringing this home to the understanding of Kansas farmers more and more. Dependably good crops are the result of good farming."

"The acreage of corn this year is somewhat less than a year ago. Planting was late as a rule, consequently the growth is somewhat backward for the time of year. Rather better attention than usual has been given to cultivation."

"Kansas already leads all other states by wide margin in the production of alfalfa and this year's report indicates an increased acreage. The first cutting has been extra heavy. The second cutting has been rather light over practically the whole state. Reports on the grasses suggest that on the whole they are not as good as usual, with the exception of the northern two tiers of counties extending westward from the Missouri River 200 miles where pastures and meadows are above the average."

The Federal Department of Agriculture reports the average condition of winter wheat on April 1 as 91.6 per cent of a normal, compared with 80.6 last year, 83.3 in 1911 and 86.3 the ten-year average. There was a decline of 1.6 points from December 1 to April 1, compared with an average decline of 3.6 points in the last ten years. These figures of course apply to the United States as a whole, and are indeed encouraging.

SILO SUCCESS.

Silos and silage offer a large part of the solution of the feeding situation in Kansas. The silo and the feeding of silage is not experimental. The success of the silo and the feeding of silage has been successfully and permanently established in other states before Kansas gave either any consideration. However, the purchase of a silo and the filling of the silo will not make steers fat, cows give milk, and fill the pocket book of its owner, unless it be used year after year and the feeding from the silo is done with a reasonable degree of intelligence.

The silo can be successful only when the best crops are grown for silage, when those crops are harvested at the proper time, when the silage is properly stored and properly fed year after year. Results will not come from filling the silo this year and next year allowing it to stand empty. Results will not come from the feeding of a herd of dairy cows this year and next year keeping no dairy cows. Results cannot be expected from the feeding of a bunch of beef cattle or stockers this year and none the next. The silo produces its greatest return when it is placed on the farm for the same reason that a barn is placed on the farm, namely, because there is stock to shelter year after year and the barn will be kept full.

In the year 1911 the silo enabled farmers to save their feed from the scorching winds and as a result of making silage from such feed they were able to winter their live stock in good condition. The same fall hundreds of farmers sold their cattle because they had no feed. Those same farmers are now short of cattle, not being inclined to re-stock their farms at the advanced prices. The keeping of live stock, into the success of which the silo fits admirably, is a permanent business—a year after year and a year in and year out business. The use of kafir and cane for silage in those sections of Kansas in which corn is not a certain crop, makes the silo an essential part of the farm equipment if it be properly used.

The silo, however, cannot be filled and cannot prove its value unless an earnest and intelligent effort is made to grow these crops. It is a fact that the farmer is at all times confronted with a game of chance in many respects not equaled by any other business. Notwithstanding this fact the farmer has more chances to save himself than does the man in most other lines of business. Too much dependence must not be placed in one planting. If the first planting of cane or kafir, on account of weather or other conditions, does not come on as it should, then another planting should be made and if necessary, another.

The editor has been confronted with such weather conditions that it was necessary to plant both cane and kafir as many as three or four times during a single season and the last planting proving to be that which made the feed. It is not safe to plant ten acres of kafir or cane and go on the theory that each acre will produce ten tons of silage and that the field will fill a 100-ton silo. Conditions in Kansas—or for that matter in any other state known to us—will not justify such close figuring. If the silo is to prove what is claimed for it and of which it is capable, it is certain that it must be filled and such precautions must be taken as to see that it is filled.

These statements are not made from any view of pessimism or to detract from the claims made for the silo, but to carry to the reader the conviction that the purchase of a silo does not solve the feeding problem, neither does it solve the prosperity problem. However, if the silo is used as it should be used and the farmer does everything he can for himself in its use, it will prove the thing which he has long felt the need.

The Grange has been climbing upward for 45 years—and it's still at it.

SILAGE FEEDING SUCCESSES



A SPLENDID FARM PLANT.—COMPLETE IN ALL ITS DETAILS FROM RESIDENCE TO SILO, BARN AND FEED LOT.

WE built one of the first two silos in Jewell County, and have filled it the third time. We find silage the best all around feed, for the cost of it, that we have ever had. We feed about 100 tons from the first of October to the first of June, to 25 head of all kinds of stock—cattle, hogs, horses and chickens.

We find that silage, alfalfa hay, and cane hay makes a good ration for all kinds of stock, and for our dairy cows we add some corn meal. This makes a ration they will eat every day in the year. We feed silage to our little calves as soon as they will eat, and it does not hurt them. We can not feed alfalfa hay to young calves safely. We lost a number of calves on alfalfa hay before we knew enough not to feed it to them. We have never lost any on silage.

We have never put up anything but corn silage. It cost us 50 cents per ton to put it in the silo. The corn in the field is worth \$1.75 per ton, green weight, figuring on the basis of what it would sell for in the dry state. We have been waiting three years for someone to tell us of some feed just as cheap and just as good, and are still waiting. We get from six to eleven tons per acre of corn silage, depending on the weather man. Another point a good many overlook is that manure from corn silage is worth more, and more pleasant to handle, than that from corn fodder or cornstalks in the field.

We do not know what an acre of dry corn fodder or cornstalks is worth. We never could get much good out of the stuff, and shredded fodder cost more than it is worth. In an acre of 40-bushel corn you will have 40 bushels of corn—nothing more. Put it in a silo and you will still have 40 bushels of corn, and ten tons of good feed we have been throwing away for 30 years.

We dare not use dry cornstalks since we have had pure-bred cattle, therefore count them worthless. A great many men think they get lots of feed out of them, but we claim if the corn is picked clean there is not much good in dry cornstalks. In pasturing cornstalks you will lose enough stock to build a silo. There is no feed raised in this part of the country that can be compared with corn silage for the cash value it is worth. All silage costs you is the market value of the corn and the cost of filling the silo, which is not as much as stacking alfalfa hay, and where you gain over other kinds of feed is that for every pound of cash marketable product you have in the silo you will have ten pounds of excellent feed, which is not worth 25 cents per ton if left in the dry state.—C. A. DAWDY, Jewell County.

Cost of Silage.

Our subscriber, C. A. D., of Jewell County, furnishes us the following statement as to cost of silage:

We filled our 110-ton silo the first time in 1910. Our corn was very poor, making only eight bushels to the acre, and it took 28 acres to fill it. We estimate the cost as follows:

| | |
|---------------------------|----------|
| Corn binder..... | \$ 32.00 |
| Gas power for cutter..... | 28.50 |
| Hired labor..... | 40.00 |
| Corn and cornstalks..... | 117.00 |

| | |
|---|----------|
| Cost of 110 tons silage..... | \$217.50 |
| Cost per ton in silo..... | 1.98 |
| The second year, 1911, corn was not quite as good, but the stalks and foliage were heavier: | |
| Binding corn (our own binder)... | \$ 20.60 |
| Hired labor..... | 30.00 |
| Gas power for cutter..... | 17.40 |
| Corn and cornstalks..... | 83.00 |

| | |
|-------------------------------------|----------|
| Cost of 110 tons of silage.... | \$151.00 |
| Cost per ton in silo..... | 1.37 |
| For the third year, 1912, corn made | |

Our Readers Report on the Silo From Their Actual Farm Experiences

from 40 to 45 bushels to the acre, and it cost us—

| | |
|-----------------------------|----------|
| Cutting 10 acres..... | \$ 10.00 |
| Steam power for cutter..... | 17.50 |
| Hired labor..... | 23.00 |
| Corn and corn stalks..... | 162.50 |
| | \$213.00 |

Cost per ton in silo..... 1.93
The first two years we had only about half enough power. The last year we had power to spare. Notice the difference in the cost of labor, also the difference in the cost of the silo. The first year we were 4½ days in filling; second year, 2½ days; third year, 1½ days. And by looking at these figures one can see it pays to have good corn and plenty of power for the cutter.

We have not the figured our own, the wife's nor son's work, nor board, nor wear and tear on the silo and cutter. The loss is no greater on this kind of machinery than on harvesting or corn machinery.

We have figured the cost of the corn in the silo from its marketable standpoint if left in its natural state, and not from the cost of production.

Silage Experience in Chase County.

Before moving to Kansas from Ohio in 1902 I was acquainted with a dairyman who used a silo in his business and he told me he could not get along without it. He was a renter but he owned a small wooden silo which he moved whenever he changed locations. At that time, in common with nearly every one else, I thought it was only a dairy proposition.

After further investigation by reading everything I could find in regard to the silo I became convinced silage was a good feed for beef cattle but hesitated about putting up one on account of the difficulty of getting labor to fill at such a busy season as the fall when we were all trying to get our feed up.

During the summer of 1911 a stockman who had bought my feed the previous fall asked me to put up some silos as he had met some feeders who had fed it and they were all very loud in its praise. This resulted in my buying two 20x36 silos and filling them that fall. The feeder bought the silage and was well pleased with his results in feeding it. I also was well pleased with the results as I sold my crop at a considerable advance over the price received by my neighbors. This advance paid me about fifty per cent of the cost of the silos.

The next year I put up two more of the same size and kind and found the

feed a ready sale, in fact could easily have sold three times as much. The first year I used nearly all corn in filling except a small field of kafir. The kafir yielded more tons per acre than the corn and handled much more easily. The next year I used nearly all kafir with just a little corn. This year I am planting nearly all kafir with a little cane for filling the four silos.

The Florida station says cane silage, ton for ton, is as good as corn silage. I have several times seen notices from Kentucky feeders who say they have quit growing corn for filling silos and grow cane. Our own station has just completed a feeding test showing that acre for acre both kafir and cane produced more beef than corn silage with beef calves, and in several tests with milk cows both of them produced better results so far as weight of the cows than corn but perhaps not quite so good results in milk, that is ton for ton. Acre for acre either of them will produce more beef or milk.

Corn dries up quickly in the fall, making the proper time for filling silos with it short. Kafir or cane retain their juices much longer and consequently one has a longer period for filling. They handle better than corn and the same force of men and teams will put more tons in the silo in a day thereby cheapening the cost of filling.—E. B. GREENE, Chase County, Kans.

The Silo For Southwest Kansas.

I put up two all steel silos last year and I am highly pleased with the results. The money spent for a silo is the best money a farmer even spent. I think that the silo is the salvation of southwestern Kansas. I am milking on my farm an average of fifteen cows and had tried all kinds of feed but never found anything to compare with silage. I filled my silos with kafir and began feeding as soon as the silos were filled and got thirty gallons of milk more a day from the same cows than I did when fed on alfalfa hay alone. I was also able to keep my young calves fat all winter by feeding them silage. I only wish I had put up larger silos. Mine are now in as good shape as if they never had been filled. There have been five new silos put up here this summer and I hope there will be twenty more by October. When every farmer gets a good silo and fifteen or twenty good milk cows and a few old brood sows, it will not matter if he does miss a wheat crop now and then. You will

see good houses and good barns built here after silos have been in use a while. A silo means fat cattle and fat cattle mean money. With the silo the dairy herd will return a good profit.—A. L. SHACKLEFORD, Clark County, Kan.

Silage Makes \$12,500 Additional Profits in Feeding Steers.

H. B. Johnson, Chickasha, Okla., is one of the most successful feeders of beef cattle in the whole Southwest. He fattens 3,000 or more steers every year and for the past ten years his steers have ranked in the markets at the top for quality and finish.

In 1912 he built and filled five 250-ton silos. His profits were so good from feeding silage from these that he will build nine more of the same size this summer, starting the feeding season next fall with 3,500 tons of silage.

Mr. Johnson filled two silos with corn and three with kafir and sorghum. The corn was raised on bottom land and would have yielded 50 bushels an acre. The corn silage gave him better returns than the other.

Mr. Johnson fed 1,250 steers on silage and a grain ration. He says that these steers made a better daily gain in the same length of time than any others he has fed in ten years and that the silage-fed steers netted him \$9 to \$10 a head more than the steers that he fattened at the same time without silage. The silage-fed steers averaged \$1 per hundred more than his and other feeders' steers that were fattened without silage.

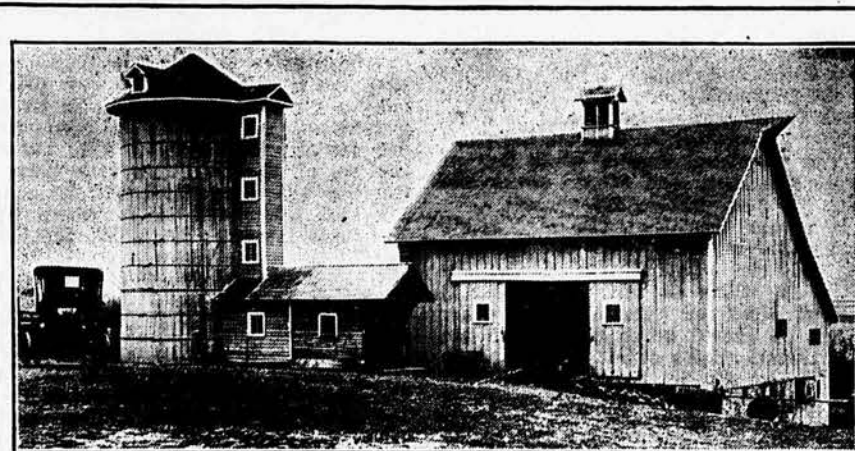
After getting the steers on feed, he gave them four pounds per head a day of cottonseed meal. At the end of 60 days the grain ration was changed to eight pounds cottonseed meal, six to eight pounds of cotton hulls, and five pounds corn meal per steer per day. They ate a small quantity of alfalfa. He began shipping out the tops 80 days after feeding began. They went into the yards averaging 850 pounds and weighed in the market 1,266 pounds a head. Steers from this silage-fed lot won championship and first and second prizes in every class in which they were entered at the Fort Worth Fat Stock Show.

Mr. Johnson says that every farmer in Oklahoma should have one or more silos, and that a silo is essential on a farm of only 80 acres as well as on larger farms.

He says that if a farmer does not have the money, he would advise him to mortgage everything he has, if necessary, to secure the money for silo building, as without the silo the average Oklahoma farmer is losing at least 60 per cent of the value of the feed he raises.—H. M. COTTRELL.

The use of heavy tarpaulin to cover the surface of silage during summer feeding is being practiced quite successfully by some of our readers. The tarpaulin is very carefully spread over the whole surface of the silage and the silage is removed from half the surface only at each feeding alternating from one side of the silo to the other. In this way a thicker layer can be removed from the surface fed from daily. The tarpaulin cover retards the tendency to spoil on the surface left untouched.

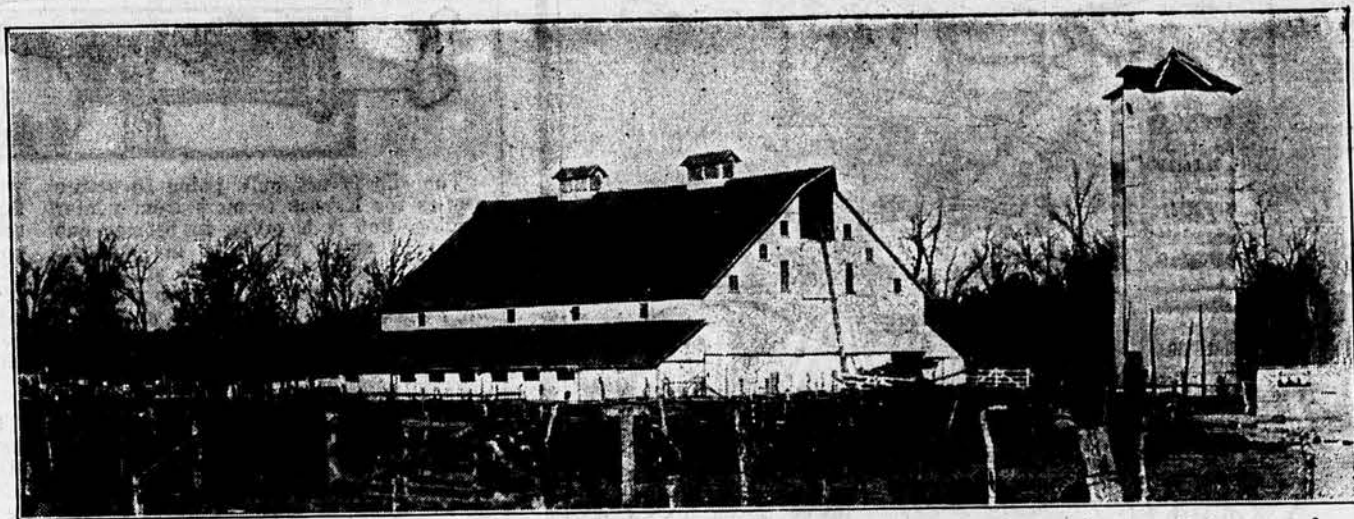
A writer in Hoard's Dairyman states that in feeding silage during the warmer weather he has been able to reduce the tendency to mold by sprinkling a pail of cold water over the entire surface after each feeding. He is very careful also to keep the surface of the silage perfectly level. This method of reducing loss has been very effective on this writer's farm and possibly may be of some value to KANSAS FARMER readers feeding silage in warm weather.



COMFORTABLE AND EFFICIENT FARM BUILDINGS.—SILAGE CAN BE EASILY FED IN THE BASEMENT, ON THE FIRST FLOOR, OR IN THE FEED LOT.

STOCK BREEDERS AND SILO

Breeders of Pure Bred Live Stock Are Always Progressive—What They Have to Say About the Silo



THE DEMING RANCH AT OSWEGO, KANSAS, USES CATTLE VERY EXTENSIVELY FOR MARKETING THE LOW-GRADE FEEDS OF THE RANCH.—THEY HAVE JUST INTRODUCED THE SILO AS A MEANS OF GETTING LARGER RETURNS IN FEEDING OUT THEIR CORN CROP.—ONE OF THEIR TWO LARGE SILOS IS SHOWN ABOVE.

KANSAS FARMER sent out in April a live stock survey letter to a large number of pure-bred stock breeders of Kansas, Missouri, Nebraska and a number of other states. In this letter were asked some 15 questions, among them being the following: "Is the silo growing in popularity?" Questions were also asked as to the general demand for improved live stock of various kinds. It is generally recognized that the breeders of improved live stock are found among our most progressive, wide awake farmers, and the views and observations of these men will be of great value to our readers.

KANSAS REPLIES TO THE SILO QUESTION.

Out of 317 replies from Kansas breeders of pure-bred live stock in answer to the query, "Is the silo growing in popularity?" 289 answered very decidedly in the affirmative; 11 reported themselves as not being posted on the subject, and four replied "No," with no qualifying remarks, such replies coming from Atchison, Oketo, Erie and Claffin, Kan. Two out of this number were breeders of Poland China hogs, the third (Oketo), reports as breeding Shorthorn milkers, but complains of no pasture and is rather unfavorably impressed with general live stock conditions; while the fourth (Claffin) owns but little live stock and says the demand is not good and that future prospects are bad.

