

KANSAS FARMER

For the improvement  the Farm and Home

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ARE you going to the Fair? All the live ones will be there. Does us good to take a day from the steady grind away, seeing what the neighbors raise, learning new and better ways. Educate—that's half the charm of this life upon the farm.

We're not going just for fun, or to see the horses run. We'll not stand around and knock; but we'll take our finest stock, and our products we will show. What's the use of being slow? Life is great. At every turn there is something new to learn.

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—“Brad”



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ALFALFA SEEDED IN ROWS

H. R. Kent, Woodward County, Okla.
Reports His Successful Experience

SUBSCRIBER E. G. F., Finney County, contemplates the seeding of both alfalfa and sweet clover in rows, and writes for the opinion of KANSAS FARMER regarding such methods. The editor of KANSAS FARMER has had no experience in the growth of either of these plants in rows, but knowing of one man who has had experience, we submitted the query to him. This man is H. R. Kent, of Woodward County, Oklahoma. This county is directly south of Comanche County, Kansas. His experience is reported below. We know that numerous Kansas farmers have endeavored to grow alfalfa in rows, but for some reason or other have not regarded the practice as successful. We are confident that Mr. Kent's statement below will prove interesting as well as instructive:

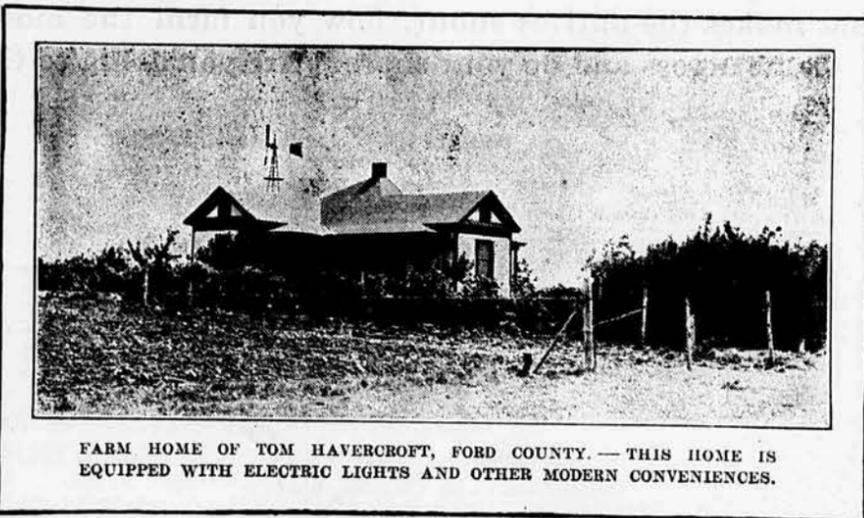
"My experience in cultivating sweet clover and alfalfa in rows has proved more profitable than I first expected it would be. I never have seen it tried any place where it has not proved successful, except in cases where the weeds and crab grass were allowed to grow between the rows, which of course we all know will absorb as much moisture as a thorough stand of alfalfa will.

"I planted my alfalfa with a wheat drill, stopping up enough drill holes to make my stand 30 inches between the rows, preparing the ground in the same manner as I would for the ordinary alfalfa stand, always preferring to plant after a rain so that the plants get a start without having to break through any crust forming after a rain.

"I cultivate with a five-tooth culti-

"With this system of cultivating I find it possible to raise an alfalfa seed crop on land that would not produce a paying crop of alfalfa without it. For instance, you can sometimes raise a very good crop on high land, and in fact some of the heaviest seed crops I have ever seen grown have been on land that ordinarily would not be considered to be adapted to alfalfa. One thing which is the most noticeable about cultivated alfalfa compared with alfalfa that is not cultivated is that there are very few insects and grasshoppers hatched out in the cultivated alfalfa. For the last few years we have found that alfalfa fields in this country are regular grasshopper hatchingeries. In fact I believe fully 80 per cent of the grasshoppers in this country are hatched out in the alfalfa fields and 10 per cent are hatched in the fence rows around the cultivated land, and I should judge not more than 10 per cent altogether are hatched in the wild grass pasture land. Grasshoppers and nearly all other insects could be practically exterminated by the practice of cultivating the ground in late fall, winter, or early spring.

"As a hay crop, cultivated alfalfa will make fully as large a yield per acre, and a great deal better quality hay, than the broadcast of close drilled crop will, for the reason that the cultivated alfalfa grows a great deal faster and has a better flavor, and while the stems are more tender, yet they do not shatter nearly so much as the uncultivated alfalfa does. There is practically no loss whatever to the cultivated alfalfa by the leaves falling off. The seed bolls



FARM HOME OF TOM HAVERCROFT, FORD COUNTY.—THIS HOME IS EQUIPPED WITH ELECTRIC LIGHTS AND OTHER MODERN CONVENIENCES.

vator and one horse, cultivating it repeatedly, but more especially after a rain. This way the ground never dries out and there is always plenty of moisture to grow a thrifty crop of alfalfa, and before the crop is half matured the plants will extend out and cover the middles completely. This process is especially profitable for the alfalfa seed raiser.

"Some people don't like to waste a good hay crop for an uncertain seed crop. With this system of cultivating alfalfa, every crop will be a seed crop unless by chance there should be a rain when the alfalfa is in early bloom. This of course will wash the pollen from the flower and make it impossible for any seed to form. With my experience in raising alfalfa for seed, will say that I haven't the least doubt but what it would be possible some years to raise 16 bushels to the acre in one season, barring damage by rain.

"This method of cultivating encourages and makes it possible for the alfalfa plant to develop as much as 50 times the amount of stool, as compared to the ordinary broadcast or uncultivated alfalfa. I find that you can cultivate very close to the alfalfa roots and not harm them in the least. If you find that your ground is going to be loose or uneven from cultivating to such an extent that it would interfere with your cutting with a mower, by getting dirt in the sickle, which sometimes is the case with cultivated alfalfa, a splendid way is to make a float about the size of an ordinary door made out of plain planks; hitch the horse to one end, so that it will slide over the ground, and weight down with the weight of one man, and go over just before harvest. It will not interfere with the growing crop, but will leave the ground in splendid condition for cutting over.

are stronger and produce many times more seed to the boll than the uncultivated.

"There is only one secret to the success of raising alfalfa in rows, and that is to cultivate your land, especially after every rain. You will not be bothered much by weeds, for the alfalfa will shade the ground so much that the weeds will not get started, but you must cultivate your ground anyway whether there are weeds or not. If you stop cultivating, the alfalfa will stop growing and the weeds will start. It is a case of cultivate your crop whether it needs it or not, and you will have plenty of results.

"While you can raise alfalfa by this system of cultivation on land that would not produce it otherwise, yet there is no alfalfa land that is too good for this system of cultivation. The better the land, and the better you cultivate it, the better your alfalfa and the more seed you will get per acre. Whether it is due to the cultivation or not I am not prepared to say, but nevertheless I have never seen any webworms working on cultivated alfalfa, although I have seen some rank failures made by fellows who claimed they were raising alfalfa in rows. But they were mistaken, for it was more crab grass and foxtail than alfalfa, caused by lack of cultivation. One thing sure, if you don't cultivate your alfalfa when the rows are 30 inches apart, the weeds will take the alfalfa. If you keep the weeds out and let the alfalfa have 30 inches of ground from which to draw its support, you can get better results than you have any idea of. But don't put out 40 acres of alfalfa in rows and figure on tending it with 10 acres of work, for the experiment will be a failure and the use of the ground is worse than thrown away."



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KANSAS FARMER

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

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OUR GUARANTEE

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.



DO YOU NEED FEED?

We have a letter from Las Animas, Colo., which reads as follows: "I see by the papers that stock men in some parts of Kansas are short on grass, water and feed. I have been to some expense and trouble to see how range, water and feed are here in Colorado. I found two ranches with fine grass, plenty of water and men who will ride the range if cattle are brought here. One range is nine miles from unloading station, the other twelve to fifteen miles. Each would range about 400 head of cattle in addition to those now on the ranges. Grass is the best in years and will make good feed until snow flies. Alfalfa hay is selling around \$6, stack measure in field. The price of this hay will go higher. Straw can now be bought at a nominal price. Wheat can be had at \$1.20 per hundred, and beet pulp sells at 50 cents a ton at the factory plus freight or hauling.

"Cracked wheat and oats half and half, with a little cotton cake, are fine for fattening. I have tried the mixture and I know. My hay is sold, so I am not interested. If you know of anyone who feels he must sell his stock or find a range, you may refer him to me. Feed prices will advance here later, of course, because it is certain that outside cattle will come in and a demand for feed will be so created."

KANSAS FARMER will give the name of the writer of the above to any of its readers or others who may make inquiry. On the other hand, those who have feed and range for sale, who chance to read this article, may file with us their letters setting forth the particulars regarding range, water, quantity and kind of feed, prices, etc., and we will endeavor to bring live stock men who need and those who have feed to sell together without expense to either.

We believe that every man, whether a farmer or engaged in other business, should be forehanded. That is to say, he should arrange to be in position to take advantage of opportunities as they arise. Also he should be in such shape as would make it possible to save himself when he is confronted by temporary adversity. We realize, however, that the principal factor in being able to take advantage of conditions is that of having capital on which to operate. The farmer who has a few hundred dollars in bank is able to buy a bunch of cattle or hogs when they are offered at a reasonable or even low figure by someone who has them to sell. If he has some money ahead he is able, too, in a year like this, to buy feed from some man who has feed to sell and no stock to consume it—and, by the way, there have been many such opportunities as this in Kansas this year. To be able to take advantage of such conditions is what we choose to call "forehanded."

However, there are conditions presenting themselves in a year like this which make forehandedness desirable and necessary and which, as a matter of fact, do not require any considerable amount of capital or ready money. For instance, a month or six weeks ago, when pastures became short and stock water scarce, many live stock men felt compelled to rush their cattle to market. Just a little investigation as to existing conditions would have enabled these men to have placed their stock on the cars and unloaded it in communities where there was abundant pasture and water and in which localities abundant feed could have been bought at a reasonable and in fact low figure. So to have done would have enabled the live stock owner to have carried out his plan in the wintering or finishing of his stock. This idea was at the time suggested in KANSAS FARMER, but was not given the prominence it deserved. For instance, at that time in Eastern Colorado there was, as there is now, unoccupied range with water for thousands of cattle. Had this been known we have no doubt but that many Kansas live

stock men would have shipped to the ranges instead of to the markets. It is cheaper, too, that the cattle be shipped to the feed than that the feed be shipped to them. Especially so if it is roughage that the feeder is seeking.

If roughage, particularly in the form of alfalfa hay, is to be bought this winter, now is the time to buy it. It can be had in the West at lower figure now than later. In the alfalfa growing sections of Colorado, Utah and Wyoming, three or four weeks ago alfalfa hay, baled, could have been placed on board the cars at \$3 to \$5 per ton. The states named are growing a deal of alfalfa. Many growers are discouraged, too, because of the low prices their hay commands. They will eventually have cattle of their own to consume it. They, for the present, must find a market East. Kansas feeders can buy this hay and feed it at a profit on basis of present beef prices, and in maintaining the medium herd they can feed it profitably at most any price.

INTEREST IN SILO SPECIAL.

The great interest cattlemen are taking in the silo was especially noticeable during the tour of the recent silo train through the state. The cattlemen are realizing the necessity for a more dependable feed supply if they are to go on in the business of handling cattle profitably. The silo seems to be the way out. Even under the present drouthy conditions there is enough rough feed in the state of Kansas, if properly preserved in silos, to winter all the cattle in the state. This statement was positively made by Prof. W. A. Cochel. The small amount of feed required for this purpose was demonstrated at the Hays Experiment Station last winter. In experiments at this place in the wintering of beef cows, Professor Cochel reports that one lot of nineteen head were fed for one hundred days a daily ration consisting of 20 pounds of kafir silage with all the wheat straw they would consume, which amounted to 17 pounds daily. In addition they were given one pound of cottonseed meal daily per cow. This wheat straw is commonly looked upon as waste matter and too often is burned, thus robbing the soil of fertility which should be returned to it. This particular lot of cows during the hundred day period made gains of fifty pounds each. In a good year enough kafir silage would be produced on one acre to supply eight cows all the silage that was consumed during this one hundred day period. In these big feed years which are bound to come there is absolutely no means whereby the surplus of feed can be carried over without preserving it in the silo. A feeder in Edwards County reported to the writer this summer that he had a silo full of silage that had not been touched last winter owing to the fact that he had such an abundance of rough feed that he carried his stock through without the necessity of open-

ing the silo. Another breeder in Gove who had a pit silo, recently reported to us that he had this full of silage left over from last year for the same reason. This year our correspondence from Gove County indicates that even the feed crop is almost a failure. If all could have made the provision for feed that this feeder has made, there would be no necessity for sacrificing any of the live stock in a year such as the present.

Silos as a means of placing the live stock business upon a sound, permanent basis are an absolute necessity. President Waters in a recent article which appeared in KANSAS FARMER made a statement that an Oklahoma banker told him that he was loaning money to farmers at five per cent with which to buy silos and was giving them all the time they wanted in which to pay it back. This in spite of the fact that the demand for money is so strong that many are getting from eight to ten per cent. This banker also runs a lumber yard in connection with his bank and sells silos at actual cost to further encourage farmers to put them up. He also stated that he could run over the individual ledger accounts of his bank and pick out the men having silos from the amount of money they had on deposit.

The Kansas Agricultural College has for years advocated the methods and practices which were presented in the lectures given on this silo train which has just completed its run over the Rock Island lines. At every Farmers' Institute meeting in the state during the past few years speakers have presented the value of silage and its uses in connection with live stock production. The talks given on the train by the lecturers from the college were listened to with the greatest of interest.

The college exhibits which occupied one flat car on the train consisted of models of cement silos both of the solid and plastered type of construction. These models were so arranged as to show methods of construction. A. S. Neale of the Extension Division who was with the train during the whole of the time it was in Kansas, directed the construction of these models and also arranged for the operation of a silage cutter by gasoline engine at every station where the train stopped. The exhibits attracted much attention and great interest was taken in the operation of the machinery. By Mr. Cottrell's request, these exhibits were left on the train while it continued through Oklahoma and Texas. Mr. Neale who had charge of the lecture work on the train while in Kansas, was assisted by Professors W. A. Cochel, J. B. Fitch, O. E. Reed, and J. H. Miller, dean of the Extension Division. The writer, who represented KANSAS FARMER, also assisted in the lecture work. While the week was a strenuous one for the lecturers, the great interest taken in the timely advice they were able to give was most encouraging to them.

HOLD THE CATTLE.

Whether necessarily or not, the fact remains that a good many of all sorts of cattle have been shipped from the farms and pastures of Kansas to the live stock centers during the past few weeks. When the effects of the dry season were first apparent, there is little question but that Kansas stock growers became stampeded and that cattle of all ages were unnecessarily sold. The correctness of this statement seems justified inasmuch as after the first fears of short feed had passed there was a lull in the shipments and since that time receipts at the stock yards have been comparatively light. Fortunately, however, in connection with this situation, the cattle marketed have been sold at good prices and the sales have not been attended by the sacrifices usually made during other similar times.

This because throughout Missouri, Iowa, Illinois and Indiana, cattle have been eagerly sought, these sections to date having demanded more cattle than in years heretofore. For instance, an Indiana buyer who supplies a certain district with feeding cattle every fall, has already sent from Kansas City as many cattle to that district this season as he shipped altogether last fall, and he recently stated that he would be able to place at least 200 car loads more in his territory. This is a sample of the conditions east of the Mississippi River and is a condition which has been favorable under the misfortune surrounding the live stock industry in the Middle West.

