

KANSAS FARMER

For the improvement  of the Farm and Home

Volume 52, Number 26.

TOPEKA, KANSAS, JUNE 27, 1914.

Established 1863. \$1 a Year

DURING the past thirty years the silage of corn has been in general use throughout the United States

Within the last few years in Kansas the silage of corn, kafir and cane has become recognized as a cheap and good feed for all classes of cattle and sheep, and in a limited way for horses, mules and hogs.

Succulent feed for winter use or in summer when pastures are short can best be had through silage.

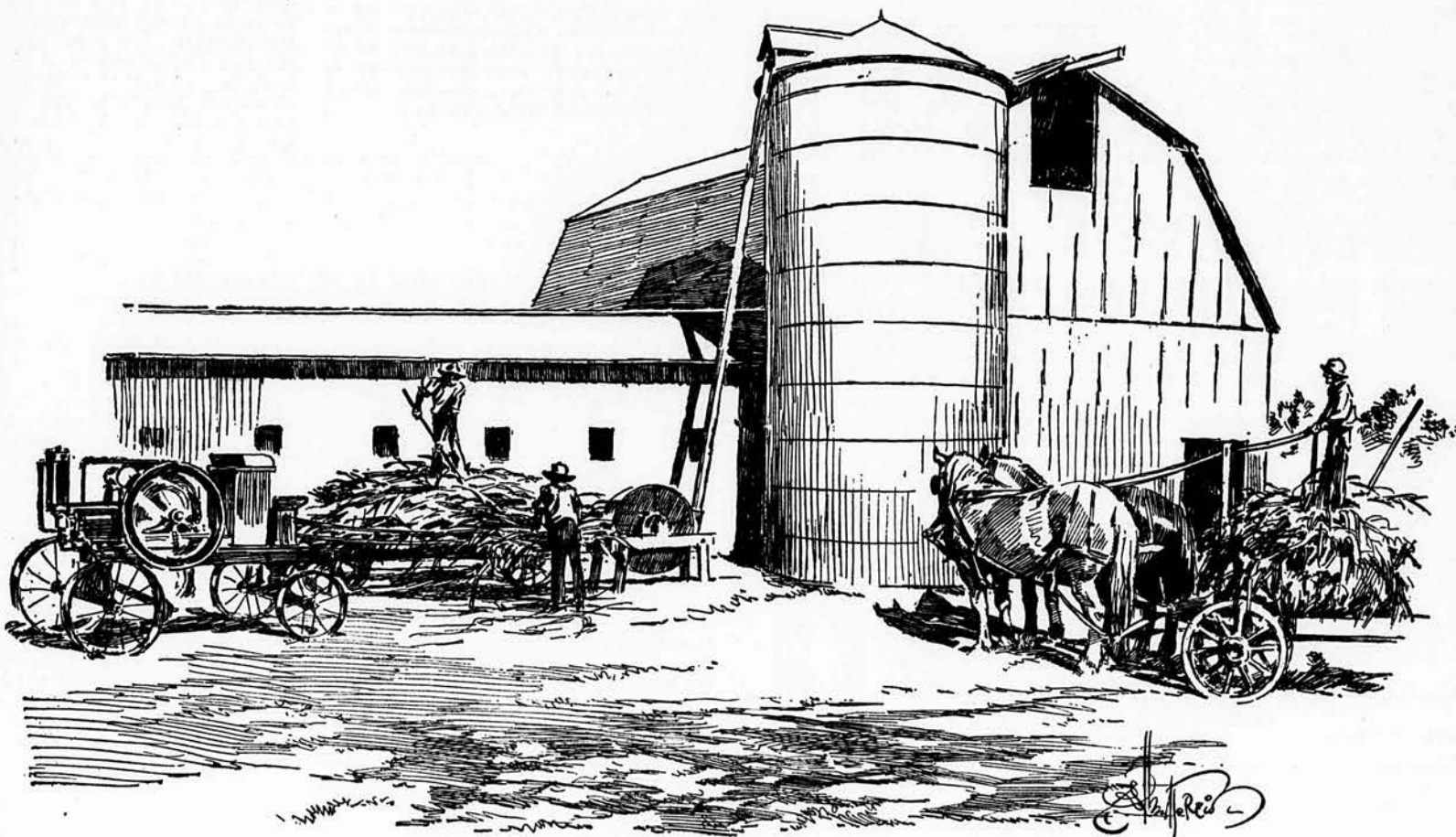
An acre of corn, kafir or cane will produce three tons of silage to one of dry forage and will produce more milk or beef than in any other form.

There is less waste in feeding silage than when the crop is otherwise fed.

The utilization of corn, kafir or cane through the silo will save alfalfa and prairie hay which can always be sold at good prices.

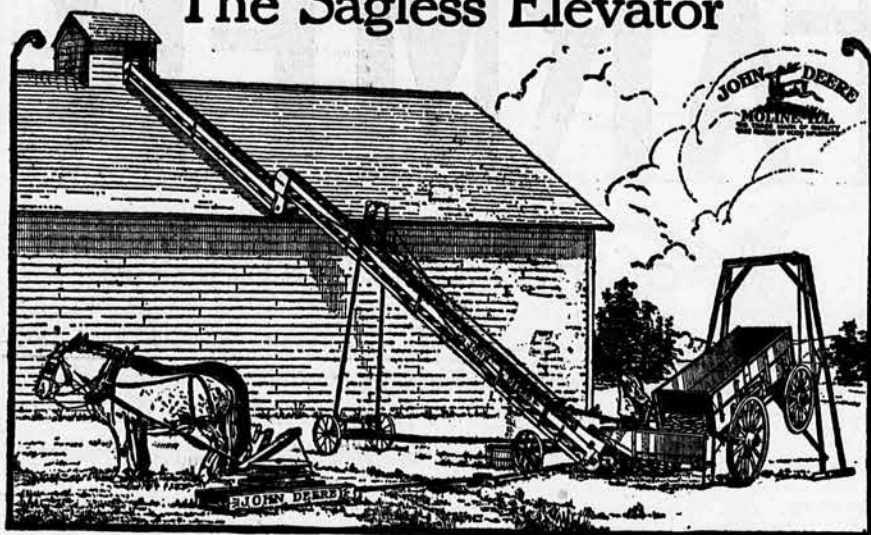
Silage will enable the farmer to keep a maximum of stock on a given area and at less expense than by any other feeding method.

The silo is an essential to the most efficient and economical production of milk and beef—the two most dependable farm products because forage for the silo grows when market grain crops fail.



Forage For The Silo Grows When Market Grain Crops Fail

John Deere The Sagless Elevator



UNLOAD your corn in four or five minutes to the load and do no hard work yourself. At the same time crib your corn in good condition. Use a John Deere—The Sagless Elevator. Separates shelled corn from ear corn when elevating ear corn.

Readily set up by one man. Has large capacity and is light draft. A boy can easily operate it.

Runson roller bearings, is made entirely of steel and does not sag.

Ask about the kind of an elevator you are interested in: John Deere—The Sagless Elevator. John Deere Inside Cup Elevator and John Deere Cypress Wood Portable Elevator are for ear corn or small grain and John Deere Tubular Steel Elevator is for small grain only. All described in elevator booklet.

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Book with blue print plans shows in figures how more than the cost of an elevator outfit can be saved by the way the crib is built. Tells all about John Deere Elevators. To get it without charge ask for Book No. A-13

John Deere, Moline, Illinois



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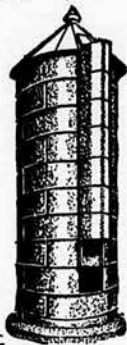
I Tell You, Neighbor, I'm Going to Get My Silo Early! Wheat's ready to thresh—and a Bumper Crop, too—the early market's gone all to pieces! I'm going to thresh from the shock and STORE THE GRAIN IN A

PERFECTION METAL SILO WITH GRAIN BIN EQUIPMENT

This will **SAVE** me ten to fifteen cents a bushel on my crop by September—and I'll HAVE MY SILO MORE THAN HALF PAID FOR BY SILAGE CUTTING TIME!—AND THE BEST SILO IN THE WORLD, TOO. Makes 10 to 15% more good feed than any other type, because it's **AIR-TIGHT** and **MOISTURE-PROOF**. That's the secret of perfect silage. No loss, no danger, no waste. Durability absolutely guaranteed. Insured against wind storms and cyclones. Capacity increased any time as desired. Continued re-orders from absolutely satisfied customers the secret of our enormous growth in business.

GRAIN BIN EQUIPMENT WRITE FOR THIS NOW! Learn how perfect ventilation is secured; how the grain is easily and quickly handled; how the silo may be made to earn big money for you before silo filling time. **THIS IS VALUABLE INFORMATION TO EVERY FARMER—GET IT TODAY!** Address

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THIS IS A GOOD RULE

ONE farmer we know makes it a rule to look over the advertisements in the paper each week. "I got a lot of information by reading them," says he. "Besides, once in a while something is advertised that I have been looking or wishing for and didn't know where to get it."

This is a good rule for every busy farmer to follow. It will prove to be a half hour well spent.

SILO OBSERVATIONS

Some Points to be Considered in Purchasing or Building Silo

By T. A. BORMAN

THERE are a few essentials which must be possessed by the silo selected if it is to prove satisfactory. The most important is that of silage preservation, remembering that the silo is bought or built for the purpose of saving, in the best feeding condition, the largest possible proportion of the nutrients contained in the crop placed in the silo. To accomplish this it is necessary that the silo wall be air-tight—that it exclude a maximum of air. This appears as the one important essential in silage preservation. To exclude the air is the occasion for the exercise of great care in filling. However, to secure a silo structure the walls of which will exclude the air, is comparatively easy. The other important essential in this latitude and farther north is a wall which in cold weather will prevent freezing to the greatest possible extent. All types of silos in common usage in Kansas seem to meet these requirements. In the past much stress has been placed on the idea that the wall construction should be such as to retain within the silo the highest possible temperature, the idea being based on the theory that high temperatures are required for preservation of the silage. This theory seems without foundation, except that immediately after filling a high temperature is desired and this will be developed without reference to wall construction if the crop silaged has sufficient juices and the packing is thoroughly done. Figures, which we have seen and which have not been published, following several years of close observation on temperatures in silos built of various materials, seem to bear out the latter conclusion, but the extent to which silage freezes closely follows the extent to which the silo wall is a conductor or non-conductor of heat. On this point it is apparent that the silo wall which permits freezing the greatest degree or freezes most easily, is also that which most readily permits thawing. Much unnecessary freezing is due to failure to roof and keep doors closed—in fact these are the two great contributive factors to excessive freezing in all silos. The use of the various silos in Kansas—wood, steel, concrete, tile, etc.—indicates that the silage keeps fully as well in one as in another, and in making a choice between these the farmer, it seems to us, will be governed largely by other considerations than those of material. The question is not so much one of superiority in keeping quality as a matter of buying or erecting a silo which is best adapted to meet the needs of the individual farmer and his surrounding conditions.

Another point for consideration in purchasing a silo is that of durability. It is the desire of every farmer to build as durable a silo as is possible but keeping within the cash outlay he can afford and at the same time meeting his convenience as to time of erection or as the exigencies of the season may require. These and numerous other conditions influence the character of silo bought or built. The durability of the silo is largely dependent upon the kind of material from which it is constructed, but another important factor is the care given the structure, all structures requiring more or less attention. It seems logical that silos built of steel, concrete or tile should be more durable than those built of wood. The wood-stave silo has proven durable and it is by far the prevailing type of the 140,000 silos in the United States. However, there is a wide variation in the durability of the wood stave silo, depending first upon the quality of wood from which it is built, and second, upon the care it receives. We know of wood-stave silos which have been in use twenty-five years and which appear good for many more years of service. It should be remembered that wood-stave silos are built from woods of varying lasting quality and are built to meet the requirements of pocketbooks of varying sizes. The wood-stave silo is built to meet a large variety of conditions, and which probably, more than anything else, accounts for its wide general use. So it may be said that the degree of durability is to be considered when making the purchase—that is, whether the silo is to be built for service during the lifetime of the man who builds it, or for the use of his children or grandchildren. Whether to build the most lasting silo money will build, or a good silo at less cost, is for the farmer himself to determine.

Thousands of silos have been and will be built in Kansas on farms on which permanent barns and feeding sheds have not yet been established. To construct the most permanent type of silo, knowing at the time of building that it is not in the location it may later be wanted, would prove the height of folly. Yet many a man has built just such a silo in such location and now wishes that it had been built elsewhere. There is, in our judgment, a relation of the character of silo to be constructed to the progress of the improvement of the homestead and the permanency of the buildings already erected, which should be considered. That is to say, if the barn has been built permanently then the silo can be permanently placed, but if the barn has not been so located then there is always some doubt as to where it will be finally located and a silo of wood staves or steel which be taken down and moved, is desirable. It not infrequently happens that a tenant desires to build a silo which he may in a few years want to move to another location. There is the wood and steel silo to meet such condition. Then it may be that a silo is needed in a hurry. The farmer may have found, as in 1911 and 1913 in Kansas, that the crops as dry forage will not meet the need of his live stock but that the crop as silage will supply the winter's feed, and this discovery is not made until the crop is ready for the silo, at which time a silo is badly wanted. The wood-stave or steel or other manufactured ready-to-put-up silo can be ordered by 'phone, shipped on first train and in a few days can be set up and the crop successfully stored therein. It will be seen that the conditions are so varying as to warrant the consideration of silos from other standpoints than material alone.

There are many types of wood silos which are of home-made construction. For these the lumber is purchased locally and without regard to special adaptation for silo building. The work is usually done by the local carpenter and the plan is created by the farmer himself or borrowed from some neighbor. Such silos are frequently failures unless they are so well built as to involve an expenditure as great or greater than the cost of other proven, efficient and more durable structures. Such silos, however, serve a purpose commensurate, probably, with their cost but in general are to be regarded as temporary and only make-shifts. Too often in such silos the essential principles of silo construction, especially with reference to dimensions, are not recognized and the silo proves a failure. We have in mind several types of silos being sold by local lumber yards, the yard supplying the lumber from its stock. The height of silos so built is too often governed by the length of material in stock and which, because splicing is not successful, results in the building of a silo which is not sufficiently deep in proportion to the diameter to be efficient in saving feed. The construction of a silo not conforming to the generally accepted necessary dimensions results in the loss of large quantities of silage from several causes. This is a condition which is mentioned simply as an example of one of the faults and the cause of failure of many home-made wooden silos. Another point in this connection is that in the home-made silo, the strength required is frequently under-estimated and from this cause the silo bursts, resulting in the loss of the silage contained therein and frequently the loss of the entire structure.

It is not to be said that the make-shift silo is without a place on the silo map of Kansas but it is essential for the farmer to determine when he invests a hundred dollars or more in such silo, if it would not be wiser to invest a little additional money and erect a structure which would reduce every chance of failure to a minimum. This same chance of failure is taken with the various types of concrete silos when built with farm help only. It is certain that the concrete job should be supervised by an experienced and responsible worker, or better still, done by a concrete contractor who is financially responsible and who can and will guarantee the work he does. In the building of a tile or other masonry silo, the work should be done or supervised by a competent mason. It is plain that a considerable obligation rests with the silo user and builder if the silo is to be as satisfactory as it can and should be.

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KANSAS FARMER

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KANSAS FARMER aims to publish only the advertisements of reliable persons or firms, and we guarantee our subscribers against loss due to fraudulent misrepresentation in any advertisement appearing in this issue, provided, that mention was made of KANSAS FARMER when ordering. We do not, however, undertake to settle minor claims or disputes between a subscriber and advertiser, or be responsible in case of bankruptcy of advertiser after advertisement appears. Claims must be made within thirty days.



FARM INVESTMENTS.

The harvesting of 9,000,000 acres of wheat in the short space of two or three weeks is a task Kansas is engaged in at the present time. It is one of the most marvelous sights to be seen in this great state. Its magnitude this year has so stirred up the people that the conversation on every street corner turns to this one subject—the wheat harvest and its influence upon business conditions.

A vast amount of money will be put into circulation as this immense crop moves to the markets of the world. The hope expressed on every side is that the turning loose of this great crop will loosen things up all along the line. This is the reason wheat looks good to everyone in Kansas at the present time. Every line of business is anxiously awaiting the freer circulation of money which is bound to follow the harvesting of such a crop. "The butcher, the baker and the candlestick maker" alike, are interested in the returns from this great crop.

The farmers who have been turning all their efforts to the raising of wheat are, perhaps, the most vitally interested of all, since many have failed to raise paying crops for a considerable period of years. Farmers of this class welcome the good crop of this year since it means the paying off of debts and obligations which have been exceedingly burdensome; it also means the securing of many deferred comforts and conveniences about the farm and home.

It is a good time for the thinking farmer to look a little beneath the surface of things and see if this is not a most opportune time to make the first move in the direction of securing such equipment as will aid in establishing a little better rounded-out system of farming. Exclusive wheat farming year after year as the whole farm enterprise, does not tend toward the development of highly improved farms; it simply involves taking all that it is possible to take out of the soil and selling it, and is not concerned with the introducing of those various farm improvements which are associated with a permanent, well balanced system.

Many farmers through the wheat belt have already taken the first steps toward working out this proposition. A series of poor wheat crops naturally stimulates an interest in the growing and marketing, in the form of live stock products, the more sure feed crops of the wheat section. A little greater dependence on live stock as a means of paying the regular living expenses has naturally led to the adoption of the silo as a means of more surely realizing an income from these feed crops. Many a wheat farmer has already made his initial investment in the silo. This represents the placing of an equipment upon the farm which adds to its revenue producing possibilities. It is money well invested; it is far better to invest money in this way than to purchase additional land and attempt to win a bigger stake in the wheat business by spreading over more acres.

This is not written with the idea of discouraging the growing of wheat. It is one of the great industries of our state, and one for which the state is famed far and near. The suggestion is offered with the idea that handling live stock through the use of the silo will enable the wheat farmer to live better, secure better average cash returns year in and year out from his investment and when an especially favorable wheat year does come, enable him to use the proceeds of this crop for the bringing of some especially needed improvement or comfort to himself and family. It is a great satisfaction to the wheat farmer to be able to pay off the debts which have accumulated during the years in which he has failed to grow paying crops, but it would be far greater satisfaction to him if he could have more of this wheat money to put into a good farm home or the making of the present home modern or the putting in of some other improvement that would lend itself to

the comfort and happiness of his family.