From Tipton, Kan., comes the report, "None here." Our correspondent from this locality reports 18 head of Percherons and 70 Herefords, and says the demand for pure-bred beef cattle is increasing. He also reports dairy cattle in considerable demand.

From Scranton, Kan., comes the reply, "With some." The writer has 32 head of Holsteins and reports a growing demand for live stock of all kinds.

From Herington our answer is "Not much." Still the writer reports a bright prospect for live stock of all kinds and a good demand. Writer owns 100 head of Shorthorn cattle, apparently of the milking strain, as he emphasizes the popularity of that breed as dairy cattle in his location. He does not report as owning a silo himself.

At Marysville our correspondent says, "Not many silos here." Still there is a "great" demand for both dairy and beef cattle as well as for hogs.

There are only two silos in the vicinity of Robinson, Kan. And again there comes the reply, "Prospects for all kinds of live stock good, demand for pure-breds growing." Our correspondent reports himself as owning 50 head of Scotch Shorthorns.

At Iuka, Kan., there are no new silos to be built this year. At this point the writer reports a good and growing demand for dairy cattle.

The report of "Abundant crops will check their use" comes from Blue Rapids, Kan. Our correspondent from this point also reports a fine prospect for pure-bred cattle of every breed. Especially does he emphasize the popularity of dairy cattle, and says all breeds are in demand.

"It's on trial now," writes our correspondent from Rose, Kan. He also says that the demand for pure-bred beef cattle is good.

"There are no silos near South Haven, and the prospects for beef cattle are good," writes our correspondent from that point. The writer owns 40 head of Hereford cattle and 25 Poland China hogs.

"Not much except at the State Experiment Station," is the report that comes from Hays, in Ellis County. Pure-bred cattle are in great demand in this locality.

Red Wing correspondent reports: "Not much in this locality." The writer reports a good demand for beef and dairy cattle of all breeds.

Lyons, Kan.: "Only a few here yet. Cattle prospects good."

St. John, Kan.: "Popular, yes; but not used a great deal." There is a good demand for dairy and beef cattle and prospects for live stock are good in this locality.

Herkimer: "Not to any extent in this immediate vicinity." Dairy cattle are in great demand at this point.

From Wayne, Kan., our correspondent replies: "Not in this immediate vicinity, but strong in the northwest section of the county." The demand for dairy cattle is good, but not so favorable for beef cattle.

As yet there are no silos at Woodbine, but there is a growing interest in them. The demand for dairy cattle is reported to be good.

And now for a few enthusiastic reports from a few of our correspondents. "It is. I think there will be a good many built this year."—Bendena.

"Very much."—Hiawatha.

"Slow but sure."—Jewell.

"It is. A good many being built."—Hazelton.

"A great many here."—Argonia.

"Very much so."—Winfield.

"Yes, very rapidly."—Yates Center.

"Decidedly."—Elmdale.

"Yes, very fast. It is the making of the country."—Garnett.

"Yes, several being built and every farmer is much interested."—Blue Rapids.

"Yes, and rapidly."—Oswego.

"Yes, it will be only a few years until every farmer will have a silo."—Elmo.

"Decidedly so."—Raymond.

"Yes, several going up."—Stockton.

"Yes, there will be at least 20 built in this county this fall."—Beloit.

"Yes, a wonderful feed, too."—Meriden.

"You bet."—Republic City.

"It sure is."—Baynesville.

"It certainly is. There are going to be a good many put up this year."—Garfield.

"Very much so."—Zeandale.

"One hundred per cent."—Beloit.

"The silo is the coming necessity of

every farmer, and people are opening their eyes to the fact."—Rice.

"Yes, a lot built last summer."—Winfield.

"Gaining favor every day."—Hutchinson.

"Very fast."—Kincaid.

"Lots of them wanted."—Vesper.

"Yes, very fast."—Stafford.

"Yes, there are several being built."—Glasco.

"It is, but this country is slow in this respect."—Clay Center.

"They are being built all over the country."—Howard.

The above quotations are taken only from the letters whose writers were so full of the subject and so interested in it that they could not reply merely "Yes."

MISSOURI REPLIES.

From Missouri we have received 396 replies to our live stock survey letter. Of this number 365 answer decidedly "Yes" in reply to our question, "Is the silo growing in popularity?" Nine out of this number fail to answer on account of lack of sufficient knowledge, and one correspondent from Creve Coeur, Mo., replies that he has no knowledge of a single silo. He does not handle very much stock, only having a herd of about 50 Poland China hogs and three Jersey cows. He reports a growing demand for dairy cattle.

From DeKalb, Maysville, Coffman, Edgerton, Hazel Run, O'Fallon, Forest City, Turney, Maywood, Defiance, Nelson and Mill Grove comes the response, "No." Out of these there are six breeders of cattle and six breeders of hogs. They all report favorable conditions and a good demand for pure-breds.

A few people over the state as yet do not seem to have awakened to the great possibilities of the silo, and replies from these sections come "Slightly," "Slowly," etc. On the other hand we have before us a bunch of enthusiastic replies, such as "Very fast"; "Yes, you bet"; "Yes, a lot going up," etc.

It will be noticed that a larger number of our Missouri breeders responded to our live stock survey letter than did our Kansas correspondents. Our Kansas replies are equally enthusiastic, however, and show a boosting good feeling spirit throughout. Generally speaking the replies are encouraging along the line of live stock improvement, and throughout the entire territory covered by our letter there is a tone of uplift toward better stock and better methods,

and especially as to the introduction of the silo. Cattle are in great demand. This applies equally to dairy and beef stock.

NEBRASKA REPLIES.

In Nebraska, also, the silo is growing in popularity. Our replies from this state are somewhat limited. This, however, is due to the fact that we did not send out as many letters over this territory. We have received to date 83 replies, 75 of which answer strongly "Yes" to our silo inquiry. We only have one "No," and it comes from Herman. The writer in this instance reports a good demand for dairy cattle. He is the owner of a herd of Herefords and some Poland China hogs. At Feeder our correspondent states that alfalfa, which is grown in abundance there, takes the place of the silo. From Newman Grove we get a similar statement in regard to timothy and clover taking the place of the silo. There are no silos at Beemer and only two or three at Pawnee City. The demand for all kinds of live stock is good in both these localities. There are only a few silos at McCook and they are not growing much in popularity at Minden. Taking it all and all Nebraska seems like Kansas and Missouri—"for" the silo.

OKLAHOMA REPLIES.

In our bunch of letters we find but 13 replies from Oklahoma, 12 reporting great interest being taken in the silo. The thirteenth, from Yukon, states that "Silos are too high-priced and are not needed when alfalfa may be had."

REPLIES FROM WISCONSIN.

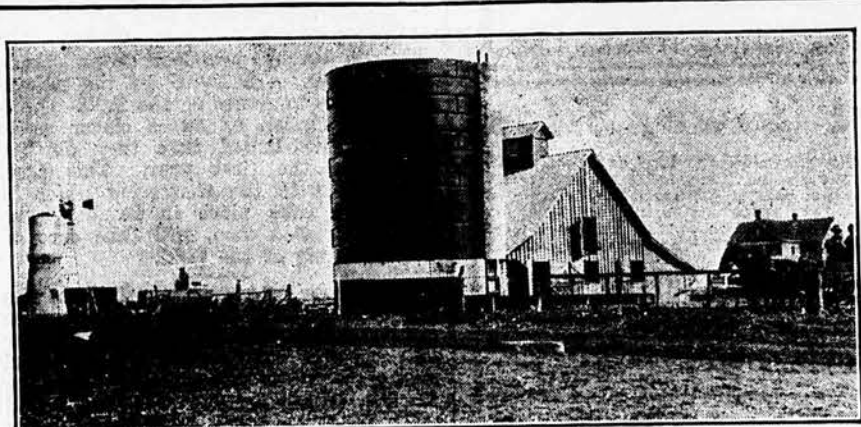
Our replies from Wisconsin are somewhat limited, only 30 coming from that state. It is a significant fact, however, that every one of the 30 reply "Yes" to our query as regards the growing popularity of the silo. It is of interest to note that many of these are underscored, and enthusiastic phrases added, as "Greatly," "Well, rather," "Many going up," and "We have a lot." In connection with the foregoing it has been our observation in looking over these letters that without exception the answers are from breeders of pure-bred dairy cattle, Holsteins, Jerseys and Guernseys being the breeds represented. It would seem these breeders of high-class dairy cattle find silage a cheap and profitable feed.

REPLIES FROM IOWA.

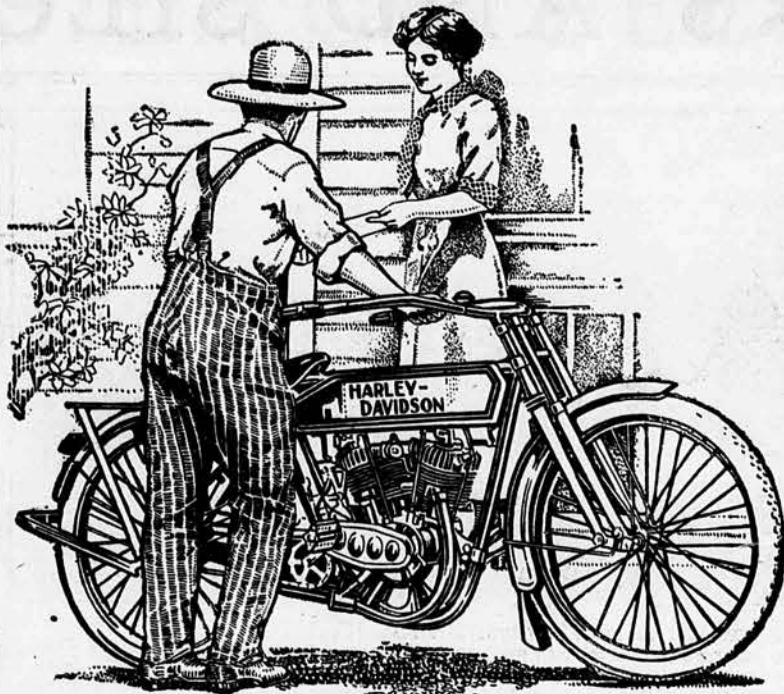
To date from Iowa, KANSAS FARMER has received 120 replies to our live stock survey letter. Of this number, 113 reply enthusiastically "Yes" in regard to the growing popularity of the silo. Three writers do not feel sufficiently well posted on the subject to reply, and we have three decided "Noes." These come from Madrid, Russell and Cordova. Two of these are breeders of hogs and one Shorthorn cattle and hogs. At Cordova the cattle situation is not very encouraging, but our Madrid and Russell correspondents answer that prospects for cattle there are good, especially beef cattle. From Cambridge the report comes, "Not in this section."

A careful study of the replies coming from these representative stockmen of the states considered leads us to believe that the silo is to become a permanent factor in connection with live stock farming.

The water in which potatoes are boiled with their skins on is said to be poisonous, and is good for destroying green-fly on rose bushes.



A TYPICAL FARM SCENE IN KANSAS.—RESIDENCE, BARN AND YARDS ARE SUPPLIED WITH WATER, THE PRESSURE COMING FROM ELEVATED TANK.



King of the Country Road and Why

THE cost of operating a motorcycle; $\frac{1}{16}$ to $\frac{1}{3}$ cent per mile, combined with the fact that there is practically no upkeep cost makes it the ideal vehicle for use on the farm. Trips can be made to town, nearby lakes, or any place desired in a fraction of the time taken by team. Then too, the motorcycle never tires and stands always ready for use if desired when the day's toil is over. It does away entirely with the most objectionable feature of farm life, namely, the inability to "go" when the day's work is over and the teams are too tired for road work.

But in buying a motorcycle, be sure and get one that is comfortable; one with which you can ride on rough roads as well as smooth. The

HARLEY-DAVIDSON

is such a motorcycle. No motorcycle can do this unless the tension of the springs can be adjusted to just the right strength to carry the weight of the rider. No springs were ever built which, without adjustment, could properly carry all weights.

Consequently, in building the ordinary motorcycle, manufacturers depend upon the unadjustable leaf springs or coil springs to absorb the jolts, jars and vibration and it is necessary to build them with springs stiff enough to carry the heaviest rider without breaking.

Springs stiff enough to carry a 300 pound rider are little better than no springs at all for riders of light or medium weight.

This is not true of the Harley-Davidson. The adjustability of the springs in the Ful-Floteing seat (an exclusive and patented Harley-Davidson feature) makes it possible by the mere turning of a tension nut to adjust the strength of the springs, so that both the recoil and cushion springs are of just the proper strength.

This permits the weight of the rider to virtually float over bumps without jar, jolt or rebound, something impossible with unadjustable so-called comfort devices. The Harley-Davidson Ful-Floteing Seat will give you a degree of comfort which it is impossible to obtain with any unadjustable type of comfort device. This is but one of the many exclusive features which has made the Harley-Davidson so popular for country roads.

Call upon the nearest Harley-Davidson dealer for demonstration or write for catalog to-day.

HARLEY-DAVIDSON MOTOR COMPANY

Producers of High Grade Motorcycles for Over Eleven Years.

815 A Street

MILWAUKEE, WIS.



Davenport (Iowa) Silos

Are built of patented, hollow, curved, vitrified clay blocks with radial end cut and perfectly grooved for reinforcing. Fire-proof, frost-proof, cannot rot, rust, warp, or crumble. Need no paint or bothersome hoops. If erected of Davenport blocks, according to our instruction book, your silo will be wind-proof—as strong and durable as a silo can be built. Davenport Silos are most economical—first cost is the only cost—the only silo you can afford to build.

Our patented jamb, door, and cornice blocks are without an equal. No better foundation blocks made than ours.

This book of valuable silo information free if you mention this paper.

WRITE TODAY

Davenport Brick & Tile Co.

John Berwald, Mgr.

388 W. 3rd Street, DAVENPORT, IA.

MENTION KANSAS FARMER WHEN YOU WRITE

THE FARM



The silo is not only going to secure profits for Kansas farmers from winter feeding, but it is going to become one of their chief standbys in summer. Whenever pastures get dry, silage can be fed and the cattle will keep on making as good gains as they did when pasture was at its best.

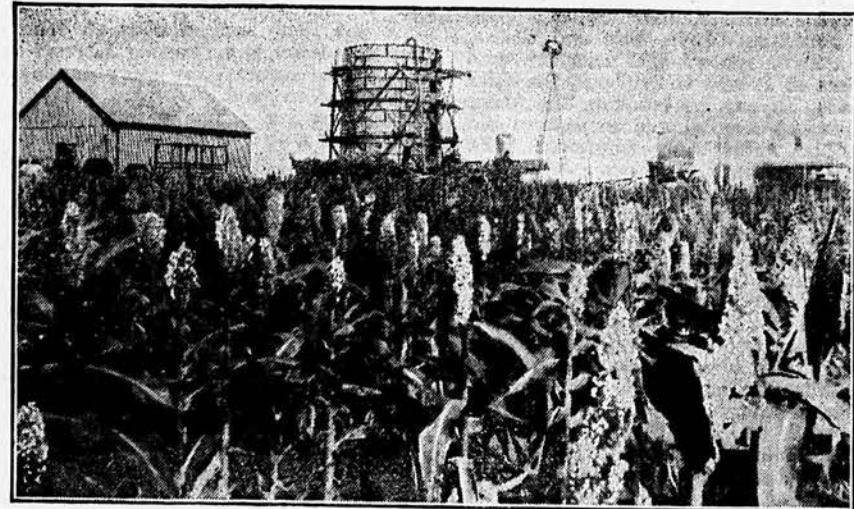
L. H. N., Sedgwick County, Kansas, asks us how he can rid his alfalfa of pocket gophers. In our issue of May 17 we published a formula from a Utah subscriber for poisoning gophers. The Kansas Experiment Station prepares a poison which is sent out at cost with instructions for its use. Inquiries for this prepared poison should be sent to the Zoological Department, Experiment Station, Manhattan. Strychnine may be used for poisoning gophers with considerable success. Rasins or pieces of potato or sweet potato may be used as bait. A small crystal of strychnine should be placed in the piece of potato in such a way that it will be dissolved by the juice. In like manner the crystal of strychnine may be placed in a rasin. The poisoned bait can be placed in the runways by prodding in the ground around one of the mounds thrown up until the rod or stake breaks into a hole. The poison can then be dropped into the hole left by the prod and the hole left open.

Our subscriber, W. D., of Eastern Colorado, writes us regarding the cutting of sweet clover crop for seed. It being the second year since this field was seeded, the clover naturally will produce its seed crop and then die. It sometimes is possible to mow for hay an

weight, of paris green to 5 parts of flour. Cabbage may be sprayed with a solution made up of a mixture of 3 pounds of arsenate of lead, 2 to 3 pounds of fresh air slacked lime and 40 gallons of water. After cabbage heads have begun to form, use fresh pyrethrum powder. It takes 50 pounds of cane seed to make a bushel.

Silage Does Not Ruin Cows.

Our subscriber, J. A. N. of Pottawatomie County, writes us that he is planning to construct a pit silo for use with his dairy herd. He reports that he has been informed that silage contains enough alcohol to ruin or "burn out" a milk cow in two years' time. This is an objection to silage that is occasionally presented by those who have practically no knowledge whatever as to its use. There is absolutely nothing to this objection. Cattle fed silage come out of the winter in far better condition than those receiving dry feed. They look healthier at all times. It has been said that silage is grass without the flies, and where the silage has been properly made and preserved in a satisfactory silo, thus it is not overstating its advantages. Silage can be improperly made, the material being placed in the silo in such an immature, undeveloped condition as to result in very sour, unsatisfactory feeding material. It is possible that the continued use of silage made in this manner would give poor results, especially if the proper balancing of the ration by the addition of other feeds should be neglected. Every user of silage will find that at times he will have some spoiled or moldy silage. As a rule there



KAFIR HAS LONG BEEN A VALUABLE CROP ON THIS FARM.—ITS VALUE IS NOW TO BE INCREASED THREEFOLD BY PLACING IT IN THE SILO.

early cutting and get a seed crop later. In order to produce satisfactory hay, the clover should be cut before the first blossom buds appear, since after this stage the plant very rapidly becomes coarse and woody and less palatable to the stock. The largest yield of seed always comes from crops which have not been first cut for hay, and we are inclined to think it would be better for our subscriber, if he desires a seed crop, to let his crop mature seed without attempting to secure a crop for hay. He suggests leaving two-foot strips standing between each swath of the mower as a means of reseeding the field. Quite a large portion of sweet clover seeds are so thick-hulled that they do not germinate the first year. This fact, combined with the shattering which is bound to take place in handling the crop as a seed crop, will take care of the reseeding of the field.