The cattle supply east of the Mississippi River has for several years past been the lowest ever known, and the demand for cattle because of the promising prospects ahead is this year the greatest ever known. The abundance of feed East simultaneous with the scarcity of feed in the West has brought about a condition of exchange which has been beneficial to each of the situations existing. However, the faith the eastern feeder has in the cattle business and in the belief that prices for beef cattle will continue good and that the same can be handled at a profit, should be encouraging to those farmers in the short feed sections; encouraging in that the farmer in the short feed section is justified in hanging on to his live stock and in doing those things necessary and within his reach to maintain every hoof possible during the fall and winter. Cattle will continue a profitable investment in the years to come. The shortage in all kinds of cattle is such as justifies every man who owns a hoof of stock to hang on to that animal, giving it the feed and care necessary to get it onto pasture next spring.

This is a good year to look out for fire. It is a good time to plow fire guards around the feed ricks, the hay stacks, the farm buildings, and for that matter around the whole farm. It will be noted that we say plow fire guards instead of burn fire guards. The statement is put in this way because we regard it as exceedingly dangerous to set fires for any purpose whatsoever just now. We realize, too, that in many sections it will be extremely difficult to plow effective fire guards. When this cannot be done, a furrow or two may be plowed on each side of the guard and the middle burned out. If this plan is pursued a still day should be selected for the burning, the fire should be so set as to be kept under complete control, and such precautions should be taken as to be able to successfully combat the fire in case the wind should rise or from other causes it threatens to become unmanageable. The railroad companies throughout the state have pretty generally burned off their right-of-ways. You can always take a pointed from the railroad companies. When you see them burning off the grass and trash accumulated on their premises, there is danger from fire and it is a good plan for the farmer to exercise the same precaution.

DO you have cattle and short feed crop?

Do you have feed and no stock to consume it?

In either case write KANSAS FARMER what you want—to obtain pasture or feed or to sell pasture or grain or roughage—and we will endeavor to place you in correspondence with the fellow who has what you need.

There are localities having feed and no stock—others having stock are short of feed—let us help bring together the two conditions.

Not an ounce of raw material in the form of feed should be wasted in Kansas this year. Let us assist you in finding a market for any surplus roughage that it may be manufactured into finished products and thus secure the money it will bring for use in Kansas among Kansans.

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

Subscriber W. M. S., Republic County, asks if we know the character of the land of the Fort Peck, Montana, Indian reservation to be opened to settlement September 1 to 20.

We have no knowledge of the character of this land and know nothing of it more than is contained in the advertising done by the railroad companies interested in its settlement. Our subscriber advises that he has read this advertising but that its character is so flattering he is doubtful as to its truthfulness.

However, we have seen the statement which is credited to the Federal Land Department, wherein it is set forth that the government's appraisal upon opening the land to white settlement ranges from \$2.50 to \$7 per acre. In the same article, which is from Washington but not credited to the land department, it is said that the actual value of this land is considered by government agricultural experts as being about \$25 per acre.

There are available, 8,406 quarter sections. Actual settlement of the land will begin May 1, 1914. Settlement is the same as under the homestead law except that the above appraised valuation must be paid on these terms: One-fifth of the total down at time of entry, and the rest in five annual payments. The settler, however, has the option of taking advantage of the new three-year homestead law by paying for his land at the end of three years and thus proving up on it.

Do Farmers Want Better Roads?

We have received from a Marion County subscriber a letter taking KANSAS FARMER to task for the interest it has taken in advocating and suggesting means for the improvement of Kansas roads. The communication is unsigned. However, the writer is not sparing of his criticism. He makes the statement that the farmers do not need and do not want better roads, that improved roads are wanted by the townspeople and if they want them they should bear the total expense of road improvement. The demand for good roads—and by this we mean good dirt roads—is, according to our observation, growing upon the rural communities of Kansas. We believe that farmers generally are in favor of the best roads it is possible to build and maintain, especially so when in Kansas, generally speaking, the common dirt road may be graded and dragged and maintained in such condition as to result in a practically all-the-year-around good road. Kansas is peculiarly situated in that good roads need not be expensive. Recognizing this, as has been demonstrated by sections of year around good roads here and there, we are strongly inclined to the belief that farmers generally are in favor of improved roads. The subject, of course, is one for debate and we will be pleased to hear from KANSAS FARMER readers who take issue on our views as above expressed. However, publication of letters received on the subject can be insured only by the writer giving his name and postoffice address.

Pit Silo Conditions.

Our subscriber, E. O. Y., Lebanon, Mo., writes that he has been reading in KANSAS FARMER much of interest to him about the pit silo, and inasmuch as there are no underground silos in his locality he asks our opinion as to whether or not such silo would be successful in his section of Missouri.

It has been repeatedly stated in KANSAS FARMER that the pit silo can be successful only in certain localities. The principal governing factor in the successful use of the pit silo is a condition of the ground which will prevent damage to the silo and silage by seepage of water either during normal or extremely wet seasons. The low cost of the pit silo and its popularity in the West has, however, induced farmers farther east to construct silos underground and under conditions which are sure to result in failure. We are not personally familiar with the conditions of soil about Lebanon, Mo., and so cannot definitely state to our subscriber whether or not a pit silo would be successful in his locality. However, the pit silo should be constructed only on high and well drained spots, and for Kansas cannot be considered successful east of the ninety-eighth meridian, and only in rare

instances will such silo be successful as far east as the ninety-ninth meridian.

On this point the Kansas Agricultural College recently issued words of warning, as follows: "Information has come to the college recently of a number of farmers in the state who are digging pit silos where they will be failures. The college has sent warnings to these farmers. One farmer in Saline County was digging a silo near the Smoky Hill River. Another in Marion County proposes to put corn in a pit silo without cementing the walls. Another farmer has dug a silo near a creek bank; while the ground near this silo was quite dry when the silo was built, water will seep in when the rainy season comes and will spoil the silage. Pit silos can be used only in sections where the sub-soil always is so dry that there is no seepage water. That makes the pit type a western Kansas silo."

Disc or Moldboard Plow.

Our subscriber, D. M. R., Dickinson County, asks if a disc plow or moldboard

corn ground under the conditions which have prevailed this year is in excellent condition for seeding to wheat. The preparation of the ground for corn and the cultivation of the crop through the season has liberated plant food which in most cases has not been utilized by the corn crop. The advice being given from the Agricultural College regarding the preparation of seed bed on this kind of ground is to disk after the first good rain and then work it as much as is necessary to keep down the weeds until seeding time. It is now getting too late to plow ground and have it properly settle before time to seed wheat. The disk would probably be the better tool to use. It is never advisable to plow ground when extremely dry. When plowing is done at this time it is almost impossible to get it into any sort of a seed bed condition by later working.

My Neighbor's Back Yard.

Our subscriber, N. E. W., Neosho County, submits this statement of the

red raspberry bushes. Since these have reached bearing his lot now looks like a California fruit ranch. He gives the fruit the best of care and there being only himself and wife in the family, he has but little home use for the fruit. His surplusage is marketed. He reads the leading papers on horticulture and when necessary corresponds with the Kansas Experiment Station in regard to the health and handling of the trees.

This year he sprayed and increased the yield and improved the quality thereby. I believe with the same care and attention that the Californian gives his fruit, this part of Kansas will make a fine showing along this line. In the past two years there have been several peach and cherry orchards started here—one by Mr. Allen of Chanute, who planted 500 cherry trees, and another party who planted 500 trees about equally divided between peach and cherry. Others have started in a smaller way. None of this fruit has to date sought a market elsewhere as this and nearby towns can use it all.

"Here is a statement of his back yard production; all the fruit being picked and marketed by himself:

6 cherry trees, 2 crates each, at \$2.50 per crate.....	\$30.00
Currants, 2 crates, at \$3.50 per crate.....	7.20
Peaches, 5 bushels, at \$2.00 per bushel.....	10.00
Grapes, 500 pounds, at 3 cents per pounds.....	15.00
Tomatoes.....	5.00
Raspberries.....	10.00
Total.....	\$77.20

Listed Corn Ground for Wheat.

Subscriber J. E. J., Dickinson County, asks how he can best prepare listed corn ground for winter wheat. He notes that in his field there is a hard streak of ground between the rows which he thinks should be loosened up and suggests that he can best do this with a corn cultivator and asks if it would be a good plan so to do.

Generally speaking, the corn ground will this year afford the most likely prospects for a good stand and a good wheat crop next year. The past two or three weeks KANSAS FARMER has many times printed this statement. The best preparation to be given is that of listing and the listing should not be done too deep or too thoroughly. The surface should be gotten into such shape as will permit the thorough covering of the seed and the thorough settling of the surface soil over and around the seed. To at this late date so thoroughly disk the corn ground as to make the field lie loose to a considerable depth would be fully as disastrous as the plowing of the field and the seeding of the same before it had packed sufficiently to make an ordinarily good firm seed bed. For these reasons we would not recommend that our subscriber get into the field with a corn cultivator in an attempt to break up the ridge in the middle of the lister rows and which to this date is hard because of lack of thorough cultivation while the corn was growing.

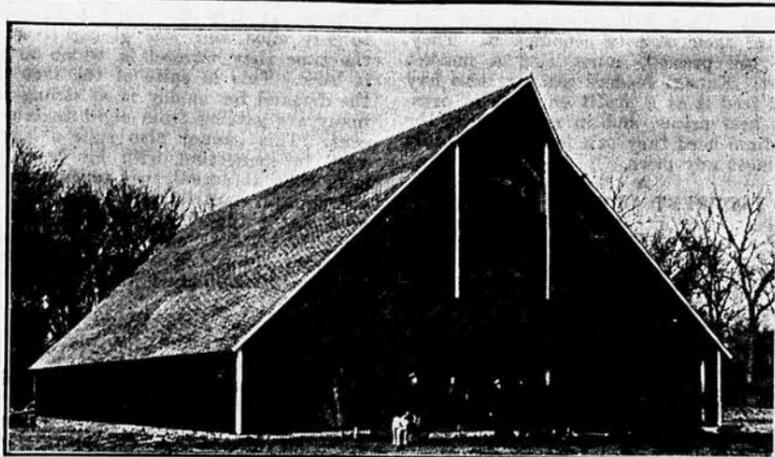
Corn stubble will afford a better seed bed for wheat than ordinarily; at least in so far as the physical condition of the soil is concerned, because generally the corn fields this year are clean and again because the growing corn did not make the usual demand upon the soil for plant food. So that while the corn field may be lacking in moisture, it nevertheless supplies a clean and compact seed bed which in a year like this offers the best prospects for a crop, excepting, of course, early plowed ground which since plowing has had some rain and ample time for compacting.

Farm Electric Lighting.

What is the smallest size gasoline engine and dynamo that is practical for producing electric light on the farm, was recently asked the editor on the occasion of a visit to the home of one of the best farmers of Saline County. The answer will prove interesting to many readers:

The smallest satisfactory electric plant is one of about two horse power capacity. Counting ten lamps to the horse power this will supply electricity for 20 sixteen candle power lamps.

The Grange picnic season is now on. KANSAS FARMER wants an account of yours.



A CONVENIENT AND EFFICIENT STOCK BARN.

GOOD STOCK BARN AND HAY SHED

ONE of the best stock farm barns we have seen is that on the farm of W. H. Coultis, some seven or eight miles from Berryton in Shawnee County, and picture of which is shown herewith. Mr. Coultis operates his farm on the plan of keeping all the stock for which he can provide roughage and grain.

A considerable acreage of the farm is in alfalfa and the near end of the barn stands on the edge of an alfalfa field. This makes the barn handy for the storing of alfalfa when cut and also makes the barn handy for the pasturage of the alfalfa, one side of the barn being devoted to the stabling of horses and mules and from the barn they run on to the alfalfa field. The last crop of alfalfa is pastured off by horses and mules each year. The rear of the barn, as shown in the picture, opens into a wooded feeding lot which is occupied by the cattle and which run into the barn from the feed lot at liberty. One side of the barn accommodates cattle and the other horses and mules.

Mr. Coultis milks twelve to fifteen Red Polled cows which have for years been selected for their quality as milkers, and he has a really good farm herd of dairy cows.

The drawing shown is that of the ground plan of this barn. It will be noted from the plan that a space sixteen feet wide on each side, is for the use of the stock and into which the stock runs loose. The manger from which the stock feeds is supplied with alfalfa hay thrown from the center space, this accommodating a rick of alfalfa hay 24 feet wide, 100 feet long, and as high as it can be piled. The barn posts are 20 feet high. The roof required 67,000 shingles.

The barn stands north and south, the object in this being to prevent the lodging of snow on the roof, which Mr. Coultis says is effectively accomplished. In our judgment, the arrangement comes near being ideal.

plow is the best for plowing wheat stubble land. Recently we saw this question answered by a North Dakota Experiment Station bulletin which answer is: "The answer to this question will depend upon the locality. In general it may be stated that wherever the soil is such that the stubble plow works well, the disc plow cannot improve its work. The disc plow, however, has its field of usefulness and experiments conducted at the North Dakota Station show that while the yield of grain is greatly reduced by continual plowing with a disc plow it is materially increased by an occasional plowing with a disc. This was no doubt due to the fact that the discs loosened up the soil to a greater depth thus increasing the root room."

Corn Ground For Wheat.

Our subscriber J. A. S. of Brown County, is now preparing his seed bed for wheat on ground from which he has cut off the corn fodder and writes to inquire whether he should plow or disk.

accomplishment of one of his Chanute acquaintances:

"My friend is a clothing dealer, fairly well to do so far as this world's goods are concerned, but he is one of those fellows who keeps at all times his weather eye peeled for accomplishing something worth while.

"This friend has a lot 50x100 feet in the town of Chanute. His residence and front yard occupy 60 feet of the lot, leaving a tract 90x50 feet in the rear, and what this friend produces on this small tract is worthy of record.

"My friend first thought of making his surplus land pay a dividend by handling pure-bred chickens on the Philo plan. After a year or so of fair success, he turned the chicken business over to others who had more time. The chickens required constant care and inasmuch as he had to be away from home frequently a week at a time, he turned his hands to other things. In the meantime he had been growing cherry, peach and pear trees, grape vines, currant and

HOGS ON FARM INDISPENSABLE

Heavy Selling of Sows on Market Increasing Shortage—Bred Sows will be in Great Demand and Bring High Prices.



WELL BRED SOWS ARE THE FOUNDATION OF SUCCESSFUL PORK PRODUCTION.—THEY HAVE A POTENTIAL VALUE FAR ABOVE PORK PRICES AND SHOULD NOT BE UNNECESSARILY SACRIFICED.

By G. C. WHEELER

THE shortage of meat producing animals in the United States is becoming a self evident fact. For the past ten years our population has been increasing much more rapidly than the production of meat and meat products has increased. During this period of time the consuming population has increased about 21 per cent. While figures on the number of meat producing animals are hard to get at accurately, it is evident from what figures we have that during this same period the production of meat has steadily decreased while the appetite and demand for high class meat has steadily increased. It must be apparent to every careful observer that the production of meat and meat products cannot help but be one of the most profitable lines of farming. The increasing shortage in cattle has been especially marked during this period of years. The great demand for stock cattle all over the country has just been demonstrated by the rush of a horde of buyers to our market centers during the last few weeks. The necessary marketing of a good many cattle from regions where water and pasture is becoming scarce, was assumed by many to make it possible to secure stock cattle at reasonable prices. To such there has been nothing but disappointment.

From our knowledge of the live stock business we are perfectly safe in assuming that we should use our best efforts to stimulate the improvement of live stock and the general development of live stock conditions all over the state. While live stock prices may not remain at the present high levels, they will never fall to the low level of the years in which our great plains region was being exploited as meat producing territory. The live stock farmer will more and more establish himself as a farmer who will be free from the ups and downs of the class of farmers who depend entirely upon some one crop as a source of income from year to year.

HOG AS MONEY MAKER.