In figuring out where to invest most profitably some of the money coming from the present wheat crop, the building of a silo should most assuredly be given careful consideration. No other farm improvement could be introduced that would be so sure of returning a good, round income on the money invested in a first class silo. To many, the bountiful returns from this year's wheat crop will be the long looked for opportunity to make the change, the need of which has been more and more apparent as the years have come and gone.

ON CATCH CROPS.

On the occasion of our visit in Dickinson County we found one farmer who had caught the idea of growing kafir as a catch crop to reinforce his chances for feed, and he gave KANSAS FARMER credit for the suggestion. This man's wheat field lay along the Santa Fe railroad. He had done one day's cutting with binder along the road. He had moved the bundled grain from a strip three hundred feet wide—the entire length of the field along the right of way. Primarily he moved the bundled grain in order to plow a fire guard and thus protect his crop from danger by fire set by sparks from locomotive. Instead of plowing, however, he listed this strip into kafir. This work, by the way, was done on a day when it was too wet to cut wheat. This farmer had thus improved one day's time and had converted it into furthering two assurances—first, that of securing additional feed, and second, that of protecting his crop from fire. This man figured this strip of kafir should yield him 150 bushels of grain, or if it did not produce grain he felt certain of 35 or 40 tons of forage.

It must be remembered in this connection that not only grain for feed may be short unless some effort is made to offset such shortage, but there will also be a scarcity of alfalfa and prairie hay. The latter shortage will come principally through the generally poor condition of the meadows following the extremely dry period last year. The prairie hay crop, therefore, will be short. The first cutting of alfalfa throughout the state generally was heavier than normal. In some sections the second cutting will be as good as the average, in other sections it will be short. However, in the case of both alfalfa and prairie hay there are no accumulated supplies such as exist on many farms from year to year. Last year's demand at high prices resulted in the sale of all prairie and alfalfa hay which was not needed for feeding. It will be necessary for the farmer—during the next feeding season—to feed all of the prairie and alfalfa hay grown this year unless he is able to avert this by growing additional forage corn fodder, the dry roughage of cane or kafir, or silage made from these.

SILLO FOR EVERY FARM.

In these days in Kansas a farm is not as well improved as it should be unless it has thereon a good silo. This is true if the land is farmed by the owner and, if he would, through general farming operations, which include the milking of a few cows and the growing of live stock, make the best use of his opportunities. It is also true of a farm which is rented. That is, farmed by a tenant.

We recently rode on a train through Kansas with an Eastern farmer—a man who has used a silo for some thirty or more years. He was surprised to note the comparatively few Kansas farms on which silos were in use. On this point he commented at some length. On passing each silo his remarks led us to believe that in his opinion the owner of every silo was an up to date farmer. This impression, of course, our visitor carried with him from the East and the enterprise which the silo indicated is evidence of the opinion held by the Eastern farmer who is more conversant with the advantages of the silo than is the

Western farmer. Some one has written that the silo is a badge of honor for each farm on which such structure is located. Our visiting friend indicated his belief in such remark.

The farmer who would rent his land to the best advantage, we believe, can well afford to build a silo for the use of his tenant. If the tenant is to milk cows and keep live stock—a thing he must do to be most certain of being able to pay his rent—he must be able to feed that live stock efficiently and economically. The live stock-keeping tenant is certainly the most desirable of all tenants, first, because he is most likely to be able to pay his rent, and second, because the consumption of feed on the farm is regarded and is, in fact, the least exhaustive method of using soil fertility. The land owner who will equip his farm with a silo will be better able to secure satisfactory tenants than if he has no silo. This rule applies to the farm which has other good accommodations for live stock and why not to the silo?

It may be necessary in the eyes of the land owner to charge a little more rent on account of having furnished the silo, but interest at the rate of six or eight per cent on the additional investment is, to our knowledge, being readily paid by several tenants for whom silos have within the last few years been erected. The building of a good silo on the rented farm, with other buildings contributing to the satisfactory care of live stock, will aid in securing tenants who will be better satisfied, who will be willing to take longer leases at better terms, and who will make more money for the farm owner. There are many tenants who would be glad to erect at their own expense, a silo, if a contract could be made with the land owner which would insure them continued occupancy of the farm or if the owner would agree to purchase the silo at the close of the renter's lease. The advantage of the silo for both the tenant and the land owner are such as warrant a mutual consideration of the subject.

THE OAT CROP.

The oat crop throughout the state has improved wonderfully as a result of the rains of the past two or three weeks. It is our guess, as a result of our observation during the few recent trips we have made into various sections of the state, that Kansas will produce one of the largest oat crops in her history. The threshed oats will go a long way toward supplying the shortage of feed grains should they be short, but oats will be in demand at good prices. They can be successfully stored and held from year to year without deterioration. Because we have a big oat crop is no reason why oats should be fed carelessly. It will be manifestly the part of wisdom to save the oats either for market or for storage and substitute for them grains which may be grown as catch crops. In the event of an apparent shortage of forage it will pay, we think, to cut a part of the oats early, this portion to be stacked and fed as sheaf oats. This will make good feed for all kinds of stock and particularly milk cows. As we have said many times, the value of oat hay is not appreciated in Kansas. Early-cut oats carefully stacked, will make much green hay of a superior quality. There are oat fields in Kansas which will be too short to cut with binder. If these fields are allowed to ripen and the oats mowed and raked, there will be considerable loss of grain in handling. Such fields should be cut early if they must be mowed, and the crop handled as hay, thus largely avoiding shattering and the loss of grain and converting the crop to its greatest usefulness.

One of the greatest advantages of the silo and one which is often overlooked is the fact that the feed is right at the barn where it can be fed to the stock in the winter time with a minimum of labor. There is no necessity for going out into the fields in stormy or muddy weather to haul feed to the stock.

WHAT KIND OF A SILO?

It seems impossible, almost, for many farmers to determine upon the kind of silo they should build. We believe that entirely too much stress is placed upon the kind of material to be used in silo building. The important thing is that of building a silo and using it to the best possible advantage. Every farmer who keeps, from year to year, fifteen to twenty head of cattle, is losing each year through inefficient feeding, the money necessary to build a silo of sufficient capacity to feed this number of animals. If this is true, and silo users seem to think it is, then it is at once apparent that the character of silo is not the all-important point for consideration. The big thing is a silo—one that will prove capable of preserving the siloed crop in good feeding condition. Other considerations will take care of themselves.

We know there are many farmers in Kansas who contemplated erecting silos in advance of the harvest rush but who have not yet purchased on account of being unable to decide for themselves which particular kind of silo will give them the best service. This feeling of indecision may result in some farmers not saving the available succulent feed made by the silo, for feeding to their live stock the coming winter. The reader may infer from the above that we think there are too many different kinds of silos not sufficiently varied in their merit as to warrant the activity shown by manufacturers in getting them before the public. Indeed, we have heard an occasional silo dealer claim that there is too much competition in the silo business. The more silos and the more men there are selling them, the more rivalry and the better opportunities there will be for the farmer to secure the silo which best conforms to his idea or needs at the best price and on the most favorable terms. In our judgment, active, honorable competition is to be desired and through it the world advances.

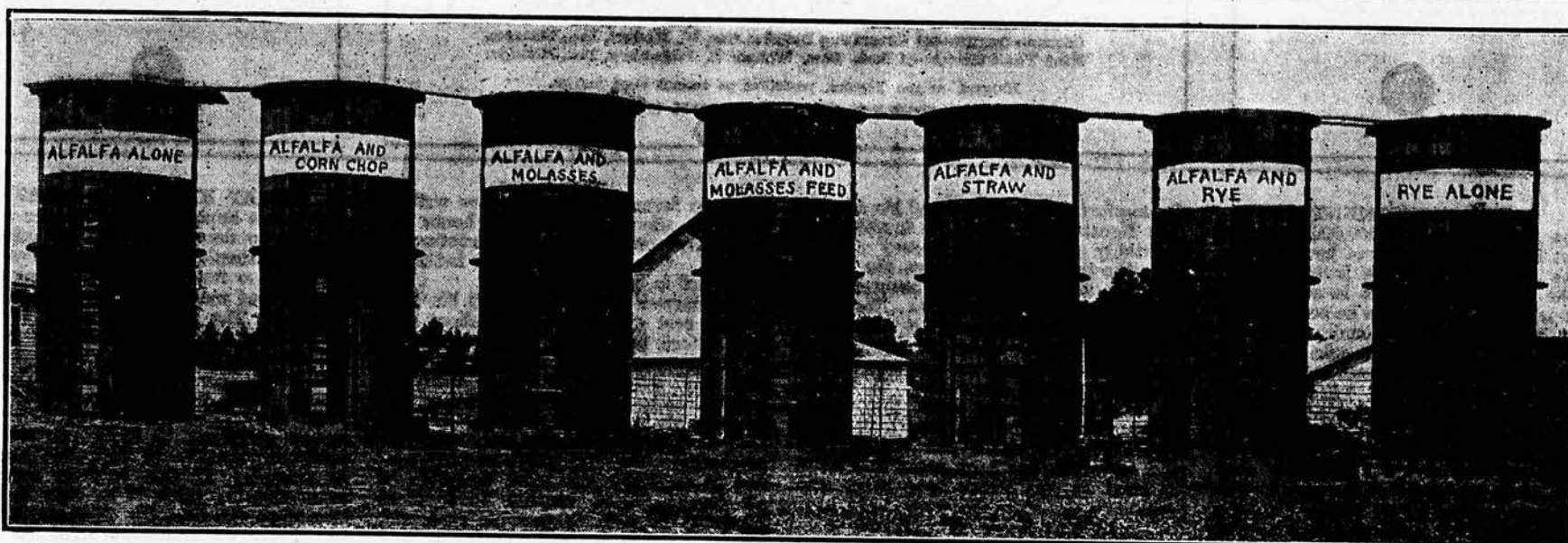
By reason of competition the present opportunity for wide range of choice in silos has been attained. It is responsible for the numerous silo structures, and, more than anything else, has been responsible for the building of a large proportion of the seven thousand silos within the state. There is no longer—nor was there years and years ago—any question of the practicability and desirability of the silo in feeding all farm animals. The silo companies brought to the attention of the Kansas farmer the efficiency of the silo and induced him to buy. This is, in fact, largely the way the silo has come to Kansas. If this is correct, then Kansas and Kansas farmers have the activity of the silo manufacturers to thank for having introduced to them the most important factor in modern feeding methods.

THE PIT SILO.

The pit silo is satisfactory when properly built. Its usefulness in Kansas seems limited to the western section of the state where it is proving satisfactory and the low cost of construction or rather the small amount of actual cash outlay required in its building makes it particularly adapted. Such silos may be filled at less cost than silos built above ground. However, more labor and expense is involved in the removal of the silage from such structures. However, in those soils in which they can be successfully built and maintained and for farmers whose cash outlay must be limited, the objections to the pit silo are more than offset by the advantages they offer from other standpoints. The pit silo is, in fact, a make-shift, but it is one of the best of that type. It is usually of small dimensions and built to accommodate small numbers of live stock. The large feeder, even in the West, will not use the pit silo permanently. The pit silo will create the appetite of both the farmer and his live stock for silage, and will prove a stepping stone for and lead to the keeping of more live stock which will lead to bigger and better silos.

SILO BADGE OF HONOR

Has Become Necessity in Efficiently Utilizing Rough Feed—G. C. Wheeler



SEVEN EXPERIMENTAL SILOS AT THE MANHATTAN, KAN., AGRICULTURAL EXPERIMENT STATION, IN WHICH ALFALFA AND ALFALFA WITH OTHER FEED STUFFS ARE BEING TESTED FOR SILAGE AND PARTICULARS REGARDING WHICH TRIALS ARE ELSEWHERE PRINTED. EACH SILO IS 7x16 FEET WITH A CAPACITY OF ABOUT 10 TONS.

IN DISCUSSING the silo and its use five or ten years ago it would have been necessary to carefully define the terms, silo and silage. This would certainly have been necessary in Kansas even though the use of the silo dates back a great many years. Silo knowledge has spread rapidly in our state in the past few years. On the stock farm the silo and its products have become fixed factors of vast importance. The up-to-date live stock farmer who has developed a well balanced system of handling his stock and the crops he grows, would as soon think of farming without a barn as farming without a silo.

When first introduced the silo was regarded by many as a fad, as a plaything of the rich man, and was not given serious consideration as a permanent farm practice. That time has passed and the silo can no longer be considered a passing fad, but as a permanent farm equipment.

ROUGHAGE IN LIVE STOCK PRODUCTION.

It is true that the old style farmer who still clings to the system of growing corn for the grain only, and who permits straw-stacks to rot down in the field or go up in smoke can see little advantage in introducing the silo into his farm practice. On such a farm where no provision is made for utilizing the forage material produced, the silo has no place. Only where the thought has been directed to the utilization of every ounce of nutrient material produced through the means of live stock does the silo fit into the farm practice. Under these conditions it has become well nigh indispensable.

Cheap roughage has ever been an important factor in the live stock business. When the great free ranges of the west were being developed the lavish stores of nature were utilized in the form of grass by the stockmen at almost no cost whatever. Rough feeds grown on the farms could not be profitably converted into marketable form through the use of live stock while these conditions existed.

As time went on, however, these conditions have changed; every year hay and other rough feeds have increased in market values. Coincident with this increase in the market values of these feeds has been a steady rise in the market value of live stock products. The consuming population have been complaining of the high cost of living; they have felt that they could not possibly afford to pay the prices demanded for these food products. The farmer who is producing the products, on the other hand, is not making any great profit as a result of his labors. The old system of farming still prevails to a great extent; the change could not take place all at once.

MORE EFFICIENT UTILIZATION OF FEED.

The old maxim, "He who makes two blades of grass grow where one grew before is a public benefactor," needs some revision. Nature is lavish with her resources; everywhere enormous quantities of material representing great stores of energy are destroyed and lost without serving any useful purpose in improving

man's welfare. In the early pioneer days the struggle for food and shelter, those necessities of life, called for the cleaning and burning of vast forests of timber. Under the conditions existing the human necessities could only be produced through the sacrifice of these great resources of nature. With the increase in population and the general advancement of civilization, the more efficient utilization of nature's resources calls for the attention of the greatest minds. The one who can most efficiently utilize natural resources is now the great public benefactor.

Great manufacturing concerns have ever found it necessary to increase the efficiency of their plants in order to meet present day competition. Efficiency engineers have studied the many problems involved and have put in effect plans for securing larger returns from the expenditure of a given amount of energy. The farmer in like manner has found it necessary to study the problem of efficiency in the utilization of nature's great reserve of energy and food values. The thousands of pounds of material produced by the growth of an acre of corn represents the storage of a vast amount of energy of the sun. As handled by primitive methods of farming but a small portion of this great store of wealth is used in such a manner as to serve man any useful purpose. We need the efficiency expert on the farm as much as in the factory. Labor saving machinery has worked revolutions oftentimes in factory practice.

SILO INCREASES EFFICIENCY OF FEEDS.

The silo may well stand as one of the great factors in increasing the efficiency of the farm through a better utilization of the products of the soil. All through the cornbelt there is produced each year feed enough if conserved by means of this great efficiency method of preservation, to feed all the live stock in the land. As at present handled, from 75 to 80 per cent of the roughage part of the corn crop is absolutely wasted.

The up-to-date live stock farmer of Kansas has seized upon this modern practice and instead of using all his efforts to make the "two blades of grass grow where one grew before" he is directing a portion of his efforts to doubling the efficiency of what he is already producing and thus introducing greater economy into the production of his live stock products. This means not only that this farmer will reap larger profits from the products of his farm but it also means that these meat products which are so necessary to the proper feeding of our great consuming population will not soar to prohibitive prices and thus lessen the efficiency of the great consuming class of our people. In the words of a writer on the Missouri Board of Agriculture, "The silo has become a badge of honor on every farm." Wherever the silo is found we recognize at once that here lives a farmer who appreciates the fact that he owes not only his own welfare but that of the whole nation to the utilization in the most efficient manner possible of the material coming to him from the hand of nature. It has been abundantly demonstrated

in modern practice that no man need say he cannot afford a silo. On farms heavily stocked with live stock where everything raised finds mouths waiting and demanding even more, the farmer cannot afford to be without a silo. Under present day conditions the silo will reduce the cost of producing a pound of butter by at least 10 cents; it will likewise, reduce the cost per 100 pounds of producing beef by \$2.50. Truly, the farmer cannot afford to be without a silo, who is attempting to convert the rough feed of his farm into a marketable form in the most economical manner. For such the silo is an economic necessity. As has sometimes been stated, the farmer who attempts to get along without a silo under these conditions will find when he casts up his accounts at the end of the year that he has paid indirectly the cost of a silo through the loss sustained in failing to most efficiently utilize his crop.

As a means of working out a permanent system of agriculture through the regions of scant rainfall the silo is well nigh indispensable. Its utility here can not be questioned. All through this section of our country there are adapted feed crops such as kafir, milo and cane which will grow and store up large amounts of feed value when the ordinary grain crops would fail entirely. The means of efficiently utilizing these crops has been the only missing link; the silo now supplies this and farmers through such sections can work out dependable farming systems whereby a reasonable profit can be assured each year. In especially favorable years when the crop is in excess of the immediate demands, the silo forms the only means of equalizing these fat years in feed production with the years of poor crops, which may possibly follow. Practically all that is required to place the farming on a safe basis is the accumulation of a sufficient capital through some means to secure the necessary equipment in silos.

CO-OPERATION IN SILO FILLING.

The necessity for purchasing a considerable amount of extra equipment has deterred many from making the first initial investment in a silo. Proper machinery for handling the crop and getting it into the silo is essential.

To the pioneer in introducing a silo into a community the necessity for this large investment in the required equipment may become a serious handicap. The many inquiries which come of us regarding the feasibility of using the silo without the cutters and necessary equipment indicate the extent to which this difficulty prevails.