Our subscriber from Seward, Kan., who does not give his name, asks that we publish in KANSAS FARMER the number of pounds of cane seed per bushel, and also give proper treatment for cabbage worms. In our issue of June 7 appeared an article entitled "Fighting Insect Pests." This article recommended the dusting of cabbage plants while the dew was on, with paris green and flour mixed in the proportion of 1 part by

is little danger in allowing cattle to consume this moldy silage, unless very large amounts are eaten. It is never advisable to permit horses or sheep to eat spoiled or moldy silage as these animals are always more apt to be injured by the consumption of spoiled feed of any kind. As a rule the pit silo is not at all to be advised in humid sections, the reason being that oftentimes water will seep through and spoil the silage. Our correspondent also asks if there is any danger to human life from the formation of gas in the pit silo. This possibility should never be overlooked in the pit silo. It is more likely to occur during the period the silo is being filled and while the early fermentations are taking place.

There is much interest manifested in the subject of fertilizers, especially so on the part of gardeners, potato growers, and other specialists who are clean-cultivating land year after year. The standard reference which has recently American Fertilizer Hand Book is a come to KANSAS FARMER office and which contains, so far as we are able to see, the answer to practically every possible inquiry regarding the various fertilizers and their uses. Ware Bros. Company, Philadelphia, are the publishers and the book costs \$1.

How Much Should The Silo Hold

IN feeding the silage it is very important that the size of the silo be such that a sufficient amount of silage may be removed daily to prevent spoiling. An average cow or beef animal may be fed ordinarily about thirty-five pounds of silage a day. Large animals, of course, may consume considerably more than this, and at times it is more profitable to feed stock cattle less than 35 pounds a day in order to compel them to use up other low grade feeds on the farm.

Silos are more often built too large than too small. Where the silo is made too large, it is impossible to feed from the surface a sufficient amount to prevent silage spoiling from day to day. A silo ten feet in diameter is adapted to feeding about ten head of mature cattle. A twelve foot silo meets the requirements for feeding fifteen head, and a fourteen foot silo can be used where the herd consists of twenty head of cattle. Where there are thirty head of mature cattle or their equivalent to be fed, a silo sixteen feet in diameter can be safely built.

Silage varies greatly in density from the surface of the silage to the bottom of the silo. At the top when feeding is first begun, the silage when removed may not weigh to exceed twenty pounds per cubic foot. At a depth of thirty-five or thirty-six feet from the surface, the silage will weigh about sixty pounds per cubic foot. When first beginning to feed a thicker layer must necessarily be removed from the surface to meet the requirements of a given number of cattle than will be

necessary toward the bottom of the silo. It is also to be noted that toward the bottom of the silo, a thinner layer can be removed without having the silage spoil than when the feeding is from the top portion of the silo. It is generally estimated that on an average one or two inches of silage must be removed from the surface each day. If silage is fed in the summer time, a larger amount must be removed to prevent spoiling, therefore a silo which is to be used for summer feeding, must be of smaller diameter than one used for winter feeding.

In calculating the capacity of silos, it is usually estimated that silage will weigh about forty pounds per cubic foot. According to the tables prepared from the results of Professor King's experiments, the mean weight of silage in a silo containing thirty-one feet of settled silage, is forty pounds, in higher silos where the height of the settled silage is greater than thirty-one feet, the mean weight of the silage would be more than forty pounds per cubic foot. In silos containing twenty-four feet of settled silage, the mean weight of the silage is given as thirty-six pounds per cubic foot. To calculate the cubical contents of a silo, the inside diameter of the silo in feet should be squared and the result multiplied by the factor .7854. This gives the floor area of the silo in square feet, and this area multiplied by the depth of the silage will give the number of cubic feet of silage contained in the silo. The following table taken from King gives the estimated capacity of round silos of various sizes:

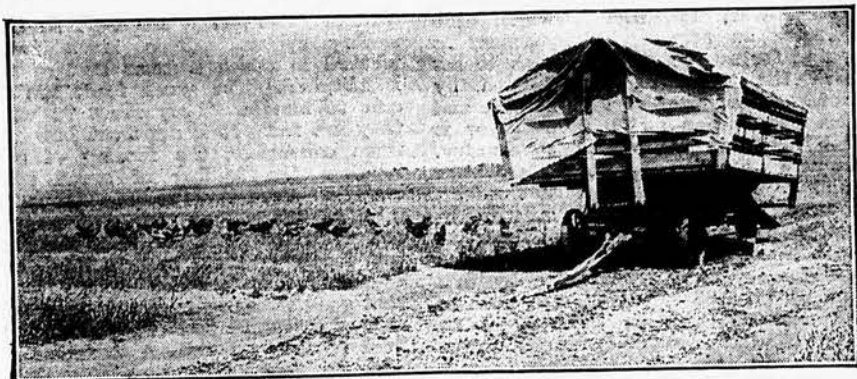
| Inside Height of Silo, in Feet | Inside Diameter of Silo, in Feet. | | | | | |
|--------------------------------|-----------------------------------|-----|-----|-----|-----|-----|
| | 10 | 12 | 14 | 16 | 18 | 20 |
| 20 | 26 | 38 | 51 | 67 | 85 | 105 |
| 24 | 34 | 49 | 66 | 87 | 110 | 135 |
| 26 | 37 | 55 | 75 | 98 | 123 | 154 |
| 28 | 42 | 61 | 83 | 108 | 136 | 169 |
| 30 | 47 | 67 | 92 | 119 | 151 | 186 |
| 32 | 51 | 74 | 100 | 131 | 166 | 205 |
| 34 | 56 | 80 | 109 | 143 | 181 | 224 |
| 36 | .. | 87 | 119 | 155 | 196 | 242 |
| 38 | .. | 94 | 128 | 169 | 213 | 261 |
| 40 | .. | 101 | 138 | 180 | 229 | 282 |
| 44 | .. | .. | 172 | 208 | 264 | 325 |
| 48 | .. | .. | .. | .. | 299 | 368 |

A Self Acting Grasshopper Trap

As stated in a recent editorial, grasshoppers are at work in all sections of Kansas and various methods are being used to combat them. George A. Dean, entomologist at the State Agricultural College, reports that fully 90 per cent of the eggs laid by the grasshoppers last fall are proving fertile. These eggs are now hatching out in large numbers. Probably Kansas has not been threatened with such an amount of prospective damage from grasshoppers in forty years. Among the many methods of combating these insect pests the one shown in our illustration is unique and of special interest. This method of

lem. A number of such movable coops are in use, being moved up and down the alleys between the different plots. The chickens most effectively destroy the grasshoppers as they go. This plan is well worth imitation by those having a sufficient amount of poultry available for the purpose.

A farmer in a county in northwestern Kansas recently conceived the idea of utilizing poultry on a rather large scale to clean up the grasshoppers on his farm. He purchased all the chickens of various kinds he could secure and housed them in numerous small coops set on runners so they could be moved to various parts



destroying the pests is fundamental since they are consumed early in their life before they have become sufficiently large to do much damage.

The grasshoppers doing the damage are not migratory, hence their destruction locally is effective in protecting crops from further depredations.

The Garden City Experiment Station was suffering considerably from grasshoppers on the small experimental plots of grain on the farm and as a very small amount of damage done to experimental plots may easily destroy the usefulness of the experiment, it was a serious matter. The illustration shows how they have solved the prob-

of his farm. The coops were always moved at night when the fowls were at roost. This farmer has destroyed his crop of grasshoppers and has sold his chickens at an advance over what they cost him.

Large flocks of turkeys are being used most effectively in some sections.

It is said that an ice cream freezer may be used as a churn to excellent advantage. The process of churning is shortened and the temperature of the cream may be regulated by filling the space around the can with hot or cold water.

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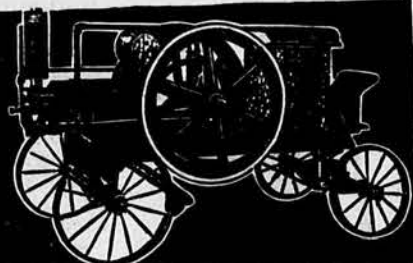
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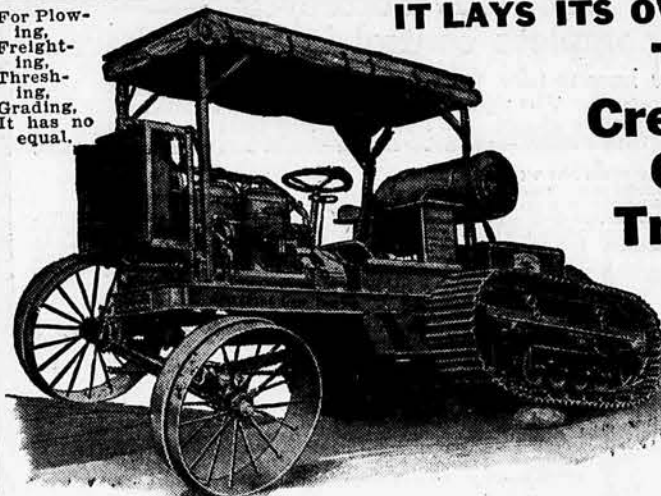
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Because the De Laval separator of today is just as superior to other separators as the best of other separators to gravity setting, and every feature of De Laval superiority count for most during the hot mid-summer months.



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It's the most powerful engine ever put into any motorcycle. Every Excelsior victory is made with this regular stock design motor. These victories (see panel at left) prove the superior strength and durability of motor and entire machine.

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| | |
|----------------|-----------------|
| 1 mile... | 36 seconds flat |
| 2 miles..... | 1.12 4-5 |
| 3 miles..... | 1.50 3-5 |
| 4 miles..... | 2.29 4-5 |
| 5 miles..... | 3.07 3-5 |
| 10 miles..... | 6.18 |
| 30 miles..... | 20.18 1-5 |
| 50 miles..... | 33.55 1-5 |
| 75 miles..... | 50.55 2-5 |
| 100 miles..... | 68.01 4-5 |

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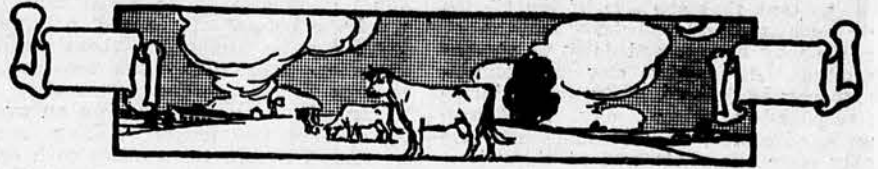
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DAIRY



Rarely do we go into a Kansas community and discuss dairying but that we are confronted with the statement that the profitability of milking cows is recognized but that the serious and insurmountable objection to increased dairy effort is because of a shortage of pasture. It is a fact that generally speaking, we in Kansas are short of pasture, also that we have not yet found a grass which will come even near replacing the native grasses. We as farmers are not making such investigation with reference to the adaptability of the second grasses as the situation warrants. We have repeatedly said in these columns, that in our judgment there are certain combinations of grasses which will justify the seeding of a liberal acreage for pasture on all farms which are short of pasture. However, farmers generally have not yet decided to experiment with a view to determining whether or not such grasses and such combinations of grasses will best meet the demand for pasture. Whether we engage in dairying or not, we need pasture, and we again urge upon our readers a study and investigation of pasture grasses best adapted to their localities.

Whether or not we can find such grasses or combinations, will depend upon the experimentation and investigation we are able to make. It requires only a meager outlay of money and labor to experiment with the several grasses recommended for the different sections of the state and grown in each section with more or less success. The experimentation done by one farmer does not necessarily prove the success or failure of the experiment for the whole community. The lay of the land, the character of the soil, the manner in which the land has in the past been farmed, are all conditions entering into the successful use of pasture grasses. A particular grass may be a success on one farm under certain conditions and a failure under the conditions prevailing on another. In a general way, the experiment stations can do much of the experimenting needed in behalf of our farmers. However, it cannot do all of the experimenting and in the case of pasture grasses this is probably true to a greater extent than in the case of grain crops. Every time a new grain crop is advertised, farmers prick up their ears and are inclined to get a little seed and try a few acres. This is true of farmers in localities in which the kind and character and success of grain crops is well established. We wish that this feeling on the part of the farmer might apply more to investigation as to pasture grasses and the various methods of maintaining live stock without pasture.

It is claimed by the Missouri Experiment Station that cows can be maintained cheaper when confined in a lot and fed corn silage than on bluegrass pasture when the land is worth \$100 or more an acre. This statement is quoted for no reason other than to set forth the result of investigation by Professor Mumford of that station and whose reputation as an investigator is well known throughout this country. An acre of the bluegrass pasture with which Professor Mumford is familiar, it must be kept in mind, supplies in our judgment, two or three times as much feed as does our prairie grass pasture in Kansas. We mean by this that an acre of this bluegrass pasture will maintain two or three times as many head of live stock as our native pastures in this state. If this be correct, then we in Kansas can keep cows in a lot and feed corn silage at a greater profit to ourselves than to keep them on land worth \$65 to \$75 an acre, the only additional contingent feature being the productiveness of the land from a crop standpoint. In Kansas, as a rule, we have more land than we can farm advantageously to crops. This being the situation, we might pasture land proportionately more valuable than could some land in other states be pastured. We believe that generally in Kansas we could profitably devote a considerably increased acreage to pasture. However, there are occasional

farms on which this could not be done and the observation of Professor Mumford on the feeding of silage to cows—and for that matter to all kinds of cattle—the year around, prove interesting.

It is certain that if Professor Mumford is correct, he is placing a high value on the silage feeding plan. Good Missouri dairymen, however, have found that his figures are not far out of the way and in our judgment it is certain that the more thoroughly we study the economy of feeding for milk or for the production of the largest possible amount of beef or to obtain the largest possible growth, we will see more and more the advantages of feeding from the silo during the summer months as compared with pasturing. The feeding situation should be viewed from a strictly business standpoint and not from the standpoint of sentiment or prevailing custom.

Not long since in discussing this subject with a dairy farmer, he made the statement that it would be cruelty to animals to place his cows in a corral and during the summer deny them pasture—a thing they had been accustomed to for years past and an appetite for which comes to cows and to all kinds of live stock as naturally as does the breath of life. We have in our time seen hundreds of herds fed from the silo and from the feeding bunk during the whole year. We have never seen herds in better health than were these. Likewise we have never seen more contented herds.

Usually such lots are provided with shade—either trees growing in the lots, or by the use of sheds. The character of the lot, of course, is important. It should be well drained and kept clean. Usually these feeding lots have Mother Earth for floors. Some we have seen were macadamized, others paved with stone, brick or concrete. However, on most farms a suitable lot can be had without these expensive improvements. Not long since we saw such a lot with a concrete floor in the shed which afforded the summer shade and winter weather protection and which floor was kept covered with clean litter and on which the cows took their rest. The floor was easily kept clean. Around the feeding bunks and at the rack from which alfalfa hay was eaten, were cement platforms, the cement work being done by farm labor. The owner assured us that from his forty acres of land, with his herd of dairy cows thus taken care of, he was making more money from the production of milk than he had ever made even though he could have abundant tame grass pasture.

Sometimes the remark is made that it would be foolish to feed silage during the summer time when it is possible to feed the cows green alfalfa, green corn or other green crops. This is the soiling system. This is a feeding method to which a great deal of work is attached. The green feeds are difficult to handle. They must be cut as they are fed. It is apparent how much more convenient the feeding of silage is than the feeding of green soiling crops. Unless the soiling crops are used at the proper stage of maturity and when the plant has in it the greatest feeding value, such soiling crops do not produce the results acre for acre that good silage will. Every year hundreds of dairymen so situated that it has been necessary for them to follow soiling, are abandoning such methods and resorting to the use of the summer silo.

The summer silo is as valuable in the feeding of live stock not milk cows, as in the case of milk cows, and we will come to a serious consideration of the statements made in this article when we arrive at the point whereby we recognize the necessity of increasing the live stock population. The ideal situation is that of abundant pasture for four or five months of the year. We verily believe that we can do much to improve the pasture situation. If we cannot, then we are not barred from the economical maintenance of live

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ADVERTISING PAGE FOR READY BARGAINS

stock and the realization of the highest profits therefrom, because the silo meets the need. Twice a day feeding out of the silo reduces the feeding problem to its simplest and easiest terms, except, of course, in the instance of good pasture. It is poor land and a poor season when 5 to 8 tons of silage is not produced per acre. An acre yielding 5 tons of silage will give a milk cow 40 pounds of silage a day for 250 days, or on this basis less than 1 1-3 acre will feed a large consuming milk cow one year. It is indeed a good acre of pasture that will supply one such cow with the feed she needs four months of the year. The economy of the use of land for the growing of silage is at once apparent. While we do not recommend that Kansas farmers abandon their pastures and resort to the use of the silo, it is certain that there are hundreds of farmers in Kansas who can afford to study the question of more abundant pastures than they now have and being unable to provide such pastures can consider the use of the silo for summer feeding.

There are thousands upon thousands of acres of pasture in Kansas which, while in native grasses, are so eaten and worn out that they furnish little pasturage. We know \$75 to \$100 an acre land in Kansas now occupied by worn-out pastures and which pastures require three or four acres for the support of a single animal during the pasture season and the condition of such pastures is directly responsible for the fact that only four or five cows are kept on such farms. When we arrive at the point at which we feel the press of a larger income from the acres we have, our facilities for keeping all kinds of live stock will be improved and in such improvement we will look to the silo.

The Farmer's Cow.

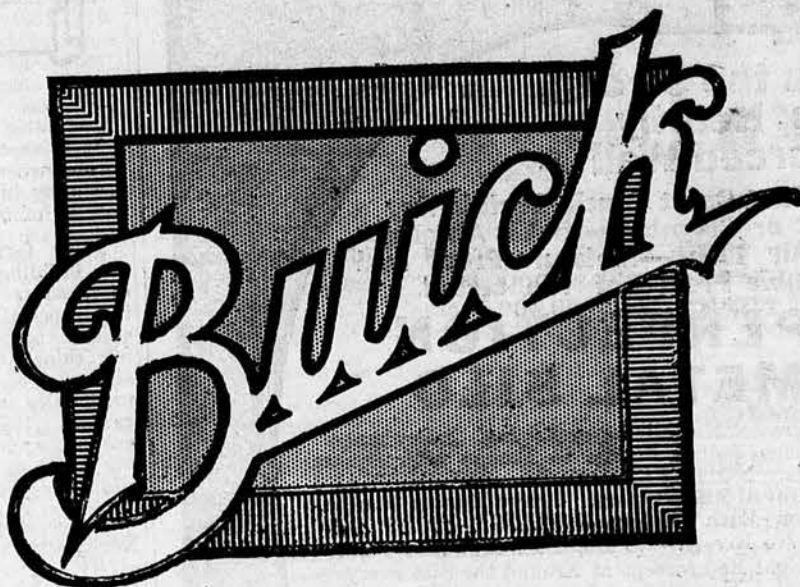
We are confident that the so-called average cow is a much better cow than believed. We have numerous times made this statement, and the evidence in support of such statement is accumulating month after month. The records of the Dickinson County Pioneer Cow Testing Association, this state, will upon the completion of the year's figures, prove the statement.