The hog as a meat producing animal has long been spoken of as the "mortgage lifter" and it is probably true that this animal has brought more wealth to the farmers of the state and has helped more farmers clear themselves of debts and establish themselves upon the permanent road to prosperity than any other one class of animals. The hog is the poor man's friend. The cattle farmer must necessarily have considerable money invested in lands and stock for a considerable period of time before his profits begin to come in. The poor man can turn to the hog and find a meat producing animal, the female of which produces young in whole litters and at the rate of two litters a year. These animals will be ready for market in a very few months. No other domestic animal becomes ready for market at such an early age and possess such great fecundity. The hog is ever ready to consume the various raw materials of the farm and convert them into finished products of high market value. These animals are the most efficient machines to convert these feeds into meat that we have among our domestic animals. When grown upon the corn and alfalfa farms of Kansas, they find ideal conditions for returning the

highest of profits. With present prices of pork corn can be marketed via the hog route at from 80 cents to \$1.00 per bushel by those who will practice care and intelligence in the feeding and handling of his pigs. The price of a cow will buy two or three good brood sows and the pigs from these sows will produce a pound of increase for from four to five pounds of dry material consumed while often cattle require from 10 to 12 pounds for the same amount of increase. The hog is almost an essential in connection with other lines of livestock and general farming. Every cattleman recognizes that without hogs to clean up the waste he stands a small chance of making very great profits in the feeding of his cattle.

THE HOG BREEDER.

The first essential to a successful hog business is a high class breeding herd. This herd must be bred and developed by a man who has given a great deal of thought to the production of the type of hog required by the market. He must have been thoroughly familiar with all the principles of breeding in order that he may develop this breeding herd in such a way as to have it reproduce itself in a profitable manner. Men having such qualifications who have followed this business of developing high class herds of breeding stock may be classed as hog "breeders" to distinguish them from the much larger number of men growing and producing hogs who simply handle them from a market standpoint. The market producer of hogs depends largely upon the skilled breeder in keeping his producing herd up to a high standard. He pays the closest attention to the types of hogs which give the best results on the market and only secures his breeding stock from breeders who have been most successful through long periods of years in developing these characteristics which he has found profitable when used in producing the market hog. In the words of H. C. Dawson, the veteran hog man, "The producer's pens are really an experiment farm upon which the breeder tries out his types and breeds and he is guided greatly by the results of these experiments in his selection of types."

The successful hog breeder must make up his mind to stay in the business year in and year out. He cannot afford to drop out and clean up his stock simply because a bad crop year happens to come along and he feels that it is a great expense to carry his stock over this period. If he has been a skilled breeder the stock which he possesses represents untold value to him. It will take him years to recover the losses which might follow a wholesale sacrificing of his foundation stock.

SHORTAGE OF BREEDING HOGS.

One of the greatest scourages of the hog business is the dread disease, hog cholera. For years this disease has been claiming its toll wherever hogs have been grown. In spite of the development of the inoculation method of preventing cholera and immunizing hogs against it, the past two or three years have witnessed some of the worst outbreaks of cholera that have ever been experienced through the corn belt states. Market reports have shown from time to time that brood sows and pigs have been rushed on to the markets when there could have been no possible ex-

cuse for their shipment except the fear of this dread disease. At the present time there is really no other excuse that could be given for the sacrificing of brood sows on the market. Pork is bringing high prices and is certain to stay high for some time. As a result of the wide prevalence of hog cholera during the past few years, and other causes as well, there is a great shortage in hogs in the country, as well as of other meat producing animals. At the present time this shortage is becoming even more acute since cholera seems to be breaking out here and there in territories where hogs are plentiful and sows and unfinished pigs are being rushed to market.

A considerable portion of our corn belt territory the past season has been extremely short on rainfall and as a result the corn crop has been seriously damaged. A short corn crop in any section always tends to rush unfinished hogs to market. To the breeder who realizes that he must stay in the business whatever the season may be, such periods have a depressing influence since they temporarily reduce the demand for high class breeding animals. As soon as conditions get more favorable, however, the hog again will become a necessity upon every corn belt farm. With the hog shortage which exists, the necessity for hogs on so many farms can only mean that extremely high prices will be paid for good brood sows in the very near future. This fact should be an encouragement to the breeder who at the present time may not be finding a very big demand for his surplus stock. Every effort possible should be put forth to carry over as many of the good brood sows as possible, even though it may seem that the feed being put into these animals is costing out of proportion to what they are really worth at the present time on the market. They have a potential value far greater than any present market value and the man who can hang on to a reasonable number of good brood sows, is bound to reap the harvest which will come when the tide turns.

The feeder and producer of market hogs might profit along similar lines. He will just as surely need the hogs in the near future and it would be far better for him to hold on to some of his breeding stock and secure such additional breeding animals as he may need in the near future while they can be purchased at reasonable prices than to wait until the tide turns and everyone is wanting to get back into hogs again. Prices will soar and in all probabilities before spring brood sows will be higher than they have been for years. Under these conditions every farmer who ordinarily finds the growing of hogs a profitable branch of live stock production is justified in carrying over some good brood sows even though the feed cost may be high for the next few months. It would seem that the hog breeder who has spent years in developing his herd to a high standard could not afford to do otherwise than hold his breeding herd intact and keep his name before the hog buying public so as to be ready for the trade when conditions are more favorable.

ECONOMY WITH HIGH PRICED FEEDS.

The most pressing problem confronting the hog man at the present time is

how to most economically feed the hogs which he may have on hand. An abundant supply of corn has always been considered essential to the profitable and successful production of pork. Every successful hog man knows however, that the largest profits always come in connection with the liberal use of forage crops. It is true hogs cannot be successfully finished without grain, but mature hogs may be maintained upon very small amounts of grain and growing hogs may even make very satisfactory growth with very small allowances of grain providing pasture and forage of the right kind is supplied in abundance. With pork selling at the present prices a profit can be made in finishing hogs even with grains and other concentrates high in price. In a series of experiments conducted at the Kansas Experiment Station the results of which will soon be published, it was found that in averaging up seven trials where corn was supplemented with meat meal or tankage in the finishing of pork for market, 80 cents per bushel was returned for the corn fed when pork sells at \$7.00 per cwt. With pork selling at \$8.50 per cwt., which is nearer the present prices, the corn would have returned a value of 97 cents per bushel. In this same series of experiments some tests were made in which shorts and meat meal or tankage both were fed as supplements to corn during the finishing period. The average of four such tests shows that the corn consumed returned a value of \$1.07 per bushel with pork at \$7.00 per cwt. and with pork at \$8.50 per cwt. the value returned for the corn would be \$1.30 per bushel.

ALFALFA HAY SAVES GRAIN.

In the wintering of mature stock under present conditions, high class alfalfa hay must be largely used. Mature brood sows on alfalfa pasture will actually make some gains in weight. This has been carefully worked out experimentally at the Nebraska Experiment Station. On several different occasions brood sows from which pigs had been weaned in the middle of the summer were turned on to alfalfa pasture and supplied no corn for the balance of the season. Thin brood sows under these conditions have made gains of one-half pound per head daily during the remainder of the summer. The same experiment station has presented some valuable data on the actual cost of wintering mature brood sows. In the last experiment reported a lot of 20 sows which had produced pigs the spring before and had been maintained on alfalfa pasture during the latter part of the summer, were put on experimentation through the winter period. These sows had the run of a field which had been sown to wheat thus receiving some green feed during the early winter. Alfalfa hay and ear corn constituted their sole ration through the winter. The plan was to feed one pound of corn, (shelled weight) per cwt. of hog daily. In addition they were supplied all the alfalfa hay they would eat. These were large sows weighing 352 pounds when placed in the pens. In four months they consumed seven and one-third bushels of corn and three-tenths of a ton of alfalfa hay. It was estimated that one-third of this hay had been rejected. It had been cleaned out

(Continued on page thirteen.)

Reservoirs For Water Storage

Valuable Advice on Construction of Stock Pond and Dams
From State Engineer's Office, Manhattan, Kansas

By W. S. GEARHART

THE problem of building ponds and storage reservoirs to conserve the water in Kansas has been receiving a great deal of publicity recently on account of the long drouth and the resulting shortage of water for domestic purposes and for stock. This matter has been brought home so forcibly and has attracted so much attention that the newspapers report that Governor Hodges is now planning to designate one whole week in September for building ponds and storage reservoirs.

There is, of course, considerable difference of opinion as to the benefits to be derived from ponds, and some radical critics go so far as to predict that these proposed ponds would make a swamp out of Kansas and that they would only be mosquito breeding holes accompanied by malaria, fever and ague and all sorts of diseases and trouble.

If we had a big pond on every 40-acre tract in Kansas it would not increase the annual rainfall, but these ponds probably would have some influence on the hot dry winds. There is little question but that even a small pond of water or reservoir would modify the atmospheric conditions appreciably in the immediate vicinity of the pond. Every Kansan has noticed the difference between the refreshing breezes blowing from a corn or alfalfa field as compared with the hot dry burning air from a stubble field.

It is at least possible that an extensive system of ponds might exert a beneficial influence on the temperature and atmospheric conditions, but granting that it would not, the water stored in these ponds would be well worth all its costs under average conditions for stock water and irrigation purposes. These ponds could be stocked with fish from the state fish hatchery and be made a source of revenue and of real pleasure as well to the farmer.

Prof. L. L. Dyche, state fish and game warden, who has charge of the state fish hatchery at Pratt, has given pond fish culture careful study and is very enthusiastic as to its possibilities in Kansas.

It is almost useless to build a pond in the ordinary way to store only the run-off water from a given area, for careful investigation shows that the losses due to seepage alone would amount to one inch or more of water in each 24 hours in a well built earth pond, and the surface evaporation will amount to from 40 to 60 inches per year. During May, June, July and August the evaporation may be as great as six to ten inches per month. From this and the general knowledge we have of the construction of such ponds in the state it is evident that sky ponds (those fed only from surface run-off) will be dry when they are most needed.

A reservoir, to be of any real practical value when it is needed badly, must first be properly located and well built and must be fed by springs, streams or wells constantly to restore the loss due to seepage, evaporation and usage. In parts of Kansas there are not many springs or streams suitable for this purpose, but a large area of the state has immense flows of sheet water at depths ranging from 10 to 75 feet which can be lifted by windmills at a very low cost.

In most cases the pond could be located so as to make it possible to irrigate a garden or an acre or two of truck, and this would prove very profitable even in Eastern Kansas where the water might not be needed more than once or twice in two or three years. In fact during the last two years many farmers in this section have put in pumping plants to lift the water from the streams for irrigation purposes.

A pond even with abundance of flowing water will become a mud hole and a blot on the landscape if it is not fenced to keep the live stock out. The water for stock should be piped to a concrete trough below the dam.

If the pond is well located, properly built and continually supplied with water, fenced and stocked with fish and arranged so that it can be used for irrigation purposes, it will not be a neglected spot, a frog hatchery, a mud hole and a blot on the farm. The stock water, the possibility of profitable irrigation, the fishing, boating and swimming will give every member of the

family a special interest in it, and just this very thing is needed to make the pond a well kept, permanent, useful, profitable improvement.

Chapter 211 of the Sessions Laws of 1911 provides that reductions in the assessed valuation on farm lands shall be made for each reservoir constructed to collect and store surface water under certain stipulations. For each earth reservoir containing an acre foot of water (or 43,560 cubic feet) a reduction of \$100 in the assessed valuation is made, and if not less than four acre feet of water is stored in a single pond a reduction of \$200 in the assessed valuation is made. For concrete, stone or brick dams a reduction in the assessed valuation of the land of \$200 is made for the storage of one acre foot, and for not less than four acre feet, \$300. This compensation is not very great, but until the state constitution is changed so that state aid can be granted for such internal improvements it is about the best that the state can do financially. The law referred to above requires that the county engineer or county surveyor shall prepare the plans and specifications for these reservoirs at county expense.

Earth dams are the oldest type of engineering structures and one might reasonably suppose that the construction of a permanent earth dam would be a comparatively simple matter. Unfortunately, such is not the case, for there are twice as many dam failures, many of them very disastrous, as of any other engineering structures, and this includes masonry and concrete dams as well as earth. Many of them were due to poor designing and construction and lack of proper maintenance.

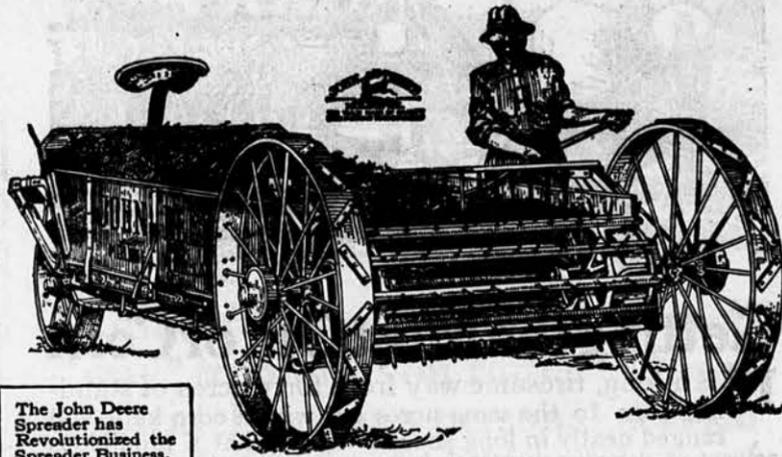
It is a difficult engineering problem to construct a first-class earth pond at a reasonable cost, one that is safe and will hold water, and any farmer contemplating the construction of a pond or storage reservoir should first of all obtain the advice of a competent engineer in regard to the location of the pond, water supply, materials, spillways, ways and means of construction, water-proofing, protection against wave action, crayfish, burrowing animals, excessive floods, etc.

Prof. L. L. Dyche's Bulletin No. 1 on "Ponds, Pond Fish and Pond Fish Culture," and the U. S. Department of Agriculture Farmer's Bulletin No. 394 on "The Use of Windmills in Irrigation in the Semi-arid West," can be had for the asking. Both of these bulletins treat of Kansas conditions and are well worth reading.

The office of the State Engineer, Extension Division, Agricultural College, is in position to render a limited amount of assistance in pond and reservoir construction, to answer inquiries and furnish general plans and specifications to farmers desiring such data. There is no charge made for plans and specifications or for services rendered.

John Deere Spreader

The Spreader with the Beater on the Axle



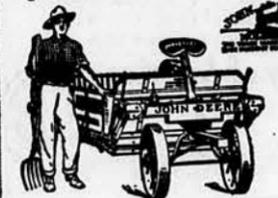
The John Deere Spreader has Revolutionized the Spreader Business. Here are Some of the Reasons:

BEATER and all its driving parts are mounted on the rear axle. Power to drive it is taken from the rear axle through simple gears like those that have been used on horse-powers for many years. This construction is patented. You cannot get it on any other spreader.

ONLY HIP-HIGH, easy to load. The top of the box is only as high as your hips. Each forkful of manure is placed just where it is needed. You can always see into the spreader.

FEW PARTS. Clutches, chains and adjustments—in fact, some two hundred parts in all—are entirely done away with. To throw the machine into operation, move the lever at the driver's right back until the finger engages a large stop at the rear of the machine.

ROLLER BEARINGS together with the simplicity of the machine itself, make the John Deere Spreader light draft. There are many more reasons that have helped to make the demand for John Deere Spreaders greater than all those interested in the spreader business thought possible. These features are fully discussed in our spreader book. You can get it free.



The Low Down Spreader with the Big Drive Wheels

What You Want

Here's your chance to get exactly what you want in a manure spreader. One that is easy to load, light for your horses free from constant repairing, and one that will last as long as you think it ought to.

What You Get

With a John Deere you get a low-down spreader in which the advantage of big drive wheels is not sacrificed for the low down feature. You get a spreader that is easy for your horses because it has these big drive wheels, together with roller bearings, few parts, the center of the load comparatively near the horses and evenly distributed over all four wheels. No clutches to get out of order, no chains to give trouble, no adjustments necessary. Built with steel frame, securely braced, like modern railway bridges—strong and durable.