Circumstances usually require that this matter be handled from a co-operative standpoint. A machine which can be used only for a few days in the year is not an efficient machine from the standpoint of money invested when used by only one man. It is true there are cutting outfits of all sizes, from the small one requiring only a very small amount of power to operate, up to the big 18 and 20-inch cutters which require the use of large engines to supply the necessary power. Some have used the small cutters, and in some instances the shortage

of labor has been such that the man depending on his own resources in filling the silo has been compelled to let his machine stand idle while he and his son went to the field to haul in another load of fodder. This is not an efficient way of handling the proposition and wherever possible co-operation, not only in the ownership of the machinery but in the exchange of labor during the filling, should be practiced. Where some such co-operative method is worked out a thoroughly good machine of reasonably large capacity should be used. It is poor policy to attempt to force through a small cutter a larger amount of feed than it is built to handle. There had better be a little reserve in power and capacity than the reverse.

It is easy to co-operate when the necessity arises; this has been amply demonstrated wherever community and neighborhood co-operation have been absolutely required in order to carry out and develop a profitable farm practice. In Denmark co-operation became an absolute economic necessity in order to save the agriculture of the nation. This led to the development of co-operative methods to a remarkable extent. "Where there is a will there is a way," and the farmers of the community who cannot help but see the need of a silo in enabling them to utilize their crops more fully, can find a means of satisfactorily co-operating and handling the proposition if they but make a serious effort to bring this result about.

The silo has come to Kansas to stay. The necessity for its introduction has passed the argumentative stage. At the present time the question being asked is not, "Should I build a silo," but, "How should I go about it to get a silo on my place?"

It is not necessary to present the extravagant claims which in times past were made for the use of the silo and silage. The bare statement of facts with no exaggeration whatever are sufficient to convince every stockman of the state that the silo is indispensable and that it is just as much a part of his farm equipment as his barns and feed lots.

The Texas Cattle Raisers association is going after the railroads on their live stock liability contracts and congress will be importuned to make them come across with fair valuations. When it comes to writing contracts the railroads fail to take into account the rise in cattle values the past two years, but with the Texas association camping on their trail no doubt they will come to it.—Drovers Telegram.

A study of the summer trade in horses once more calls attention to the fact that the big, rugged horses of real draft weight and quality are the only ones that seem to be in strong demand. This kind of horses are easily sold, sometimes bringing as high as from \$625 to \$650 per pair, while the medium sorts are slow sale and the commoner kinds are being sold at a considerable discount from previous prices.

ALFALFA FOR SILAGE

Series of Tests With Alfalfa and Other Feeding Stuffs as Silage Combinations

TO establish the value of alfalfa as a silage crop is the purpose of a series of tests now under way at the Kansas Agricultural College and under the supervision of O. E. Reed, professor of dairying. Regarding the objects and the plan of the trials, Professor Reed writes:

"In this state, as well as other states in the West, it is very difficult to harvest the first crop of alfalfa because of the frequent rains during the harvesting period. Each year there are thousands of tons of alfalfa either spoiled or made into a poor quality of hay because it gets wet. There has been a growing demand for information concerning the siloing of alfalfa. A great many farmers who have silos would put this first crop of alfalfa in the silo if they had any assurance of it keeping.

"It has been demonstrated at this and other experiment stations, and on farms, that when alfalfa is put into the silo it will keep and make a fairly good quality of silage for a few months. Later it becomes very dark and develops an offensive odor. The stock do not particularly relish it, although they will eat some of it.

"The reason for alfalfa not keeping in a silo is that it does not contain sufficient carbo-hydrates (sugars and starches) that will make acids to preserve the silage. The alfalfa plant does not contain as much carbohydrates as corn or other crops that are usually put into the silo. On the other hand alfalfa contains a large amount of protein. It is undoubtedly the breaking down and decomposition of these proteids that cause the offensive odor that is developed in alfalfa silage.

"It is the purpose of the present trials to use some feeding stuffs with the alfalfa in the silo that will cause it to sour and aid in keeping the alfalfa. The picture on another page shows the seven silos that have been built at the state farm for this experiment. These silos have been filled as follows:

1—Alfalfa alone; 2—alfalfa and corn chop; 3—alfalfa and molasses; 4—alfalfa and molasses feed; 5—alfalfa and straw; 6—alfalfa and rye; 7—rye alone.

"The seventh silo was filled with rye

alone as we hope to make a study of this crop for silage. The various supplements added to the alfalfa are such as are easily obtainable in case one wants to put the alfalfa in the silo. It is hoped that some of these supplements will prove practical for this purpose. Bacteriological and chemical analyses are being made of the silage, so that each change in the process of making will be known. The silos will be opened after eight months and at this time the feed will be offered to dairy cattle and the palatability of the different combinations will be noted.

Silage for Horses.

Silage has not been used to any great extent as a horse feed, but as the use of silage increases there will undoubtedly be more of it used for this purpose each year. It is important that those who contemplate using it for this purpose understand thoroughly the precautions which must be exercised in order to feed it safely. Horses are peculiarly susceptible to the effects of molds of various kinds. Molds must have air in order to grow, therefore, silage packed in an air-tight silo is not likely to develop molds. As the weather warms up molds are more apt to develop and when feeding it to horses and mules the first appearance of mold should be a signal to discontinue its use. George M. Rommell, chief of the animal husbandry division of the Federal Department of Agriculture, discusses the value of silage for horses in the recent Farmers' Bulletin No. 578:

Corn to be made into silage for horses should not be cut too green, as sour silage will result and may cause colic when fed. The corn should be well matured and cut when the grain is beginning to glaze. The silo should be filled rapidly and the corn should be vigorously tramped and packed while filling. At least three men should be inside the silo, moving constantly, two around the edges and the third across and around the center. This is by far the most important point in connection with feeding silage to horses, and the lives of the horses fed on silage may depend upon the thoroughness with which the tramp-

ing is done. If properly done no danger is likely to result; if not properly done, air pockets may form and cause the accumulation of a small mass of mold which the feeder may overlook but which might be sufficient to kill one or more horses.

The value of silage for horses is greatest as a means to carry them through the winter season, cheaply or to supplement pasture during drouth. As the danger of mold is greater in summer than in winter, silage should not be fed to horses in that season unless a large number of animals are getting it, and the daily consumption is so large as to preclude the formation of mold on the surface.

To cheapen the ration of brood mares in winter no feed has more value than good corn silage. If the grain goes into the silo with the stover no additional grain is needed for brood mares, hay being the only supplementary feed necessary. If there is little grain on the corn the silage should be supplemented with 1 pound of old-process linseed oil meal or cottonseed meal daily per 1,000 pounds live weight sprinkled over the silage.

Horses to be wintered on silage and hay ration should be started on about 5 pounds of silage daily per 1,000 pounds live weight, the grain and hay ration being gradually decreased as the silage is increased until the ration is 20 pounds silage and 10 pounds of hay daily per 1,000 pounds live weight. It will require about a month to reach the full feed of silage but the period may be decreased somewhat, depending on the judgment and skill of the feeder.

Mares fed in this manner will be in splendid condition for foaling, and, so far as the writer's experience goes, the foals will be fully as vigorous, with just as much size and bone as if the mares were fed the conventional grain and hay ration.

Work horses, when idle, can be wintered satisfactorily in this manner, but much silage is not recommended for horses at heavy work for the same reason that a driving horse can not do his best while on watery grass pasture.

The writer knows of cases where stallions receive a ration of silage, but has had no experience in feeding them in this manner. There seems no reason why silage should not be a valuable feed for stallions during the idle season.

Silage should also be useful for young horses, especially drafters, but here

again the writer cannot quote his own experience and experimental data are meager.

To summarize, silage is safe to feed to horses and mules only when it is made from fairly mature corn, properly stored in the silo. When it is properly stored and is not allowed to mold, no feed exceeds it as a cheap winter ration. It is most valuable for horses and mules which are not at heavy work, such as brood mares and work horses during the slack season. With plenty of grain on the cornstalks, horses will keep in good condition on a ration of 20 pounds of silage and 10 pounds of hay for each 1,000 pounds of live weight.

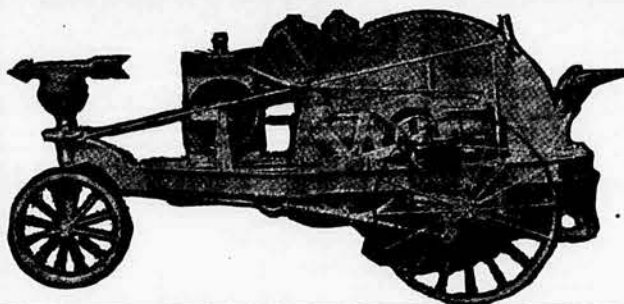
Bank Stock for Farmers.

Each year more and more farmers are investing in bank stock. Such stocks are safe investments, of certain earning capacity, quick collateral and readily saleable securities. The Southwestern Trust Company, now organizing in Kansas City, will specialize in the handling of farm mortgages along the line of the rural credit plan now before Congress and to accomplish its plans is offering the sale of its stock to the farmers of Kansas. The idea of the farmer, as an investor, being permitted to make a profit in dividends from the farm mortgage business, is one that has not been followed in this section of the United States. The stock of the company is being distributed only in Kansas, Northern Oklahoma, Southwestern Iowa, Southeastern Nebraska and Western Missouri, covering possibly the most valuable farm loan security in the United States; and the percentage of losses should be none, and the percentage of profits should be large. The company is organized under the Missouri banking laws and will be under the supervision of the bank commissioner of that state.

Each succeeding year results at the Indiana Experiment Station demonstrates the efficiency of silage. Just recently a band of western lambs were marketed from this institution with the usual result that the lot receiving silage made the best and cheapest gains and consequently returned the greatest profits. Cottonseed meal was most effectively used in this experiment in connection with the silage. This makes the sixth silage feeding test conducted at this experiment station, each time with the same result.

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The Bull Tractor has been proven out on hundreds of farms, and its recent trial at Newton, Kansas, was the wonder of the Tractor world. We are demonstrating this Tractor in Kansas City by pulling two 14-inch Gang Plows in Missouri River Gumbo.

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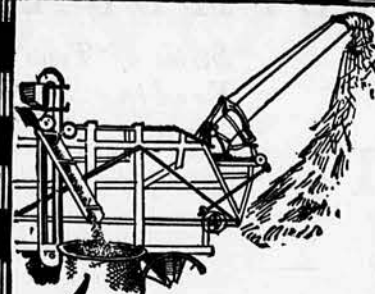
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FARM NOTES

Last week the editor made a 250-mile trip through Central Kansas—the heart of Kansas, agriculturally as well as geographically. Every farmer was occupied with the wheat harvest and seemed satisfied with the prospects for profitable yields. In all the territory covered it seemed to us that corn was smaller than usual at this season of the year and we were really surprised to note the number of fields which had not been cultivated. In every field some work had been done but in many fields this had been confined to the use of the harrow and the cultivator. This condition of fields, with harvesting, stacking and threshing ahead, means that a vast amount of corn has already received all the cultivation it will get this year and that cultivation not sufficient to break up the hard center in the lister ridges. Even though corn was small, it was a good color, the stands generally good and otherwise indicative of a healthy condition. It is too early yet to talk about a short corn yield and there is no reason to assume that we may look for anything other than an average corn crop. However, it need occasion no surprise, in view of the existing conditions, if corn did not make an average crop even with average growing conditions. It would seem advisable to give the corn field every possible attention following the harvesting of wheat. In other words, it means that just so soon as a team and a man can be spared from the harvest field the cultivator should be started in the corn field and an effort made to give the corn such cultivation as conditions warrant. Of course, we have seen—and so has every farmer—a good corn yield without any cultivation, but such conditions follow a season of excessive rainfall and there is no more good reason to believe that corn can be made this year without cultivation than there is to conclude at the present time that corn will prove a failure. This is one of the seasons when work has piled up on every farm until the farmer does not know which way to turn. A crop which is already made, as is the wheat, should, of course, be saved, but a crop which is so important as is corn, to every farmer in Kansas, should also be looked after.

It is important that the growing corn, kafir, milo and cane be cultivated and given every chance to produce a crop because Kansas is short on the acreage of these crops. We are inclined to believe that the acreage of kafir, cane, milo and feterita is larger in proportion to the corn acreage, than in former years, but the total acreage of these crops is approximately a million and a half acres less than last year. This, because of the unusually large wheat acreage. This decreased acreage of feed, together with the lateness of the crops, makes it important that growers give attention to the handling of these growing crops in such way as to insure, if possible, more than a normal yield. The corn and kafir acreage in Oklahoma is also small. It is reported that throughout the Mississippi Valley the condition of the corn crop at the present time is poor. These, with other conditions, indicate that a short yield from the acre planted will next fall place corn at an almost prohibitive price for pork or beef feeding and that such price will materially increase the cost of maintaining work stock and breeding herds of both hogs and cattle, so that it would seem the part of wisdom for every farmer to so handle his affairs as to insure the best possible corn yield.

In view of the above situation relative to growing feed crops, it occurs to us that we cannot afford to overlook again calling attention of KANSAS FARMER folks to the advantages which are to come through the planting of catch crops. These crops are needed to increase grain assurance and also to fill the silos and provide the necessary dry roughage to take care of the live stock now within the state through the next feeding season. It has been suggested that it will be necessary to feed wheat next winter and that the feeding of this grain to live stock will have the effect of materially reducing the marketable wheat crop. As we view the situation, it is altogether probable that it will be necessary to feed wheat next winter unless some extra effort is put forth to produce other feeding grains. The planting of kafir, cane, milo or feterita this week for catch crops will increase the probability of the farmers of Kansas having the feed they need for the next feeding season. It may be argued that these crops will not produce grain. They may not. They will, however, if the



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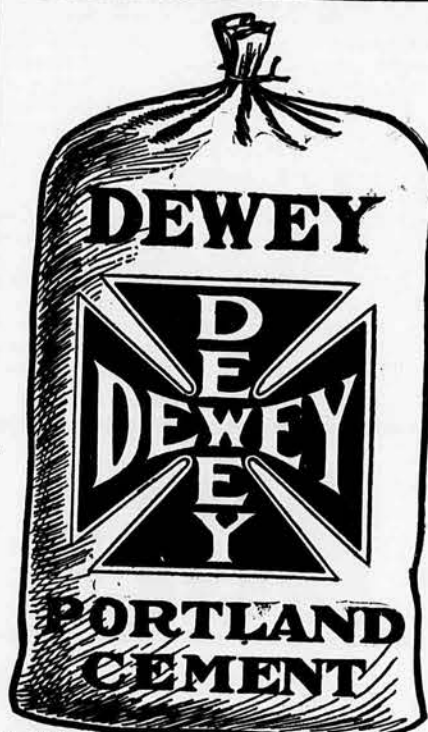
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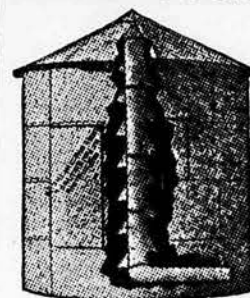
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Settle the Silo Question Right

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season is favorable for growth and fall frosts do not come too early. The chance for these crops producing forage in profitable quantities, to be used either as silage or as dry forage, is much better than for the same crops producing grain. It is quite certain that either of these crops planted before July will produce a reasonable acre yield of silage or dry forage. The only available ground for the planting of these crops will be ground from which wheat or oats have been harvested. It will prove worth while to clear a patch of wheat stubble and list one or more of these crops. Better use of a day's time of men and teams could not be made than in the planting of an additional acreage of feed grain and forage.

We think every farmer realizes the advantage of having abundant roughage. However, not every farmer realizes the possibilities for growing such roughage when the seed is planted as late as July 1. In a recent issue of KANSAS FARMER it was shown that if the rains are such as to be favorable for growth, the average date of killing frosts in the fall of the year will permit maturity of grain in the case of all sorghums. The silo should be considered in connection with the saving of all roughage at a maximum feeding value. It should be remembered that at least nine and one-half of every ten tons of green feed put in the silo will actually be consumed by the animals, provided, of course, the green forage is placed in such silo as will preserve it and the silage is cut and tramped in the silo as it should be. Immature crops of either corn, kafir or cane do not make the best silage, but such crops fed as silage are more valuable and are kept more satisfactorily than the same roughages cut immature and preserved in shocks or cocks in the field. The value of kafir and cane silage as compared with corn, has been set forth numerous times in KANSAS FARMER. The successful use of such silage on the farms of Kansas has established its feeding value. It is possible for the farmer who does not now have sufficient roughage in sight, to grow that roughage yet and fill the silos now on the farm or yet to be built. So to do will require only the planting of a part of the acreage from which wheat has been harvested, to these crops, but the planting should be done immediately. These crops should be planted in rows and cultivated. It is almost certain that if a sufficient

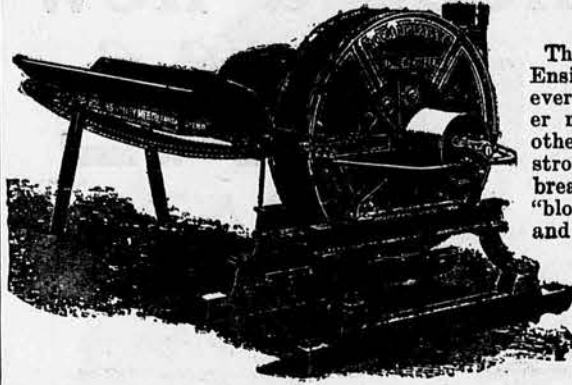
acreage is planted, feed in ample quantity to supply the live stock on most of the farms of Kansas can be grown. To grow such crops for silage or dry roughage will result in the saving of the hay crops harvested this year and which crops may be held for feeding another year or for sale at good prices in case the crop is short. It is reasonably certain that good prices for all kinds of hay will prevail during the next twelve months.

As above inferred, we think there is no occasion for feeling that there will not be sufficient roughage in Kansas the coming season to take care of the live stock if advantage is taken of the opportunity for catch crops. The farmer should also consider the advisability of erecting on the farm a first class good silo from the proceeds of this year's wheat crop. The silo will not only make a permanent and valuable farm improvement but it will also put the farmer in better position to realize to the fullest extent possible the feeding value of all crops he can grow and which are adapted to use as silage. The silo, in economy and convenience and in return on capital invested, is not excelled by any other farm building or any other investment the farmer can make. The silo is tried and proven. It is no longer regarded as a fad and a thing with which the rich only can play. The silo is the poor man's best method of feeding. The silo filled each year with such crops as will grow, and the live stock necessary to consume such silage, will enable the farmer to build the barn, the house, and otherwise improve his farm. The silo is, in fact, one of the first farm essentials. It will prove the stepping stone to all other things.