Records obtained from all sections of the state indicate that the so-called average cow when given good farm care will produce \$50 to \$65 worth of dairy products a year. We have just recently received several records of herds of 12 to 16 common cows each, from Thomas County, showing an income around \$70 for each cow for the year. These are common cows; not of dairy breeding, but fed as well as intelligent effort in the production of feed crops in that section will permit, and with this the cows have been protected from the storms. This is not a statement to the effect that the common cow is good enough for the farm dairyman, but is intended to offer some evidence to the effect that even the average of Kansas herds properly fed and cared for will produce a larger volume of dairy products than is believed, and those products will result in a larger income than we give such cows credit for. The Pioneer Testing Association will show the difference between these average cows and the best cows in these farm herds. With these records it will be possible for those farmers who are members of the testing association to replace their poorest cows with animals equal to the best, and the best is none too good for any dairy farmer.

We in Kansas have long gone on the theory that the average Kansas cow will produce 100 pounds of butter fat a year. This deduction from the figures obtainable is not justified. The annual product, as reported, of about 100 pounds, may be granted as the average product of the cows milked, but these figures include the product of cows milked only four or five months of the year, and in the figures such cows are regarded as having been milked the full twelve months. Those cows milked for only a few months of the year and which milking period is made short through no fault of the cows, are those which to a great extent ruin the reputation of our cows in general.

This condition will always prevail. The condition need not necessarily be deplored, but it is not fair to the Kansas cow to report for her the low average yield which the figures of the State Board of Agriculture show. It is certain that the Kansas dairyman can easily produce two times as much butter fat as is being produced with the cows he now has by supplying even good roughage and so justifying a longer milking period.

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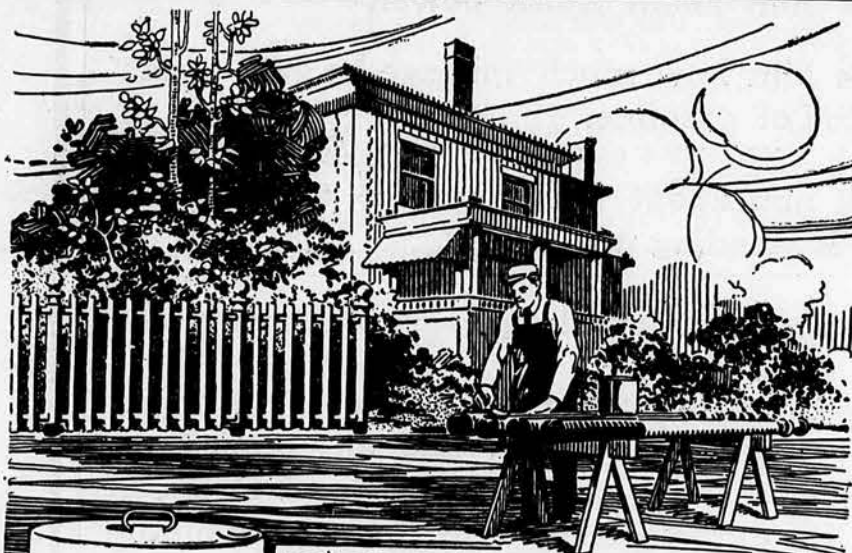
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No. 3



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and all woodwork exposed to the action of moisture should be given a coat of

"C-A-Wood-Preserver"

It Doubles the Life of Wood

This is the same high quality material which is used by the great electric railway and power companies, for preserving ties, poles and timbers of all kinds from decay.

We have it in one and five gallon cans ready for use. It is applied with a brush like paint and is the most effective wood preserving material known.

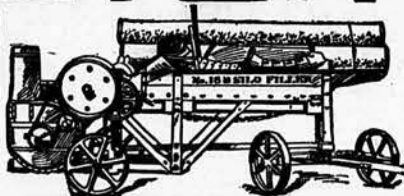
Don't let your wood rot away—Preserve it. Such as silos, shingles, etc. One coat on the inside of a chicken coop is guaranteed to rid it of fleas, lice, mites, etc., for three years. It is not expensive. Write for catalog and prices.

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APPLETON MFG. CO., 419 FARGO ST., BATAVIA, ILL., U. S. A.



LIVE STOCK



It is reported that Jim Fike, the former wheat king of Thomas County, is becoming interested in live stock and is talking of building silos.

Fifty farmers around Flagler, Colo., are building silos this summer. Most of these are pit silos, the conditions being especially suited to this type of silo in this locality. The most interesting thing in connection with the construction of these silos is the fact that practically all these farmers have organized themselves into co-operative groups, exchanging labor in the building of their silos and purchasing their silo filling machinery in co-operation.

Our subscriber H. H. from Hastings, Nebr., writes to inquire whether he can safely use a two year old stallion colt for breeding purposes. As a rule it would be better to refrain from using the young stallion until he is at least three years old. If proper care is used, however, he may be safely bred to six or eight mares as a two year old. These should be well distributed through the season, preferably not using the colt oftener than once a week.

A feeder in Stevens County, Oklahoma, built and filled two 200-ton silos last year. He bought 200 steers, fattened them on silage, chop and cottonseed meal. After deducting the cost of all other feed and expense, the steers returned \$5,000 for the silage and profits. He will erect four more silos this summer.

This is a fair sample of the profits Oklahoma feeders have made from silage fed to beef cattle. Conservative business men say that 400 farmers in Garfield County and 200 in Stevens County will put up silos this season. It is probable that 10,000 silos will be built this summer in Oklahoma if the material can be secured.

A. A. Briggs, Labette County, Kansas, writes: "My experience in feeding silage to horses and mules has been very satisfactory. I have fed them both corn and kafir silage and used wheat straw for additional roughage, without grain feed, except what little was in the silage. Both horses and mule wintered well on it and came out in the spring in fine condition. I think

is my personal belief that most of this falling off in bone and size has been brought about by short rations. Now, that the boom here in western Kansas has passed, I believe the country will be put to the use to which it is best adapted, namely, stock raising. Every one is becoming interested in the silo, and if the pit silo and cane for silage are successes, the problem is solved. Most of our farmers out on the flats have little working capital, but all can afford pit silos, and will undoubtedly put them in if they are successful. As a breeder of pure-bred Shorthorns, my own problem is to get a farm lying mostly in the first bottom of the Arkansas River where the cattle will be on sweet clover pasture, and have enough second bottom to raise cane for silage and alfalfa under irrigation.

"I came here as a little kind when the buffalos were still about, and have seen all the ups and downs, (more downs than ups) but believe that we have at last struck our gait and in time eastern Kansas will not feel ashamed of us."

Fly Repellents.

One of our correspondents, B. H. S., Osage County, asks us to give receipts for fly repellents. There are a number of commercial fly repellents on the market, advertisements of which appear in KANSAS FARMER from time to time. These repellents are fairly effective but must be applied frequently in order to secure very good results. Fish oil has been very commonly used as a fly repellent. It ceases to be effective, however, inside of two days. Some years ago the Entomological Department of the Kansas Experiment Station tested out a fly repellent which gave very satisfactory results, and likewise was low in cost. It is made as follows: Pulverized resin, 2 parts by



FILLING A SILO ON THE FARM OF JOHN A. REYNOLDS, WINCHESTER, KANSAS, WITH CUTTER EQUIPPED WITH BLOWER AND OPERATED BY A 12-H. P. WITTE GASOLINE ENGINE.

in feeding silage to horses and mules it should be fed in shallow boxes. I feed them all they will eat and clean up well. I never pile a feed on top of one that is only partly cleaned up. It is best to feed it in an open lot when weather conditions are right. Mixing a little cotton seed meal with it is much relished by the animals and makes it a better feed."

W. O. Harper of Neosho County, writes as follows: "During the past two years I have feed silage to my work horses and mules and they do well on it. The silage was made from corn well matured and was brown and rather dry. The corn was light in grain, making about twenty bushels per acre. I fed about twenty pounds of silage a day to each animal, with some timothy hay or straw, and about three pounds of grain, usually corn. My horses were always fat, and at no time have I noticed any bad effects."

KANSAS FARMER is just in receipt of a most interesting letter from one of our Shorthorn breeders from Kearney County. We quote from his letter as follows: "The Shorthorns are in great demand just at present to increase the bone and size of our western cattle. It

measure; soap shavings, 1 part; water, 1-2 part; fish oil, 1 part; oil of tar, 1 part; kerosene, 1 part; water, 3 parts. Place the resin, soap shavings, 1-2 part of water and fish oil together in a receptacle and boil till the resin is dissolved. Then add the 3 parts of water, following with the oil of tar mixed with the kerosene. Stir the mixture well and allow it to boil for fifteen minutes. When cool, the mixture is ready for use, and should be stirred frequently while being applied.

The mixture costs about 30 cents a gallon. From one-eighth to one-half pint is sufficient for one application. To apply the mixture, a brush is essential. We find nothing more satisfactory than a large painter's brush. At first it is well to make an application for two or three days in succession. Afterwards an application every other day will suffice.

This mixture is not satisfactory for use on horses since it is somewhat gummy and sticky. The following remedy is suggested as one more satisfactory for horses: Fish oil, 2 quarts; crude carbolic acid, 1 pint; pennyroyal, 1 ounce; oil of tar, 8 ounces; kerosene, 1 1-2 quarts, or enough to make a gallon of the mixture. This repellent must be applied as a spray.

Warranted to Give Satisfaction.

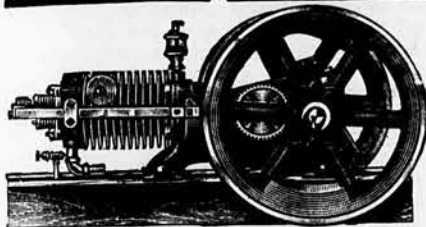
**Gombault's
Caustic Balsam**

Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for
Curb, Splint, Sweeney, Capped Hock,
Strained Tendons, Founder, Wind
Puffs, and all lameness from Spavin,
Ringbone and other bony tumors.
Cures all skin diseases or Parasites,
Thrush, Diphtheria. Removes all
Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism,
Sprains, Sore Throat, etc., it is invaluable.
Every bottle of Caustic Balsam sold is
Warranted to give satisfaction. Price \$1.50
per bottle. Sold by druggists or sent by ex-
press, charges paid, with full directions for
its use. Send for descriptive circulars,
testimonials, etc. Address

The Lawrence-Williams Co., Cleveland, O.

PUMPING ENGINES

Here's the most reliable small engine in America.
I absolutely know that it will give longer and more
satisfactory service than any other that you can
buy at **anywhere near the price**. Don't wear
yourself out these hot days but get a small-sized
"Ottawa" to run the pump, churn, cream separ-
ator, washing machine and a scud of other work
that you can do
with a gasoline
engine. You can
buy one as low as

only \$24.75

We can save you all kinds of money on gasoline engine power washers, feed grinders and other farm necessities.

Pump Jacks \$3.90
Don't think of buying an engine, a pumping outfit of
any kind, or anything in our line until you get our

**Big 48-Page Catalog
FREE**
Our prices are the lowest—our guar-
antee the strongest. Everything
you buy from us must be right or
we will make it so. Send for our
Catalog today. It will save you money sure.

GEO. E. LONG, General Manager,
OTTAWA MANUFACTURING CO.,
1229 King Street, Ottawa, Kansas.

Kalamazoo**ALFALFA & ENSILAGE CUTTERS**

make a positive shearing cut full width of
bundle, from sides to center of throat, hence
do cleaner work on less power. Our sickle-edge knives
cut the hard, dry alfalfa to 3/4
inch lengths. Only silo
fillers made having these
wonderful knives. Write for
catalog now. Write for free
catalog. Address Dept. 82

KALAMAZOO TANK & SILE CO.
KALAMAZOO, MICH.
Branches: Minneapolis, Minn.,
No. Kansas City, Mo.,
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Lankford Horse Collars

cure and prevent sore shoulders and galls
while the horse works. Stuffed with clean
cotton which absorbs sweat. Acts as collar
and pad combined. Fits comfortably any shape
neck. Will not swell the horse. Sold by most
dealers. Send for FREE Memorandum Account Book
and particulars regarding Lankford Collars. Prices \$1.25 up.
THE POWERS MFG. CO., Dept. H-2 Waterloo, Iowa

KENDALL'S SPAVIN CURE

The old, reliable remedy you can de-
pend on for Spavin, Curb, Splint,
Ringbone or any lameness. Thou-
sands have proved it invaluable.
Get a bottle from your druggist.
Price per bottle \$1.60 for \$5. "Treat-
ise on the Horse" Free at drug-
gist or from Dr. B. J. KENDALL CO.,
Keosauqua Falls, Va., U. S. A.

Hopper & Son, Manhattan, Kansas
Builders of

Concrete Silos

Write for list of silos we have built.
Ask our customers about them.

BEEES on the Farm

Need little attention and pay big
profits. If you are interested in
them send for a sample copy of
Gleanings in Bee Culture. Also a
bee supply catalog.

THE A. I. ROOT CO., Box 320, Medina, Ohio

Our subscriber, E. L. M., Linn Coun-
ty, Kansas, writes for information con-
cerning the origin of Polled Durhams.
The Polled Durhams are regarded as
a comparatively new breed. They are
really an offshoot from the Shorthorn
breed of cattle. They received their
first official recognition at the Colum-
bian exposition at Chicago in 1893. In
general characteristics, with the ex-
ception of the absence of horns, they
are very similar to Shorthorns from
which they sprung. A little more at-
tention has been given to preserving
the milk producing qualities and they
are generally considered a little better
dual-purpose animal than the Shorthorn.
There are two strains of Polled Dur-
hams, namely, the double standard and
the single standard. The double stan-
dard Polled Durhams have their origin
entirely within the Shorthorn breed. All
the animals used in founding the
double standard cattle have been Short-
horns, and as a consequence they are
eligible as Shorthorns. In the develop-
ment of the single standard Polled Dur-
hams there has been used certain out-
side crosses and they cannot, therefore,
be registered as pure-bred Shorthorns.
The breed has increased in popularity
and undoubtedly has a great future be-
fore it. They appeal especially to those
who have long been lovers of the Short-
horn cattle and yet prefer an animal
without horns.

Greatest Since '76.

Last year with 453 new Granges was
looked upon as a banner year in Grange
growth—in fact the order made a greater
growth in the year ending October 1,
1911, than it had made in any year since
the "boom" days of 1876. But the year
just ended, with 472 new Granges to its
credit, surpasses even some of the
"boom" years. This remarkable growth
shows that after having seen nearly half
a century of the Grange's work the peo-
ple have greater confidence in it than
ever before. Not only has it increased
in numbers, but its influence has grown
even faster. It is working in better
unison than for years; the coming ses-
sions of the National Grange promise to
be the most useful in the history of the
order. Great as has been the work of
the Grange in the past, it has a greater
field of usefulness for the future and
each succeeding year finds it better fit-
ted for its work.

Better Pastures Needed.

It is not profitable to grow a half
crop of grass any more than it is profit-
able to grow a half crop of corn or al-
falfa, yet in all parts of Kansas are
pastures producing half or even less than
half as much grass as they should. This
because the pastures are worn out from
close pasturage. The worn out pasture
is always weedy, and weeds have the
effect of further depleting the grass sod
and by shading prevents the grass from
growing. We do not believe there is a
wild or native grass pasture in the state
which cannot be rejuvenated. If it were
possible to reduce the amount of live
stock to be run on these pastures each
year while a rejuvenation process was
under way, it is certain that these pas-
tures could be re-established.

The important factors of rejuvenation
are first to discontinue close pasturage
and severe tramping. Second, the weeds
must be kept down. Mowing will re-
sult in destroying the weeds. The cut-
ting of the weeds also gives the sun-
shine a chance to reach the grass and so
give it renewed vigor.

It is our judgment that rejuvenation
of the native grass pasture is important
to Kansas farmers in general. This, be-
cause as we have numerous times stated,
generally speaking we have not yet
found a grass which will take the place
of the native grasses. In preference to
plowing up a wornout prairie grass pas-
ture we would, if possible, discontinue
pasturing for a few years, keep the
weeds mowed, and disk the pasture at
least once in the early spring. It would
help such pastures, too, if a light top
dressing of manure could be given them.
With the manure spreader this is not a
big chore. Furthermore, the pasture
may be top-dressed when the plowed
fields are so soft that the manure
spreader could not get thereon. It will
pay to manure the prairie grass pasture
just as it will pay to manure the field
for any other crop.

Sorghum Crops for Silage.

Circular No. 28 from the Kansas Ex-
periment Station with the above title is
now ready for distribution. This circular
gives in detail the results of two
years' experimental work in the feeding
of sorghum and kafir silage to dairy
cattle. Every farmer interested in
silage should secure a copy of this cir-
cular. Address Kansas Experiment Sta-
tion, Manhattan.

Why several grades?

Here are five 4-ounce bottles. Each is filled with a
different grade of Gargoyle Mobiloil.



The grades all differ in thickness or "body."

These oils meet the most severe physical
tests that have ever been exacted from auto-
mobile lubricating oils. In sheer lubricating
quality they stand alone.

But that, of itself, is not sufficient.

To properly reach the many friction
points the oil's "body" must be suited to
your feed system.

The conditions to be met are complicated.
The problem is serious.

Motors differ.

Feed systems differ.

Before the oil which best combines dura-
bility with ability to meet the feed require-
ments of your car can be determined, the
construction of your motor must be known
and carefully considered.

To meet these conditions, we analyze,
each year, the motor-construction of each of
the season's models. Guided by this analysis
and by practical experience we determine the
correct grade of Gargoyle Mobiloil for each
make of car.

Our findings we list in a lubricating chart, printed
in part on the right.

The oil specified for your car in this chart is the
scientifically correct grade for your motor.

If you use oil of lower lubricating quality or of less
correct "body" than that specified for your car, loss of
power, unnecessary friction, and ultimate serious
damage must result.

We suggest that you note down the grade speci-
fied for your car.

In buying Gargoyle Mobiloil from dealers it is
safest to order either a full barrel, half-barrel, or a
sealed five-gallon or one-gallon can.

Make certain that you see the name and our red
Gargoyle on the container.

A booklet, containing our complete lubricating
chart, together with points on lubrication, will be
mailed you on request.

**Mobiloil**

A grade for each type of motor

The various grades, refined and filtered to remove free
carbon, are: Gargoyle Mobiloil "A"; Gargoyle
Mobiloil "B"; Gargoyle Mobiloil "D"; Gargoyle
Mobiloil "E"; Gargoyle Mobiloil "Arctic".

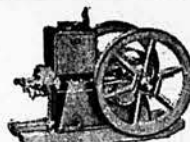
They are put up in 1 and 5 gallon sealed cans, in
half-barrels and barrels. All are branded with the
Gargoyle which is our mark of manufacture.
They can be secured from all reliable garages, automobile
supply stores, hardware stores and others who supply lubri-
cants.