Why You Get These Things

Mounting the beater on the axle makes all these things possible in the John Deere Spreader.

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

It does a lot of other good things, too. They are fully illustrated and described in our new spreader book.

Get this Spreader Book

It tells how the John Deere Spreader is made and why it is made that way. It contains illustrations of the working parts and colored pictures of the John Deere Spreader in the field. It also has valuable information in regard to storing, handling and applying manure to the land. Get one of these books free, by asking us for our spreader book, Y 13

John Deere Plow Co., Moline, Illinois

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If you would like to live in the most beautiful city in the West, with unsurpassed educational, business and religious advantages, in a city clean, progressive, where real estate values are low but steadily advancing, where living expenses are reasonable, a city with natural gas at lowest price, address the SECRETARY of the COMMERCIAL CLUB Topeka, Kansas.

"Pittsburgh Perfect" Fence

Adjusts easily to hilly land

NO TROUBLE at all to quickly string "Pittsburgh Perfect" Fence over hills and through valleys. It contains no single, separate wires. The joints are

WELDED BY ELECTRICITY making a one-piece fabric without the extra weight of waste wire. Made of special Open Hearth wire, heavily galvanized with pure zinc. Strongest and most durable fence produced anywhere. Thousands who use it say it's best.

Investigate it, anyway. Read "How to Test Wire" in our new catalogue (sent free) which also shows the many different styles and sizes of "Pittsburgh Perfect" Fence for Field, Farm, Ranch, Lawn, Chickens, Poultry and Rabbit Yard and Garden.

WHERE THIS SIGN'S DISPLAYED IS SOLD THE BEST FENCE MADE.

PITTSBURGH STEEL CO.
PITTSBURGH, PA.

Makers of "Pittsburgh Perfect" Brands of Barbed Wire; Bright, Annealed and Galvanized Wire; Hard Spring Coil Wire; Twisted Cable Wire; Galvanized Telephone Wire; Bale Ties; Fence Staples; Poultry Netting Staples; Regular Wire Nails; Galvanized Wire Nails; Large Head Roofing Nails; "Pittsburgh Perfect" Fencing.





Getting the Most Out of Corn

It is a long, tiresome way from forty acres of standing corn to the same acres cut with a corn knife and ranged neatly in long shock rows. What a prodigious amount of day-after-day labor is required to cut the corn, 150,000 hills in a field of forty acres, only that man who does the work with a corn knife knows.

Hand cutting is unprofitable, it costs too much in time and money. The modern farmer harvests the whole crop quickly and easily with an I H C Corn Binder. He cuts five to seven acres a day and does it without the expense of extra help. He cuts it at the right time—when the ears begin to glaze—preserving for his stock all the feeding value in the ears and stalks. While his old-fashioned neighbor's corn is still standing, drying and losing its nutritious juices, an efficient

I H C Corn Binder

Deering, McCormick, Milwaukee or Osborne,

has cut and bound his for the shock. Whether his corn stood straight, was down and tangled, on level ground or on rough, the practical design and correct construction of the I H C corn binders enables him to handle it efficiently. I H C corn binders are built to cope with all corn field difficulties and to last for years. To own and use them is to do away forever with the difficulty of securing extra corn harvest help; with the expense of paying extra wages; and with the waste of valuable feed that always results from harvesting corn by hand. To get the most out of your corn crop you need and should use an I H C corn binder.

IHC Huskers and Shredders

Deering, McCormick, or Plano

complete the most practical, economical and profitable handling of the corn. An I H C husker and shredder, besides saving many cold, disagreeable days of husking by hand, shreds the stalks, leaves and husks into a clean, tasty fodder, a nutritious substitute for the hay which you can then dispose of profitably, baled, in the best markets.

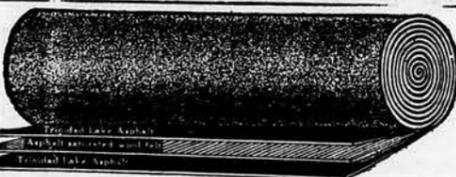
If the maximum of profit from your corn fields interests you, study the I H C line of corn machines at your local dealer's. Get information and various catalogues from him, or, address the

International Harvester Company of America

Chicago

(Incorporated)

U S A



Weatherproof is expense-proof

Trinidad Lake asphalt makes roofing lastingly tight against rain, sun, wind, snow, heat and cold.

This is the everlasting waterproofer of Nature. We use it to make

Genasco THE TRINIDAD-LAKE-ASPHALT Ready Roofing

Because it gives absolute protection Genasco is economical roofing—it costs less in the end.

Ask your dealer for Genasco. Mineral or smooth surface. Look for the hemisphere trademark. The Kant-leak Kleet is in every roll of smooth surface Genasco. It waterproofs seams without cement and prevents nail-leaks.

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Gamble Equalizers

THE FARM



This is one of the years when the best of care should be given all farm feeds, particularly roughage. Immature forage does not withstand exposure to the weather as does mature forage. It possesses a comparatively small amount of fiber and so rapidly deteriorates. A large part of this year's roughage will be corn fodder, and in the western two-thirds of the state little of it will be mature. The past week a number of letters have been received like this from Subscriber T. E. L., Ellsworth County, who advises that he has cut his corn with a binder, set it in the shock, that it is thoroughly cured, and wants to know how this can be given such care as will conserve to the utmost its feeding value.

We take it from other statements made in the letter that the fodder was not matured and that there is little corn thereon, but nevertheless that it will make good roughage. This is a condition which prevails on many farms. The character of the fodder is such that if exposed to the weather it will rapidly deteriorate and its feeding value become greatly lessened. It is our judgment that under such conditions it will pay to stack corn fodder whether the fodder be bound or not. If bound, stacking will be a much more simple job and more easily done than if the fodder is not bound. In the case of the bound corn it can be stacked as in the case of bound wheat or oats, except that we would place it in long, narrow ricks 9 to 12 feet wide and sloping the bundles with the butts, of course, to outside of the stack at as great a pitch as possible without the bundles slipping out of position. The stacking should be well done, inasmuch as the object of stacking, of course, is to turn the rain and the snows which are due to come. Unbound corn fodder can be stacked in this way without great trouble provided it is removed from the shock and loaded onto the hay rack carefully. The stacking should be done as near the feed lot as is possible. This will save feed and labor in feeding.

During the week of August 18 to 23 we made a trip across the western part of Kansas. Much of the corn was at that time being cut with wheat headers. In some new fields the corn was so dry that it was being put into the stack, the cut corn being elevated into the header box as in the case of wheat. In fields where we saw this practice the corn was sufficiently dry to keep without moulding. Such stacks, however, should be well covered either with some sort of stack cover or by the use of hay, slough grass, straw, or something similar which will turn rain. Stacks of corn roughage, whether bound or loose, will not turn water, and unless the stacking is well done and the top is covered, there will be a serious loss.

In some fields in which the corn cut as above was too green to stack, it was dropped in piles over the field. The roughage crop left in the field in small piles such as we observed will, by spring, in all probability be totally lost in so far as feeding value is concerned. After the roughage has cured out in these small piles it should be well stacked, covered and tied down. The same remark will apply to the saving of kafir and cane forage cut and left in the field in small piles. Should the winter be devoid of rainfall or snow, the loss from small piles might not be serious, but we can expect rain and snow which will destroy possibly one-half of the feeding value of roughage left in the field in small piles, and this is one of the years in which we cannot afford such loss. The kafir and cane roughage can and should be stacked in the same way as mentioned above for corn fodder.

During our trip it occurred to us that it might be on many western farms an effort would be made to shred the corn fodder in order that the waste be reduced and the fodder made to go as far as it would in feeding. We admonish those considering shredding that this be not undertaken until such time as the fodder is thoroughly cured. Shredding, however, will be totally unnecessary except on those farms on which the corn

grew and actually produced a hard stalk. On such farms there will be a saving by shredding. The shredded fodder should be placed under cover and kept dry. Otherwise there will be great danger of moulding. When shredding is done, if a layer of wheat or oat straw could be inserted every 18 inches to two feet into the shredded product, this would help in its preservation and would get the straw into such shape that it would be a help in the matter of feeding. In a corn crib would be a good place to store the shredded fodder, assuming, of course, that the corn crib is well roofed.

This brings up another point, and that is the value from a feeding standpoint of this year's or last year's straw stacks. The new stacks, if needed for feed, should be shaped up, and by so doing the straw can be preserved by protection from the elements. The blower attached to the grain separators of the present day leave the straw pile in bad shape and a small pile will be wet from top to bottom in the first hard rain, depreciating even the value of the straw for bedding if it should be so used. The straw pile from the blower can be shaped up in such way as will protect much of the contents from depreciation.

While on this subject, it is not too late yet to consider the seeding of rye alone, or a mixture of rye and winter oats, or even of rye and wheat, for fall pasture. We have a hunch that it will rain generally over Kansas soon, and when it begins raining we are likely to have a plenty. We have a hunch, too, that this will be a late fall and an open winter. We have lived in Kansas for many years and this is not the first season of this sort we have seen. We have in our own experience seeded rye, wheat and oats for pasture several weeks later than this and have seen the conditions so favorable as to afford winter pasture throughout the fall and almost the entire winter. We cannot have pasture if the grain is left in the granary. We must get it into the ground. We Kansans, being accustomed to years of abundant feed, scarcely know how to handle ourselves under conditions similar to those now existing. There are pointers in this article well worth consideration. Usually there is a way where there is a will. If we do our best to keep our live stock and succeed it will be big money in our pockets during the next 12 to 18 months. So pressed have we been in our own experience, for feed, that after we cut corn fodder similar in quality to that of this year we have raked the field with a hay rake in order to save the few rakefuls of corn blades scattered over the ground. In the early day of our live stock experience in this state it was considered that we could get an animal through the winter on less than half the feed we are prone to offer that animal during years of abundant feed production. It will be really surprising to the farmer of today who has not experienced some of the hardships of the early days to know just how little feed will be required to keep his live stock alive until grass next spring.

While writing the above an Eastern Kansas corn grower, who has a large corn acreage and little stock, came in and discussed the feasibility of shredding and baling his corn fodder for market. There will be a market this year for baled corn fodder and it will bring a good price. The baling is proposed, of course, to facilitate shipping. We might say, though, that it is unnecessary to shred in order to bale, particularly so if the fodder is not coarse. Baled corn fodder has been sold for several years on the feed markets of the country. The farmer who has corn fodder and no live stock to eat it should save the fodder, give it good care, and it will sell at good prices before spring.

The heavier, better developed kernels of wheat germinate better than the light kernels in the same head and will stand the weather with greater vitality. Fanning and grading will pay big returns in removing the weeds.

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Side Delivery Rake Advantages.

Some of the advantages of a side delivery rake are:

1. The hay may be raked immediately after cutting for this rake leaves the hay in a small windrow where it will cure without bleaching.
2. The windrows are lengthwise of the field and are consequently much more convenient when a hay loader is used.
3. It serves the purpose of a tender as well as a rake.

Preparing for Dry Farming Congress.

Tulsa, Okla., is to be the meeting place of the next International Dry Farming Congress and Exposition. The creation of an international exposition in less than a year's time is a task which would stagger a city of much larger size than Tulsa. When the headquarters of the Congress were moved from Lethebridge, Alberta, Canada, to Tulsa, in January, there was not an acre of ground or foot of enclosed exhibit space ready for it. There is every indication now that the 1913 exposition of dry farm crops held in connection with this congress will be the greatest exclusive show of such crop products ever held in North America.

Today 40 acres of land are ready as an exposition ground; 80 acres have been set aside for machinery exhibits and demonstrations, and 10 acres additional will be used for camp sites for the hundreds of families who will bring their tents for a ten-day stay. Five great buildings with a total floor capacity of practically 100,000 square feet are either planned or under way, and it is now a certainty that America's greatest all-agricultural show, built from the ground up in ten months, will open its doors on October 22 to the greatest crowd which has ever been gathered at a similar meeting in Oklahoma.

One pavilion 80 x 100 feet in size, already erected, will be given up entirely to an exhibit which the United States

water and a pint of crude carbolic acid, or a half pint of the refined acid, stirring the latter thoroughly and leaving the mixture over night; then dilute it with eight gallons of water and apply with a whitewash brush. Another mixture is made by dissolving a gallon of soft soap in six gallons of a saturated solution of washing soda. Add a pint of carbolic acid, mixing well, and slake enough lime in four gallons of water to worm a thick whitewash as it is added to the foregoing. Finally, stir in thoroughly a half pound of Paris green. Either of these substances should be applied as frequently as may be necessary to keep the bark moist from the middle of May to the end of July.

The methods of protecting poplar trees from the work of borers are about as follows: (1) Cut out all dead and dying wood. (2) Inject into the borers' burrows wherever they can be found a considerable quantity of carbon bisulphide, and promptly close the opening with putty. Carbon bisulphide will vaporize and penetrate the burrow, killing any living thing that may be therein. Carbon bisulphide is as deadly to all animal life as chloroform and as explosive as gasoline. It should be handled with great care.

Flower Garden Moisture.

Thorough cultivation and thorough watering are the two universal methods of solving this great problem in plant growing. The cultivation method saves the moisture that nature provides; watering, or irrigating, is an attempt to renew the moisture contents of the soil by replacing the natural moisture permitted to escape by evaporation.

While it is not always the case, as a usual thing, cultivation, if thoroughly and properly done, will make it unnecessary to do any artificial watering.

The ground should never become baked, but should be stirred as soon after every rain as it is dry enough so that it will crumble easily when pressed

CAN'T MEASURE VALUE IN DOLLARS

I WANT to congratulate you on KANSAS FARMER for its real worth to farmers who have a desire to be up to date. I take five stock and farm papers, and there is more practical, every-day farm sense in KANSAS FARMER for people of this part of the country than all the others put together. I enclose a subscription for my friend, because I am sure he will read and profit by its teachings as I have done. Your articles on kafir and on alfalfa alone were worth more than the price of the paper. If farmers would read and practice what you teach, the value of the good you do could not be measured in dollars. I have been reading KANSAS FARMER a long time, and this is the first time I have written anything of a personal nature. However, I have said only what I believe.—J. S. BLACKMAN, Beaver City, Neb.

Department of Agriculture is spending \$20,000 to prepare. Oklahoma County exhibits will be housed in an artistic structure 84 x 225 feet in size, to be known as the "Oklahoma Kafir Corn Palace," and to be built by the state at a cost of \$10,000. Work will be started on it August 1. Two additional buildings, each 80 x 300 feet in size, will house farm crops from Canada and foreign countries and from states other than Oklahoma.

To date exposition entries have been received from 17 American states, three provinces of Canada, and five foreign nations. At least a dozen foreign nations are expected in the final list of entries, while delegates to the International Congress itself are already assured from 30 nations of the world and from 20 states of the Union. Premium lists showing all classes of entries may be had by addressing the International Dry Farming Congress, Tulsa, Okla.

A report comes from C. H. L., of Edwards County, to the effect that the borers are working on the elm trees in that section and that there is some kind of an insect working on the Carolina poplars, making holes about an inch square. This matter was referred to the Entomological Department of the Experiment Station and the following preventative measures have been furnished by J. W. McCulloch of that department:

The elm borers are difficult to control, since by boring into the trees they are almost inaccessible. The preventive methods are the most practical ones. In trimming the trees the branches should be cut or sawed smoothly away at their very beginning and the cut surfaces should be given a thin coat of paint immediately after the cutting. The trunk of the tree and the larger branches may be treated with a mixture intended to prevent the laying of eggs. This mixture is made as follows: To a gallon of soft soap add half a gallon of hot

in a ball. If it is wet enough to make a mud ball it is too wet to work. You can stir to any depth you desire, but two inches is deep enough, and you should always cultivate to a uniform depth, for, if you go deeper after a cultivation or two you will cut up and destroy the best roots of your plant which soon take possession of the cool moist earth just below the loose soil you have stirred up from time to time. I remember a fine row of mango peppers I had given regular attention, cultivating rather shallow and keeping in fine condition. I set a man to hoeing them one day, warning him to be careful to not go very deep. In an hour after he had hoed them they were wilting and they wilted every day as soon as the sun struck them until they could form new fiber roots. They were severely checked, and never did become really thrifty again. I have often had roses injured in just such a manner.