J. A. Borman

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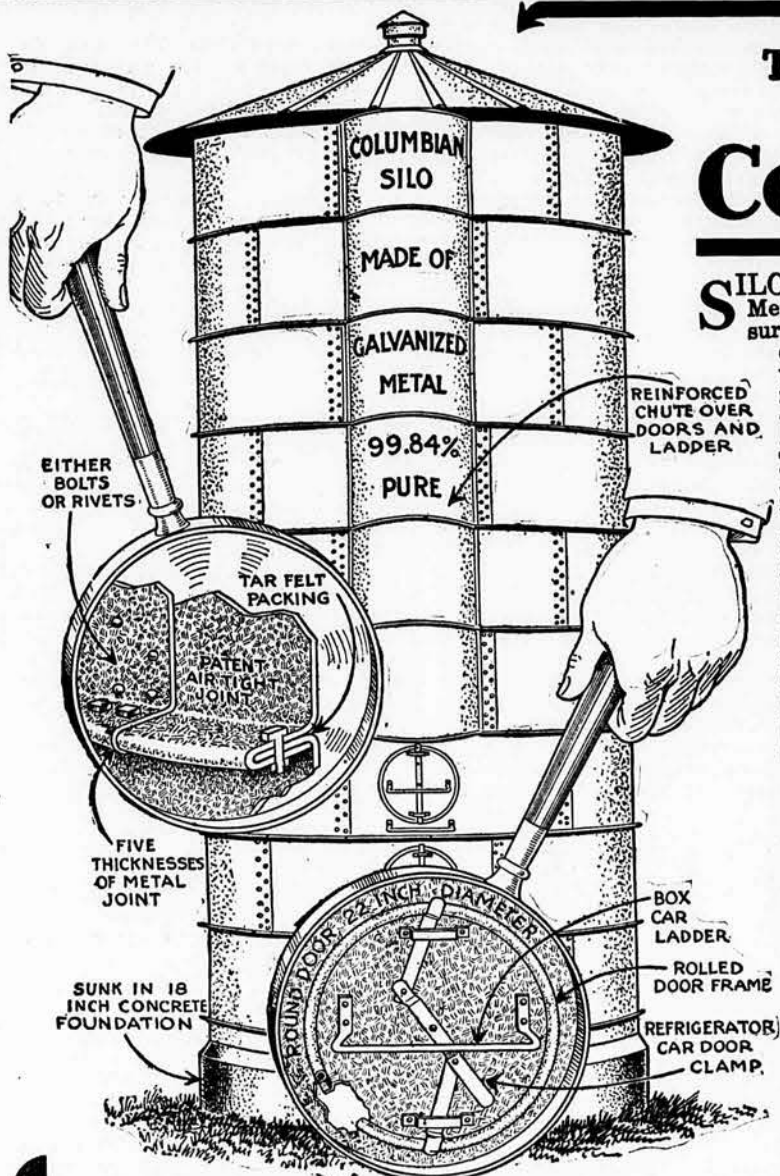
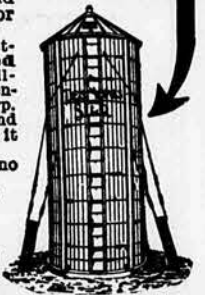
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It has all the good features found in any silo and more besides. Here are a few of them. Judge for yourself. Triple Anchor System eliminates possibility of silo blowing down, twisting or tipping. Lateral Staves add additional rigidity to the silo. Creosoted Lumber does not deteriorate. Will last 17 years longer. Shrinking and swelling reduced to a minimum. Painting unnecessary. Spring Lugs make tightening or loosening of hoops unnecessary. Door Frame cannot buckle or warp. Starts a perfect circle. Steel Roof built on rafters. Permanent. Braces and strengthens the silo. Inside Hoops attached to triple anchor system make it impossible for silo to lose its shape or collapse. Get the First Cost—Last Cost Silo. The Des Moines. There are no ifs nor ands about it—nor after regrets. Its superiority is proven. Write immediately for prices. Large illustrated catalog mailed free on request. Fully describes the construction and special exclusive features.

DES MOINES SILO & MFG. CO.
423 New York Ave., Des Moines, Iowa



The Most Careful Examination Finds Only Perfect Construction in the

Columbian Metal Silo

SILOS may come and silos may go but erect on your farm a Columbian Metal Silo and you have one that will last you a lifetime. It is a silo that gives and insures perfect silage under any and all conditions. It is not effected by heat or cold—by dryness or moisture. It is rust-proof, wind-proof, airtight and once erected your work is done. There are no hoops to tighten or adjustments to make. No trouble—no worry—no inconvenience.

Don't Experiment! In the Columbian Metal Silo you get the benefit of twenty years of experience backed by a careful and constant study of silos and silage. You take absolutely no chances when you put up a Columbian Metal Silo. Unlike wood silos it will not swell and warp when filled, or shrink and fall to pieces when empty. Unlike cement, it will not crack, crumble or settle. Being made of absolutely non-porous material the silage juices cannot be absorbed into the walls and the silage is just as good next to the wall as in the middle.

Easy to Erect Columbian silos can be erected in three to six days and no expert help is required. We furnish all the necessary tools, bolts, rivets, etc. No expensive scaffolding is required as we furnish a special scaffold bracket iron that greatly facilitates the erecting. With a helper or two you can make short work of putting up a Columbian Metal Silo and once up it is there to stay.

Easy to Enlarge The Columbian Metal Silo being sectional it is an easy matter to increase its capacity. Just get a few extra sections and fasten them on—that is all there is to it. Think what a wonderful advantage this is. This year you may want just a small one. Next year you will probably want a larger one, you can easily run up the Columbian Metal Silo. It is also portable can be moved from place to place.

Cheapest to Own The Columbian Metal Silo is the most economical silo to own. You can erect it yourself and once up you are at no further expense. Metal is taking the place of wood and cement in nearly everything and nowhere more than in silo and tank construction. The wooden and cement water tank is rapidly going out of business and it is only a question of a short time before the same will be true of wooden silos. Metal silos have every advantage of the other kinds and none of the disadvantages. It's never too late to get a Columbian Metal Silo. The enormous capacity of our factory enables us to produce complete silos at the rate of one every thirty minutes. You therefore never need worry about getting yours even though the season is well advanced. This gives you a chance to see that your crop is assured before ordering your silo and you don't have to invest a penny until it is actually delivered.

Get Our FREE BOOK

We want to send you a copy of our big Silo Book. It is full of valuable silo information. Tells how to cut, prepare and feed silage, and how to get the best results out of it. It also gives valuable hints on the various kinds of silo construction and gives pictures of many large Columbian Metal Silos on prosperous farms. We want you to have a copy of this book today and will cheerfully send you one if you will sign and return the attached coupon. Do it today. It's worth many dollars to any man who is considering putting up a silo. The coupon gets it.

Columbian Steel Tank Co.

1601 West 12th Street, Kansas City, Mo.
Also Manufacturers of Columbian Metal Silos.
See ad on another page.

FREE SILO BOOK COUPON
Columbian Steel Tank Co., Kansas City, Mo.
1601 W. 12th Street.
GENTLEMEN—Please send me your FREE Silo Book.
NAME.....
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STATE.....
R.F.D.

You need a new DE LAVAL CREAM SEPARATOR NOW

1st If you are still using some gravity or setting process of creaming—

BECAUSE your waste is greatest and quality of product poorest in mid-summer, when the milk supply is greatest.

BECAUSE time is of greatest value on the farm at this season and the time and labor saving of the good separator counts for most.

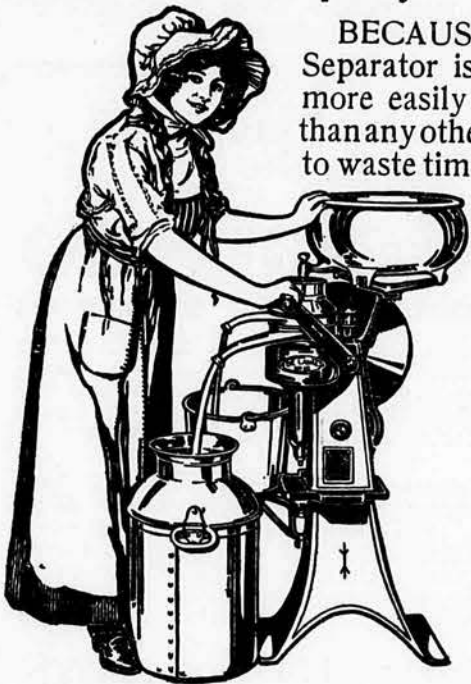
BECAUSE the skim milk is poorest without a separator in hot weather and often more harmful than helpful to calves and young stock.

BECAUSE the work of an improved De Laval Cream Separator is as perfect and its product as superior with one kind of weather as with another.

2nd If you have a very old De Laval or an inferior separator of any kind—

BECAUSE the losses of the poor separator from incomplete skimming and the tainted product of the difficult to clean and unsanitary separator mean most when the bulk of milk is greatest.

BECAUSE of the great economy of time at this season in having a separator of ample capacity to do the work so much more quickly.



BECAUSE an improved De Laval Separator is so much simpler and more easily handled and cared for than any other, and you cannot afford to waste time these busy days "fussing" with a machine that ought to have been thrown on the junk pile long ago.

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 counts for most during the hot mid-summer months.

These are all facts a De Laval catalog, to be had for the asking, helps to make plain, and that every De Laval local agent is glad of the opportunity to prove to any prospective buyer. If you don't know the nearest De Laval agency simply write the nearest main office, as below.

The De Laval Separator Co.

165 BROADWAY, NEW YORK

29 E. MADISON ST., CHICAGO

50,000 Branches and Local Agencies the World Over

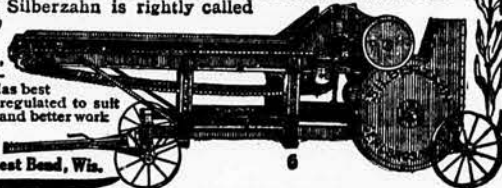
Light Running Silberzahn Simply Can't Be Clogged

The simple, scientific, carefully worked out construction of the "Light Running Silberzahn" makes it absolutely impossible to clog throat or blower, no matter how fast the corn is thrown in. The Silberzahn is rightly called

"The King of Ensilage Cutters"

because of its simplicity, strength, power, durability, safety—its absolute supremacy among ensilage cutters. Has best knife adjustment. Speed of blower can be regulated to suit height of silo. It is guaranteed to do more and better work with less power than any other cutter on the market. Write for catalog and proof.

GEHL BROS. MFG. CO. 128 S. Water St. West Bend, Wis.



READ KANSAS FARMER'S CLASSIFIED
ADVERTISING PAGE FOR READY BARGAINS

BEET TOPS FOR SILAGE

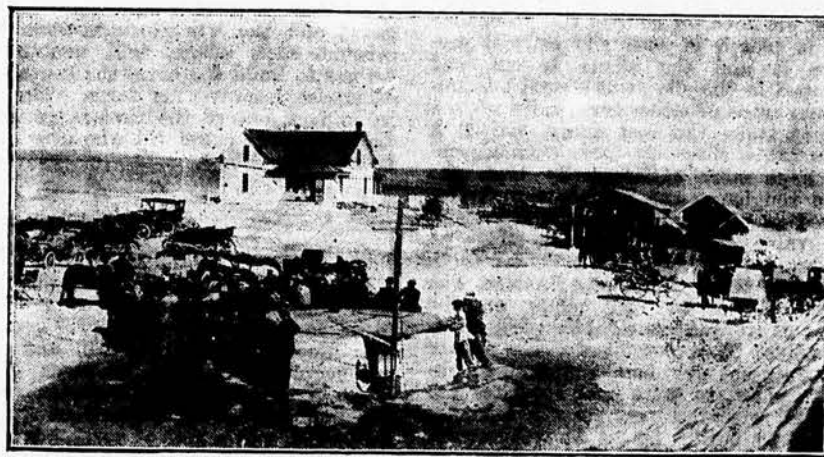
*Sugar Beet Tops Yield Twelve Tons Good Silage
Worth \$20 Per Acre on Fort Larned Ranch*

ONE of two large silos on Fort Larned ranch of 2,500 acres, near Larned, Pawnee County, Kansas, was filled early last November with the tops from the sugar beet field of 25 acres after the beets had been topped for shipment to the sugar factory at Garden City. The silage was fed to 500 head of stock cattle and 40 brood sows during the stormy weather of last winter when the stock could not be on wheat pasture. This amounted to about 50 days of feeding on beet top silage. The feeding of this silage, and the success attending it is important because the sugar beet grower should also be a producer of live stock and because the use of the beet tops as a feed will greatly increase the profits of sugar beet culture.

E. E. Frizell, owner of Fort Larned ranch, is an ardent advocate of sugar beets and alfalfa as regular crops for Kansas farms. He raised 25 acres of sugar beets last year which yielded 19 tons of beets to the acre and 12 tons of tops to the acre. These tops, left in the field after the beets were shipped to the

silage," says Mr. Frizell. "This was over 300 tons for silage. Under the conditions of last season I considered the sugar beet tops worth \$20 per acre. They make most excellent feed for cattle, horses, hogs and sheep. The most profitable crops that can be raised in the Pawnee, Walnut, Cow Creek and other Kansas valleys, are alfalfa and sugar beets. First of all the farmers should raise sugar beets and then alfalfa. The beets are an opening wedge for alfalfa. The beets do not injure the soil, but instead they put it in excellent condition for the crops that follow. The plowing for the seed bed, then the hoeing of the beet crop and then the plowing out of the beets put the land in a perfect state of cultivation.

"We fed the beet top silage to 500 head of stock cattle and 40 head of brood sows during stormy weather last winter when the stock could not graze on the wheat pasture. The beet top silage was used as a maintenance feed probably for 50 days during the winter. "The beet tops silage was fed at the



EIGHTY-FIVE BOOKS COUNTY FARMERS STUDY SILOS AND SILAGE ON THE FARM OF FRED BRINN—THIS WAS A WINTER MEETING CONDUCTED BY W. A. BOYS, DISTRICT AGRICULTURAL AGENT—THIS PLAN OF HAVING FARMERS MEET IN THE FARM YARD OF SOME NEIGHBOR HAS MUCH MERIT.

factory, made the silage used on the ranch last winter. Both the yield of beets and the yield of tops were heavy. The beets were raised under irrigation. The beet yield on Mr. Frizell's ranch was the heaviest yield in Kansas last year and is proof that intelligent farming pays. Yields of sugar beets of 10 to 12 tons per acre without irrigation were reported from Lyon, Greenwood and Chase Counties.

Early in November the sugar beets on Fort Larned ranch were harvested and topped and eight teams were kept busy hauling the beets to the cars at Frizell station and an equal number of teams hauled the tops to the silos. The tops were not allowed to remain in the field too long and within two to five days after the beets were topped the tops were in the silo.

When the beets were harvested and topped care was taken to have them free from dirt and to put them into the silo as clean as possible. The tops were put through a silage cutter and were placed in a 20 by 50 foot stave silo.

Beet tops are often siloed with kafir or maize, but Mr. Frizell, siloed his beet tops without mixing them with a forage crop. The tops were preserved by their own juices, no water being added to the silage.

"The green sugar beet tops made a yield of over 12 tons to the acre for

proportion of about 70 pounds to each head of stock per day in large feed bunks in open lots. The cattle were kept in bunches of 200 head and fed twice a day. From 15 to 20 pounds of alfalfa hay and one pound of cottonseed meal were fed with the beet top silage.

"The beet top silage seemed to be relished by the stock more than the corn silage. It is equal in feeding value to corn or kafir silage which is well seeded, and far superior to the kafir corn silage we got last year.

"I consider it better to feed beet tops from the silo than from the field. If fed from the field they would have to be used up before February or they would spoil. From the silo they can be fed at any season.

"One thing I noticed was that in the case of weaning calves or cattle that had never before eaten silage, that they would take hold of the beet silage more readily than the corn or kafir.

"In siloing beet tops the farmer should figure on mixing it from one-third to one-half dry fodder or straw as the beet tops are teeming with sap which will readily soak up that proportion of dry feeds and they will be relished fully as much as the tops themselves. We did not try this until we hauled the last eight or ten loads, which we mixed with about one-half straw and in feeding it to the cattle."

Silo Foundations

All Above Ground Silos Require Solid Foundations

TRIVE a stake in the center of the spot located for the silo; the top of this stake should be level with the desired height of foundation. Spike a board or bar, having a length of a little more than one-half the diameter of the silo, on this stake, then nail on two cleats with points one foot apart, as in Figure A. This will serve as a guide in marking off a line on the ground where the foundation wall is to be built.

Dig out the earth, as in Figure B, to the desired depth you wish the foundation wall. This should be twelve to

18 inches deep in order to secure a good footing. Pack this ditch full of concrete (a good mixture can be made by using one part Portland cement, three parts sand, and one part broken rock, or another mixture is one part cement and four parts sand) to the level of the ground; then drive short stakes about outside and inside edge of wall and bend half-inch boards around, making form, as in Figure C.

Be sure to get the surface of your foundation level, or your silo won't go up straight. This is important.



My Ten-Year-Old Boy Turns with Ease the BEATRICE Cream Separator Says Farmer Onswon

I've been up one side and down the other of this cream separator question for 20 years, and I'm for the Beatrice Cream Separator every time.

The Beatrice is the one high-grade separator that is sold at a reasonable price.

We all have some respect for our pocket-books. None of us farmers want to pay out \$100 to \$125 when we can get the same thing for \$65 to \$85.

Well, that's the cream separator situation. The Beatrice sells at \$85 for the largest size machine, 1000 lbs. capacity. Other high grade separators sell for \$110 and upwards for less capacity.

The Beatrice gives you—

Clean skimming, easy cleaning, easy running, convenience, long life, big capacity. It skims cold milk as well as warm milk.