VACUUM OIL CO., Rochester, U. S. A.

BRANCHES:
DETROIT: Ford Bldg. BOSTON: 69 Federal St. NEW YORK: 29 Broadway CHICAGO: Fisher Bldg. PHILADELPHIA: 4th & Chestnut Sts. INDIANAPOLIS: Indiana Pythian Bldg.
Distributing warehouses in the principal cities of the world

OLD STAVE SILOS MADE LIKE NEW

Even if it is a real
old one and twisted
all out of shape, the
hoop ends bent,
threads strapped or
rusty off, lugs bro-
ken, our patent self-
adjusting lug will
make your hoops good
as new, the silo better than ever, anyone can put them on without going to a blacksmith
shop. Give us the number of lugs on your silo and we will give you the price of a new set.
It is something new, it is the missing link in silo construction, it always keeps the hoops
tight, prevents water from entering the joints and rotting the wood, saves it from blowing
down in wind storms. Our space is limited to tell all the good points, our catalogue gives
it, a postal card with your name and address will place it in your mail box. Are you going
to put up a new silo? Our catalogue gives interesting facts. Let us send you a copy. In
case your neighbor is not a reader of this paper we will consider it a favor if you will please
pass it along. AGENTS WANTED.

PEERLESS LUG COMPANY, 1330 16th St., Racine, Wisconsin

**Northwestern
Gasoline Engines**
High Grade - Well Built
Sizes 1 1/2 to 12 H. P.
Send for Free Catalog

THE LITTLETON CREAMERY CO., Denver
More Power for Your Money

To reach the well-to-do Farmers
of Kansas and surrounding Terri-
tory with a Heart-to-Heart Busi-
ness Talk, use our Classified Col-
umns. Ready buyers at a low
cost.



Treat Them
to the treat of treats—always
welcomed, by all, everywhere—

Coca-Cola



sparkling with life—delight-
fully cooling—supremely
wholesome.

Delicious—Refreshing
Thirst-Quenching

At
Soda
Fountains
or Carbon-
ated in Bottles.

Demand the Genuine—
Refuse Substitutes.

3-A

Send for Free Booklet.

THE COCA-COLA COMPANY, ATLANTA, GA.

Bargains in Land

80 A. Improved Valley Farm, 35 cult., on Ry.
\$16 a. Robert Sessions, Winthrop, Ark.

OUR NEW YORK IMPROVED FARMS
are great bargains at present low prices.
Send for free list. McBurney & Co., 703
Fisher Bldg., Chicago, Ill.

LAWRENCE REALTY COMPANY
The Home of the "Swappers" handles
exchanges of all kinds with agents or own-
ers. Write us for particulars.
Lawrence Realty Company, Lawrence, Kan.

CLOUD COUNTY LAND.
Good wheat farm, 160 acres, eight miles
from Concordia. All in wheat. A bargain.
Write for particulars.
W. C. WHIPP & CO., Concordia, Kan.

3,520 ACRES, fine, level, well-drained
prairie land, 95% tillable. Suitable for col-
onization or a ranch. Good wheat and clo-
ver land, located near Red Lake Falls, Minn.
Wm. Gallant, Im. Land Agt., Hebron, Neb.

ALWAYS HAVE
Just what you want in farm or city prop-
erty. A new list just out. Write for it.
List your sale and exchanges with me.
Hardware for sale.
ED A. DAVIS, Minneapolis, Kansas.

FOR SALE—CORN AND ALFALFA FARM.
220 acres, all fine river bottom land; no
better in Kansas; all in cultivation; well
improved; 5 miles from Manhattan. Price,
\$150 per acre. Good terms.
Bardwell Real Estate Co., Manhattan, Kan.

DICKINSON COUNTY BARGAINS.
We have many fine creek and river bot-
tom farms, also splendid upland farms for
sale. Soil deep rich black loam, producing
the big corn, wheat and alfalfa. Our prices
are reasonable. Write for terms and list.
Briney, Pautz & Danford, Abilene, Kan.

FINE 160 A. FARM, lime stone soil, good
house, barn, etc. Nicely located. Will pro-
duce wheat, corn, clover, alfalfa. Part cul-
tivated, balance pasture, meadow. Close
to Fredonia, Kan., in oil gas belt. Will
take \$40 a. and is worth \$75. Address
Owner, Lock Box 307, Fredonia, Kan.

233 ACRES fine irrigated land, Lower Rio
Grande Valley, San Benito, Texas. On main
canal, boulevard and interurban; improved;
under a high state of cultivation. \$200 per
acre, including the crop, takes this; half
cash, half income city property. The Brown
Land & Loan Co., Superior, Neb.

LAND FOR SALE

Any amount of it, in Nebraska and ad-
joining states. We have cheap land and
also high priced land. Write us at once
and let us know your wants. We have it.
CHRIS HICKEY, Fairbury, Neb.

RANCH—1,880 acres

Modern improvements. 300 acres alfalfa
land. Trege County, Kansas. \$25.00 acre,
encumbrance \$7,000. Want smaller farm.
BUXTON, Utica, Kansas.

Something Unusual

640-acre ranch in Dickinson County, Kan-
sas. Four miles from town; 140 acres cul-
tivated, balance bluestem grass; good house,
barn, cattle sheds, granary, cribs, scales,
good orchard, well watered by numerous
springs; sheltered feed yards. One of the
best stock farms in Kansas. Price, \$30 per
acre. Owner will carry \$12,000 for twelve
years at 6 per cent. Lady owner lives in
Canada, hence the bargain.

MOTT & KOHLER, Herington, Kan.

A Fine, Well Improved MISSOURI FARM

of 274 acres at \$85.00 an acre to trade
for a stock of good merchandise at its
value. Come quick for this.
H. B. BELL LAND COMPANY,
Commerce Building, Dodge City, Kansas.
Phone 2.

When writing advertisers, please mention
Kansas Farmer.

A Bargain For Cash.

If sold soon. Eighty acres
close to Elk City, Kansas.
Good 5-room house, barn
and other outbuildings.
Plenty of fruit and shade trees. Good water.
Six acres alfalfa, 10 acres pasture, balance
under cultivation. Price, \$5,000, with all the
crop. One horse, 5 dozen chickens, and
some machinery. Mortgage of \$1,000 which
can stand. Possession in two weeks. This
price holds until July 1.

JESSE A. SIMPSON, Scandia, Kansas.

A SPECIAL BARGAIN

640 Acres, well improved, six miles from
good town; 160 acres pasture land, fenced
hog tight; 60 acres separate pasture; 80
acres clover and timothy; 310 acres corn,
wheat and oats; two good wells.
Price, \$55.00 per acre; half cash, balance
time to suit purchaser at 6% interest.
Write for particulars.
W. L. WARE, Garnett, Kansas.

BUY or Trade

with us—Exchange book
free. BESSIE AGENCY,
El Dorado, Kan.

BARGAIN

—200 Acres Fine
Bottom Land, above
overflow; virgin tim-
ber, near railroad. \$4,000, terms. Also
handle exchanges everywhere. List free.
BURROWS, Warm Springs, Ark.

When writing advertisers, please mention
Kansas Farmer.

400 ACRES—Located in Franklin Co.,
Kan. 360 acres in cultivation; 30 acres in
timber and pasture; 40 acres hog-tight; two
large sets of improvements; 5 miles of
Ottawa. Price, \$24,000. Terms to suit.
MANSFIELD LAND CO., Ottawa, Kansas.

Ask your dealers for brands
of goods advertised in KAN-
SAS FARMER.

POULTRY



You will suspect that these items were
written on a hot day. They were, and
our sympathies went out to the poor
biddies that were sweltering with the
heat.

Don't forget to fill the water foun-
tains. Both hens and chicks need lots
of pure water these hot days.

Shade from the piercing rays of the
sun is essential to the well-being of all
poultry. If you have no natural shade
for them, provide some kind of artificial
shade.

Gather the eggs early and often, for
incubation in them will start if left too
long in the nests when the thermometer
is away up in the nineties.

If you want to exhibit some of your
old fowls at the fall fairs it is quite de-
sirable to have them molt early so as to
be in full plumage during the show.
Fowls bereft of most of their feathers
are a sorry looking sight anywhere, and
especially at a poultry exhibition. To
get an early molt, feed very sparingly
in July, until the fowls begin to lose
some of their feathers, then feed all the
stimulating feed they will eat, clear up
to fair time.

It may please some poultrymen to be
known as experts in the art of doctoring
sick fowls, but the man who learns to
use the ax when fowls are sick is the
one who will have a stronger and
healthier flock. Sick fowls that may
seem to recover under treatment will
never be as robust as before, and to use
them for breeding purposes is a very
serious mistake. Unless a sick fowl is
a very valuable one, it will not pay to
take too much time doctoring her.

During the hot days of summer it is
well to give the old birds a change of
diet. Make the food as light as possible
and give plenty of pure water. They
need shade, and you will find that they
will take advantage of every bit of
shade they can find. By having these
things on your mind you will get your
breeding stock through the summer in
good shape, ready for the molting pro-
cess, which should be started early in
order to have the birds in good condi-
tion for fall and winter laying.

The belief used to be general some
years ago, that hens would not lay with-
out the presence of a male bird in the
flock. And even today there are a few
people that contend the male stimulates
egg production to a greater or less ex-
tent. Men who have raised poultry
for years still cling to this notion and
persist in keeping a lot of male birds
around where only eggs are wanted.
The New York Experimental Station
made up four pens of pullets, two con-
sisting of pure-bred stock and two of
mixed stock. With one pen of each

class cockerels were kept, while with the
others none were allowed. The cocker-
els were put with the two pens two
months before any of the pullets began
laying. Some pullets in each of the
two pens in which no cockerels were
placed, began laying a month before any
in the pens containing the cockerels.
The fowls were of the Asiatic breeds
and rather persistent sitters. No at-
tempt was made to discourage any of
the pullets from sitting, and there
seemed to be no difference in the rela-
tive number of sitters in the contrasted
pens. Of the cross-bred pullets the
lot without males laid better through-
out the season and also during the best
egg season. Of the other lot the one
without males began laying earlier and
did better than the one with males dur-
ing the first part of the season, but it
fell slightly behind in the latter months,
though during that period, they kept
even with the lot which was accompanied
by males. From these experiments it
would seem that the presence of males
has a detrimental influence upon the
egg yield. This is also the theory ad-
vanced by many in recent years, and it
is now pretty generally accepted by
prominent egg farmers. So now, that
the hatching season is over, dispose of
every male bird that you do not need
for next season's breeding, and yard
those that you do need, apart from the
hens.

Infertile Eggs Do Not Rot.

Kansas poultrymen could save a mil-
lion dollars annually by penning up
all roosters during the summer season,
said W. A. Pippincott, professor of
poultry husbandry at the Kansas Agri-
cultural College, to the Kansas Poultry
Federation meeting recently held in
Manhattan. Forty-two per cent of the
loss in market eggs at this season is due
to fertilized eggs, he said. They rot
much more quickly than eggs not fer-
tile. If poultry keepers would seclude
or sell cockerels this loss would be pre-
vented.

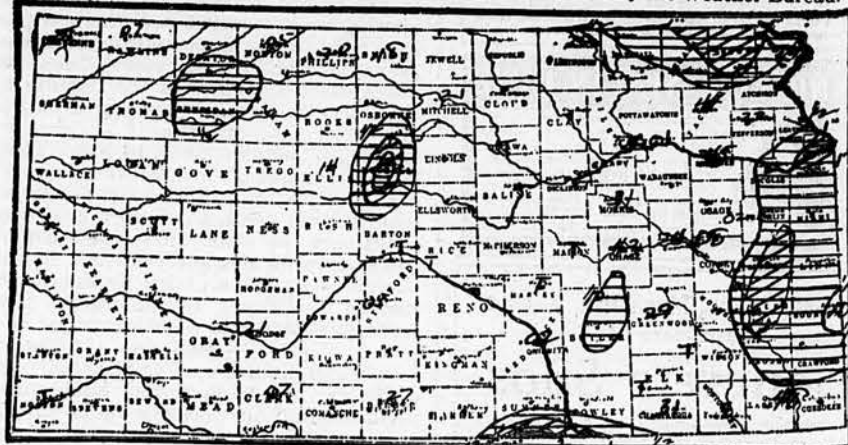
"I hope and expect to see within the
next five years," said Professor Pippin-
cott, "a law on the statute books of this
state making it a misdemeanor for any-
one allowing a male bird of any de-
scription to run at large in the open
country or in town. Of course, when
this law is proposed it will cause much
merriment; it will be dubbed 'the rooster
law' and provoke some laughter, but it
will be passed, eventually. And when
it is passed it will save the farmers of
Kansas, estimating it conservatively, a
million dollars a year."

After coming home from Sunday
school, Johnny's father asked: "Well,
my son, what part of the sermon did you
like best?" Johnny stood thinking a
moment, and then said: "Well, Pa, I
liked the part where they passed around
the hat. I got a quarter; how much did
you get?"

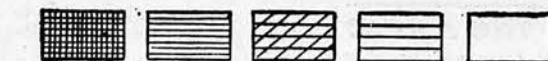
KANSAS CROP REPORT

FOR WEEK ENDING JUNE 28

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



SCALE IN
INCHES:



Less than .50. .50 to 1. 1 to 2. 2 to 3. Over 3. T. Trace.

Harvesting just beginning in the Northwest, nearly over in other parts.
Condition generally dry and rain badly needed. Corn reported good, oats
poor.

HOME CIRCLE



When a man ain't got a cent, and he's feel-
ing kind o' blue,
An' the clouds hang dark an' heavy, an'
won't let the sunshine through;
It's a great thing, O my brethren, for a
feller just to lay
His hand upon your shoulder in a friendly
sort of way!

It makes a man feel queerish, it makes the
teardrops start,
An' you sort o' feel a flutter in the region
of the heart;
You can't look up and meet his eyes; you
don't know what to say,
When his hand is on your shoulder in a
friendly sort of way!

O, the world's a curious compound, with its
honey and its gall,
With its care and bitter crosses; but a good
world after all;
An' a good God must have made it—least-
ways, that is what I say,
When a hand is on my shoulder in a friendly
sort of way!

—James Whitcomb Riley.

White silk gloves, if washed with
naphtha soap, rinsed in bluing water
and hung in the air to dry will look
like new, says the Janesville Gazette.

The next time you are making grid-
dle cakes, after the batter has been
mixed pour it into a pitcher, and from
this pour it onto the griddle. It is
much easier than using a spoon or lad-
dle. The batter may be made light by
beating it in the pitcher with an egg
beater.

Make bags of silkoline and fill with a
mixture of dried lavender flowers, pow-
dered orris root and a small quantity of
powdered cloves. This mixture is quar-
anteed to keep moths away and will im-
part a perfectly delightful odor to gar-
ments. Plain dried lavender flowers
scattered about in the drawer where the
underwear is kept is also a good idea.

Too often failures in cooking are due
to inaccuracy in measuring the ingredi-
ents. Some are able to measure by
sight but the majority of us need more
definite guides. If you have not been
accurate in your measurements and
failures have occurred it is difficult to
tell just where the fault is, whether it
is the recipe or your mixing of it.

Sometimes in cases of severe illness
the hair cannot be combed and becomes
so matted that it is next to impossible
to get the tangles out besides being
very painful to the patient. When this
occurs moisten the hair well with alco-
hol and the tangles can be removed easily
with brush and comb.

The Parcel Post.

There's no more labor for the frau-
her day of toil is o'er; we order up our
dinner now from some far distant
shore; the postman comes with sundry
things and leaves them at our gate; but
oh the arrows and the stings when'er
the mail is late. We cannot grumble
at the cook—it does no good to groan;
we simply grab our little book and find
the pesky zone, then send a message
down the line, "Please hurry up that
roast." Oh isn't it a joy to dine since
we got parcel post? Or when we need a
bale of hay, a turkey or a cow, an auto
car, an orchard spray, a wagon or a
plow, a slide trombone, a tenor drum,
or pickles from the store, it's grand to
have the postman come and drop them
at our door. We ought to rise and offer
thanks unto our statesmen dear; we
ought to quit our gloomy pranks and
live a life of cheer; we ought to praise
our Uncle Sam for bringing quail-on-
toast and terrapin and calves-foot jam
by his great parcel post.—Brad's Bit
o' Verse.

Origin of Cloth Terms.

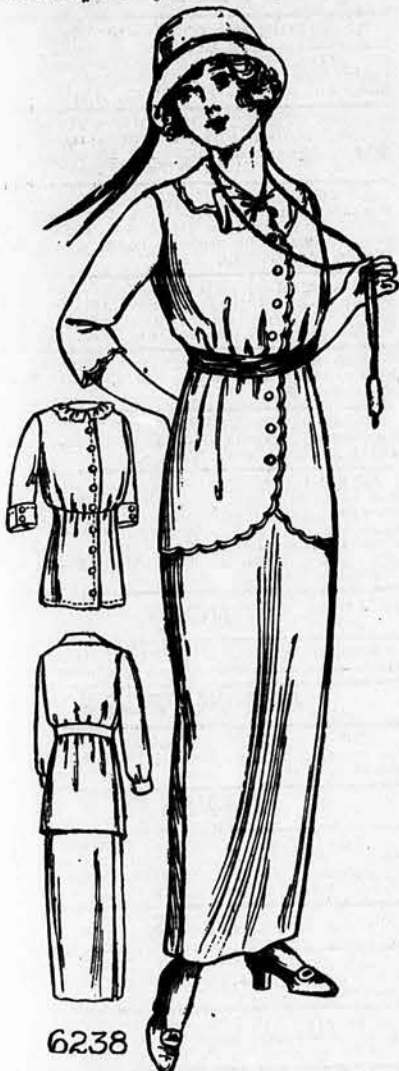
Many of our familiar, every-day words
have come long distances.

Calico takes its name from Calicut, a
city in India. Satin is from Zaytoun,
in China. Damask was first made at
Damascus, in Syria. Gauze is from
Gaze, in Palestine, and baize from Baza,
in Spain. Dimity is called after Da-
mietta, in Egypt. Cambric was first
made at Cambria, in France, and mus-
lin at Mosul, in Asia.

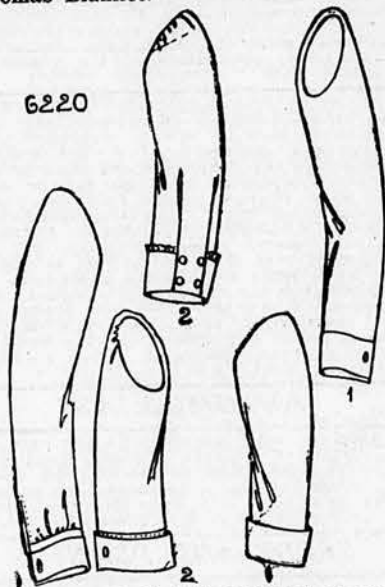
Serge got its name from Xerga, a
Spanish word. Velvet is our equivalent
of the Italian word veluta, and ging-
ham is from Gingamp, a town in Brit-
tany, where the cloth was first used for
umbrella covers.