If you really think it is necessary to water your plants, do it thoroughly, for a half watering is worse than no watering. A little water on the surface at frequent intervals will come near destroying the strongest and most drought resisting plants. The soil gets as hard as a rock just a little below the surface, the fiber roots try to form in the moist earth of the surface which is sprinkled so often, but it does not hold the moisture, and the heat, drying winds, and air-excluding crust all prey upon them until they give up and the plant dwindles. You feel discouraged, for you have been giving it such good care (?), watering it every day. If you had given it all the water you applied in six days at one time and then cultivated it thoroughly, your plant would have remained healthy with the same amount of water and less work.—L. H. COBB,

To remove machine or carriage grease from clothing, rub well with lard and allow this to remain for an hour or so, then wash with hot soap suds.

We Have 21 Ways of Helping You In Personal Letters

With an expert authority at each "way" to point you right. This is the widely known personal service back of *The Ladies' Home Journal* that it has taken 20 years to build up and was used the last twelve months by more than a quarter of a million women without a penny's charge. Not through the magazine and in print, either, but personally, directly and confidentially, by mail: in personal letters sent to you the moment your question comes.

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2. Millinery: Making or Trimming a Hat;
3. Etiquette: Good Manners and Good Form;
4. Pretty Girl Questions: Beauty and Health;
5. Building a Little House;
6. How Can I Make Money at Home?
7. Piano Questions: By Josef Hofmann;
8. Books and Reading: By Hamilton W. Mabie;
9. Correct Speaking and Writing;
10. Social Work in the Church;
11. Any Kind of Needlework;
12. The Table, Cooking and Menus;
13. School Entertainments;
14. Every Kind of Home Party;
15. Any Kind of Music;
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The above illustration shows the BEST EVER SULKY completely turning under a large crop of weeds.

The bottoms of the "BEST EVER" are so hung and the frame so perfectly balanced that an even furrow is maintained at all times.

The moldboards are so shaped that every furrow is completely turned over and thoroughly pulverized.

LIGHT DRAFT The "BEST EVER" is the lightest draft plow built. The wheels and tongue run straight down the furrow like a wagon. The wheels do not dig into the furrow walls nor does the pole run at an angle as on other plows.

EASE OF OPERATION The bottoms are raised and the frame leveled, all by one easy footlift operation. All landside friction can be quickly overcome by eccentric washer on rear furrow wheel. No bolts to bother with.

DURABILITY THE BEST EVER PLOWS are made of the best steel and malleable iron. Wheels are of steel with dust proof caps. Oil but once a season. All shares of our famous ACME STEEL.

ACME STEEL is the only steel shares that are positively guaranteed against breaking in the field or in ret tempering. Anybody can easily re-temper them any number of times. Keep them hard and sharp all the time. They scour perfectly, lighten the draft, plow more acres per day and plow them better.

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THE DUTY OF EVERY HUSBAND

IT'S the duty of the husband to see that his wife is supplied with modern equipment with which to lighten her labor. Outside of the house, labor-saving machinery has worked a revolution in farming. Very few men walk the fields any more, and most of the back-breaking jobs of ten years ago are now being done by machines.

As we make the work easier in the field, let us not forget the woman in the house. Keep an eye on the advertisements in KANSAS FARMER. Quite frequently something is advertised that the wife should have.

DAIRY



At times when the outlook for the immediate future is none too good, the business man and the factory operator exercise the strictest economy. This, in order that the profitableness of the business may be preserved to the fullest extent possible. It is not within the range of possibility for the farmer to employ the methods of expense reduction to the same extent as is the case in many other businesses. This, for the reason that farm work must go on from year to year in pretty much the same manner. The exigencies of the farm are such as make this necessary. The farm, however, like the business or factory, can in good crop seasons be more or less lax with reference to its expense account for the reason that with the possibilities of practically unlimited trading transactions before it, the business or factory will continue to earn a profitable rate of interest on its investment. In the case of the farm, when seasons are good, when the rains fall abundantly and the seeds of the fields produce abundant harvests, the needs for economy do not exist to the same urgent extent as in the case of less favorable conditions. So the farmer, during the so-called bad year, will economize in expense of farm operations. This does not mean that he should refuse to buy a new wheat drill in case the old drill is not doing good work. It does not mean that he should continue to use the old cream separator in spite of its poor condition and the consequent loss of an unusual amount of butter fat. Rather, on the other hand, it is economy to invest in the best drill—one which will do his work better than the old. If the old cream separator is losing the butter fat of two cows of a ten-cow herd, it would be economy on the part of the farmer to buy a new machine which would save this loss and which in fact would add the product of two cows to the dairy herd. So, after all, unfavorable weather and crop conditions do not necessarily mean the everlasting hanging onto of the money in the bank, but rather involve the wise expenditure of such money.

The economies of the farm are numerous. The economies of the farm dairy are likewise numerous. The facts are that on account of the feed shortage in many sections of Kansas the live stock of the farm is being reduced to the lowest limit possible, but on the larger percentage of farms the milk cows are being retained. This is as it should be; first, because they become the foundation for increasing the live stock herd in the years to come, and second, because the check received from the milk may be depended upon to supply the farm with ready cash, while the wheat is held for higher prices. In some instances a part of the farm dairy herd will be disposed of, and we submit this question: In selling any part of the dairy herd, has due recognition been taken of the productive ability of such animals and as a result of such recognition are the best, most productive and most profitable cows being kept in the herd? It would be false economy to sell the best milkers at stock cattle prices and retain the poorest milkers. The man who heretofore has been testing his cows sufficiently often to know the producing ability of each will not sell the best of his milkers. By his forehandedness he has been able to know those which are most profitable and so will be able to retain them. This forehandedness is worth while—not only in times of abundant feed production but especially so at times when feed is worth almost its weight in gold. The advantage does not apply, either, to the next few months, but in keeping the best cows the future dairy herd will be recruited from the calves of the best cows. So, when feed is scarce, when it is worth exceptionally high prices, it is well to know that the cows retained on the farms are those which will convert this feed into milk at the greatest possible profit. While the years of short feed are the exceptional years, at the same time they must be expected with such frequency as makes it the part of good judgment to cause the farmer in his operations year after year to take such precautions as are necessary to amply fortify himself against a season of

short feed and against a season of correspondingly low dairy production. If, on your farm, you have 12 to 15 cows and you have decided that a part of these cows must be disposed of, it will be money and time well spent to arrange at once to test these cows and know the relative producing ability of each in order that unknowingly the best may not be sacrificed and the poorest retained.

Another feature of dairy farm economy which in such years as this should be given serious consideration, is that of the most economical methods of feeding. On many farms it will be necessary to offer the dairy cow a poorer class of feeds this fall and winter than those to which she has been accustomed. The home-grown feeds must of necessity be used, whether they are to the liking of the dairy farmer or not. However, in using such feeds the greatest benefit and the most profit will not be realized unless these are fed in combinations which economically will produce milk and cream. The corn, kafir and cane fodder which will this year be fed will be of poor quality, generally speaking. However, even at its best it is not a good milk-producing feed. So, because it affords an unbalanced ration and one which does not provide the elements necessary for a good flow of milk. Consequently, if the dairy herd is to be depended upon for the cash necessary to keep things going through the fall and winter, this income cannot be expected from roughages alone unless it is possible to feed liberally of alfalfa hay. It would not be economy to buy corn, oats, kafir or milo to feed as grain with the corn, kafir or cane roughages. In the purchase of feeds for milk cows the protein content of the feed must be taken into consideration. On those farms on which roughage is scarce or there is not a sufficiency of roughage to supply the animals with the amount needed, the purchase of alfalfa hay at the prices prevailing will in all probability furnish the cheapest roughage and at the same time a considerable proportion of the protein needed to produce a liberal milk flow. However, on most farms there will be a fairly good supply of kafir, cane and corn roughage. This having been grown on the farm is worth more money fed on the farm than it would sell for in the markets. With such roughages it will be necessary to feed grains and concentrates rich in protein and to the largest extent possible, cottonseed meal should be depended upon as the principal protein supply. To be sure, the feeding of two to three pounds of cottonseed meal per day is the limit for a free producer of milk, and such quantity will not suffice for the entire grain feed. In other words, the cottonseed meal must be supplemented by grains which will increase the bulk, and the chances are that corn, kafir and milo will be the cheapest grain available for such purpose.

The feeding of a balanced ration along the lines indicated above can no longer be regarded as fancy feeding. The balanced ration is economical feeding. It is the kind of ration a cow gets when she does her best on June pasture. The use of corn, kafir and cane roughages in the form of silage will to all practical purposes supply the succulence of good grass, but it will not be a complete feed, and in buying the grains and the protein concentrates necessary to make the silage a complete ration it will pay the farmer to figure closely and know the cost per pound of protein in the feeds he purchases. This will be one of the economies for which the dairy farmer must look. It would be the height of extravagance to buy protein at a cost of 10 cents per pound in the form of bran or other mill stuffs when it can be had in alfalfa hay or cottonseed or linseed meal at a cost of less than half the figure named. Then, too, it will be realized that if feed is to be bought it should be fed to a good cow. It is entirely within the range of possibility for farmers to buy practically all of the feed they will use in their dairy herds during the fall and winter and feed it to their cows at a profit, providing the purchasing of feeds is made judiciously and providing these

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feeds are properly fed to the right kind of cows.

Another thing which will point to the economy of maintaining the dairy herd as well as all other classes of farm stock during this winter will be that of good stabling, and especially so if the winter weather is severe. A certain proportion of the animal's food is required and used by that animal in maintaining the heat of the body. If the day is cold the animal will use more of its feed in heating the body than if the day is warm. The proportion of unused feed in maintaining the heat of the body, then, is that proportion which may be converted into flesh, or, in the case of the dairy cow, into milk, so economy in the use of feed can be exercised by protecting the animals from the storm. Even in a year of abundant feed it is profitable to stable well the dairy cow, and under such favorable conditions it is cheaper to provide the heat for the body by comfortable housing than by supplying the animal with feed. If good barns or stables are not already provided for on the farm, then such makeshifts as are necessary or possible should be constructed. Another factor in animal comfort is that of sufficient bedding. It is nearly always possible to supply the animal with a good bed, and the use of refuse in this way will this year result in the saving of feed.

It will be a good idea, too, to overhaul the cream separator providing it is not running smoothly and so is not skimming clean. If even a thin scum of cream is apparent on the skim milk, either the separator is not doing its work as it should and as it is capable, or the operator is not doing his work as carefully as he should. Most separators of the present day, if properly operated, will skim so well that no cream can be detected on the surface of the skim milk after it has stood for a considerable time. Good separation of the milk should result in the recovery of all the butter fat except one or two-hundredths of one per cent. A separator not skimming closer than this would not stand any show in a contest of separators when operated by expert attendants, but in general farm practice the recovery of butter fat to the point of two-hundredths of one per cent is close skimming. However, on many farms we have seen as much as five-tenths of one per cent, or fifty-hundredths of one per cent, left in the skim milk. This will be a considerably larger loss in the skim milk than prevails generally, but the point is that the man who is compelled to guess at the speed at which the separator is run does not know and cannot know how much butter fat he is leaving in the milk. Based on our years of experience in the operation of cream separators, we are confident that the loss of butter fat in the skim milk is appalling through the lack of definite knowledge and the operating of the cream separator at a definite known speed. In the case of the loss of fifty-hundredths of one per cent of butter fat in the skim milk, the farmer would not object seriously on the grounds that the calves and pigs obtained whatever butter fat was left in the skim milk, and so it was saved. Butter fat is always too valuable to feed as calf or pig feed, and it will be especially so this fall and winter, so if the separator bowl is wobbling it will be advisable to get the bowl in such condition as will result in the very closest skimming possible.

The greatest loss of butter fat in skim milk is due, as a rule, to the failure of the operator to run the cream separator at the proper speed. It is the centrifugal force applied to the milk as it passes through the bowl that results in the skimming of milk in the centrifugal hand cream separator. Every separator is constructed to exert upon the milk in the bowl the centrifugal force necessary to separate the cream from the skim milk when the bowl is given a certain speed. That centrifugal force in the separator cannot be applied except the crank be turned at the speed necessary to exert such force upon the milk in the bowl. Your instruction book will tell you the speed at which the crank should be turned. You should be absolutely certain that the crank is being turned at this speed. We know that it is difficult for even the boss of the farm to turn the separator at the exact required speed, and it is more difficult for the hired man or the boy to operate the separator at that speed. However, it is better to turn the separator faster than is required than to turn it slower than is required. It is easy to lose the total butter fat product of two or three of the best cows in a 10 or 12-cow herd by careless skimming.

10% to 20% More Butter Fat!

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We want every dairyman in America to try one of these great money savers. Get one from your local dealer—try it for 30 days and if it does not do all and more than we say, take it right back and your money will be refunded. If you are buying a new separator don't take one that is not equipped with a Stewart Speed Indicator. If you already own a Separator have a Stewart Speed Indicator installed on it without delay. If your dealer does not happen to have them in stock write us. We'll see that you get one, or we will gladly send you one direct on the same 30 days trial basis. Any one can install a Stewart Speed Indicator. Just tell your dealer (or write us) the name of your cream separator, its model number, and the year in which it was made. We then will send you a Stewart Speed Indicator already mounted on a new crank shaft that will fit your separator. Just slip the new one in—put your old handle on the new shaft and it's ready for work.

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We want to send you a set of our free, instructive and explanatory literature. It explains the wonderful tests made by leading authorities, the U. S. Government, Purdue Experiment Station, agricultural colleges, and dairy editors which proves con-

clusively that a Stewart Cream Separator Speed Indicator will increase your present butterfat production from 10% to 20%. Every up-to-date dairyman needs this information. It will help him in his business. Fill out coupon. Mail at once.

THE Stewart Cream Separator Speed Indicator is an invention every American dairyman has been seeking for years. Here is an instrument which thinks for you, calculates for you, figures for you and guides you. It tells you at a glance the exact number of revolutions per minute your cream separator is being operated at. It cuts out "guess" work and eliminates the worry of lost profits due to lost butter fat.

Stewart Speed Indicator

for Cream Separators

Every dairyman knows the importance of getting the exact number of "revolutions per minute" in order to obtain the greatest quantity and best quality of butter fat. He knows that if the instructions call for "55 per minute" it must be exactly that—no more—no less. If either too fast or too slow he loses.

You cannot accurately guess "revolutions per minute" any more than you can accurately "guess" weight, size, values or volume. You use scales, measures and watches. You can't do business without them. And now you can have an instrument which accurately registers "separator revolutions" and it will pay for itself in a few weeks.

Mounted on the crank shaft it indicates every turn of the handle. If you are turning "40 per minute" the dial shows an exact "40." So if your separator instructions are "55" you just speed it up until the Stewart Speed Indicator registers an exact "55" and then you have maximum separator efficiency. That's all there is to it. So simple that even your children can operate your separator correctly. By this new invention all the butter fat that has been escaping can be saved. Heretofore dairymen had to "guess" at the number of revolutions. But guess work is poor pay. Today is a day of accurate operations and efficient tools and the Stewart Speed Indicator is a Twentieth Century invention intended for Twentieth Century dairymen.

Stewart Speed Indicator Factory,
1955 Diversey Blvd., Chicago, Ill.

Please send me, gratis, all your literature on your new Stewart Cream Separator Speed Indicator.

I operate a "....." Cream Separator

The number of it is.....

It was made (give year).....

My name is.....

My Address.....

City..... State.....