Compare other machines with the Beatrice; you'll agree with me that you pay more for them than the Beatrice price, but you do not get as good a machine for your money.

Take my advice and investigate the Beatrice. Write to nearest office below for free catalog and name of local dealer near you.

BEATRICE CREAMERY CO. CHICAGO

Des Moines, Ia., Dubuque, Ia., Lincoln, Neb., Topeka, Kan., Denver, Col., Oklahoma City, Okla., St. Louis, Mo.

It is a good plan to set four bolts in foundation wall, about four inches from outside, which can be used for anchoring down the bottom of the silo and prevent it from skidding off the foundation in heavy wind.

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

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

In this construction, cement blocks, brick or stone can be used, either with results as satisfactory as with concrete. In fact, either of these can be used with greater convenience than concrete, al-

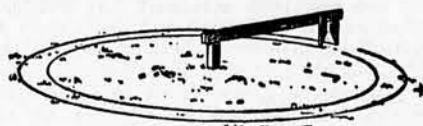


FIGURE A.



FIGURE B.

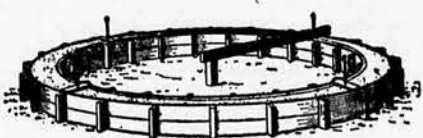


FIGURE C.

though concrete makes a neat job. On many farms stone is handy, and a stone wall can be built after the same general plans with perfectly satisfactory results. Most silo foundations are of stone.

Cattle Bloat.

During the summer season, especially where alfalfa is grown, there is always more or less danger of losing of cattle through bloat. This difficulty is due to indigestion which produces active fermentation in the paunch, accompanied by the production of large quantities of gas. It is always dangerous to turn cattle on rank alfalfa, especially during damp, muddy weather.

Dr. A. S. Alexander of Wisconsin suggests the keeping of equal parts of salt and slacked lime where cattle can have free access to it as a means of reducing the tendency to bloat. Wherever stock are on pasture where there is the possibility of this difficulty it is a good plan to visit the herd frequently so that instant help may be given if necessary. The prompt puncturing of the paunch will save many a animal.

Two ounces of turpentine administered in a quart of warm new milk or in a pint of raw linseed oil is a good remedy for a bloated cow. This dose may be repeated in an hour if necessary. After all signs of the bloat have disappeared a physic should be given unless raw oil has previously been administered.

Summer Don'ts for Farm Horses.

The American Society for the Prevention of Cruelty to Animals, in its annual hot weather hints for horse users, says:

Don't overload the wagon; don't over-speed your horse.

Use well-fitting, light weight harness, loose fitting collars and open bridles. Carry a pail and sponge to frequently wash or swab the animal's nose, mouth and face.

Give a warm bran mash Wednesday nights in addition to the one Saturday nights.

Avoid up grades wherever possible.

Feed properly; do not overfeed or underfeed; study the individual horse and determine just how much nourishment it requires to keep it in good serviceable condition and health.

Plenty of light, fresh air, good food, pure water and proper housing are as necessary to the horse as they are to the human being.

It has just been announced from the office of the Kansas Live Stock Sanitary Commissioner that during the fair season all horses brought into the state for exhibition purposes will be admitted without passing the mallein testing for glanders. There is little possibility of such horses bringing glanders into the state. All horses brought into the state are required to pass this test, other than as this exception is made during the season when horses are brought in for the purpose mentioned.

For Hard Country Service—
PENNSYLVANIA
Oilproof
VACUUM CUP TIRES
EXTRA weight and greatest strength—
Emost mileage under the hard usage encountered on long distances.
 Perfect traction—on every road. The stout knobs of the Vacuum Cup Tread dig down to safe going in soft mud, and the suction grip prevents many a dangerous slide.
 And in town—absolutely guaranteed not to skid on the wet or greasy pavement.
 Oilproof—through and through. A valuable quality in this day of oiled highways.
 V. C. Tires are guaranteed for a minimum of 4,500 miles. Records show that their mileage is nearer twice this figure, often reaching 12,000 miles and over.
 There's a V. C. dealer near you. If you don't know him, write us direct.
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 An Independent Company
 with an independent selling policy

35 BUSHELS PER ACRE
was the yield of WHEAT

160 ACRES
FARMS IN
WESTERN
CANADA
FREE

on many farms in Western Canada in 1913, some yields being reported as high as 50 bushels per acre. As high as 100 bushels were recorded in some districts for oats, 50 bushels for barley and from 10 to 20 bushels for flax. J. Keys arrived in the country 6 years ago from Denmark, with very little means. He homesteaded, worked hard, is now the owner of 320 acres of land. In 1913 had a crop of 200 acres, which will realize him about \$4,000. His wheat weighed 58 lbs. to the bushel and averaged over 35 bushels to the acre. Thousands of similar instances might be related of the homesteaders in Manitoba, Saskatchewan and Alberta. The crop of 1913 was an abundant one everywhere in Western Canada. Ask for descriptive literature and reduced railway rates. Apply to Superintendent of Immigration, Ottawa, Canada, or Canadian Government Agent.

Geo. A. Cook, 125 W. 9th St., Kansas City, Mo.

Pump with a Farm Cushman 4-H. P. All-Purpose 4-Cycle Engine

Does everything any 4-H. P. engine will do and some work no other engine can do. An ALL-PURPOSE, all-season engine AND will run any binder. Weighs 190 lbs. Throttle governor. Guaranteed 10 years. Also 2-cylinder 8 H. P. up to 20 H. P. Get catalog and trial offer.

CUSHMAN MOTOR WORKS, 2048 N. St., Lincoln, Neb.

Silo Filling Power Now, for Less Money than ever.

See These New Prices

Horse Power	Stationary Styles	Portable Styles
2	\$ 34.95	\$ 40.95
4	69.75	82.80
6	99.35	141.80
8	139.65	196.40
12	219.90	279.80
16	298.80	378.70
22	399.65	483.15

Easy Terms of Payment if Desired.

WITTE ENGINES
 Kerosene, Distillate, Gasoline, Gas

Engine quality is determined by cost of operation—not by the price of the engine. The lowest cost of operation—the highest engine quality—comes from the smallest possible amount of fuel needed, per horse-power hour—the certainty of steady power with the least amount of watching, and the least need of any repairs during the whole life of the engine. This kind of quality is guaranteed to you, in every WITTE engine, of whatever size you select.

New Book Free It tells how to judge an engine; how to pick out the engine that is best for your work; how to be sure in your selection, even if you don't pick a WITTE. If you don't say its worth dollars, I'll pay postage to get it back. Write me sure, before you arrange to try any engine.

Ed. H. Witte, Witte Iron Works Co.
 1609 Oakland Avenue,
 Kansas City, - Missouri.

Buy Direct From My Factory
 You can pay more than my prices, but you can't get any better engine value from anyone. No need now, for you to pay two prices to get a good engine; or take chances on a poor, doubtful, or unknown engine, to get a low price.

Liberal 5-Year Factory Warranty
 Every WITTE engine is thoroughly tested before shipping, and is guaranteed to deliver full power with a liberal surplus over its rating; also to run steadily and prove reliable, with free return privilege at any time within five years.

Ed. H. Witte.

THIS BOOK FREE HOW TO JUDGE ENGINES

READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS

You Can Now Ship Hand Separated Cream and Keep it Sweet on Long Hauls



Hotels, Restaurants, Ice Cream makers, and, of course, the city milk companies themselves, are crying for a sure supply of sweet cream.

The STURGES REFRIGERATOR CAN will hold your cream sweet for 12 to 24 hours in summer heat.

It will enable farmers and dairymen to ship several hundred miles if necessary, to reach high-priced markets for sweet cream.

What Tom Borman Says.

In Kansas Farmer of June 13, Editor Borman says: "In Kansas Farmer last week was advertised a refrigerator can which is being marketed by a concern which has been in the milk can business for many years and the reliability of which concern cannot be questioned. This can should prove a boon to thousands of dairymen. It should overcome the difficulty resulting from cream becoming sour in transit and in so doing it opens a sweet cream market to thousands of dairymen for whose product there is a demand."

"It is recorded by the manufacturers of this can that in twelve hours the temperature of cream rose only eight degrees and in twenty-four hours eighteen degrees, as compared with a rise in temperature of thirty degrees in twelve hours and fifty-two degrees in twenty-four hours in the ordinary milk can. These are phenomenal results and every dairymen who recognizes the result to which temperature is a factor in keeping milk sweet, will appreciate the advantages of the refrigerator can."

"This can will also protect cream against freezing in winter. The advertisement says something about shipping a sample can for trial, free. This is certainly worth investigating."

Own Your Own Sturges Can.

and make your own terms to people who are willing to pay fancy prices for a dependable supply of sweet cream. The cans are not cheap, remember, they are scientifically insulated refrigerators in the form of extra strong double-wall milk cans, with air-tight insulated covers.

Not Cheap, But They Pay Big Dividends.

Let us ship you a sample can—5 gal., \$5; 10 gal., \$6.50, f.o.b. Chicago, and after you have put it to the test, we'll talk to you about larger quantities, to be shipped through your dealers.

Like a thermos bottle, the Sturges Refrigerator Can holds its contents at a nearly uniform temperature for hours.

In other words, the cream on all ordinary hauls, will reach its destination very close to the temperature at which you shipped it, winter or summer.

Read Mr. Borman's whole valuable article on shipping hand-separated sweet cream, in the June 13 issue. It tells you how to do it. Then send for a sample can and ask for our Booklet No. 114.

STURGES & BURN MFG. CO.

508 SO. GREEN ST.

CHICAGO

The Hinge-Door Silo

The Silo That Gives Satisfaction

THE doors operate on hinges so easy that a 10-year-old boy can do the chore of feeding. You keep the silo closed—air-tight—have good silage throughout the year.

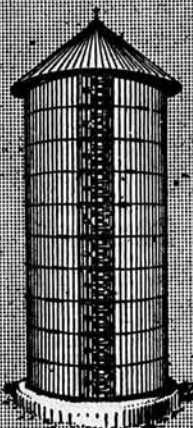
We have in stock several million feet of the finest silo lumber that can be bought. It is thoroughly dry—will not shrink. Write for our offer on a Hinge-Door Silo for your needs, made from this material.

The Silberzahn Silage Cutter can cut any forage crop. It has all the latest improvements; it is the most widely used cutter in Kansas—the safest, strongest, and easiest running cutter made. Write for offer.

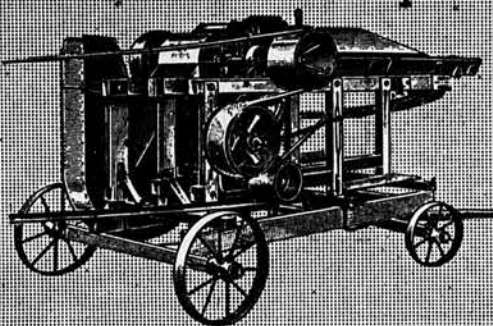
Beatrice Creamery Co.

Dept. 21

Topeka, Kansas



The Hinge-Door Silo



The Silberzahn Silage Cutter

Write Today for Booklet and Special Offer

Wheat Straw Worm

By J. W. McCulloch

THE injury caused by the wheat straw-worm is of such nature that it is not noticed until about harvest time, at which time the stalks begin to break over and many white heads appear. Aside from this the infested plants produce poorly filled or empty heads. The Hessian fly often causes the same type of injury and consequently these two insects are often confused in the field.

MEASURE OF CONTROL.

In many localities where the straw-worm is present this year the Hessian fly has also been a serious pest and the measures of control should be of such a nature as to destroy both these insects. The stubble should be disked immediately after harvest and about three or four weeks later plowed to a depth of at least six inches. In plowing care should be taken to bury the stubble and volunteer wheat under at least three inches of soil. The ground should then be re-firmed and worked into a good seed-bed. It should also be kept mellow and free from weeds and volunteer wheat. The planting of the crop should then be delayed until the fly-free-date.

If only the wheat straw-worm is present the above procedure will serve to destroy it. However, the planting of wheat does not need to be delayed. Where possible the planting of the crop on a part of the farm removed from the infested straw and stubble will prevent practically all of the damage from this insect.

Inasmuch as the joint-worm, a closely allied species to the wheat straw-worm, is known to inhabit grasses such as frequently grow in the fence rows about the edge of the wheat fields, and as our studies would indicate that some individuals of the wheat straw-worm may have a similar habit, it would be well to burn off or otherwise destroy the grasses before next spring.

Since this insect passes the winter in the straw and the stubble, straw from infested fields should not be scattered over the next year's crops of wheat.

LIFE HISTORY.

The larvae of the wheat straw-worm are to be found within the straw about the first of June, and usually within the first or second joint below the head. These maggot-like larvae are greenish-yellow in color, footless and about one-fourth of an inch in length. The farmer may easily find them, if they are present in the field, by splitting open the straws and looking for the worms inside.

The larvae remain in the straw where they are found until October when they transform to black pupae, and thus pass the winter.

The adults emerge early in March from the infested straw and stubble of last year and make their way to nearby wheat plants where they deposit their eggs in the embryonic wheat heads. The adults are small, black, wingless ant-like insects about one-eighth of an inch in length.

The young larvae hatch in a few days and feed within the stem. By May they have reached their full growth, transformed to pupae and a little later the second brood of adults emerge. The adults of this brood generally deposit their eggs in the first or second exposed joint below the head. The larvae that hatch from these eggs are the ones now found in the plants.

Ton Silage Cost Less Than \$2.

In 1912 a Greenwood County, Kansas, feeder filled two 275-ton silos with kafir, and gives this estimate of the ton cost of silage: Seventy acres of kafir, \$7 per acre, \$490; harvesting and putting feed into silo, \$210; interest on cost of silos and cutter, one year at 6 per cent, \$95; wear and tear on silos and machinery, \$50; total cost of 500 tons of silage, \$845, or an average cost per ton of \$1.69.

The feeder says: "This silage was fed to 260 head of 4-year-old steers in connection with other roughage. As our intentions were to fatten these cattle on grass, the prime factor in feeding was to get the steers through the winter at a minimum cost without losing any weight, and to have them in good condition when turned on grass. The steers averaged 1,050 pounds when placed in the feed lot and retained their weight throughout the winter. These cattle were fed 150 days and each steer ate five bushels of shock corn, two tons of silage, two tons of roughage. Half feeding on silage can be done on 40 per cent less feed than in the old way, and our cost of silos and machinery has been paid for out of the first year's feeding."

Silage as Dry Forage.

In reply to the question, "How do you value the silage of corn, kafir or cane,

How To Buy A SILO-

USE the same judgment buying a silo that you would in purchasing machinery about the farm, and you'll get a silo that is fire-proof and frost-proof—one that will not rot, rust, warp or crumble—one that needs no paint or trouble-making hoops—one that is wind-proof, strong, durable—one that will last forever. If you buy a silo that lacks one of these particulars, you will regret your purchase.

So far as we know the

Davenport "Iowa" Silo

—built of patented, hollow, curved, vitrified clay blocks (patented under Pat. No. 1,385,467) is the only silo that can claim all the above advantages.

Progressive Agents Wanted

Everywhere.

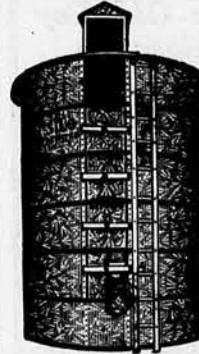
New Silo Book—Just Published—FREE

to everyone on request. Book brimful of silage and silo facts you ought to know. Treats whole subject in a fair, frank and impartial manner. Let it be guided correctly in your silo purchase. Ask for new edition when writing. Address:

DAVENPORT BRICK & TILE COMPANY

358 W. 3rd St., JOHN BERWALD, Sec'y, Davenport, Iowa

The Galvanized Hollow Wall Silo



Has hinged doors, ladder, dead air space, and is absolutely airtight. Made from the best galvanized steel and lined with wood. Made to stand up a lifetime, and will never dry out. Will not freeze in the coldest weather. No spoiled ensilage around outer edge. Impervious to rain, wind, heat, cold and fire. Write today for catalog and price list.

Kretschmer Mfg. Co.
202 11th Avenue
Council Bluffs, Iowa

Stack Your Hay The Easiest Way The "Jayhawk"



STACKER AND HAY TOOLS

Save time, men and money. Lightest in weight—easiest to operate—delivers hay anywhere—no ropes or pulleys—cannot tip—fully guaranteed—wood or galvanized steel. Sold direct at manufacturer's prices. Write today for free catalog and Big Jayhawk "Bargain Book" of Farm Implements sold direct at money saving prices.

F. WYATT MFG. CO., 806 N. 5th St., SALINA, KANS.

BARN BUILDERS

should write us before buying LUMBER. Can save you all mill-dremen's profits. We are manufacturers, and sell direct. Bills estimated.

KEYSTONE LUMBER CO., TACOMA, WASH.

WE BUILD CONCRETE SILOS

Walls 6 inches thick and properly reinforced; doors and chute to suit your taste and pocket book; reliable work and reasonable prices. We have twenty outfits and still need about fifty contracts to fill out season. Write us now.

Hopper & Son, Manhattan, Kan.

LAND BARGAINS

WISCONSIN

Official publications concerning the soils, rainfall and crops of Wisconsin may be had free by writing Wisconsin State Board of Immigration, Madison, Wis. State Capitol 655.

Ideal Combination Wheat And Stock Ranch

480 acres, 225 in cultivation; good wheat land; 9 miles to county seat; good road; on main route; good shade; running creek fed by springs; never goes dry; good grass; could farm more. Price, \$10 per acre; good terms. Plenty of alfalfa and wheat farms for sale; also good cattle ranches. Send for our lists or come and see us soon.

TAYLOR & BEATCHER,

The Comanche Land Men, Coldwater, Kan.

NO PLACE IN THE U. S.

has better crops than E. Okla.; land selling for one-third value; buy before advance; get share of crop if bought quick.

SOUTHERN REALTY CO., McAlester, Okla.

FOR SALE.

Eighty, one hundred and sixty, or three hundred and twenty acres of choicest farm land for alfalfa; near La Junta, Colo.; all land under reservoir; sold on terms. Address **GEO. MAYER HARDWARE COMPANY, Denver, Colo.**

NOTICE.