Cashmere gets its name from the val-
ley of Cashmere, in the Himalayas;
buckram from Bokhara, lawn from Laon
in France and khaki is the Indian word
for earth.

But we have many homemade names
of fabrics. Tweed was originally the
product of the weavers of the Tweed,
melton was first made at the town of
that name in Leicestershire. Worsted
is from Worstead, famed for its fine
wool yarns. Cheviot was originally a
cloth made from the wool of the Cheviot
Hills, and blankets got their name from
their original English manufacturer—
Thomas Blanket.



6220



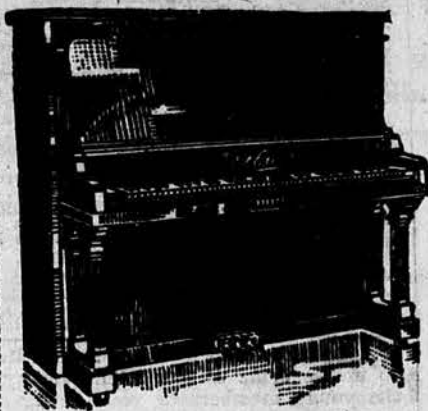
No. 6220—Ladies' Shirt-Waist Sleeves.—
Many old waists can be used by merely
bringing the sleeves up to date. These de-
signs will help in doing so. There are two
sleeves, and each can be changed in two
different ways. The long sleeve may be
plain or gathered at the wrist, and the
short sleeve may be plain or gathered at
the shoulder and may have an extension tab
at the lower edge if desired. Whatever ma-
terial is used for the dress can serve for
these sleeves, and satin, silk and lace can
be used for cuffs. The sleeve pattern, No.
6220, is cut in sizes small, medium and
large. In medium size sleeve No. 1 will re-
quire $\frac{3}{4}$ yard of 36-inch material and sleeve
No. 2 will require $\frac{3}{4}$ yard of 36-inch goods.
The pattern can be obtained by sending 10
cents to the office of this paper.

6238

No. 6238—Misses' Dress. Young girls will
like this stylish dress, with its simple
jacket, closed in front and gathered at the
waist line, where the hip sections are at-
tached. The plain sleeves are inset and the
two-piece skirt is made with raised waist-
line. Linen, serge, poplin, and many other
materials can be used in making this dress.
The dress pattern, No. 6238, is cut in sizes
14, 16 and 18 years. Medium size requires
 $4\frac{1}{2}$ yards of 44-inch material. This pat-
tern can be obtained by sending 10 cents to
the office of this paper.

DEPENDABLE PIANOS

They Pay!



Dependable Pianos—made by
factories of recognized reliability
—sold strictly on their merits, and
exactly for what they are—and
not only warranted by the mak-
ers but by Jenkins—that's the
way pianos are sold here. Strictly
one price—and a popular price—a
price that takes advantage of
every saving that comes from per-
fect organization, economical sell-
ing methods and a tremendous
volume of business—that's the
Jenkins way.

Steinway, Vose,
Kurtzmann, Elburn.

pianos on comfortable payments.
Write for catalog and prices—
\$125 and up. High class guaran-
teed Player Pianos, \$435 and up.
Call or write.

Amarillo, Texas.
Gentlemen—Received the piano to-
day. Got it in first class shape and
think it is finest tone I ever heard. I
know I have the best piano in Ama-
rillo. I am well pleased with it.
Thanking you for past favors,
T. B. BURTON.

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

Highland Park College

Some Splendid Business and
Trade School Courses

Des Moines, Iowa

School
all the year.
Enter any time.
Vigorous, thorough
instruction by expert
specialists. Small tuition
fees. Minimum living expenses.
Every aid for ambitious students with
limited time and money. 2,000 students
each year. Graduates in paying positions
everywhere. Magnificent buildings, fully equip-
ped. Equal to best Eastern schools.

School
terms open
June 10, Sept.
10, Oct. 13, Nov. 25,
1913; Jan. 5, Feb. 17,
Mar. 30, May 12, 1914.
New classes formed each
term. Students advanced rapidly.

COLLEGES AND SCHOOLS

Liberal Arts Standard, Classical and Scientific
Courses. Also preparatory
and Elementary Preparatory Courses, in which
students of all degrees of advancement are ad-
mitted.

Normal Didactic, State Certificate, County Certifi-
cate, Primary Teacher—most complete
training for teachers in the West. Graduates re-
ceive state certificates.

Engineering Civil, Electrical, Mechanical, Al-
so one-year Telephone, Elec-
trical, Steam, Machinist's and Automobile Ma-
chinist's courses. 12-weeks courses in Gas, Auto-
mobile and Traction Engineering. Shop work
from beginning.

Pharmacy 1. Regular Ph. G., Ph. C., Pure Food
Course and Extension Courses for Druggists. One of
the largest, best equipped Colleges of Pharmacy
in the United States.

Oratory A thoroughly equipped College of Oratory
directed by most competent teachers

Music A Complete College of Music. Piano, Vi-
olin, Voice, Orchestra, Band, Chorus.
Harmony, Mandolin, Guitar, and Supervisors
Course in Public School Music. A fine faculty
of teachers, each an artist in his line.

Commerce Business, Shorthand, Telegraphy,
Penmanship, and Civil Service.
"Not simply a course in bookkeeping in a Liter-
ary College, but a thoroughly equipped Business
College with the finest business exchange depart-
ment in the U. S." Graduates of combined Busi-
ness and Shorthand, Shorthand and Telegraph
courses guaranteed positions.

Home Study Over 2,000 Students Enrolled in
the Correspondence School. Al-
most any subject you wish by correspondence.

Expenses Board, \$1.75, \$2.25 and \$2.75 per
week. Tuition in Preparatory
College, Normal and Business Courses, \$15.00 a
quarter. Send for catalogue. State Course in
which you are interested. Address

GEORGE P. MAGILL, President, Des Moines, Iowa.

20,000 GOVERNMENT JOBS

Young Men and Women in De-
mand for U. S. Civil Service

Thousands needed on account of the Parcel
Post and the extension of the civil service rules.
Salaries, \$900 to \$1,800. Eight hours' work.
Lifetime positions with annual vacations. Ages
18 to 45.

We coach applicants to pass examinations.
You can win. Write at once, stating position
desired, and we will send full particulars free.

American Institute, Dept. 18-K, Kansas City, Mo.

Railway Mail Clerk (Male).
Postoffice Clerk (Male or female).
Letter Carrier (Male).
Rural Route Carrier (Male).
Fourth Class Postmaster (Male or
female).
Customs and Revenue Clerk
(Male).
Ment Inspector (Male).
Indian Service (Male or female).
GENERAL EXAMINATIONS
ANNOUNCED JULY 15.

Mount Carmel Academy, Wichita, Kansas

Select boarding school for girls. In beautiful suburbs of Wichita. Fifty-acre
campus, modern building. Preparatory, Academic, Commercial, Special ad-
vantages, Music, Art, Elocution, Languages, Domestic Science. Get beautiful
catalog. Address
SISTER DIRECTRESS, MOUNT CARMEL ACADEMY, WICHITA, KANSAS.

GEARLESS CHURN AND BUTTER WORKER—All Sizes.



For Farm,
Dairy and
Creamery.
Cream Sep-
arators and
Engines.
Write for
free pamph-
let to R. B.
Disbrow,
Dept. 29,
Owatonna,
Minn.

KANSAS CITY
Business College

Young Women's Christian Association Bldg.
1020-24 McGee Street, Kansas City, Mo.

St. Joseph Veterinary College

Thoroughly modern three years' course in
veterinary medicine leading to the degree of
D. V. M. College recognized by the U. S.
Department of Agriculture. Modern and
completely equipped laboratories. Unex-
celled clinical facilities. For prospectus
address

DR. F. W. CALDWELL, DEAN,
St. Joseph, Mo.

DAISY FLY KILLER



placed anywhere, at-
tracts and kills all
flies. Neat, clean, or-
namental, convenient,
cheap. Lasts all
season. Made of
metal, can't spill or tip
over; will not soil or
injure anything.
Guaranteed effective.
Sold by dealers, or
6 cent by express pre-
paid for \$1.

HAROLD SOMMER, 150 DeKalb Ave., Brooklyn, N. Y.

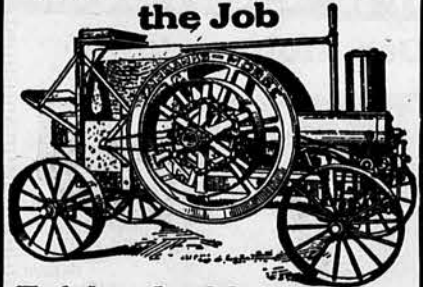
The Silo That Men Want

Silos have been in use long enough for men to know the kind they want. They want STAVE silos. They want silos with heavy steel frames. That's how the Baginaw came to be the favorite. The Baginaw has a Steel Frame—like a modern, big city building. It has the Angle Steel Rib that prevents "cave-ins." It has the All-Steel Inner Anchor and Heavy Malleable Base Anchor which keep the silo on its foundation and perfectly erect. It has Steel Spine-Dowels, which interlock staves and make a solid wall. And the heavy, all-steel Door Frame forms a rugged framework to build around. Just remember these facts in buying your silo.

This Whirlwind Filler is a crackerjack. Fast as lightning. Cuts and shreds perfectly. Knives and cutting head are both adjustable. Can remove knife for grinding in 30 seconds. Runs in 4 wide-apart bearings that hold it absolutely rigid. Heavy cutter head insures uniform cutting, no matter how uneven the feeding. Fan blades can't get loose, because they are part of the wheel. Feed table is just waist-high. Easy running. It's a marvel at cutting, shredding and elevating silage. Send Postal Now and get Book 123 on Silos or Book 123 on Silo Machinery, or both. They are FREE.

THE MC CLURE COMPANY
(Formerly Farmers Handy Wagon Co.)
Baginaw, Mich. Cairo, Ill. Des Moines, Iowa
Minnesota Transfer, Minn. Fort Worth, Texas

Take the Power to the Job



Fairbanks-Morse Portable Oil Engines

offer many advantages as they afford reliable power that is readily moved. Used for

Threshing
Ensilage Cutting
Ginning
Cover Hauling
Wood Sawing

Pumping
Hay Baling
Shredding
Corn Shelling
Feed Grinding

Operates on kerosene, gasoline, or low grade distillates. Buy one yourself or in partnership with neighbors. In many cases the engine will save its cost in a single year. Screen cooled type, 10 to 25 h. p. Other types, 2, 4, 6 and 8 h. p.

Write for prices and Catalog No. AR 898.

Fairbanks, Morse & Co.

Kansas City St. Louis Omaha
Fairbanks Scales, Gasoline Engines,
Pumps, Water Systems, Electric Light
Plants, Windmills, Feed Grinders.

FITZ OVERALLS

FIT EVERY ONE FROM A THREE
YEAR OLD BOY TO A THREE
HUNDRED POUND MAN
NEXT TIME YOU BUY
INSIST ON FITZ



White Plymouth Rocks

Again prove their superiority as egg layers in the National Egg-Laying Contest, one White Rock hen laying 281 eggs; 645 hens competing. I have bred White Rocks exclusively for 20 years and have them as good as anybody. Eggs from three high-scoring pens, \$2.00 per 15; \$5.00 per 45, delivered free by parcel post or express. Safe delivery guaranteed. A limited number of eggs from a specially fine mated pen, \$5.00 per 15. You will get what you order, or money refunded.

THOMAS OWEN,
Station B. Topeka, Kansas.

LEARN HOW TO RUN AN AUTO. Audel's Answers on Automobiles will teach all about Carburetors, Ignition, Timing, Engine Troubles, Overhauling and Driving. A complete course of 500 pages with 375 diagrams highly endorsed by men who know. \$1.50 to any address. Money back if not pleased. Chas. Clark Co., 334 Kansas Ave., Topeka, Kan.

The GRANGE

DIRECTORY OF THE KANSAS STATE GRANGE OFFICERS.

Master.....J. A. P. Reardon, McLouth
Overseer.....J. L. Heberling, Wakarusa
Lecturer.....L. S. Fry, Manhattan
Secretary.....A. E. Wedd, Lenexa
Treasurer.....W. J. Rhoades, Olathe
Chairman of Executive Committee.....
.....W. T. Dickson, Carbondale
Chairman of Legislative Committee.....
.....O. F. Whitney, North Topeka
Chairman of Committee on Education.....
.....E. B. Cowgill, Lawrence
Chairman of Insurance Committee.....
.....I. D. Hibern, Olathe
Chairman of Women's Work Committee.....
.....Adella B. Hester, Lone Elm

NATIONAL GRANGE OFFICERS.

Master.....Oliver Wilson, Peoria, Ill.
Lecturer.....N. P. Hull, Diamonddale, Mich.
Secretary.....C. M. Freeman, Tippecanoe City, Ind.
Sec'y.....C. M. Freeman, Tippecanoe City, O.

A dramatic club would get a good thing to utilize some of the latent energy in the young members of your Grange.

When it comes to Grange fairs we take off our hats to East Greenbush, N. Y., Grange. At their last fall fair they cleared \$1,387.12.

It is certain that the Grange has been the means of interesting many boys and girls in the old farm and in holding them close to the grass roots. If every community had a good Grange, more of the young people would remain on the farm and there would be less justification for the co-called back to the farm movement.

Kansas Grange Insurance.

The Grange editor of the National Stockman and Farmer writes in his column that the Patrons' Fire & Tornado Association of Kansas is a good example of what can be done by co-operation when a real effort is made. He continues by reporting the plan of the organization and drawing on its annual statement for figures of its condition and what it has accomplished for policy holders. He recommends that Granges throughout other states learn all they can about this Kansas institution and arrange to avail themselves of the advantages offered through the organization of insurance associations along the same line.

Suggested Program for July.

1. Paper, by a sister: "What is rubbish about the home and how to get rid of it."
2. Paper, "How we should celebrate the birthday of our nation."
3. "In what way can we increase the good influence of our homes?" Discussion by two or more sisters.
4. A short paper on the history of the United States flag.

SECOND PROGRAM.

1. Roll call, responded to by naming some plant beginning with the same letter as the member's name and telling something about it.
2. What can the State University, Agricultural College and State Normal do to help the farmers more than they are doing?
3. The science and art of good plowing. Discussion by three brothers.
4. Paper, Review of some recent work of fiction.

Both programs interspersed with songs, readings, recitations, etc.

Grange Influence in Rural Uplift.

There is considerable discussion these days on the rural community question, and what to do to improve rural life. The community center should have three organizations around which to build up: the school, the church, and some other secular organization, such as the Grange. The school should be a graded one, built up of a half dozen of the weak districts. It is necessary for this consolidation if we wish our children to be educated at home and not sent to town to be identified with city school life.

The different denominations of our Protestant churches are getting so near together that all in an ordinary community could unite in a single church.

And last but not least, the Grange can rightly claim to be at the head of all farm organizations in age and achievement and can furnish the best nucleus around which community work can center. Then this community work must move toward this threefold center, and not from it, as is so often the case at the present time. We know how it is in most neighborhoods, the people go to town to church, send their young people there for advanced school work—in fact most all their interests move out from the community center instead of toward it, and the result is dissatisfied young folks, dissatisfied families, and dissatisfied communities. This must be changed to make rural life what it should be.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items or stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 300,000 readers for 4 cents a word for one week; 8 cents a word for two weeks; 12 cents a word for three weeks; 14 cents a word for four weeks. Additional weeks after four weeks, the rate is 3 1/2 cents a word per week. No "ad" taken for less than 50 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

HELP WANTED.

POSTAL CLERKS, CITY MAIL CARRIERS, wanted for parcel post. Commence \$65 month. Franklin Institute, Dept. P-85, Rochester, N. Y.

MEN AND WOMEN WANTED FOR GOVERNMENT POSITIONS. Commence \$65 to \$100 month. Thousands of appointments. Write for list of positions available. Franklin Institute, Dept. P-85, Rochester, N. Y.

FREE ILLUSTRATED BOOK TELLS OF about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-809. No obligation. Earl Hopkins, Washington, D. C.

FREE ILLUSTRATED BOOKLET TELLS about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-809. No obligation. Earl Hopkins, Washington, D. C.

REAL ESTATE.

CASH AND MERCHANDISE TO TRADE for good land. Quick deals. Clyde Mfg. Co., Clyde, Kan.

BARGAIN—A NICE SMOOTH 80 ACRES of tillable land, only 7 miles from Salina; \$3,200.00. Write for list. V. E. Niquette, Salina, Kan.

160 ACRES, THREE MILES FROM EASTON; 145 plowable, lays nice, good improvements. \$9,000. Edd Seales, Easton, Leavenworth County, Kansas.

CHOICE FARMS, \$40 TO \$65. WHEAT making 30 to 35 bushels; clover and timothy, 2 tons; alfalfa, 4. Byrd H. Clark, Erie, Kan.

FOR SALE—240-ACRE IMPROVED farm in Nowata County, Oklahoma; 2 miles to good town. Cheap. Terms if desired. S. F. Novotny, Cedar Rapids, Iowa.

WIDOW MUST SELL 400 ACRES, IN-cluding 40 choice Holstein cows, all crops, 100 acres valuable timber, modern buildings worth \$7,000; running water. Price, \$10,000. Easy terms. Free catalog. C. J. Ellis, Farmers Bank, Springfield, N. Y.

DAIRY FARMS IN CENTRAL WISCON-sinn, the best dairy section in America. Good crops every year. We sell all sizes of farms with and without stock and machinery, also unimproved land. Write for list. A. Kleinheinz & Son, Marshfield, Wis.

ILLINOIS FARMS FOR SALE—IN Schuyler County. Eighty acres, 7 miles from Rushville; 60 acres in cultivation, balance pasture; good house and barn. Sixty acres, 4 miles from Camden and 10 miles from Rushville; 35 in cultivation, balance pasture; 5-room house, good barn, other outbuildings. Both farms near school and church, on R. F. D. and telephone lines. Price of 80, \$9,000. Price of 60, \$4,500. Would trade 60 for stock of goods or would take half its value in good clear town property. Geo. H. Mason, Owner, Rushville, Ill.

CATTLE.

FOR SALE—REGISTERED YEARLING Holstein bull. E. J. Castillo, Independence, Kan.

WELL BRED GRADE HOLSTEIN BULL calves crated at \$20 per head while they last. Arnold & Brady, Manhattan, Kan.

SOME CHOICE JERSEY BULLS THAT must be sold quick. Two nearly ready for service. Chester Thomas, Waterville, Kan.