In this connection it is not amiss to state that in this issue of KANSAS FARMER is advertised a speed indicator for a cream separator and regarding which we wrote in the early months of this year that it would be a godsend to the dairy industry of the United States if an accurate speed indicator could be sold at a reasonable price for use on cream separators. It is gratifying to us, as it should be to dairymen in general, to know that such an indicator has been provided, and while KANSAS FARMER does not know any of the particulars regarding this indicator, we do know that it is put out by a reliable company and the chances are that it is a reliable instrument. The use of a speed indicator on a separator which is turned by all hands about the farm should save its cost many times over during the life of the separator. Getting back to the point of economy first mentioned in these notes, it would be economy in a year like this when farmers are making every effort to make every lick count for the most there is in it, to have the cream separator so equipped that there is no possible chance for continued loss, skimming after skimming, of butter fat in the skim milk.

Example of Intensive Farming.
Twenty acres near Du Bois, Neb., located between hillsides, has proven one of the prize garden spots of the west. On this twenty acres Arnold Martin has won a handsome income from intensive farming. In one season the state fairs of Kansas and Nebraska paid him \$1,003.75 in premiums and he has taken away the hard cash from the treasury of the Iowa state fair in a manner that aroused attention and among the Hawkeyes. At the Chicago National Corn Show he was the heaviest winner in 1908, taking \$325.
"The twenty acre farm this year is divided as follows," said Mr. Martin. "Eight acres in field corn, one acre in pop corn, one-half acre in small grain of forty varieties, two acres in potatoes, two acres in grasses, two and one-half acres in pasture (one-half timber), three acres orchard, one-half acre onions and one-half acre in millet. Total, 23 acres.
"I will explain where the three extra acres come in. Two acres in alfalfa. The first cutting from one acre of alfalfa was harvested May 24 and plowed and planted to white rice, pop corn, pumpkins, squashes, beans, and all sorts of late vegetables with good success. Of the two acres of potatoes, one-half was

planted in corn after the last plowing of potatoes; one-half acre of German millet was sown the 24th of May after the last plowing of the potatoes; the millet was harvested the 25th of August and the ground disked up twice ready for alfalfa early September.
"Five hundred loads of manure have been hauled onto the place in the last three years besides what the farm produced itself. As many as thirty loads to the acre have been hauled from town two miles distance. I do not know just how much good the large quantities of manure did the land but I think the \$1,000 is a good answer and I will hear more of it in the future. In the years to come the crops will tell.
"The more intensive the method of farming carried on, the more necessary is experience, and the getting of this experience lies in the working out of the problems of the field, and getting the answer direct from nature in the garden, the orchard and the granary. The colleges have failed to keep the college trained young man on the farm and this being the case, I contend that the world's best agricultural college is a home on the farm. By this I mean the small farm for personal work is best for the man, the land and the coming generation."

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WE WANT every farmer and landowner to have our illustrated circular. It describes the machine, its principle and advantages over all others. It gives testimonials from many farmers proving what it will do on wheat, alfalfa and other crops. It contains valuable information on how to prepare the soil for better results. Send for this circular today, whether you want to buy or not.

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Will make your old wagon good as new. Soon pay for themselves in saving of repair bills. If not all we say, return—trial costs you nothing. Get our big free book and free trial offer; also special offer on Empire Farmers' Handy Wagons—20 styles.

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Attachment cuts and throws in piles on harvester or winrows. Man and horse cuts and shocks equal with a Corn Binder. Sold in every state. Price, \$20.00. W. H. BUXTON, of Johnstown, Ohio, writes: "The Harvester has proven all you claim for it; the Harvester saved me over \$25.00 in labor last year's corn cutting. I cut over 500 shocks; will make 4 bushels corn to a shock." Testimonials and catalog free, showing pictures of harvester. Address New Process Mfg. Co., Salina, Kansas.

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LIVE STOCK



Alfalfa and Hog Cholera.

Our correspondent, A. P., of Clay County, Kansas, writes us that some of his neighbors are losing hogs from what is supposed to be cholera. He states that the theory is prevalent there that this disease is caused by worms which hatch out from eggs laid on the alfalfa. This is undoubtedly a mistaken theory, since hog cholera can only come from infected herds. Hog cholera is a germ disease. Whenever hog cholera is present the germs are being discharged from the animals and other hogs become infected from this source. The only known preventative of hog cholera is the serum inoculation method which is so generally being used at the present time. By the proper administration of this vaccination the hogs may be temporarily protected from cholera or made permanently immune.

Our correspondent also inquires concerning the advisability of seeding some alfalfa this fall, since he is in need of more alfalfa pasture. It will be necessary for us to have a considerable amount of rain before it would be advisable to seed alfalfa this fall. The plant must have an abundance of moisture so that it can make a good growth before the winter sets in. If sufficient amount of rain comes within the next week or so a clean piece of stubble ground can be disked up and worked down into a fairly good seed bed for the seeding of alfalfa. If abundant rains do not come, it would not be advisable to waste the seed, since alfalfa seed placed in ground deficient in moisture would only make a weak, puny growth, and would not be sufficiently strong to carry it over the winter.

Plastered Cement Silo For Northern Missouri.

An inquiry comes to this office concerning the practicability of the metal lath cement silo in the northern part of Missouri. This correspondent also wishes to know the average rainfall of that section. According to the reports of our weather bureau received from the stations in this territory, it would appear that the average annual rainfall of north-central Missouri is 33 to 38 inches.

The metal lath plastered type of silo when properly constructed would be thoroughly satisfactory in that territory. Some silos of that type have already been successfully used in various parts of Missouri. It is very important that this silo as well as any type of concrete silo be carefully constructed by men who thoroughly understand the re-inforced concrete construction. The bulletin entitled "Cement Silos," published by the Extension Division of the Agricultural College of Kansas, at Manhattan, gives complete instructions regarding the building of this type of silo.

Ice House for Silo.

An inquiry comes from E. M., of Russell County, Kansas, as to whether an underground ice house 14 x 18 with 8-foot side walls could be used to store corn fodder as silage. He also asks as to whether new wheat straw could be used to satisfactorily bring the milk cows through the winter, stating that he had 20 new straw stacks and had 20 head of cattle left and 18 head of horses.

If the walls of this ice house are absolutely air-tight and perfectly smooth, it probably could be used as a silo. There will always be spoiled silage in the corners of a square silo, since it is very difficult to pack the silage solidly in the corners. In filling a square silo it should be tramped very solidly in the corners. If our correspondent is unable to run the corn fodder through a cutter he can place it in this pit in bundle form, but will have to use the greatest of care in packing it or there will be considerable spoiled silage. A silo as shallow as this will not be as satisfactory as one having greater depth, since there is not sufficient height of material to give much pressure.

In answer to inquiry regarding feeding of straw to horses and cattle, will say that wheat straw alone makes a very poor ration, but can be successfully used as a large portion of feed for wintering cattle. At the Hays Experiment

Station cows were wintered in splendid shape by giving them 20 pounds of silage daily and all the wheat straw they would consume, and in addition a pound of cottonseed meal daily per cow. Some years ago at the Kansas Experiment Station at Manhattan some tests were made in the wintering of cows on wheat straw with a very small grain ration in addition, which resulted very satisfactorily. Cottonseed meal or cake would be the cheapest and most satisfactory feed to use for this purpose. The cows in the Hays test gained at the rate of one-half pound per head daily during the 100 days of the test. The straw can likewise be used in wintering the horses, but more grain will be required, since the horse is not so well adapted to digesting large quantities of bulky feed.

Advantages of Live Stock.

The live stock farmer is not dependent upon one or more grain crops of uncertain yield and price. When he has fat cattle, sheep or hogs to sell he is sure an open market is waiting every working day in the year. His live stock is the same as cash in bank and almost anywhere can be realized upon inside of 24 hours. Live stock returns are not properly handled. Further, if he is a specialty live stock farmer his crop is ready when the supply is light and the price at the high point.

The man on the farm who sells off wheat, oats or corn is selling raw material on which a number of men will later make a manufacturer's profit. The producer of raw material is usually relatively the most badly paid man in the line.

Growing and fattening live stock permits the continuous economical employment of farm labor, which in a system of exclusive grain farming is needed only at special seasons when labor is scarce and price consequently high.

Pasturing of live stock and rotation of crops needed to supply them with the necessary feeds is nature's own best prescription for clean farms, free from weeds.

This same system of crop rotation, together with the growing and fattening of cattle, sheep and hogs permits in the highest degree conservation of natural soil fertility, which is the prime object of every good farmer.

In section devoted exclusively to grain growing there is a time every year when farmers complain of shortage of cars, lack of elevator capacity and congestion of loaded cars at terminals. Every one wants to ship grain at the same time and every one cannot be accommodated. The daily movement of live stock to market means not only daily revenue for the farmers, but also prevents in the most sensible way railway congestion, enabling railroads to give all classes of shippers more regular and uniformly better service.

Live stock in the hands of the farmer furnishes him the best possible security to be offered his local banker. When a farmer wants a little money for permanent improvements on his land or any other legitimate purpose American bankers have found cattle paper absolutely safe and liquid in times of financial peace or panic.—JOHN J. FERGUSON.

Silage for Sheep Feeding.

W. B. C., one of our subscribers, is about to start farming on an 80-acre farm in Northern Missouri, and plans to build a 100-ton silo and feed some western lambs for market, and asks for suggestions along this line. Silage has not been so generally used for sheep feeding as it has for the feeding of cattle. With the necessity for utilizing the whole corn crop, the sheep feeder has gradually been taking up the feeding of silage to sheep. It has generally been found that sheep do not use silage to quite so good an advantage as cattle. It is probably never advisable to make silage the sole roughage ration for fattening sheep. A number of experiments have been conducted at the Indiana Experiment Station and others, and these experiments indicate that the best ration is one consisting of about seven parts of shelled corn, one part of cottonseed meal and all the corn silage and clover hay the lambs will eat. In these series of tests the poorest ration of all

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As a hog conditioner — as a preventive against Cholera — or for destroying worms in hogs, take a tin from one of the best known stockmen in the Northwest and feed

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A quart of a can to every barrel of slop, or a teaspoonful to five gallons is sufficient, and may be the means of saving you hundreds of dollars in hog profits this year.

But don't experiment. Get the genuine. Insist upon Lewis' Lye, the purity and full strength of which is absolutely guaranteed — the only 88% lye made and sold by manufacturing chemists.

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was one consisting of timothy hay and shelled corn. In feeding a mixed timothy and clover hay the more clover contained in the hay the better will be the results.

When lambs are given all the silage they will eat twice a day, the average daily consumption of the ordinary western lamb would amount to about one and a third pounds daily. He will consume in addition about three-fourths of a pound of clover hay and from a pound to a pound and a fourth of corn. Since our correspondent plans to keep but three cows and five horses, the bulk of his silage will be available for feeding the lambs. In order to feed the silage rapidly enough to prevent it from spoiling, about 1,000 pounds per day must be removed from a silo 14 feet in diameter. It will require in the neighborhood of 600 lambs to consume this quantity of silage on the basis of suggestions given.

If our correspondent has had no previous experience in feeding sheep it would be better for him to start with not to exceed one carload. This number, however, would not consume the silage from a 14-foot silo rapidly enough to prevent spoiling. It would be well for him to secure all the information possible on feeding sheep before beginning his operations. The book entitled "Sheep Feeding and Farm Management"

written by Prof. D. H. Doane of the Missouri Agricultural College at Columbia, Mo., is probably the best book available on the general subject of sheep feeding. This book, however, gives no information whatever on the use of silage in sheep feeding. If they are still available, it is possible bulletin No. 162 from the Indiana Experiment Station at Lafayette, might be obtained by sending a request to the director of the experiment station. The book by Professor Doane can be secured through the publishers, Ginn & Co., or from the Missouri Co-operative Store, Columbia, Mo. The book sells for \$1.00.

In marketing sheep, the most important consideration is that they be finished or fat before they are shipped. The ideal weight for the western lamb when finished is about 75 or 80 pounds and the nearer they approach this weight, the more nearly they will come to topping the market. Nearly all sheep that are fed in the late winter or early spring are sheared before they are placed on the market. It has been invariably noted that as soon as sheep are sheared in the spring they immediately pick up and make more rapid gains from that time on. If our correspondent put up a 100-ton silo the most satisfactory size would be 14x32. It would require from 10 to 15 acres of corn to fill such a silo under ordinary conditions.



E. Myers, President, E. Myers Lye Company

Don't Be Disheartened By Hog Losses Prevent Future Losses With MERRY WAR POWDERED LYE

I know just how you farmers and hog raisers feel when you see a nice big bunch of fat hogs taken down sick, refusing to eat, getting thin and scrawny and sinking off into fence corners to lie down, stretch out and die. It's hard luck. It means the loss of hundreds—perhaps thousands of dollars to any one of you.

Now I want to tell you that there's no need for you to be discouraged—no need for you to repeat that disheartening experience—no need for you to lose another hog on account of Cholera or Worms. Just do what thousands of other practical farmers are doing every day—mix a little MERRY WAR POWDERED LYE with your hogs' rations (directions on every can) and feed regularly twice each day.

Fat, Healthy, Worm-Free Hogs

will be the result. It will put and keep your hogs on their feet—destroy every ill effect of hog worms—keep your hogs so healthy, strong and vigorous that, even should cholera break out in your neighborhood, they'll be so conditioned as to resist it. Thousands have proved by experience that MERRY WAR POWDERED LYE is a safe preventive of hog cholera.

Read This Convincing Proof

J. E. VAWTER, Beverly, Kans.—"25 hogs lost 3 miles east; 50 hogs lost 2 miles north; 20 hogs lost 25 miles south of me, but I used MERRY WAR POWDERED LYE and escaped loss." MRS. T. AKINS, Hoxie, Ark.—"MERRY WAR POWDERED LYE is all the Lye that we use. Before we began using it we had a lot of hogs with Cholera. We used it and it cured our hogs."

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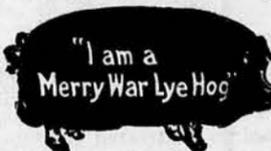
MERRY WAR POWDERED LYE is for sale at most grocers, druggists and feed dealers everywhere, 10c per can (120 feeds). It is convenient to buy in case lots—4 dozen cans \$4.80. Costs only 5c per hog, per month, to feed regularly—by far the best and much the cheapest hog insurance you can buy. If your dealer can't supply you, write us, stating their names. We will see that you are supplied, and also send you, free, a valuable booklet "How To Get The Biggest Profits From Hog Raising." Order direct from us in case lots (4 dozen cans \$4.80) if your dealers won't supply you.

There Are No Substitutes

Don't experiment with ordinary, old-fashioned lye. It might prove dangerous. MERRY WAR POWDERED LYE is the specially prepared lye that is safe to feed to hogs. Full directions on each can.

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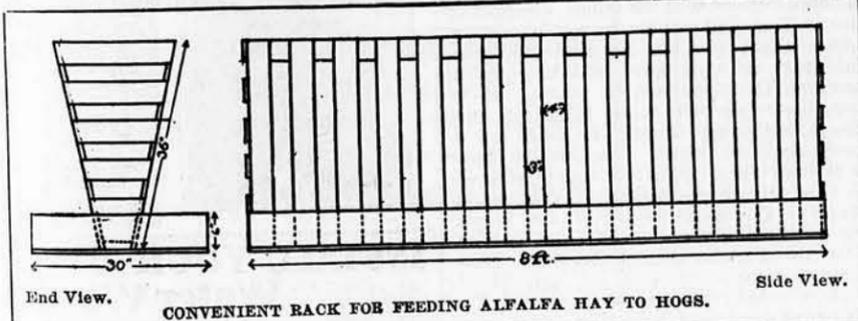
Hogs on Farm Indispensable

Continued From Page Five

of the racks and had been fed to stock cattle so the sows were charged with only two-tenths of a ton of alfalfa hay. They were more than maintained since they increased in weight at the rate of over one-half pound daily during the four months of the test. Under present conditions in Kansas, wheat is cheaper than corn, and as a grain ration for mature brood sows, is superior to corn. Wherever wheat is available this would be the cheaper grain to use in connection with the wintering of breeding hogs of all kinds. The pasture should not be neglected. If wheat is not available, rye should be sown at the earliest date possible so as to supply green feed during the early part of the

claimed that since he had followed this practice his brood sows came out of the winter in a much stronger and thriftier condition and the pigs farrowed were extremely strong and vigorous. Others have used the alfalfa with very small amounts of corn feeding not to exceed one pound of corn per head daily to large brood sows.