If you have property to exchange or sell, it will pay you to write for particulars of our systematic services and guarantee. Describe property in first letter.

REAL ESTATE ADVERTISING AGENCY,

Dept. 6, Riverton, Neb.

compared with the dry forage of these crops? will prove interesting and valuable to the farmer who has not fed silage. Those named are all general farmers who feed the usual mixed lot of stock:

Silage is superior to all fodders and hay, alfalfa not excepted.—J. N. Groener, Jefferson County.

There is no comparison between silage and any kind of fodder.—O. A. Herbert, Marion County.

Silage saves one-half of the grain feed.—John Nelson, McPherson County.

I like silage much better.—J. O. Huff, Norton County.

I like silage much better than fodder.—Ivy Allen, Coffey County.

Silage is 50 to 75 per cent better than any fodder.—J. G. Maelzer, Nemaha County.

One ton of either in silo is worth three tons in the field.—Miles Standish, Anderson County.

Silage is better feed than either of the three kinds of fodder.—W. O. Harper, Neosho County.

Silage is much better than any other kind of roughage.—A. A. Briggs, Labette County.

Silage is far ahead of any dry forage.—E. P. Flanagan, Dickinson County.

I think silage worth two times as much as fodder.—E. W. Sellards, Osage County.

Silage is 50 per cent better than fodder.—Fred C. DeMott, Cowley County.

I do not think fodder is in the class with silage.—C. N. Miller, Ottawa County.

Silage saves half anyway, and is more easily and cheaply fed.—C. C. Weaver, Lyon County.

Cost of Silo Filling.

The cost per ton of putting up silage cannot be definitely stated because of the wide range of varying conditions under which the work is done. In February, 1913, KANSAS FARMER printed the statements of a considerable number of silo users and the cost of filling ranged from 55 cents per ton to \$1.50. A study of these statements indicates that the average expense of silo filling, including interest on investment—was about 75 cents per ton. It is understood, of course, that the acre ton yield, the nearness of field to silo, the facilities for pushing the work, etc., are factors which will vary the filling cost. The Hays, Kansas, Agricultural Experiment Station gives these figures for filling silos.

Filling two 180-ton silos with kafir: Hauled 1½ miles, used 5 wagons and teams, 10½ tons coal, harvested 45 acres, 4 days' labor on one, 4½ days' on the other. Total expense, not including the binding cost, \$224.40 or 62½ cents per ton.

Filling a 100-ton silo with kafir: Field adjacent to the silo, 15½ acres harvested, 3½ tons coal used, three days' labor for men and teams. Total expense, binding cost not included, \$61.25 or 61½ cents per ton.

Filling a 100-ton silo with corn: Four and one-half days' labor for men and teams, 5½ tons of coal. Total expense, including binding cost, \$116.50, or \$1.16½ per ton. In this instance 22 acres of corn were cut and the products from 3 acres of this hauled one mile.

The above figures are on the basis of the actual wages paid workmen and 25 cents an hour allowance for each team.

Benetol Not Cholera Cure.

In the publicity matter concerning the proprietary remedy benetol, which was alleged to prevent and cure hog cholera, the Minnesota Experiment Station was indirectly drawn in. According to Dean Woods of the Minnesota Agricultural College, Dr. E. W. Burg, whose name was mentioned in these press articles, is not and never has been connected with the Minnesota Experiment Station.

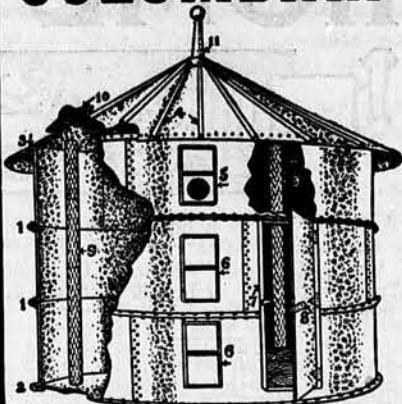
This Station has recently been conducting some experiments in the use of this remedy and finds it has practically no value whatever as a curative agent. It was found that the hogs given the remedy not only died of cholera but in some cases the administration of the remedy produced severe inflammation of the digestive tract.

Silos.

We will offer the farmer a special price, providing he buy a silo during June and July. Now is the time to buy the best silo made, direct from the manufacturer and save the middleman's profit. Sold on time payments. Address, Box 133, Topeka, Kan.—Adv.

The pressing needs of the chickens during hot weather is plenty of pure water and a nice shade for them to get out of the heat of the sun. It goes without saying that the chickens need feed also, but the other two needs mentioned are often withheld from them.

COLUMBIAN PORTABLE STEEL GRANARY, TEN EXCLUSIVE COLUMBIAN FEATURES



- 1—Shows the reinforced joint.
- 2—Shows how the bottom fits into outward flange at bottom of lower section of body. Simple but effective.
- 3—Shows how body is strongly reinforced at top by an angle iron, to which the cover is bolted.
- 4—Shows the V-cripp by means of which the different sections of the cover are jointed, which affords stiffness and strength.
- 5 and 6—Shows slide doors open and closed. Notice how closely the door is pocketed so as to exclude all water from hard driving rains.
- 7—Shows a strong angle iron frame for the door, which serves as a strong support for the sections where the break is made, adds strength to the door, and makes granary accessible for store house.
- 8—Shows a strong hump for locking the door.
- 9—Shows perforated sweat tubes, which allow free circulation of air through the grain, preventing any moulding caused by grain having gone through the sweat.
- 10—Shows a manhole with lid provided for filling from the top, which makes it possible to run grain from separator to bin.
- 11—Shows an ornamental cap, which lends an attractive appearance as well as covers up the intersections of the cover sections.

This granary is the most practical, convenient, durable and economical means of storing your grain, ever built. Haul it out to your threshing, set it up in three hours, and thresh directly into it. When emptied use it for a store house. It is of practically the same construction as the COLUMBIAN METAL SILO, and like the silo it has no peer. Capacity can be increased any time. Our facilities are such that enable us to turn out a granary every four minutes, also one and two silos an hour, insuring prompt execution of your order.

Columbian Steel Tank Co., 1601 West 12th St., Kansas City, Mo.

Also Manufacturers of Columbian Metal Silo. See ad on another page.

LAND BARGAINS

Buy or Trade with us—Exchange book free
Bersie Agency, Eldorado, Ka.

Book of 1,000 Farms, etc., everywhere,
for exchange. Graham Bros., El Dorado, Ka.

WE SELL OR TRADE
ANYTHING, ANYWHERE.
REALTY EXCHANGE CO., NEWTON, KAN.

240-ACRE FARM; (Butler Co.) Bargain;
write quick; exchange book free. BERSIE
AGENCY, El Dorado, Kansas.

GOOD WHEAT, corn and alfalfa land located
in rain belt, for sale at reasonable
prices on railroad terms.
PURCELL & PHARES, Wakeeney, Kansas.

FOR JEFFERSON COUNTY or Northeast
Kansas farms, any size, where alfalfa, blue-
grass and corn are the staple crops, at from
\$60 to \$100 per acre. Write or see.
The Harman Farm Agency, Valley Falls, Ka.

BUTLER CO., KAN., SNAP—80 ACRES—
All second bottom alfalfa land; well im-
proved and fenced, 4½ mi. to town; only
\$60 an acre. Write for full description of
this and other snaps.
THOMPSON & AKEMAN, Whitewater, Kan.

FINE FARM 240 ACRES, fine improve-
ments, ¼ mile south Sedan; 120 acres pas-
ture, 120 acres farm land with about 55
acres in alfalfa; mtg. \$4,200, 2 years 6½%.
S. PARK & SON, Sedan, Kansas.

ANY SIZED Arkansas farm, no rocks,
hills or swamps, all tillable, general farm-
ing and fruit, \$1.50 per acre down, balance
20 years, 6 per cent. Crop failures un-
known. E. T. Teter & Co., Little Rock, Ark.

CENTRAL MISSOURI FARMS.

For corn, clover, wheat and bluegrass;
farms that will prove profitable and satis-
factory for homes and investments. Write
for descriptive price list; good soil; fine
climate. HAMILTON & CRENSHAW, Box
5, Fulton, Missouri.

\$15 A.—BIG COLORADO BARGAIN—\$15 A.
775-acre tract, fine laying Arkansas Val-
ley land; two miles from McClave; in great
stock and dairy country. All fenced and
Fort Lyon Canal water right for 160 acres.
LOCK BOX 7, Lamar, Colorado.

FOR SALE.

270 acres, two miles from station, 18
miles from Emporia; well improved; ex-
cellent water; \$40 per acre. List describ-
ing farms and ranches mailed on applica-
tion. G. W. HURLEY, Emporia, Kansas.

FOR SALE—160 acres well improved,
Marion County, \$7,500; 320 acres well im-
proved, Butler County, \$18,500; 640 acres
well improved, Butler County, \$24,000.
Gus Schimpff, Burns, Marion County, Kan.

NATOMA, Kansas (Osborne County); two
banks, Presbyterian, Lutheran (Mo. Synod);
Methodist and Catholic churches; fully ac-
credited high school, makes Natoma one of
the best and busiest towns in North Central
Kansas. Farm ad next week.
J. F. BAUM, Natoma, Kansas.

FOR SALE

Well improved 360-acre farm in Anderson
County, Kansas; abundance of running
water; 76 acres clover and timothy; about
90 acres prairie pasture and timber, balance
in cultivation; land is free from rock; black
loam soil; lays smooth; write for price and
full description; no trades.
W. L. WARE, Garnett, Kan.

S N A P BARGAINS

Corn, wheat, alfalfa and pasture lands;
suitable for stock and grain farms; good
black soil; good water; near schools and
churches; good markets; good farms for
little money. AMERICAN REALTY COM-
PANY, Muskogee, Oklahoma.

\$20,000 bu. of 1913 wheat; 110,000 of 1913,
and will ship \$50,000 of 1914. Over \$17,000
worth of 1913 cream, and will ship \$30,000
worth in 1914.

LISTEN!

We have two 640-acre farms close in; 960-
acre farm 10 mi. out. In fact, all sizes of
farms and distances from this prosperous
town, for sale.

CHEAP

BEFORE BIG CROP brings prices up. Get
prices and description from

E. W. ALBRIGHT, Brewster, Kan.

BIGGEST BARGAIN EVER—160 acres;
highly improved, Woodson Co., Kan., 5 mi.
Yates Center; no rock or draws; best of
soil; sickness. Price, \$55 acre, terms to
suit. Write YATES CENTER LAND CO.,
Yates Center, Kansas.

IMPROVED FARMS FOR SALE.

All desirable. Also ranches of any size,
on liberal terms; fine water and climate;
I have what you are looking for. THOS.
DABNEY, The Land Man, Offerle, Kansas.

NOTICE: Improved 4,000-acre ranch;
owner in bad health; will sacrifice; no
trade; good terms; bargains in smaller
tracts; investigate before buying. Address
Box 376, Sharon Springs, Kansas.

FOR SALE OR TRADE.

240 Acres. If on the lookout for a land
deal, write us about it. We have a lot of
bargains for cash. Send for list.

KIRWAN LAND CO.

West Plains, Howell County, Missouri.

160 ACRES 1½ miles from good town on
main line of Mo. Pac. Ry.; in the oil and gas
belt; farm pays oil royalty of \$15 per
month; 60 acres in cultivation, balance in
fine blue stem grass; 20 acres in alfalfa.
This is a fine creek bottom farm and one
of the best stock and grain propositions in
the country. Farm fenced and cross fenced;
no other improvements; no agents; will sell
direct to purchaser on easy terms. Address
Lock Box 761, Fredonia, Kansas.

ARKANSAS

I have for sale, FERTILE ARKANSAS
FARMS; small and large; improved and un-
improved; slope and valley land; mountain
and river bottom land; virgin timber land;
no irrigation. For particulars write
W. KNIGHT, Bigelow, Perry Co., Arkansas.

ALFALFA FARM

FOR SALE—155 acres, adjoins best coun-
ty seat town in Northwest Kansas; 60 acres
in alfalfa, 7-room modern cement house,
timber and water; worth \$15,000; owner has
been sick for 3 years and \$12,500 spot cash
will buy it; no dairy in town, a splendid
location; \$5,275 unsold cemetery lots on
land. The best bargain on earth for the
money; come at once or address M. W.
MIKESELL, Atwood, Kansas, for full par-
ticulars.

Reo the Fifth—\$1,175 With Electric Starter and Complete Equipment

F. O. B. Lansing

This is the Super-Car

Reo the Fifth—Mr. Olds' great
car—is not built by usual stand-
ards. It is built for men who
want a super-car.

It is built for years of perfect
service—built to withstand ab-
normal strains. It is built to
bring troubles, upkeep and re-
pairs down to the lowest notch.

The driving parts are one-half
stronger than necessary. They
meet the tests of a 50-horsepower
engine. The steel is made to
formula. The gears are tested
for 75,000 pounds per tooth.

There are 15 roller bearings—
190 drop forgings. There is a
costly clutch to prevent gear
clashing. There is a simple
method of shifting gears.

We spend six weeks on each
car to get utter exactness, and
to properly test each part. No
other car in this class was ever
built so slowly, so carefully, in
such a costly way.

The result soon shows. The
parts stand the strains. There is
freedom from trouble and re-

pairs. The car stays new. It
doesn't grow noisy. When lesser-
built cars begin to show their
shortcomings, Reo the Fifth
shows its staunchness.

Rough Usage

Under normal conditions—on
smooth roads—lesser cars may
do. But the farmer, on the usual
country road, needs a car like
this. He needs these margins
of safety, this vast over-capacity,
this super-strength.

Men are finding this out.
Every year, thousands of men
who have owned other cars are

buying Reo the Fifth. And
every buyer tells other men to
buy it.

New This Year

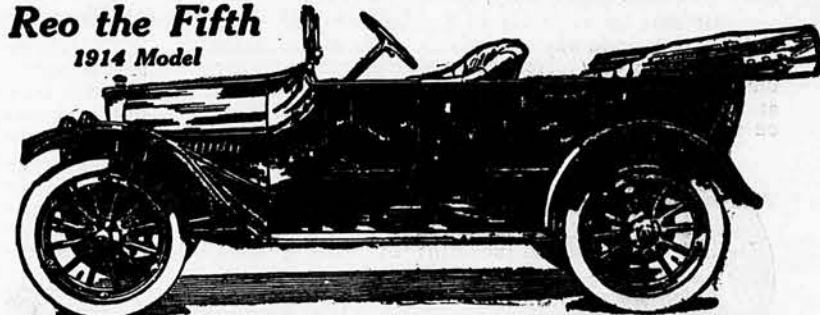
This year comes the new
streamline body. There are
many new ideas in equipment.
The car excels in appearance
now as it does in the hidden parts.

And there comes a new price—
\$220 less than last year with
electric starter. So price no
longer bars you from the utmost
in a car.

A thousand dealers sell Reo
the Fifth. Ask for our catalog
and address of nearest dealer.

REO MOTOR CAR COMPANY, LANSING, MICH.
Canadian Factory, St. Catharines, Ont. Canadian Price, \$1,575

Reo the Fifth 1914 Model



Electric Starter, Electric Lights, Mohair Top with full Side Curtains, Mohair Slip Cover,
Clear Vision Ventilating Windshield, Speedometer, Electric Horn, Robo and Foot Rails,
Extra Rim and Improved Tire Bracket, Pump, Jack, Complete Tool and Tire Outfit.
Streamline Body—One-Rod Control—35 Horsepower—Tires 34 x 4
Also Handsome Roadster Body

[258]

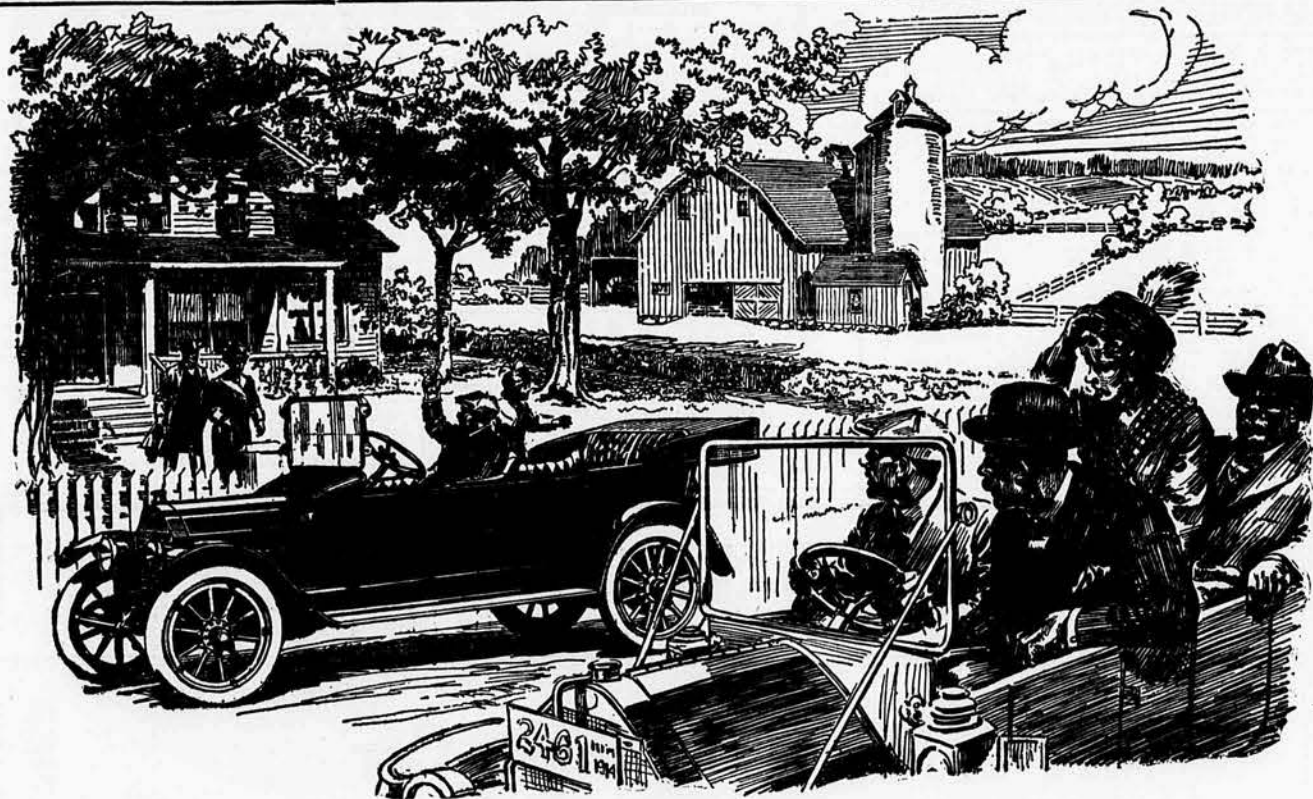


Drink
Coca-Cola
The thirsty one's
one best beverage.
Delicious,
Refreshing

Demand the genuine
by full name—
Nicknames encourage
substitution.