FOR SALE—32 HEAD HOLSTEINS, Shorthorns and Jerseys, all bred from winter cows. Good young stock. Owned by dairymen going out of business. Sell all for \$60 a head. Jack Hammel, 215 Adams St., Topeka, Kan.

CATTLE FOR SALE.—WE HAVE SEV-eral thousand head of southern cattle on our ranch here for sale at right prices, all above the quarantine line and can be shipped to any points without delay or dipping. Will sell in single car lots or more, any class or age, at the following prices: Cows, \$26 per head; 1 and 2-year-old heifers, \$22.50; 3-year-old steers, \$31.00; 1 and 2-year-old steers, \$23. We must sell the larger part of these cattle this month, as we have more cattle than grass and the dry weather has cut us short on feed. Can show cattle in a short ride from station and will meet buyers at station any time. The above prices are loaded on the cars, no other expense. Write or wire us. Miller Brothers, Bliss, Okla.

AUTOMOBILES.

ARE YOU IN THE MARKET FOR AN automobile? We can sell you good used cars cheaper than anyone in the West. Write for our list of bargains. Prices from \$200 to \$1,500. Mid West Sales Co., Dept. A, 1820-22 Grand Ave., Kansas City, Mo.

SEEDS AND PLANTS.

NICE WHIPPOORWILL COWPEAS, \$2.75 bushel, sacked, freight paid in 5 or 10-bu. lots. Now's the time to plant. Brooks Wholesale Co., Ft. Scott, Kan.

ALFALFA—SAMPLES AND PRICES OF native grown non-irrigated "Acorn Brand" alfalfa seed. Ross Bros. Seed House, 300 E. Douglas, Wichita, Kan.

THE STRAY LIST

TAKEN UP—BY W. E. KIRBY, OF Saline Township, Sheridan County, Kansas. Address, Hoxie. One bay mare mule, eight years old, slight wire cut on right front foot, mark of fistula on top of neck, small white spot on left hip. Said stray taken up on the 10th May, 1913. Valued at \$100 by taker up.

YOUNG MAN

YOUNG MAN, WOULD YOU ACCEPT and wear a fine tailor-made suit just for showing it to your friends? Or a Slip-on Raincoat free? Could you use \$5 a day for a little spare time? Perhaps we can offer you a steady job. Write at once and get beautiful samples, styles and this wonderful offer. Banner Tailoring Co., Dept. 356, Chicago.

MISCELLANEOUS.

ROOFING COMPOSITION, SLATE, TILE, sheet metal, tinwork. Rinner & Warren, Topeka, Kan.

FUEL OIL—SMALL CAR FOR SALE AT 60c bbl. Union Brick & Material Co., Cherryvale, Kan.

WE PRESS, CLEAN, DYE, MAKE AND repair clothes. Glenwood Cleaners, Topeka, Kan.

H. W. BOMGARDNER, FUNERAL DI-rector. Excellent new chapel. Best attention. Topeka, Kan.

THE ANDERSON LOADER LOADS MA-nure, cornstalks, stack bottoms, dirt, gravel, sand. No hand work. Write Anderson Mfg. Co., Osage City, Kan.

BARN BUILDERS—USE FIR LUMBER. Best because the strongest. Can furnish long timbers and joists. Let us estimate your bill. Keystone Lumber Co., Tacoma, Wash.

WAGONS, BUGGIES AND FARM IMPL-ements at reduced prices; poles, shafts, wheels and supplies at half price. Write us your wants. Vehicle Hospital, 413 Delaware, Kansas City, Mo.

A GOOD THRESHING OUTFIT TO trade for land. Also some nice irrigated land in the Laramie Valley, Wyoming, to trade for land in Western Kansas. W. J. Trousdale, Newton, Kan.

SUN CURED GROUND ROCK PHOS-phate, the cheapest source of phosphorus in a system of permanent agriculture, containing 250 pounds phosphorus to the ton, delivered in Eastern Kansas for \$8 to \$10 per ton in car loads of 22 1/2 tons each. Further particulars free. Central Phosphate Co., Mt. Pleasant, Tenn.

BARGAINS IN EVERYTHING MAY BE found in these classified columns. For a quick ready sale on anything, try a small ad in these columns, which are read in the homes of over 60,000 subscribers. Rates, 4 cents a word; four insertions or more, 3 1/2 cents a word. For further information address Kansas Farmer, Topeka, Kan.

POULTRY.

BUFF ORPINGTONS—SPECIAL SALE. Big reduction in price of breeding stock of my prize winners at Kansas City, St. Joseph, Topeka and Des Moines. Eggs and baby chicks. H. F. Farrar, Astoria, Kan.

ROSE COMB REDS, COLUMBIAN WYAN-dottes, Indian Runner Ducks, Golden Seabright Bantams. Eggs for hatching. Mailing list free. A. D. Willems, Minneapolis, Kan.

BUFF WYANDOTTES—CHOICE BREED-ing stock at all times. A few bargains in males and females from our 1913 breeding pens. Must be taken soon. Wheeler & Wylie, Manhattan, Kan.

BLACK LANGSHANS—PEN, \$1.50 PER 15, \$2.75 per 30; open range, \$1 per 15, \$1.75 per 30. Good hatch guaranteed. D. W. Wolfe, Route 2, Carrollton, Mo.

FOR SALE—ROSE COMB BROWN LEG-horns, stock and eggs. Mrs. J. E. Wright, Wilmore, Kan.

EGGS FROM PURE-BRED S. C. BROWN Leghorns. \$1 for 15; \$4 for 100. H. N. Holdeman, Meade, Kan.

BUFF ORPINGTON EGGS FOR HATCH-ing from our prize winners at Kansas State, Newton and Hutchinson shows, \$2 to \$5 per 15. Special discounts shown in our fine mailing list. Eggs, half price after May 15. Wichita Buff Orpington Yards, Wichita, Kan.

HOGS.

WELL-BRED REGISTERED HAMPSHIRE pigs. Homer Bales, Eudora, Kan.

BEE SUPPLIES.

BEE SUPPLIES, ROOTS GOODS. SEND for catalog. O. A. Keene, 1600 Seward Ave., Topeka, Kan.

PATENTS

SEND FOR FREE BOOKLET, ALL About Patents, Their Cost. Shepherd & Campbell, Patent Attorneys, 500-R Victor Bldg., Washington, D. C.

DOGS.

FOR SALE—SCOTCH COLLIE PUPS. Sable and White stock farm. U. A. Gore, Seward, Kan.

SCOTCH COLLIE PUPS FOR SALE. farm raised and good workers. M. B. Turkeys in season. I. P. Kohl, Furley, Kan.

MEETING OF KANSAS GRAIN GRADING COMMISSION.

Notice is hereby given that under the provisions of Chapter 222 the Board of Grain Grading Commission will meet at the office of the Governor in Topeka, on the 29th day of July, 1913, and establish the grades of grain to be known as Kansas grades; to be in effect on and after the first day of August, 1913.

A. T. RODGERS
THOMAS PAGE
J. C. MAXWELL, Secretary.
Grain Grading Commission.

FIELD NOTES

FIELD MEN.

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

PURE BRED STOCK SALES.

Holstein Friesians.
 Oct. 21-22, 1913—Woodlawn Farm, Sterling, Ill.

Jersey Cattle.
 Nov. 6—Alvey Bros., Meriden, Kan. Sale at Topeka, Kan.

Poland Chinas.
 Aug. 21—J. O. James, Braddyville, Iowa.
 Sept. 12—L. R. McClarnon, Braddyville, Ia.

Oct. 4—Frank Michael, Erie, Kan.
 Oct. 3—Cline & Nash, Iola, Kan.
 Oct. 9—J. L. Griffiths, Riley, Kan.

Oct. 11—Wigstone Bros., Stanton, Iowa.
 Oct. 11—D. S. Moore, Mercer, Mo. Sale at Lineville, Iowa.

Oct. 16—Freeman & Russ, Kearney, Mo.
 Oct. 17—T. E. Durbin, King City, Mo.
 Oct. 20—Roy Johnston, South Mound, Kan.

Oct. 20—L. V. O'Keefe, Stillwell, Kan.
 Oct. 21—H. B. Walter, Effingham, Kan.
 Oct. 21—P. M. Anderson, Lathrop, Mo.

Oct. 22—H. C. Graner, Lancaster, Kan.
 Oct. 23—J. H. Baker & Son, Butler, Mo.
 Oct. 23—R. J. Peckham, Pawnee City, Neb.

Oct. 24—A. J. Swingle, Leonardville, Kan.
 Oct. 24—A. B. Garrison & Sons, Summerfield, Kan.

Oct. 25—J. W. Leeper, Norton, Kan.
 Oct. 25—Verny Daniels, Gower, Mo.
 Oct. 28—M. T. Williams, Valley Falls, Kan.

Oct. 29—Walter Hildwein, Fairview, Kan.
 Oct. 30—Hubert J. Griffiths, Clay Center, Kan.

Nov. 3—Joe Schneider, Nortonville, Kan.
 Nov. 5—R. B. Davis, Hiawatha, Kan.
 Nov. 6—A. R. Reystead, Mankato, Kan.

Nov. 7—U. S. Byrne, Saxton, Mo.
 Nov. 8—T. M. Willson, Lebanon, Kan.
 Nov. 12—J. H. Harter, Westmoreland, Kan.

Nov. 14—W. E. Dubois, Agra, Kan.
 Nov. 15—John Kemmerer, Mankato, Kan.
 Jan. 20, 1914—Roy Johnston, South Mound, Kan.

Jan. 23—J. J. Hartman, Elmo, Dickinson Co., Kan.
 Feb. 5—J. O. James, Braddyville, Iowa.
 Feb. 7—Wigstone Bros., Stanton, Iowa.

Feb. 10—H. B. Walter, Effingham, Kan.
 Feb. 11—H. C. Graner, Lancaster, Kan.
 Feb. 11—H. L. Faulkner, Jamesport, Mo.

Feb. 12—V. E. Carlson, Formoso, Kan.
 Feb. 28—A. R. Reystead, Mankato, Kan.
 Feb. 12—W. E. Long, Meriden, Kan.

Feb. 13—J. E. Willis, Prairie View, Kan.
 Feb. 14—J. F. Foley, Oronoque, Kan. Sale at Norton, Kan.

Feb. 17—L. E. Klein, Zeandale, Kan.
 Feb. 18—J. H. Harter, Westmoreland, Kan.
 Feb. 19—J. L. Griffiths, Riley, Kan.

Duroc Jerseys.
 Aug. 29—Jeff Constant & Son, Denver, Mo.
 Oct. 17—Moser & Fitzwater, Goff, Kan.

Oct. 23—J. A. Wishar, Dillon, Dickinson Co., Kan.
 Oct. 28—R. P. Wells, Formoso, Kan.
 Oct. 31—A. M. Rinehart & Son, Smith Center, Kan.

Nov. 1—N. B. Price, Mankato, Kan.
 Nov. 4—E. S. Davis, Meriden, Kan.
 Nov. 4—Jeff Constant & Son, Denver, Mo.

Nov. 7—Leon Carter, Asherville, Kan.
 Nov. 8—E. C. Jonagan, Alhambra, Mo.
 Nov. 8—C. C. Thomas, Webber, Neb. Sale at Superior, Neb.

Jan. 26—R. P. Wells, Formoso, Kan.
 Jan. 27—W. B. Bros., Republic, Kan.
 Jan. 28—W. E. Monasmith, Formoso, Kan.

Jan. 29—N. B. Price, Mankato, Kan.
 Feb. 4—Moser & Fitzwater, Goff, Kan.
 Feb. 5—Samuelson Bros., Cleburne, Kan.

Feb. 6—Leon Carter, Asherville, Kan.
 Feb. 7—Horton & Hale, DeKalb, Mo. Sale at Rushville, Mo.

Feb. 7—E. G. Munsell, Herington, Kan.
 Feb. 3—Howell Bros., Herkimer, Marshall County, Kan.
 Feb. 10—Kansas Agricultural College, Manhattan, Kan.

Feb. 11—Thompson Bros., Garrison, Kan.
 Feb. 12—J. A. Porterfield, Jamesport, Mo.
 Feb. 12—Edw. Fuhrman & Sons, Oregon, Mo.

Feb. 20—John Emigh, Formoso, Kan.
 Feb. 21—Dana D. Shuck, Burr Oak, Kan.

Chester White and O. I. C.
 Oct. 14—George E. Norman & Sons, New-town, Mo.
 Oct. 16—J. S. Kennedy, Blockton, Iowa.

Nov. 6—Alvey Bros., Meriden, Kan. Sale at Topeka, Kan.
 Nov. 18—J. D. Billings, Grantville, Kan.

Hamphires.
 Nov. 4—H. D. DeKalb, DeKalb, Iowa. Sale at Council Bluffs, Iowa.
 March 6—H. D. DeKalb, DeKalb, Iowa.

With this issue H. T. Griffith, Reading, Kan., starts a card for his Durocs. At the head of this herd is a grandson of Tatarax, and in looks he resembles the old champion, and as a breeder he is string some extra good smooth pigs.

A few choice spring pigs at \$15.00. They are mostly sired by Goldfinch Jr. 2d and out of some of his best sows. They are very reasonable for the price asked. Please write your wants or go see this herd. Kindly mention Kansas Farmer.

Carruthers's Poland.
 This week we start advertising for C. S. Carruthers, Poland China breeder, Salina, Kan. Mr. Carruthers is located about two miles from town and has one of the best herds in his part of the state. He is very enthusiastic and likes the business in every respect. His present herd boar, Chug Hadley, is a boar with an unusual lot of quality and with plenty of size to go with it. He was sired by a son of Nox All Hadley, the best son of the noted Big Hadley. The dam of Chug Hadley was a Bell Metal bred sow tracing to the famous Expansion family. Mr. Carruthers has a good sow herd. Among them are M's Blue, sired by Big Bone Mow. Her dam was by Expansion Blue 2d. Several are daughters of King Hadley and some were sired by Romona Chief. The pigs offered have lots of size and length and are being priced at the low price of \$15 each. Pairs can be had not related. When writing mention Kansas Farmer.

Poland Chinas at Denison, Kan.
 This week we start advertising for John Coleman, Poland China breeder located four miles south of Denison, Jackson County, Kansas. Mr. Coleman offers 55 head of boars and gilts farrowed in February and March and topped from about 100 farrowed. These pigs were sired by Mr. Coleman's herd boars, Ross's Hadley by Big Hadley and Hadley C by I Am Big Too, with a few litters by Expansive Chief and Long King's Best. They are out of large and well-finished sows and at the present



Faulkner's Famous Spotted Polands

"LEADERS OF THEIR KIND."

One hundred and fifty May and June pigs now ready to ship. Special prices: Single pig, either sex, \$35; pair, not akin, \$65; trio, not akin, \$90. They will be sold in the next thirty days.

START RIGHT WITH OUR FOREFATHERS' KIND. Mail your check with first letter.
 H. L. FAULKNER, Owner, Highview Breeding Farm, Jamesport, Mo.

time are running in clover and alfalfa pasture that almost hides them. Among the dams are daughters of such boars as Big Victor, Expansive, Expansion's Son, Long's Mogul, King Mastiff 2d, etc. Mr. Coleman will ship you a pig any time and sell it to you at a very low price for the kind he breeds. He can also sell you a pair not related.

C. C. Catron's Herefords.
 Attention is called to the card of C. C. Catron in this issue of Kansas Farmer. Mr. Catron is one of Missouri's pioneer breeders of Hereford cattle and owns one of the high-class herds of Herefords in that state. His herd is composed entirely of representatives of the best blood lines of the breed, and a more carefully selected lot of individuals would be hard to find. Mr. Catron has always made it a rule to send all inferior individuals to the feed lot, regardless of breeding, and this practice has resulted in a very high-class herd of breeding stock. At this time he is offering a number of extra good yearling bulls. They are big, beefy fellows, and will weigh 1,000 pounds, and have the quality. They are the kind that will interest breeders wanting herd headers. Write Mr. Catron at Bigelow, Mo., for description of bulls and prices. He guarantees description of stock and is pricing them well worth the money. Please mention Kansas Farmer when writing.

New Record for Faulkner's Poland.
 The attention of breeders is called to the card of H. L. Faulkner, the world's greatest breeder of the famous big-boned spotted Poland China hogs. Last year Mr. Faulkner broke all records for sales of breeding stock, and this year he has started in to break his own record, and there is every indication that 1913 will be the banner sales year for Highview Farm. As a starter 20 head of spring pigs were shipped from Highview Farm in one day during the first week in June, and other shipments almost as large were sent out during the first half of June. This remarkable record on sales of spring pigs so early in the season indicates the growing popularity of the big-boned spotted Poland, the easy-feeding, prolific kind that makes good at all times and under all conditions. Mr. Faulkner is now offering special prices on May and June pigs. They are an extra lot of big growthy spotted youngsters and he can furnish pairs or trios, not akin. This lot will be sold in the next 30 days, and if will take an early order to land one or more of them. Look up Mr. Faulkner's card and note the special prices for this great offering, and if you want breeding stock from this famous herd, now is the time to get them.

STATEMENT OF THE OWNERSHIP
 and management of Kansas Farmer, published weekly, at Topeka, Kan. Required by the Act of August 24, 1912.
 Editor—T. A. Borman, Topeka, Kan.
 Managing Editor—Albert T. Reid, Topeka, Kan.

Business Manager—Albert T. Reid, Topeka, Kan.
 Publisher—The Kansas Farmer Company, Topeka, Kan. (A corporation.)

Names and addresses of stockholders holding 1 per cent or more of total amount of stock:

T. A. Borman, Topeka, Kan.
 A. T. Reid, Topeka, Kan.
 M. A. Low, Topeka, Kan.
 E. B. Cowgill, Topeka, Kan.
 Joab Mulvane, Topeka, Kan.
 S. H. Fitcher, Topeka, Kan.
 John R. Mulvane, Topeka, Kan.
 E. W. Rankin, Topeka, Kan.
 Geo. A. Clark, Topeka, Kan.
 O. W. Devine, Topeka, Kan.
 C. C. Younggreen, Topeka, Kan.
 E. T. Guymon, Hutchinson, Kan.
 W. C. Richardson, New York, N. Y.
 J. R. Johnson, Clay Center, Kan.
 W. F. Evans, St. Louis, Mo.
 Desha R. Low, Bartlesville, Okla.
 F. W. Barteldes, Lawrence, Kan.
 T. M. Darlington, Kansas City, Mo.
 (Signed) ALBERT T. REID,
 President and General Manager.

Sworn to and subscribed before me, this 25th day of June, 1913.
 S. H. PITCHER,
 Notary Public.
 (Seal.)
 My commission expires March 17, 1915.

Kansas State Fair Prize List.
 The Kansas State Fair was created by the last Legislature and located at Hutchinson.