For the feeding of alfalfa it is desirable to have some suitable racks provided to prevent the hay from being wasted. At the Kansas Experiment Station it has become an established practice to have such a hay rack placed in every pen where hogs of any kind are being wintered. These hay racks are kept constantly supplied with fresh al-



winter and again in the spring. The results secured at this experiment station have been duplicated by many a successful hogman. Mature brood sows have been wintered on alfalfa hay alone. Ex-Governor Hoard of Wisconsin, who some years ago was present at the Improved Stock Breeders' Association made the statement that he had adopted the use of an almost exclusive alfalfa diet for his brood sows as a regular farm practice during the winter season. He

alfalfa hay, and it is always the aim to select hay of the finest quality possible for feeding to the hogs. The illustration on this page shows a good type of rack for this purpose. The methods which have been suggested for handling hogs when grain and other feeds are high in price, might well be put into practice in years of plentiful feed crops. Such methods would insure wider margins of profit than where more wasteful methods are followed.

Have a Laundry Room

Every house which can afford it should have a laundry room, because washing in the kitchen is unsanitary and makes more work. A moderate sized well built laundry room adjoining the kitchen, but separated from it by a hall with a window in each end extending the entire length of both kitchen and laundry room, will give a very good place for washing and ironing, the ventilated hall preventing odors entering the kitchen and the laundry room affording a comfortable place for work.

At one end of the dividing hall there should be a fuel room opening into both laundry and kitchen and at the other end of the hall, a men's wash room and a closet for hats and coats. In case coal is used, a dust-proof fuel bin made of metal should be provided. In any case, the partition should not extend entirely to the ceiling on either the fuel end or the wash room end of the hall, but

should be full and tight, with close-fitting doors between it and each room. The partial partition will permit of ventilating the hall by opening the windows. The washroom entrance should be from the outside, that the men need not go through either of the other rooms.

All utensils needed in washing and ironing, together with the laundry stove, washing machine, and other labor-saving laundry devices, could be always in place and ready for use in this room, instead of being constantly carried from one point to another as is unavoidable when the kitchen is used as a laundry room.—JUNIATA L. SHEPPERD, St. Paul, Minn.

The farmer most interested in his work will always accomplish more than the one who regards all he does as mere drudgery.



THERE are many times when you need a strong, light-draft wagon in your work.

The Mitchell Wagon is made for just such times; and is built of such carefully selected, air seasoned lumber that it will last and work for you many years after you get it.

If you will make a careful study of a Mitchell wagon you'll see how our 79 years' wagon building experience is going to benefit you.

Experience has proven that:

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The strength, long-life and easy running qualities built into every Mitchell wagon is the reason for its being so well known as Old Reliable.

Don't put off getting acquainted with the Mitchell wagon.

For prices write the factory or the nearest branch house or representative:
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S. M. Aikens, Pilot Mound, Man.

The GasPull fits any size farm from 160 acres up. It's light and goes anywhere. It is simple, handy, powerful, and inexpensive to buy or to run. 2-cylinder, 15 drawbar h.p., 30 at belt—weight only 11000 lbs.—low platform, variable speed, convenient levers—working parts protected—usually pulls 4 to 6 plows—hauls 30000 lbs. on roads not too hilly—drawbar pull of 3000 lbs. on low gear.

The Olds Engine

For the smaller jobs on the farm where a stationary or portable engine will fit in, you can't find a better one than the Olds Engine—It's built of the best materials and workmanship. It will save many a job for the horses and yourself. You can get it, stationary, portable or skid mounted, in sizes from 1 1/2 to 18 h.p.

Our gang plow should go with every tractor outfit. We also furnish every kind of farm power machine—balers, husker-shredders, sheller, separators, saw rigs, cream separators, feed mills, etc.

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POULTRY



But cooler days will soon be here and the chickens will take a fresh lease of life and begin to make up the time and flesh they lost during the hot spell.

The molting season is now on and the hens are listless and tired; in fact they may be said to be in a stage of sickness. Molting causes the hens much annoyance. The greater the annoyance, the lower the appetite will be, and to make the hens feel like eating, we must make them feel quite comfortable and this we can do by giving them a cool, shady place in which to rest during the day and feed them the most nourishing of foods. Sunflower seed, oil meal and other oily feeds aid in the growth of feathers.

It is poor policy for a beginner to endeavor to keep several breeds of poultry. The probabilities are that he will give them all like attention and food when they need to be treated according to their natural dispositions and peculiar needs. The results are that he will favor a certain breed because they do better for him, when in reality the others would have done just as well, if they had received the same treatment which was due them. Do not attempt too much, but select a breed and then a variety of that breed and stick to it.

It is with fowls as with men, there is always a demand for the best. The market is often overstocked with poor poultry, but there is never an over supply of first class birds. If you don't believe this, just you go around the next poultry show or fair and ask the winners of the blue ribbons as to their prices for their winning birds. You will find either that they are not for sale at any price, or that the price is way beyond the capacity of your pocketbook. So if you want to be sure of success, see to it that you waste no time or money in breeding inferior stock, but get the best, and then bend every energy to improving the quality every year.

It is hardly necessary to tell anyone to be economical with their feed. The high price of grain ought to be sufficient reason for that. Feed only what the birds will eat up clean. More than this is wasteful and with grain at the price it is now, such leaks should be stopped. Feed enough but do not overfeed or waste. Keep up the appetites, but do not feed them so much that they will not relish more. There is but one time when they should have all they want, and that is at night. This feeding should be of the most substantial of grains and should be fed the last thing before the fowls go to roost. They will need it for the long night. With young chicks the growing time is the night.

Fill them up the last thing at night but keep them looking for something during the day.

If you wish to get well started in the poultry business, there is no better time to pick out what you want than during the fairs and shows that will soon be in full swing. You can buy stock much cheaper now than you can when the breeding season commences. Get some good breeding stock as soon as possible, and put them into the quarters they are to occupy during the year and give them a chance to adjust themselves to new conditions and surroundings. You can begin at once to study their characteristics, and find out how they respond to your feeding and treatment, so that within a month or so they will be at their best and give you satisfactory results as to egg production, and when it is time to begin incubating, everything will be in readiness, and during the spring months you can get a good start in raising a nice lot of young chicks for sale to others, or for increasing your own flock.

A breeder of pure-bred poultry once remarked concerning a party to whom he had sold chicks: "He will have fine birds this year and poorer ones next year." He meant by this that the man would not take proper care of the birds, and would not give attention to the mating of the birds for good results. We find many people that are anxious to secure good birds, but after they are once in possession of them lose further interest in them, seeming to think that these birds will produce their like year after year without any particular attention being paid to them. He probably would inbreed, and this, unless he knows the business thoroughly, is the first step in the process of deterioration of a flock. It matters little how good stock you get at the start, if you do not give them the attention which they demand, they will in time disappoint you. You will speak in no uncertain terms about the breeder that sold you the stock or eggs, never thinking for a moment that you are to blame. It is very easy to let your poultry run down, but very difficult to build up a good flock of birds. No matter how well bred they are, they must be bred as carefully in the future if you would preserve the good points of the breed. By purchasing male birds from parties who are working along the same lines that you are, you will get new blood that will help matters very materially. By purchasing now and then a few sittings of eggs you will get new stock that can be used to advantage. Keep the word "improve" ever before you, and you will not only keep the flock up to the standard of what they were originally, but make them better.

COMING TO THE FAIR?

KANSAS will next week at Topeka show the best she has in all kinds of live stock, agricultural products, etc., at the annual exposition of the Kansas State Fair Association, September 8 to 13.

Do not think for one minute that a little dry and hot weather has put this great fair on the blink or that it will have nothing to show for the credit of Kansas. Not only will the best of Kansas live stock be there, but also many of the best herds of cattle, horses, hogs and sheep of other states. And there will be an agricultural and horticultural show, too. Some grand county grain exhibits will be in place, also. Then there will be music, good racing, and a grand evening entertainment.

Then there are a hundred things in Topeka you will want to see—your state capitol, your state officers, your memorial building and your state printing plant where your school books will be made. Besides, there are the city buildings, parks, the Santa Fe shops, city stores, etc.—all well worth seeing.

Now you will enjoy a trip to Topeka on this occasion—you owe it to yourself and your family to take a few days off. The world seems a lot brighter after one takes a glimpse of things outside of his own little circle.

Your family and yourself have worked hard this year as in past years—you deserve a few days of vacation each year whether you take them or not—so do the boys and the girls—and above all the wife and mother.

It certainly cannot be regarded as time fooled away in attending the Big State Fair. It will be instructive as well as entertaining. The chances are that a few days' attendance—if you keep your eyes and ears open—will make you as much money as if you were at home hard at work.

Come to the fair. Come with a receptive mind, get all there is to get at the fair and in the city. You will go home better satisfied with what you have and have been doing—and if not, probably with a feeling that you will do better.

FITZ SAYS "I know a man who knows so many grips that he's afraid to shake hands with his wife."
FITZ OVERALLS

A bully good brand—the kind of work clothes that makes the work easier. Worn wherever there is work to do. On the farm, in the factory, outside and in, you'll find satisfied workers wearing FITZ.



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CHICKEN THIEVES

Steal millions of dollars of farmers and poultrymen, and how to get rid of them is a problem many cannot solve. It is very easy to do if you use Liceoil, Metzger's latest discovery, a new and modern method of doing away with these thieves. To quickly exterminate them and make more money with poultry use Liceoil, the strongest lice killing compound made. Works like magic. Simply put a few drops in nests and hang balance of uncorked bottle high in coop directly over roost. No painting, no spraying, no dusting. Lice, mites, chiggers, bed bugs, roaches, ants, etc., have no lungs; they breathe through the pores of their body and cannot live in these powerful evaporating vapors, which are three times heavier than air and descend in a misty form penetrating feathers, cracks and crevices everywhere, instantly destroying insect life. Liceoil vapors will not injure chicks. Cheapest to buy, easiest to use. Price, \$1.00 for season's supply. Money back if it fails. Your dealer will supply you. If he refuses, send \$1.15 for package, express prepaid.

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Reinforced Concrete Silos are given first place by all recognized authorities. A concrete silo prevents silage from drying out and they are fire-wind-rat proof.

Don't wait until the last minute—get ready NOW. Sooner or later every farm must have a silo. Delay means loss of money to YOU. Write us today.

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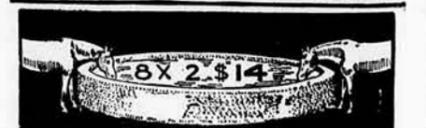


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CONCRETE TANK

No cracks, no rust, less cost than any other tank made. FREE—How you can build Tanks and Silos.

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OILS ALL KINDS. X-Ray Kerosene, 6c. Send \$4.50 and get 50 gallons. Return barrel and get \$1.50.

ROLLIN OIL REFINERY
Chanute, - - - Kansas.

When thinking of good hogs it is easy to think of the H. B. Walter herd at Effingham, Kan. Mr. Walter has a big lot on hand this season and they have done exceptionally well notwithstanding the hot dry weather. About all of the spring pigs were sired by the Expansive boar, Walter's Expansive, one of the greatest individuals ever owned by Mr. Walter. This boar is now in his three-year-old form and is a real show hog, and had Mr. Walter yielded to the wishes of the fieldmen and his breeder friends he would be showing him at some state fair. He is proving a great producer as well, and will be better known and more universally liked than his sire, Expansive, ever was.

STATE FAIR - TOPEKA

NEXT WEEK

The following firms welcome you to their booths and exhibits on the fair grounds and also to their business places down town. They want you to feel at home around them, and **MAKE YOUR HEADQUARTERS WITH THEM**

NEXT WEEK

Paige 36—\$1275

The biggest real value in automobiles today. The sensation of the auto industry, having every late improvement complete. : : : : : : : : :

Call and see us while Attending the Fair.

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Topeka, Kansas

CALL THE

Manhattan Cleaners

For All Cleaning and Pressing

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Will call and deliver

BIG STATE FAIR SPECTACLE.

THE State Fair, Topeka, has created a reputation far and wide for the quality of its night entertainment. Each evening during September 8 to 13 inclusive Pain's "Old Mexico—1847" will be the feature. It is a spectacular display of fireworks unequalled in the history of pyrotechnics. It cost the Pains \$50,000 to produce this show, and costs the State Fair \$7,500 to put on. The "scenario" has 15,000 square feet of mimic City of Mexico, 350 feet of stage, 350 people in the cast, 28 trained pyrotechnists, 15 special set pieces of fireworks and which with other fireworks will consume 250 pounds of powder, 100 pounds of dynamite, \$1,200 worth of explosives going up in smoke each night. Other notable features are warfare, volcanic eruption, earthquake, Marshall's big military band of 50 pieces, and six big circus acts. This alone will be well worth a trip to Topeka.

The production of "Old Mexico" is an honest effort to educate as well as entertain, and the result of much research and arduous labor by gentlemen who, together with a corps of distinguished painters, spent nearly a year in and around the City of Mexico, gathering data concerning the battles fought between the American and Mexican forces and sketching the city, its buildings and surrounding country.

This vast wilderness of painted canvass as a consequence is filled with plastic and painted objects of great interest, none more so than those of the Chapel of the Virgin of Guadalupe and the tree of Noche Triste, a dilapidated church and a grand old cypress that would attract attention even were they not surrounded with the halo of history. The chapel was erected in memory of that night of dreadful battle when the Spaniards under Cortes, driven like sheep from the hordes of Aztecs, perished as never before in the world, trodden under foot with their backs to the enemy.

"La noche triste" they called that awful night of black despair, "the sorrowful night," and this aged cypress that still stands in defiance of the assaults of time, "el arbol de la noche triste," the tree of the sorrowful night. Here on the night of July 1, 1520, Cortes sat down on a stone and wept at the loss of his soldiers—beneath this tree it is affirmed by some, at all events near this spot—and here, in the suburb Popolita, the Aztecs relaxed their pursuit, else not a Spaniard would have remained alive to tell the tale. In the scenic arrangement both chapel and tree can be seen standing at the right of the aqueduct and gateway of San Cosme, over the causeway to which stream the victorious American soldiers taking possession of the city.

The Largest Display of Road Machinery

Ever Made at a fair in the South West

Make our tent your headquarters

Road Supply and Metal Co.

Perfection Metal Silo

Chosen by men of Experience

See it at the

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\$1,685 to \$2,635

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AND YOUR NEIGHBOR'S CROP BURNED UP!

But there was no need of it had you owned a Valk Pump and Simple Oil Engine. A child can run a Valk Pump and Simple Oil Engine. No complicated parts. Has no cams, gears, magnetos, spark plug, carbureters or batteries to contend with. Will work while you sleep. No gasoline. Engine burns the cheapest kind of oil. Undoubtedly the simplest, most durable and most efficient piece of machinery on the market. Look for us on the Fair Grounds with a Pump and Engine in operation. Our factory is at 912 Jefferson Street, Topeka, Kansas. Call and see us. **VALK MANUFACTURING COMPANY.**

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The Wm. Schick Mfg. Co.

Welcomes you to their showing of Mattresses and Upholstered Furniture.

SEE US AT THE FAIR

1914

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With Gray & Davis Electric Starter and Generator—\$1,075 f. o. b. Toledo.