THE COCA-COLA CO., ATLANTA, GA.

MENTION KANSAS FARMER WHEN YOU WRITE.



A Man Is Judged By the Car He Keeps

Your neighbors judge you by the things you do; the way you keep up your farm and the buildings and barns. The kind of farm machinery, cream separators and silos you buy. And by the motor car you drive.

Why have all the outward appearance of prosperity—good barns, well painted houses, trim well kept fields, up-to-date farm machinery—and a cheap uncomfortable automobile?

You would not drive your family to town or to church behind a Shetland pony. You would not make a driving horse of a Percheron.

That boy and girl of yours must maintain their position in the society of your community. You owe them your help in doing so.

In the past you had to pay a big price for comfort, quality and style. Furthermore, to get these you had to sacrifice economy.

That is all changed now. Jeffery saw that economy was demanded, but that no American car offered economy and at the same time quality, comfort and beauty.

He sent his engineers to Europe where motor car styles originate and where gasoline is high. He told them to find out how they solved the problem over there. They did. It was the light high speed motor that made the economical car of quality possible. Jeffery put that car on the American market last Fall and the best dealers in the country ordered 7000 of them.

Then the farm owners who wanted to be known for their judgment in making good bargains bought Jeffery cars.

They realized that the car Jeffery is offering now is the type of car which all the big manufacturers are announcing for next year. They saw that they could buy now and be right up to the minute next year. Their neighbors would see that they were far-sighted.

It requires only good judgment to see what Jeffery spent a million dollars for, for quality alone, on this year's output which he might have saved and still have produced a car superior to many cars of its price. Vanadium steel parts, imported annular ball bearings, four speed transmissions, full floating rear axles, the most expensive starting and lighting system on the market, Bosch duplex ignition, Rayfield carburetor, Spicer universals, Daimler leather couplings, Warner speedometer and complete high-grade equipment.

Make your neighbors respect your judgment in the selection of your car. You can't afford to drive a cheap, uncomfortable car. Quality less than Jeffery quality is not good enough for you and it cannot be found in any car at anywhere near \$1550.

The Jeffery dealer in your territory will show you what is in the Jeffery car. He will take you for a drive over your own roads with your whole family in the car. He will show you why it is a 50,000 mile car. And when you have your Jeffery, your boy and girl will be proud of it and your neighbors will respect your judgment.

It's Economy Year and Jeffery Made It So

The Thomas B. Jeffery Company
Main Office and Works, Kenosha, Wisconsin



\$1550

HOME CIRCLE



A corset lace is a splendid substitute for the usual tape to run in the bottom of the little folks' blouses. It is not only easy to run in but it will last for a long time.

An old rule for testing jelly to see if it is done, is to let it run off a spoon. If it runs off in one straight stream it has not cooked enough; but if it runs off in two drops side by side, it may safely be taken from the fire as done.

If you keep your hat box on a high shelf you have experienced the annoyance of taking it down every time you wished to get your hat out. To do away with this trouble cut along the two upright edges of one side of the box, so that when the lid is raised a trifle the side will drop down as if it were on hinges. In this way the hat may be taken out without having to lift the box from the shelf.

To guard against accidents protect the points of your scissors and crochet hook with corks. To make them an attractive addition to the work bag or basket, crochet over them with some bright colored silk, leaving a small opening in the center of the flat side. Slip the points of the scissors or crochet hook into this opening and all danger to fingers or work from this source is overcome.

Berry Muffins.

Half cup butter, 1 cup sugar, 1 egg, 2 cups flour, 4 teaspoonfuls baking powder, 1 cup milk, 1 cup berries, 1 teaspoonful salt. Cream butter, add sugar, yolk well-beaten, flour mixed and sifted with dry ingredients, milk, white of egg beaten until stiff, and berries. Bake in buttered muffin pans or in buttered cake pan.

Fruit Biscuit.

Roll baking powder biscuit dough to a quarter of an inch thickness; brush with melted butter; sprinkle with cinnamon and sugar and chopped raisins and citron. Roll like a jelly roll; cut in one-half inch pieces; place on buttered tin; brush with melted butter; sprinkle with brown sugar. Bake in a hot oven.

Plain Water Ice.

Two cups water, 1 cup sugar, 4 egg whites, flavoring. Boil sugar and water and then beat until cold. Add egg whites beaten until stiff, and flavoring. Freeze.

The Customer Knew Best.

"Generally run down, sir?" queried the druggist; "slightly seedy and want a good toning up?"

The pale faced customer nodded.

"Well, I've the very thing for you—Jenkin's Juvenator. Three doses a day and more if necessary. Fifty a bottle."

"No, thanks," said the pale patient.

"But, my dear sir, it's the rage of the day. Jenkin's Juvenator is the greatest discovery of modern medicine. It's the rage of the season. Every one is—rejuvenating, you might say."

"Yes, but I think I'd rather try something else," replied the customer.

"Nonsense," pressed the chemist. "I tell you Jenkin's Juvenator will have more effect on you in a single day than any other medicine could have in a month. It cures everything from coughs to corns. What is your objection to it?"

"Why nothing, only I'm Jenkins."—Ladies' Home Journal.

Names of Dress Fabrics.

Muslin is named from Mosul, a city on the banks of the Tigris, Cambrie from Cambria, a town of France. Gauze is probably derived from Gaza in Syria, although some authorities hold to the Hindu "gazi," meaning thin cloth.

Baize, which is commonly thought of as being of green hue, was named from its original color, a reddish brown. The word is really the plural of bay, and the color is that of the horse which is known as "bay." A form of the word is common in many tongues.

Damask, quite obviously, is derived from Damascus.

Silk and Serge are both derived from the Latin Seres, meaning the Chinese. These fabrics were first imported from that portion of Asia which is now Southern China.

Velvet is from the Italian velluto, meaning woolly, this from the Latin vellus, a fleece. Vellum is a derivative of the same root—a pelt or hide.

Bandanna is from the Indian word meaning to "bind or tie," and has reference to the manner of tying knots in the fabric to prevent the dye from reaching every part thereof. In this way spots are left white and a rude pattern remains in the cloth.

Alpaca comes from the animal of the same name in Peru. It is of the llama species and its wool is used to manufacture the fabric employed in the making of summer garments.

Calico got its name from Calicut, a town in India, once celebrated for its cotton cloth.—The Housewife.

We have an order for pattern No. 6677-22 from Salina. No name was signed to letter or envelope. Please send in your name if you wish to receive pattern.

BANK STOCK

As the safest investment, the surest earner, the quickest collateral and the most saleable of all securities

THE SOUTHWESTERN TRUST CO.

now being organized in Kansas City, Mo., offers an unusual opportunity to careful investors.

MORE THAN 50 BANKERS ARE STOCKHOLDERS

The only company of its kind in the Southwest. Write today for a complete description of the methods under which the company will operate and a list of stockholders. Address Blackmore Louis, Secretary Organization Committee, Southwestern Trust Co., 322 Commerce Building, Kansas City, Mo. Bankers should be interested in an affiliation with this company.

The Big Store



is ready to serve you promptly and satisfactorily during the long hot summer when it is hard to shop at home, especially if you live in the country. All you have to do is write your wishes to our mail order department. We will save you all the trouble of much looking around, by sending liberal assortments of samples, or writing full information about any merchandise, which you can look over, and consider at your leisure, in your own home. Or, if you permit us to make selections for you, you will receive the very best qualities and styles the money will buy, and have the privilege of returning any merchandise you do not wish to keep. All this with no cost for shipping, as we pay parcels post on all mail orders.

THE MILLS DRY GOODS CO.

Topeka, Kansas.

RAISE PIGEONS

THEY PAY DOLLARS WHILE CHICKENS PAY CENTS

The young, 20 to 25 days old, sell for 40 to 60 cents each (according to the season). The city markets are always clamoring for them.

Each pair of Pigeons will Raise 18 to 22 young a year.

They will clear you, above all expenses, \$5 a year per pair. They breed the entire year. Twenty minutes daily will care for 100 pairs.

Always penned up out of the way. Very small space required.

All this is fully explained in this month's issue of our Journal; send for it; price 10 cents.

Reliable Squab Journal, Versailles, Mo

DAISY FLY KILLER



placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Kills 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 post paid for \$1.

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

Established 1878. THE MERRIAM MORTGAGE CO. TOPEKA, KANSAS

Loans Money on Farms.

— OTTAWA —
Business College
OTTAWA, KANS.

POULTRY

Have you sold all the hens that you do not need as breeders for next season?

Every day that you keep a hen after she has quit laying, means a drain on your pocketbook.

All the surplus roosters should be sold at once for they are worse than worthless at this time of year.

Wheat is the best all-around grain that can be fed to poultry, and the great crop that is now being harvested in Kansas bespeaks chicken feed for some time to come at reasonable prices. Whether we have a good crop of corn or not, we are sure of the wheat, though a bountiful crop of corn will tend to lower the price of wheat.

Growing chicks must have exercise to thrive well. It is the only method of developing muscle and making strong, healthy chicks. Without these qualities you cannot have well developed chickens. If kept in pens or small yards they are bound to be weak, flabby things that never will become a large, full-grown fowl. You may keep old fowls confined but by all means let the growing chicks have free range of all the ground you can give them.

If you have twice as many chickens as you have room for, or can properly care for, you had better dispose of half of them. If you keep them, not any of them will be profitable, but if you sell half of them the remainder will thrive. "But," you will say, "I don't want to dispose of half of my chicks." Then provide more room for them, or as sure as there's a God in Israel, the grim reaper, Death, will dispose of not only half but the whole caboodle of them before the snows of winter fall.

When selecting yearling hens for breeders for another year, or even for laying purposes, watch them carefully during the molt. It is not only the early molters that you want to select, but the hens that get through the process quickly and without any apparent drawback to their constitution. Now and then you will see a hen in the molt and her comb will be almost white and she will mope around and not seem to care to eat. This is not a hen that you want to keep over, as she is weak. The molt affects her very materially and even though she gets over it all right she will never do the work you wish. A weak hen should never be in the breeding pen. Make your selection then from the early molters which pass through the process quickly and without any great effort. Of course, you will also keep for next year the best layers you had this season. It is a difficult matter to select the best layers unless you have trap nests, but you ought to have no difficulty in picking out the extra layers if you are at all observant when around the poultry yard. The good layer is always busy scratching and foraging for food and can be picked out from among the sluggish and non-producing kind.

There is a wide difference in theory as to feeding fowls, but we find it advisable to feed such foods, and in sufficient quantities as will keep the chickens growing every minute, for we are sure that if for any reason the growth is checked the birds can never be what they would have been. Growing chickens are like growing children, they need food for the maintenance of bodily life as it is, and also to provide for a natural and steady growth. So much food is needed during the period of rapid development, that it is difficult to overfeed, provided the right material is furnished and that the birds are well housed and have plenty of exercise. We say it is difficult to overfeed young chicks, but by that we do not mean to have sloppy feed kept by them so as to tramp it under foot and so become unfit for food. Give them plenty to eat and at the same time see that they do not waste any. It is always safe to keep bran before them, as it is bulky and contains a large percentage of protein and chicks brought up on it always thrive. Keep it in a hopper or in a low box with slats on top of it so that the chicks cannot scratch the bran out of the box or soil it. During the summer furnish an abundance of green stuff, giving it to them in their troughs and also mixing it with the mash. Corn should be used sparingly during hot weather. A good quality of cracked wheat for the smaller chicks and whole wheat for the larger ones will be much better than corn.



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WILL YOU HOLD YOUR WHEAT?

Have you been reading the newspaper announcements of the Janus Statistics Bureau, 18 Tremont Street, Boston? According to the facts presented by this Bureau, in Kansas papers recently, every shrewd farmer is going to have a chance to make a record profit on his wheat crop this year if he uses good judgment in marketing it. In nearly every foreign country the 1914 wheat crop is short. Argentina, Hungary and India are short 152,000,000 bushels. These and other heavy foreign shortages will undoubtedly bring Kansas Farmers from 15 cents to 25 cents more per bushel if they wait for the right market.

The Janus Bulletin further announces that wheat farmers need not permit any of their just profits to go to speculators who are exploiting the market with "short" sales and "hedge" selling in advance of the harvest.

Attention is called to the fact that by the recent action of the Secretary of the United States Treasury, farmers everywhere will be able to finance themselves at low rates of interest and therefore not be obliged to force their wheat on to the market until the time is ripe and the price is right.

If you are figuring on holding your wheat for better prices—well and good—that's up to you—you know best what to do with your wheat. But what are you doing right now to protect that wheat while you're holding it?

It will not be safe in stack or bin against destruction by fire. The dry months of the year are coming. Unintended carelessness, the spark from an engine, or instantaneous combustion may cause a fire that will wipe out the whole neighborhood—fields, barns, bins, granaries, stacks, crops, buildings, and all. Again, the wasteful ravages of Wind-storm, Tornado and Lightning are always possible and potent crop destroyers. Therefore, it is very necessary that you should at once cover your grain with good solid

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This Company is composed of over 40,000 Kansas farmers—good loyal Kansans who prefer to buy insurance from their own Kansas-built, Kansas-managed company that has been successful for over 26 years, does business under Kansas insurance laws, has never failed to pay a just loss, has over \$75,000,000 of insurance in force and contingent cash resources of over \$50,000 for YOUR protection.

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DR. W. C. HARKEY, Lenexa, Kansas.

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A few choice bulls, ready for service, priced reasonable.
I. W. POULTON, Medora, Kan.

**RED POLLED CATTLE**

For Sale—A choice lot of cows, bulls and heifers, all registered, with good quality.
AULD BROS., Frankfort, Kansas.

COBURN HERD RED POLLED CATTLE AND PERCHERON HORSES

Twelve extra good young bulls. Some extra fine young stallions, among them first prize and champion of Topeka Fair. Also young cows and heifers.
GROENMILLER & SON, Pomona, Kansas.

RILEY COUNTY BREEDING FARM.

Red Polls headed by the last son of Cremo. Bulls all sold. Percherons headed by son of Casino. Visit herd.
ED NICKELSON, Leonardville, Kan.

HAMPSHIRE HOGS

ECLIPSE FARM HAMPSHIRE.
Bred sows, spring and summer pigs for sale. A. M. BEAR, Medora, Kansas.



ATTRACTIVE PRICES.
Some extra nice gilts bred for August litters and a few choice 200-pound boars; also one tried sow bred for June.
F. C. WITTOFF, Medora, Kan.

Registered Hampshire Hogs

For sale, both sexes. Choice belting and type. Priced reasonable.
E. S. TALFERRO, Route 3, Russell, Kan. Shipping point, Waldo, Kan.

BRED GILTS, serviceable

boars, January and February pigs. Best breeding, well marked. Singly, pairs and trios. Satisfaction guaranteed. Prices reasonable.
S. E. SMITH, Route 5, Box 18, Lyons, Kan.

**OHIO IMPROVED CHESTERS****CRYSTAL HERD O. I. C's**

Headed by Frost's Buster, a great sire of prize winners; choice August boar by this sire; also two grandsons, November farrow. Booking orders for February pigs. Will sell herd boar illustration—a good one. Prices right.
DAN WILCOX, Cameron, Mo.

MAPLE LEAF O.I.C's.

We are offering two fine fall boars, a few good gilts, spring pigs sired by our grand champion boar, Don Ben 2d 3181; can please you in both quality and price.
R. W. GAGE, Mount Ida, Kansas.

DUROC JERSEYS

Weanling Pigs and Brood Sows. Immune Duroc pigs, \$15 each during June; pairs and trios not related; Superba, Defender, B. & C's. Col. and Ohio Chief blood lines; choice gilts and sows bred to order; individuality guaranteed.
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Choice September boars for sale; home of grand champion sow, Model Queen.
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GOLDEN RULE DUROC JERSEYS.

Twenty spring boars, tops of entire crop. Sired by Dreamland Col. and River Bend Col., out of big mature sows. Priced to sell.
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Good Enuff Again King 35203, the sensational grand champion of Kansas State Fair, 1913, heads our great herd. Forty sows and gilts for sale.
THE MEN WITH THE GUANTEEE.
W. W. OTEY & SONS, Winfield, Kan.

BELLAIRE DUROC JERSEY HERD.
Fall boars and gilts; immunized, double treatment; best of breeding; good individuality; spring pigs, both sex. Write for prices.
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FANCY DUROC BOARS AND GILTS.
Fall boars by Smith's Graduate by J. R. Col. by Graduate Col. out of best sows. Choice lot of gilts by J. R. Col. bred for June litters to Gold Medal. Priced for quick sale. J. R. SMITH, Newton, Kansas.

Crystal Springs Duroc Jerseys. The Big Prolific Kind. Boars by Bull Moose Col. by King the Col. From big, well bred sows. Write for descriptions and prices.
Arthur A. Patterson, Ellsworth, Kansas.

CLARE CREEK STOCK FARM.
Herd headed by Dreamland Col. the 1,000-pound Duroc boar. Fall boars for sale; also gilts bred for September farrow.
J. R. JACKSON, Kanopolis, Kansas.

PURE BRED POULTRY

BLACK AND WHITE LANGSHAN, ALSO
Houdan eggs, \$2.00 per 15. Circular free.
E. D. Hartzell, Rossville, Kan.

BLACK LANGSHAN EGGS, \$1.50, 15; 100, \$7.50. Baby chicks, 15c. Mrs. Geo. W. King, Solomon, Kan.