The Kansas State Board of Agriculture, under the law, manages, controls and directs the State Fair through a Board of Managers elected by it from its officers and members.

There is no authority for more than ONE State Fair in Kansas, and there is but ONE.

Liberal premiums are offered on cattle and horses of all breeds.

All premiums in the swine department are increased this year.

Special premiums on fat, pure-bred Duroc Jersey barrows, in compliance with specials offered by the National Duroc Jersey Association.

Largest premiums on agricultural products ever offered in the state.

Horse show—Tuesday, Wednesday and Thursday nights with special attractions—a leading feature.

The greatest show and demonstration of tractors and other farm machinery in the Southwest.

Attractive prizes on all things made or used by ladies in the home for necessities or decoration.

The Kansas State Fair is the biggest public event in the state.

Send for premium list.

A. L. SPONSLER, Secretary.

GEO. B. ROSS, President.
 (Advertisement.)

JERSEY CATTLE.

Register of Merit Jerseys

The only herd in Kansas making and keeping official records. Eighty head to select from. Cows in milk, bred heifers, heifer calves, and the finest lot of young bulls ever on the farm. All ages. Six or eight now ready for service out of cows with official tests up to 512 pounds of butter with first calf, sons of Imp. Oakland Sultan, Gambos Knight, and a son of Golden Fern's Lad. Tuberculin tested and fully guaranteed. R. J. LINSKOTT, Holton, Kansas.

BANKS' FARM JERSEYS

Quality with milk and butter records. One of the best sons of CHAMPION FLYING FOX, imported, at head of herd. Stock for sale.

W. N. BANKS, Independence, Kan.
 JERSEYS MUST BE SOLD SOON.
 Fifty cows, heifers and young bulls, all registered. If this fine lot of cattle is not sold within a short time I will call a public sale. Watch for announcement.

S. S. SMITH, Clay Center, Kansas.
 REGISTERED JERSEY BULL CALVES FOR SALE.

Nice colors and individuals and closely related to noted sires and dams. Low prices for young calves. Also few bred heifers. Farm near town.
 Johnson & Nordstrom, Clay Center, Kan.

WINELAND FARM JERSEYS.

One of the strongest official record herds in the west. For sale, 10 choice young bulls, sired by Imp. "Duke's Raleigh," and other good bulls. Out of cows now undergoing or having authenticated tests. Also 25 females of different ages. H. C. YOUNG, Lincoln, Nebraska.

JERSEYS FOR PROFIT

AMERICAN JERSEY CATTLE CLUB,
 324 W. 23d St., New York.

REGISTERED JERSEYS AND POLANDS
 Best strains and individuality. Fed and handled intelligently. Stock for sale always.
 O. E. NICHOLS, Abilene, Kan.

TOO LATE TO CLASSIFY.

CRYSTAL HERD O. I. C.'s

Herd headed by Frost's Buster 29745 by Thea 30442. Extra lot of spring boars and gilts now ready to ship. Have some outstanding herd header prospects, also outstanding gilts. Size and high quality combined. Description of stock guaranteed. Prized right.
 DAN WILCOX, R. F. D. 2, Cameron, Mo.

Long King's Equal and A Wonder Jumbo

One hundred and seventy-five pigs sired by the above-named boars and out of A Wonder, Long King's Equal, and my famous Jumbo sows. We are headquarters for herd boars. Will also sell a few bred sows. Breeders will find the largest and best big-type Poland in this herd. Come and see them and you will be convinced. If unable to come, write me and I will do my best to please you. "Satisfied Customers" is my motto. All go at private sale. No fall sale.

JOHN B. LAWSON, Clarinda, Iowa.

EUREKA STOCK FARM DUROCS.

A number of outstanding fall boars sired by Wonder Chief 120029, Fond Defender 104735, and King of Ore 91957. High-class herd headers in this lot, and they are priced right. Description guaranteed.
 EDW. FUHRMAN & SONS, Oregon, Mo.

GRIFFITH DUROCS.

March and April pigs, \$15.00 each. Large, growthy, sired by Goldfinch Jr. 2d, dam by Goldie S. Write at once or come and see my herd.

H. T. GRIFFITH, Reading, Kan.

THIRTY POLAND PIGS

Either sex. Good individuals. \$15 each. Pairs also. C. S. Carruthers, Salina, Kan.

PURE-BRED SELECTED HOLSTEINS.

Seventy-five to select from. Cows in milk. Choice bred heifer calves and young bulls from the best stock in New York. Selected by us. Glad to show them.

EDMUNDS & YOUNG, Council Grove, Kan.

John B. Lawson's Big Poland.

The attention of breeders is called to the card of John B. Lawson, Clarinda, Iowa, in this issue of Kansas Farmer. Mr. Lawson's herd of big-type Poland Chinas is one of the most famous herds of that breed now in existence, and Mr. Lawson is in the foremost rank as a breeder of big-type Poland with quality. His herd boars, Long King's Equal and A Wonder Jumbo, are two of the great boars of the breed. Sons of Long King's Equal head many of the best big-type herds in the corn belt, and he is noted for the great number of outstanding herd headers sired by him that have made records as breeders. A Wonder Jumbo is a great two-year-old. He tips the beam at 900 pounds, and along with his great size has the quality. He is also a great breeder and some of the best spring litters in this herd this year were sired by him. The spring pigs of this herd were sired by Mr. Lawson's two great herd boars and are out of A Wonder, Long King's Equal and the great Jumbo sows that have made Mr. Lawson's herd famous. He has more A Wonder bred sows than any other breeder, and with the Long King's Equal and Jumbo sows noted for their size and finish, has one of the greatest sow herds assembled. It is doubtful if any other breeder can show a trio of herd boars that will equal the boars of the Lawson herd. Breeders wanting herd headers that will make good should see this herd. It is headquarters for the big high-quality kind. Please mention Kansas Farmer when you write.

Edw. Fuhrman & Sons' Fine Durocs.

Attention is called to the card of Edw. Fuhrman & Sons, Eureka Stock Farm, Oregon, Mo. Fuhrman & Sons have been breeding Durocs for years, and by breeding along scientific lines they have built up one of the best Duroc herds in the West. In fact they have one of the best herds now in existence. Their herd is headed by B. & C's Crimson, by B. & C's Col., by

RED POLLED CATTLE

AULD BROTHERS Red Polled Cattle

Bull calves for sale. Prices right. Herd headed by Prince, one of the best sons of Actor.

AULD BROS., Frankfort, Kansas.

Coburn Herd of Red Polled Cattle and

Percheron Horses.
 25 extra good young bulls and 7 first class young stallions for sale at bargain prices. Also young cows and heifers.

GEO. GROENMILLER & SON,
 Pomona, Kansas.

RED POLLS FOR SALE.

In order to reduce the size of herd we offer choice registered cows of large frame and splendid milkers at very low prices considering quality.

RESER & WAGNER, Bigelow, Kan.

Phillips County Red Polls and Poland.

All bulls over six months old sold. Bred cows and heifers for sale, also choice lot of big-type Poland China fall boars. Inspection invited.

Chas. Morrison & Son, Phillipsburg, Kan.

SHORTHORN CATTLE

10 SHORTHORN 10 BULLS 10

Sired by DOUBLE CHAMPION AND WHITE MYSTERY, OUT OF MY BEST COWS, PRICED REASONABLE.

ED GREEN, HOWARD, KAN.

POLAND CHINAS

WRAY & SON'S BIG TYPE POLAND CHINAS

Herd headed by Sterling Prince, one of the largest and best 2-year-old boars of the breed. Assisted by Chief Price's Wonder, one of the best sons of the great breeding boar, Chief Price Again. Young stock for sale. Better than your grandpa ever raised.
B. T. WRAY & SONS, Hopkins, Mo.

FALL BOARS ALL SOLD

I now offer a tried herd boar, an excellent individual and breeder, priced where any good farmer can buy him. Also three January boars.
H. B. WALTER, EFFINGHAM, KANSAS.

BIG POLAND BOARS

TEN FALL BOARS, ready for service. Price, \$25 and \$30. Good ones, sired by Wedd's Long King, Wedd's Expansion and Big Logan Ex. Order quick. These bargains won't last.
GEO. WEDD & SON, Spring Hill, Kan.

Sold Out—More to Sell

Our fall boars are now all sold. We are booking orders for the finest bunch of spring pigs we ever raised. If you want the great big-boned Spotted Poland Chinas, write us. Also young Jersey bulls and heifers.
THE ENNIS FARM, Horine Station, Mo.
(30 Miles South of St. Louis.)

SIX CHOICE SEPTEMBER BOARS

Sired by a son of Big Orange and out of large sows. Immune and ready for hard service. Also fall gilts, bred or open, and a lot of spring pigs, both sexes, and one Shorthorn bull 16 months old. Visitors always welcome.
S. B. AMCOATS, Clay Center, Kan.

Poland China Bred Sows

18 Priced to sell quick. They are the big kind. Also choice spring pigs.
A. J. ERHART & SONS,
Beeler, Ness County, Kansas.

Hildwein's Big Type Polands

Herd headed by Gold Standard Junior and Wonder Ex. Herd sows representing best blood lines. Fall sale October 29.
WALTER HILDWEIN, Fairview, Kan.

POLAND CHINA BOARS

20 Extra Good Fall Boars, ready for service, sired by Big Logan Ex. and Missouri Metal, out of my best sows. Prices reasonable. Write me.
L. V. O'KEEFE, Stilwell, Kansas.

WE WILL PAY EXPRESS ON PIGS. Sixty choice Poland China spring pigs at \$20 each for choice, express prepaid, for the next thirty days. Can furnish pairs.
HOWARD E. AMES, Maple Hill, Kan.

MELBOURNE HERD POLAND CHINAS. Headed by Melbourne Jumbo, one of the large smooth sires of the breed, mated with the best of big-type sows, among them daughters of What's Ex, Big Prospect, Dorr's Expansion 1st, and Union Leader. Stock for sale.
R. B. DAVIS, Hiawatha, Kansas.

POLAND CHINA GILTS FOR SALE. 20 - Yearling gilts, bred or open. Sired by a son of A Wonder and bred to a son of Big Orange. Five fall boars by a son of A Wonder, at reasonable prices.
THURSTON & WOOD, Elmdale, Kan.

CLEMETSON POLAND CHINAS Headed by Major Zim by Major B sows carrying the blood and mostly daughters of Gold Metal and Model Look by Grand Look. Choice spring pigs, express prepaid, \$18 each until further notice.
O. B. CLEMETSON, Holton, Kansas.

BUY EARLY AND SAVE EXPRESS. Fifty big kind Poland China pigs, either sex, sired by Ott's Big Orange, Big Ben and other great boars. Booking orders now to ship when old enough to wean. Pairs not related.
J. F. FOLEY, Oronoque, Norton Co., Kansas.

SELECTED POLAND CHINA BOARS. Five October farrow, strictly tops, the last sons of Mastery, the great Expansive and Mogul bred boar. Dams by Big Tom and Prince O. K. Weight, 225 pounds each; 6 1/2 to 7-inch bone; 4 1/2-inch or more heart girth. Low prices for the kind.
F. A. TRIPP & SONS, Meriden, Kan.

SPRING PIGS, 100 DAYS OLD. Forty big-type Poland pigs, sired by Big Four Wonder, grandson of A Wonder, and Orange Model 2d by Big Orange. Will sell them until they are 100 days old for \$25 each. Pairs, not related, \$40. First choice with every sale. Inspection invited.
L. L. CLARK, Meriden, Kansas.

Gritter's Surprise Fall Boars For Sale. Two good ones sired by Gritter's Surprise by Long Surprise. Dam of these boars is a Lady Wonder sow of the large Iowa type. They are immune from cholera and priced right. Also a few bred gilts for sale.
A. J. SWINGLE, Leonardville, Kan.

GREAT SON OF GOLD METAL. Heads our herd, mated with Utility, dam of the noted \$580 litter; Colossus, O. K. Price and Gold Metal. Fine lot of pigs out of these sows, most of them sired by Melbourne Jumbo. Inspection invited.
AUSTIN SMITH, Dwight, Kan.

ENOS OFFERS 20 BIG, SMOOTH, BRED GILTS. July and August gilts by A Wonder's Equal by A Wonder, dams by Nox All Hadley, bred for August and September farrow to the noted Orphan Chief. Blood lines and quality to spare. \$35 to \$40. Only good ones shipped.
A. E. ENOS, Bonoma, Kansas.

BIG-TYPE POLAND CHINA PIGS Both sexes, February and March farrow. Fifty-five head, tops from 100 head, sired by Ross Hadley and Hadley C, out of extra big sows of Expansive, Price We Know, King Mastodon and Mogul breeding. Can furnish pairs not related. Well grown out on alfalfa pasture and of the best big-type breeding. JOHN COLEMAN, Denison, Jackson County, Kansas.

POLAND CHINAS

CLINE'S POLAND CHINAS.

Herd headed by Tinc. Hadley, sired by Major B. Hadley, the grand champion at American Royal, 1911, and Long King's Equal 2d by Long King, two herd boars with size and quality. My fall sale of boars and gilts October 2, 1913. Write for catalog.
J. R. CLINE, Iola, Kansas.

225 REGISTERED POLAND CHINAS FOR SALE.

Thirty-two sows bred for summer and fall; 20 fall gilts, bred or open; six fall boars, tops from fall crop; 135 spring pigs. Both big and medium type. Sell at reasonable prices with big discounts on several head.
J. D. WILLIAMS, Zeandale, Kan.
Ten miles east of Manhattan.

BARGAIN IN HERD BOAR. First Quality, by Blue Valley's Quality. Dam, Blue Valley Ex., by Exception. Three years old and a splendid breeder. Can't use him any longer and will sell him at \$75. Fully guaranteed.
JAMES ARKELL, Junction City, Kan.

ALBRIGHT TYPE POLANDS FOR SALE. Forty head of choice fall boars and fall gilts, bred or open, and 65 spring pigs, all sired by Cavett's Mastiff, one of the best boars now in service. Only the best of individuals offered. Inspection invited.
A. L. ALBRIGHT, Waterville, Kansas.

Merten's Big Smooth Poland Chinas Headed by King Hadley 3d and Kansas Wonder, mated with daughters of Old Expansion, What's Ex, and Grand Look Jr. Stock for sale.
E. E. MERTEN, Clay Center, Kansas.

POLAND CHINA HOGS—15 fall boars and 10 fall gilts sired by the champion boar at American Royal, 1911, priced to sell reasonable.
G. M. Carnutt, Monticerrat, Mo.

PECKHAM HAS GOOD FALL BOARS. Six of September farrow and two spring yearlings. Strong, vigorous fellows, mostly by Blue Valley Goldust, out of large sows. Also 100 spring pigs.
R. J. PECKHAM, Pawnee City, Neb.

TEN BIG FALL POLAND BOARS. Four by Mogul's Monarch. Two by Long King, son of Long King's Equal. Two by Gelpart. Extra good individuals at \$25 each.
J. H. HARTER, Westmoreland, Kansas.

Hartman Has Choice Big Fall Boars. Eighteen summer and fall Poland China boars, by Blue Valley Jr. and Hartman's Hadley by Nox All Hadley. Length and breadth right. Prices reasonable for quick sale.
J. J. HARTMAN, Elmo, Kan.

POLAND CHINAS—Choice pigs, both sexes, sired by Guy's Expansion 1st. Cheap for quick sale.
L. H. Grote, Morganville, Ks.

DUROC JERSEYS

Tatarrax Herd Durocs

For Sale—12 head of tried sows and mature gilts, bred to Tatarrax, G. M.'s Tat Col and Tat's Top, for September litters. Prices reasonable.
Hammond & Buskirk, Newton, Kan.

DUROC March Boars \$12 and up, by Model and Tatarrax Boy. Again, Long Lad, Conway, Kan.
R. W. BALDWIN,

QUIVERA PLACE DUDROS. Herd headed by Quivera 106611 assisted by M. & M's Col. 111095.
E. G. MUNSSELL, Prop.,
Route 4, Herington, Kansas.

CHOICE DUDROC JERSEY FALL BOARS Sired by Dreamland Col. Some herd boar prospects. Selected and priced to move them quick. Also few fall gilts bred or open. Everything immune.
LEON CARTER, Asherville, Kan.

THIRTY EXTRA GOOD REGISTERED DUDROC SOWS AND GILTS. Extra good ones. Popular strains. Sired by Kansas Kruger College Lad. Bred for August and September farrow to Isenbeg's Choice. Can ship over four roads.
J. A. Wieshar, Dillon, Dickinson Co., Kan.

TEN DUDROC JERSEY FALL BOARS Good individuals and ready for hard service. Low price of \$25 each because I am short of room. First choice with first check. Descriptions guaranteed.
DANA D. SHUCK, Burr Oak, Kan.

BIG-TYPE DUDROS. Monarch, Colonel Wonder and Buddy strains. Plenty of fall gilts, open or bred. Fall sale, October 17.
MOSE & FITZWATER, Goff, Kansas.

OHIO IMPROVED CHESTERS

WOLFE'S O. I. C. SWINE. Large, prolific kind. March and April boars. Gilts bred or open. Fall pigs. Prices low. Pedigree free. Write your wants.
D. W. WOLFE, Route 2, Carrollton, Mo.

MAPLE LEAF CHESTERS

Large, smooth and prolific. Our stock and prices are right. Write us your wants. Satisfaction guaranteed.
R. W. GAGE, Garnett, Kansas.

O. I. C. PIGS. HARRY W. HAYNES, Meriden, Kan.

MULE FOOT HOGS

350 big-type Mulefoot hogs of all ages for sale, from champion herd of America.
JOHN DUNLAP, Williamsport, Ohio.

WESTVIEW JERSEY FARM

HERD BULLS—Financial Countess Lad, grand champion Jersey bull, Dairy Cattle Congress, Waterloo, Iowa, 1912, the largest Jersey show ever held in the United States. Sold for \$2,500 when 90 days old, and again as a two-year-old for \$5,000. Dam, Financial Countess 155100, the 1903 national butter champion, 13,248 pounds milk, \$35 pounds 10 ounces butter.
Ruby Financial Count 87211, a grandson of Financial King, dam a Register of Merit granddaughter of Financial King; milk record of 56 pounds per day.
Herd founded on Finance, Interest and Gamboge Knight families. Cows milk, as three-year-olds, 40 to 56 pounds per day. Every cow in herd on test. No dairymen ever considered a cow beautiful unless she is a heavy producer. Constitution first, production second, beauty third.
J. E. JONES, PROPRIETOR, NOWATA, OKLAHOMA.

HOLSTEIN CATTLE

85 HIGH-GRADE HOLSTEIN HEIFERS Ranging in age from 1 to 3 years, nicely marked, good size and a part of them bred to freshen this fall. Also registered males old enough for service, and a carload of young cows of good size showing plenty of breeding and milk form, bred to calve in August and September. All tuberculin tested. F. J. Howard, Bouckville, Madison County, New York.

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