BARRED PLYMOUTH ROCKS, EXCLUSIVE, fine stock, farm range eggs, \$4 per 100. Mrs. W. C. Becker, Solomon, Kan.

BARRED ROCK EGGS, 15, \$1.50; 80 \$2.50. Write Chas. W. Findly, Cambridge, Kan.

S. AND R. C. WHITE LEGHORNS. Heavy laying strain. State Show prize winners. Prices right. A. L. Buchanan, Lincoln, Kan.

S. C. B. LEGHORN EGGS FROM STOCK scoring as high as 94. 50, \$2.50; 100, \$4. Express prepaid. Cornelius Phillips, Route 9, Emporia, Kan.

S. C. WHITE LEGHORNS, THE KIND that lay eggs. Eggs for hatching, \$1 for 17; \$5 per 100. Write J. L. Shaner, Route 1, Maple Hill, Kan.

THOROUGH-BRED SINGLE COMB BLUE Andalusians—Noted egg-laying strain of large eggs. Eggs \$2.50 per 15. Satisfaction guaranteed. G. J. King, Holsington, Kan.

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WHITE GUINEAS, WHITE INDIAN Runners, Bronze turkeys; stock and eggs; pen Pekin ducks \$8; Brown Leghorn hens 75 cents. Emma Ahlstedt, Roxbury, Kan.

BOURBON RED TURKEYS, BUFF ORPINGTONS, S. C. W. Leghorns, Indian Runner Ducks. These are all from prize winning stock. Eleanor Poultry Ranch, Brighton, Colo.

EGGS FOR HATCHING FROM PURE- bred ducks, turkeys and chickens. Poland China pigs, the big easy-keeping kind, \$8 each, \$15 a pair (not related). Mrs. Maggie Rieff, St. Peters, Minn.

BARRED ROCKS; 68 PREMIUMS, TOPEKA, Manhattan, Clay Center, Denver. Eggs—15 for \$1; 60, \$3.25; 100, \$5. Chicks and breeders for sale. Mattie A. Gillispie, Clay Center, Kan.

SINGLE COMB WHITE LEGHORNS. Annual sale of exhibition stock; eggs; n. baby chicks; half price; write for sales list. W. H. Sanders, Box 275-B, Edgewater, Colo.

BUSINESS SINGLE COMB WHITE LEG- horns. We breed for egg production. Eggs and chicks very reasonable. Satisfaction or your money back. R. W. Gage, Mont Ida, Kansas.

I DEFY ANY MAN ANYWHERE TO give you better quality in combined bred-to-lay and exhibition S. C. White Leghorn eggs. They cannot do it. Ninety per cent fertility guaranteed. \$1 per 15; \$6 per 100. Send for my illustrated mating list. Geo. E. Mallory, Box 476, Boulder, Colo.

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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 per week. No "ad" taken for less than 60 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.

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AGENTS WANTED TO SELL STAND- ard Acetylene lighting plants. The successful farm home light. Write Acetylene Factory, Wichita, Kan.

SHELDON SERUM COMPANY WANTS thrifty shoats weighing from 60 to 90 lbs. 300 Hall Bldg., Kansas City, Mo., Phone Main 7054.

REAL ESTATE WANTED—SELL YOUR property quickly for cash, no matter where located. Particulars free. Real Estate Salesman Co., Dept. 77, Lincoln, Neb.

LADY AGENTS WANTED EVERY- where; excellent opportunity on well paying proposition; write at once; good money for your spare time. The Chaswalk Co., 201 West 8th St., Topeka, Kan.

WILL PAY RELIABLE MAN OR woman \$12.50 to distribute 100 free packages Perfumed Borax Soap Powder among friends; no money required. Ward Company, 214 Institute Place, Chicago.

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.

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LAND OWNERS, WRITE US AT ONCE. Buyers are waiting. America's Land Company, Kasota Bldg., Minneapolis, Minn.

WANTED—TO HEAR OF GOOD FARM or unimproved land for sale; send description and price. Northwestern Business Agency, Minneapolis, Minn.

WE PUT YOU IN CONNECTION WITH owners when you want to buy property. America's Land Company, Kasota Bldg., Minneapolis, Minn.

FOUND—320-ACRE HOMESTEAD IN settled neighborhood; fine farm land; not sand hills. Cost you \$200 filing fees and all. J. A. Tracy, Kimball, Neb.

LIST YOUR FARMS, RANCHES AND city property with me for sale or exchange. R. F. Ginder, real estate specialist, 501 New England Bldg., Topeka, Kan.

When writing advertisers, please mention KANSAS FARMER.

TO TRADE FOR CATTLE OR HORSES— Equity of \$4,000 in 400 acres land in Thomas Co., Kansas; mtg. \$3,000, 6 per cent, or what have you? E. A. Rulla, Rt. 3, Beatrice, Neb.

KANSAS CITY BUSINESS PROPERTY, 150x50 feet, corner Fifth and Troost Ave., must be sold to settle an estate. A rare bargain in the fastest growing city in the West. Address K. C. Property, care of Kansas Farmer.

THE ARKANSAS VALLEY, COLORADO, offers the best opportunities in the way of either dry or irrigated farming. We have some exceptional values in relinquishments close in; soil 20 feet deep; smooth; good water; good crops; \$50 up. Kees Realty Co., Caddo, Colo.

VICTORIA, AUSTRALIA WANTS SET- tlers; special inducements; government land; railways; free school; cheap irrigation; 31 years to pay for farms adapted to alfalfa, corn, grains, fruit, etc.; climate like California; ample markets; reduced passages; special excursion next November; free particulars from F. T. A. Fricke, Government Representative from Victoria, 687 Market St., San Francisco, Calif. Box 34.

THE GREATEST VALUE IN GOOD FARM LANDS IN AMERICA.

We own and offer for sale at once, very desirable and productive farm lands in Colorado, in tracts from 160 acres or more. Healthful and delightful climate, pure water, where ample moisture and plenty of sunshine insure abundant crops. Good towns, good schools, rural mail delivery, telephones.

Adjoining farms are producing splendid yields of wheat, corn, alfalfa, oats, rye, potatoes, beans, etc. Dairying and stock raising is an important industry and very profitable. Ready for the plow, no brush or rocks. We are offering this land at a very low price for quick sale and can show you why this is the most desirable and cheapest farm land in America today. Will increase rapidly in value and offers an unusually good field for investment. Price, \$15 per acre. Write us for further information. Gregory Brothers, Cottonwood Falls, Kan.

SILOS.

THE BONITA FARM SILO—60 TONS \$97.50—solves the problem of a dependable silo at lowest cost. Tested four years. Fully guaranteed. The silo you will buy if you investigate. Write us. Bonita Farm, Raymore, Mo.

CATTLE.

GRADE HOLSTEIN COWS AND HEIF- ers. Arnold & Brady, Manhattan, Kan.

FOR SALE—REGISTERED HOLSTEIN bulls. Smith & Hughes, Topeka, Kan., Route 2.

FOR SALE—HIGH GRADE HOLSTEIN calves, both sex. John Bradley, Garnett, Kan.

GRADE HOLSTEIN CALVES, BOTH sexes, for sale. Arnold & Brady, Manhattan, Kan.

SEND TO FAIRFIELD, IOWA FOR bull calves. Guernseys, Chares Gage, Jerseys. High grades \$25; pure-bred \$85 up. Grant Enlow, Fairfield, Iowa.

HOLSTEIN CALVES; BEAUTIFULLY marked; 3 to 5 weeks old; 15 sixteenths pure; \$20; crated for shipment anywhere. Edgewood Farm, Whitewater, Wis.

POLLED HEREFORDS—ONE GOOD bull, seven 2-year-old heifers, two cows; write me at once. Ben Anderson, Rt. No. 1, Lawrence, Kan.

FOR THE NEXT 90 DAYS WE ARE DIS- posing of all our Holstein calves, from heavy producing high grade Holstein cows and a very fine registered Holstein sire. The calves are from 4 to 6 weeks old, weaned, beautifully marked, strong and vigorous. Either sex, \$17, crated for shipment to any point. If you wish to get a start with good ones, send your order at once. Whitewater Stock Farm, Whitewater, Wis.

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PATENTS PROCURED OR FEE RE- funded. Official drawings free. Send sketch for free search. Patent Exchange, Jordans Bldg., Washington, D. C.

BEE SUPPLIES.

FOR SALE—BEE SUPPLIES. ROOT'S goods. Send for catalog. O. A. Keene, 1600 Seward Ave., Topeka, Kan.

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GINSENG RAISING—THE MOST PROF- itable business in the world. Address S. E. Cornish, Box 92 Center St., Milford, Ohio.

WHIPPOORWILL COW PEAS; BEST grade; high germination test; \$3.50 per bu. this station; sacks free. American Grain & Seed Co., El Dorado, Kan.

SWEET CLOVER SEED; WHITE AND biennial yellow; hulled and unhulled; prices and circular on request. E. E. Barton, Box 3, Falmouth, Ky.

FOR SALE—CHOICE FIRST CLASS RE- cleaned feterita seed at \$4 per cwt., sacked f. o. b. Hutchinson or Liberal, Kan. Germination excellent. Our supply is limited. Place your orders before it is exhausted. The Liberal Elevator Co., Hutchinson, Kan.

FETERITA—PRICE REDUCED FOR late planting; 1 bu. \$1.75, 2 bu. \$3.40, 5 bu. \$8, 10 bu. \$15; drill after oats and wheat for fine seed and fodder crop; fine tested seed; sacks free. H. M. Hill, Lafontaine, Kan. Rt. 1.

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CLEANING, PRESSING, DYEING. WORK guaranteed. Manhattan Cleaners, 609 Jackson, Topeka.

NEW CYCLO BICYCLES. COMPLETE with coaster brake. \$21.50. J. C. Harding Co., Topeka, Kan.

STICKY FLY PAPER. MAKE IT AT home at low cost. Complete direction 10 cents. Address Box 62, Rufe, Okla.

BUTCHER SHOP AND FIXTURES FOR sale; good business and location. Sam Wedel, Pawnee Rock, Kansas.

NINETEEN-FOURTEEN MAILING LIST of seven thousand five hundred Sumner County men voters, fifteen cents per hundred names. Roxie McKown, Deputy County Clerk, Wellington, Kan.

JUST LISTEN! I PAY 5 CENTS EACH, cash, for all kinds of names; best job anybody can have; only send 20 cents to help pay postage on outfit to get you started with, then get rich. Rhiney Weise, Belleville, Texas.

DOGS.

COLLIE PUPPIES, SABLE & WHITE Stock Farms, Seward, Kan.

SCOTCH COLLIES. WESTERN HOME Kennels, St. John, Kans.

CHOICE FOX TERRIERS; CHEAP. W. L. King, Penasola, Kan.

FOR SALE—IRISH AND RUSSIAN Stag-hound pups from A No. 1 wolf-killing parents. Albert Johnston, Gibbon, Neb.

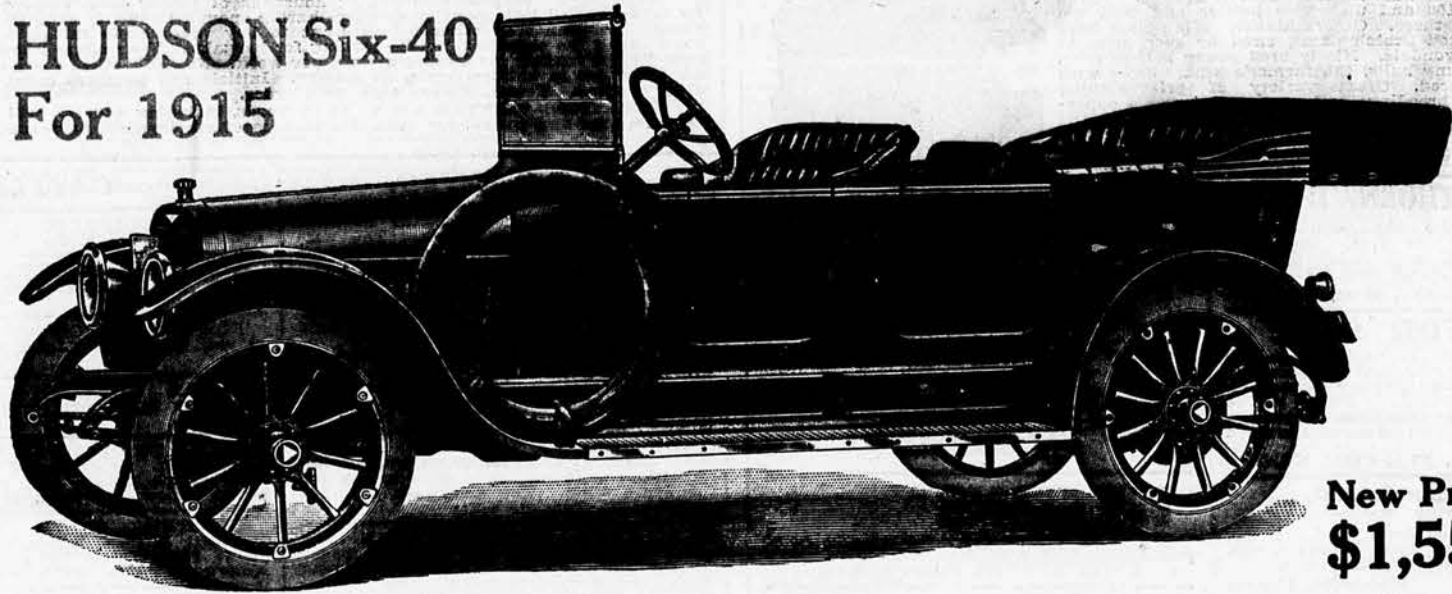
SCOTCH COLLIE PUPS FOR SALE. ALL eligible for registry; three pedigrees, contains some of the finest blood lines obtainable; are marked exceptionally fine. Price, \$5. Only dog worth keeping on farm; a companion for your boy. L. P. Coblenz, La Harpe, Kan.

THE STRAY LIST

J. E. HILKEY, COUNTY CLERK, OSAGE County, Kansas. Taken up on the 19th day of May by C. C. Black of Dragoon Township, Osage Co., Kan., one bay horse about 15 years old, weight about 1,000 lbs., both hind feet white, small white spot on forehead, foretop clipped when taken up, shoulders scarred some from collar, no other marks or brands. Appraised value, \$35.

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HUDSON Six-40 For 1915



**New Price
\$1,550**

The Thoroughbred

We submit this new model of the HUDSON Six-40 as the typical modern car. It reveals the latest refinements in motor car building. In any group of high-grade cars it will seem the thoroughbred. No other car in so many ways meets present-day ideals.

Our Crowning Effort

The first HUDSON Six-40 came out last year. Our 48 engineers, headed by Howard E. Coffin, had devoted three years to the model. Their effort was to embody here the final conception of an ideal car.

They established new standards in Sixes. They brought quality Sixes, for the first time, into the price field of Fours.

They brought the weight under 3,000 pounds—for a roomy car with extra tonneau seats. That was 1,000 pounds less than average former weights on cars of like capacity. They did this by skilful designing and better materials, without sacrificing strength.

They reduced operative cost for a car of this power, by from 15 to 30 per cent. They did this by employing a new-type motor and by building a light-weight car.

They made this car one of the hand-somest, one of the best-equipped cars in the world. Then we fixed the price at \$1,750—the lowest price that had ever been quoted on any type of quality car.

Last Year's Record 3,000 Oversold

That car was the year's sensation. Men flocked by the thousands to it. With the largest output in HUDSON history, the end of the season left us 3,000 unfilled orders. Men were offering premiums—as high as \$200—for options on this HUDSON Six-40.

In a mechanical way the car proved itself the greatest of Hudson successes.

It has run for a season in thousands of hands, under all road conditions. And not a single shortcoming developed. So our whole engineering corps, during all last year, worked on nothing but refinements.

Now a New Model

Now comes a new model with all these refinements. There are 31 new features in comfort, convenience and beauty.

And there comes a new price—\$1,550. This is due to the fact that the car's popularity has compelled us to treble our output. This trebled output reduces our cost about \$200 per car.

Look back three years, when every Six cost over \$3,000. When high-grade cars of any type cost around \$2,000. Then look at this HUDSON Six-40—a better Six than men dreamed of then—priced at \$1,550. You will realize then what HUDSON engineers have accomplished for motor car buyers.

This is just the car that tens of thousands want. It is a smooth-running Six, and men want that. In size and power it marks the sane medium. In quality, beauty, finish and equipment it reveals the best that's possible. In price, weight and operative cost it marks the bottom limit for this-class car.

As an ideal combination—as a typical modern, high-grade car—you will not find a rival in sight of it. Most men will concede this—all things considered—the top place in the motor car field.

Hudson dealers everywhere now have these new cars on show. Our new catalog on request.

31 New Features Price \$200 Less

Go see the new features—the 31 refinements—which our engineers have added in the past 12 months. Then note that, with all these, the price this year is \$200 less—all because of our trebled output. These are some of the attractions which you will find embodied in this new-model HUDSON Six-40. And some of the best of them are not yet found in any other car.

- A distinguished streamline body.
- All hinges concealed.
- Gasoline tank in dash.
- Extra tires ahead of front door.
- Seats for up to 7 passengers.
- Extra tonneau seats, disappearing.
- Hand-buffed leather upholstery.
- 20-coat finish on body.
- 123-inch wheelbase.
- Wider seats—higher backs.
- More room for the driver.
- "One-man" top, with quick-adjusting curtains attached.
- Integral rain-vision windshield.
- Dimming searchlights.
- Simplified Delco starting, lighting and ignition system.
- Simplified wiring in metal conduits.
- Lock on ignition and lighting switch.
- Far better carburetion.
- Speedometer drives from transmission.
- Automatic spark advance.
- Tubular propeller shaft.
- All instruments and gauges within reach of the driver.
- Trunk rack on back.
- Still less weight—2,900 pounds.

**New price, \$1,550 f. o. b. Detroit.
Standard Roadster, same price.**

Our Larger Six-54

The HUDSON Six-54—built on the same lines, with 135-inch wheel base and greater power—sells for \$2,350. It is for men who want a big, impressive car.

HUDSON MOTOR CAR COMPANY, 8012 Jefferson Ave., Detroit, Mich.