Electric head, side and tail lights. Storage battery and ammeter. Thirty-five horse power motor. Timken bearings. 114-inch wheel base. Splitdorf magneto. Model R Schebler carbureter. Three-quarter floating rear axle. 33 x 4 Q. D. tires. Brewster green body with light green striping, nickel and aluminum trimmings. Cowl dash. Turkish upholstery. Mohair top and boot. Clear vision wind shield. Stewart speedometer. Electric horn. Flush U doors with disappearing hinges.

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The Inside of a Shoe

The Star on the heel means Honest Shoes



Go to the "Star Brand" dealer and see this Cut Shoe



The Inside of a Shoe

It is a lamentable fact that 90% of all shoes sold for less than \$4.00 contain substitutes for leather in the heels, counters and soles. You pay pure leather prices for this shoddy.

Pure shoe Legislation is pending in Congress and many different States. We heartily endorse it, because the rights of 100 million people are greater than those of a few hundred manufacturers.

The "Star Brand" dealer has one of the "Our Family" shoes cut up so you can see just how it is made. The uppers are made of the finest Box Calf or Velour Leather. The heels, counters and soles are of genuine sole leather. No substitutes for leather are ever used.

Go and see the "Our Family" and other "Star Brand" shoes. Then

cut up an old shoe that has failed to give satisfactory service and note the vast difference in construction and material used. You will then know why "Star Brand Shoes Are Better."

You can get "Our Family" shoes for Men, Boys and Youths at \$2.00 to \$3.50; also for Women, Misses and Children at \$1.50 to \$2.75. You will find it is the best every-day shoe you have ever worn.

The "Our Family" and other "Star Brand" shoes are sold by 20,000 good merchants. Look up the "Star Brand" dealer in your section.

"Star Brand Shoes Are Better"

ROBERTS, JOHNSON & RAND
MANUFACTURERS Branch of International Shoe Co. ST. LOUIS

Kafir and Milo For Next Year

Good Seed of These 1913 Crops is Worth its Weight in Gold for Next Year's Planting

MANY a farmer in Kansas who should plant kafir and milo next year will find it extremely difficult if not absolutely impossible to secure suitable seed. Conditions have been such that only the more favored localities will have surplus seed this year. Some have had fields which caught a little extra water and these have been able to mature seed. Others have planted kafir on summer fallowed land and have been able to produce a grain crop by reason of the moisture stored up in this manner. These fortunate ones must supply the seed for those who have produced none.

The man with a surplus of kafir or milo matured sufficiently for seed can well afford to spend the time necessary in selecting a sufficient quantity of this seed so as to have some available for the use of the other fellow. The planting of a considerable acreage of kafir and milo with well selected, germinable seed, has a very important bearing on the welfare of the agriculture of Western Kansas. Planning in advance for this necessary supply of seed is a good cause and KANSAS FARMER is willing and ready to help. Every man who will have more good seed available than he needs for his own use is asked to report to us stating the probable amount and kind. We will furnish suggestions on the proper selection and handling of this seed and will carefully file all names of those reporting and aid in later putting them in touch with those having need of the seed for next year's crop. Let us all co-operate in this matter and make it possible to thus avoid the use of inferior seed or make it necessary to reduce the acreage devoted to these valuable crops.

TIMELY pointers were given in KANSAS FARMER last week relative to the importance of giving careful thought and preparation to the selection and care of seed corn for the crop of 1914. It is equally true that the success of the kafir and milo crop of next year will be largely dependent upon the thought and effort given to the selection and handling of the seed which will be needed for next year's planting. The same general advice will apply equally in the case of the handling of the kafir and milo seed as was given in connection with the selection and care of seed corn.

Milo and kafir seed which has been stored in bins almost invariably heats at some time, and for that reason perhaps little use can be made of old seed for the production of next year's crop. The difficulty of securing good stands of milo and kafir undoubtedly can be traced many times to the fact that the seed for these crops is taken from bins instead of selected and handled in the head. Germination tests only can determine whether old milo and kafir can be depended upon for next year's seed. If such tests show a fairly high percentage of germination, a sufficient quantity of this seed should be carefully cleaned up and stored in such manner as to prevent further heating if possible. It should by all means be stored in a perfectly dry place and should not be piled on the bin floor over two or three inches deep. Stirring this about once a week with a scoop shovel will aerate it sufficiently to prevent further heating. Kafir and milo seed which has been saved in the head can be carefully stored away in a dry place suspended from wires or rafters of some building and will remain in good condition until planting time.

The amount of old seed available, however, will probably come far short of supplying the necessary seed for next year's crop. It is also true that less than the usual amount of kafir and milo will mature good seed this year. There are undoubtedly fields in specially favored localities all over the state which, even under the adverse conditions which have prevailed this season, will mature seed. The farmer on the upland or in localities where conditions have not been so favorable will have to depend entirely upon securing his seed from outside sources. The fact that the amount of seed which will be matured will be much smaller than usual will make it necessary for those who have seed to save a much larger amount than they need for their own use if the full demand for seed next year is to be met. Every man who has produced a seed crop this year should by all means make considerable effort to save as much of this as possible in such shape as to make it available for supplying the needs of those less fortunate. Seed which has been matured in Kansas should if possible be used in order to supply the seed required. The adverse conditions under which this seed has matured this year will add much to its value. Seed which has grown and matured under adverse conditions will be worth much more for seed purposes than that which is grown and developed under the most favorable circumstances. We are greatly in need of strains of kafir and milo in Kansas

which have adapted themselves to the adverse conditions of soil and climate which often prevail in various sections.

The editor while crossing Western Kansas recently saw some six miles west of Gorham in Ellis County a field of 10 or 12 acres of apparently pure, dwarf milo. This crop was at that time in blossom, was very uniform and showed every evidence of maturing seed. Seed from this field is really almost worth its weight in gold. Not a bushel of such seed should be fed on any account whatsoever. It is a hundred times more valuable as seed than feed. There are undoubtedly many such fields of kafir and milo scattered over the western part of our state. If the seed from such fields is carefully selected in the head and carefully handled, it will yield a much larger money return to the producer than if handled simply as a feed crop. Perhaps in many cases those having such fields will be tempted to use them simply for feed purposes owing to the great shortage of feed. Under prevailing conditions this year a considerable effort might profitably be made to replace this valuable seed with other feeds so that the higher return in cash could be secured by saving the grain part of the crop for seed purposes.

The grower of kafir or milo should exercise considerable discrimination in selecting the type of heads for seed. By adhering to certain definite standards wonderful results can be accomplished in improving the type and character of this crop by following such methods through a period of years. This year, however, we cannot be too particular in making the choice of seed heads. Even somewhat inferior heads which have been produced under the conditions this year would be more desirable for seed than seed from perfect heads imported from some other remote locality. The observations of those who have for years watched the results of home-grown as compared with imported seed, as well as the experiences of farmers, justifies the conclusion that the home-grown seed invariably gives the best results. It is true that in some localities nothing but mongrel, inferior seed is available, and it becomes necessary to import pure strains, and by careful selection through a period of years in breeding plants acclimate this imported seed to local conditions.

Far too little attention has been given in Kansas to the improvement of the kafir and milo crops. These crops really have degenerated since they were first introduced. They were admirably adapted to withstanding conditions which prevail through the western sections of our state and farmers found that these crops, when handled in a most careless, slipshod manner, could be depended upon to produce large amounts of feed when corn failed. It became the habit to leave the seeding of the kafir, cane or milo until the corn was planted and there came a lull in the spring work. Seed which had been seriously injured by heating in the bins was commonly drilled in poorly prepared ground. In spite of this lack of care, these crops have steadily made good. While making the trip already referred to, the editor could not help but notice that

(Continued on page nineteen)

For All Buildings In All Climates

The true test of a roofing is its ability to withstand unusual conditions. Illustrations show buildings on which J-M Asbestos Roofing has withstood 120° of heat without melting or drying out—40° below zero without cracking—deadly gases and chemical fumes without being injured—and a constant rain of hot sparks without burning.

The wonderful durability of this roofing is due to its all-mineral construction. There isn't a particle of perishable material in

J-M Asbestos Roofing

Made of that indestructible rock, Asbestos, reduced to felt and cemented layer on layer with Trinidad Lake Asphalt, the greatest known water-proofer. Literally a flexible stone.

This roofing is still in good condition on hundreds of buildings throughout the country after more than 25 years of wear. Costs less per year of service than any other roofing—its first cost is the last cost. No coating or gravel ever needed.

Easily applied. Shipped direct from our nearest Branch if your dealer can't supply you. Write for free sample of the wonderful fire-proof ASBESTOS ROCK from which this roofing is made, and our Book No. 2490

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For Canada: The CANADIAN H. W. JOHNS-MANVILLE CO., Ltd.
Toronto Montreal Winnipeg Vancouver

Educational Meetings.

The day is near at hand when "the little red schoolhouse" will be open again. One of the foundation stones upon which the Grange is built is education. It has labored long and effectively in behalf of better rural education. Sometimes, however, we may overlook opportunities for good that are lying at our door. Last fall, in Ohio and other states, some Granges held

"educational meetings." We believe in these. There may be many ways in which the local Grange could be of use to the local school. A meeting of parents and teachers and a discussion of real school problems will at least bring them in closer touch with each other—and that in itself is worth much, for often teachers and parents misunderstand each other.—National Stockman and Farmer.

HOME CIRCLE



The cook who knows how to make good soup clears it with the white of an egg; it gathers all small solids, as when dropped into coffee, thus making it clear.

For an appetizing salad, mince a couple of green peppers, mix them with three tablespoons of chopped chives, and serve on white lettuce with French dressing.

A Desert That Children Will Like.

Make an ordinary blanc-mange. While still hot add a cupful of freshly boiled rice. Put a few slices of banana, orange or pineapple in the bottom of stone molds or ordinary earthen cups, pour in the hot blanc-mange, filling to the top. Set away to cool. When ready to serve, turn out on saucers or glass dishes and surround with fruit juice or jelly.

Different Views.

A colored man and his girl went to an old negro preacher to be married. The latter had a sense of responsibility, and undertook to lecture the two before tying the knot. "Rastus," said he to the man, "are yo' sho' yo' want dis gal? Dey tells me she ain't nothin' of a cook, an' I seen her myself playin' de pianna by de hour while her ol' mammy were playin' de washbo'd."

"Well, sah, dat's a sign to me, she's educated. I ain't afred to tek her."

"An' Jinnie," said the old man, "w'at yo' want to tie yo'se'f up to a no 'count niggah like dis one fer? Many's de time I see 'im comin' along in de dark ob de moon, wid chickens squawkin' under his arm w'ere he'd spiled his neighbor's henroosters. Do yo' want a man like dat?"

"Yas sah," answered Jinnie, "it sounds to me lak he wore a good provider, sah."

"Well," said the old fellow with a sigh, picking up his service book, "all I got to say is, youse two ob de bigges' fools dat de ploughshare ob ma experyence has eber tu'n out ob de furrow ob human natur'."

The Farmer's Wife.

One Brother Holmes down in Washington, from which place all good things are supposed to emanate, has slung out upon the country his opinion that farm women are shiftless and lazy, flippant and light. We would not like to hurt any honest man's feelings if we thought there was nothing to be gained. If there is anything to be gained it would be of minor importance whether a man who emitted such forceful mental illusions was hurt or not. In another column we are glad to quote a "poem" on the subject by a loyal friend to the cause.

Mr. Holmes claims that girls do not know how to knit. Just why they should know how to knit and be proficient in the art of making socks for their liege lords, since commercialism has been allowed to take the industry

out of their hands and make it an utter extravagance for them to spend their time trying to create a sock, is a problem. It may be a good deal better for a mother to complete a pair of socks literally, heel, toe and all, than to buy a pair at the cost of a dime or 15 cents and have anywhere from 12 to 24 hours to rest, read, associate with her children and brush the cobwebs out of her own brain.

We do not argue against industries. We believe there is nothing like handicraft work to beget contentment and to bring in a side income to the farm home, but as for claiming that farm women are lazy because they do not knit stockings is such useless waste of breath it almost seems that every one who refuted it was bringing themselves down to the same level.

The Farmer's Wife wonders if Mr. Holmes ever helped his mother do housework; ever lived on a farm, or in fact ever saw a farm. We wonder if he has heard his mother crawl out at 4 o'clock in the morning, build a fire, sort over the clothes, start the washing, milk the cows, come in and get breakfast, call the men, wash the dishes, put up the school lunches, mend the mittens and sew on the buttons, teach the children what they don't know about their lessons, finish the washing, scrub the floors, peel the potatoes, split the squash, clean the turnips, gather the onions, make a pie and a batch of doughnuts for dinner to be prepared at sharp noon, do up the dishes, finish the washing, make the beds, sweep the rooms, pick up the chips, fill the wood box, clean up the cellar, clean the lamps, dry the children's mittens and shoes when they come in from school, get the supper, do up the dishes, put the children to bed and then sit up till midnight mending for the "gude" man, etc., ad infinitum. We wonder if Mr. Holmes has seen this. We wonder what his dictionary definition is of lazy and shiftless, flippant and light. Perhaps we misjudge the man, if so, we crave all pardon, and pass judgment on the farm women.—Farmer's Wife.

Names Wanted.

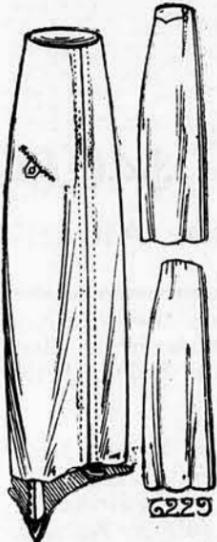
We have an order from Lawrence, Kan., for Pattern No. 6221, 4-year size, with no name signed. Also from Natoma, Kan., an order for Pattern No. 6234, size 40, without name. Please send in names if you wish to receive patterns.

Kodak Albums Free.

Best loose-leaf, any size, for those who have kodak work done. First roll dev. free. Send 2c for free coupon. J. C. Wolcott, Topeka, Kan.—Adv.



No. 6235—Girl's Dress. Nothing could be more simple and nothing more effective than this pretty frock. It is made on sacque lines, straight from shoulder to hem. From the shoulder on each side of both front and back a tuck extends down the entire length of the dress. Just inside these tucks a large slit is worked in the material and a wide belt is passed through. The neck is trimmed with a wide collar and if the sleeves are long they are finished with a cuff. The dress pattern, No. 6235, is cut in sizes 4, 6, 8, 10 and 12 years. Medium size requires 2 1/2 yards of 36-inch material. This pattern can be obtained by sending 10 cents to the office of this paper.



No. 6229—Two-piece Walking Skirt. This serviceable design is cut with two pieces. It is closed in front and has a few gathers in the back; these may be omitted. There is also a small slit with an inset pocket and this need not be used unless desired. Serge, cheviot or broadcloth can be used to make this skirt. The pattern, 6229, is cut in sizes 22 to 30 inches waist measure. Medium size requires 2 1/2 yards of 36-inch material. Price of pattern, 10 cents.

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Efficiency in AGRICULTURE, ENGINEERING, HOME ECONOMICS. THE KANSAS STATE AGRICULTURAL COLLEGE

offers instruction in SCHOOL OF AGRICULTURE—with three-year courses in Agriculture, Mechanic Arts, Home Economics, admitting students on common school standing. COLLEGE OF AGRICULTURE AND MECHANIC ARTS, with courses in Agriculture, Engineering, Home Economics and Veterinary Medicine, admitting students on high school standing. Fall term opens Sept. 16, 1913. Send for one or both of the following pamphlets: "School of Agriculture," "Collegiate Courses" and the "Catalogue." (Correspondence courses offered.) Address, THE REGISTRAR, KANSAS STATE AGRICULTURAL COLLEGE, BOX E, MANHATTAN, KANSAS.

OSWEGO COLLEGE OSWEGO KANSAS

A PROGRESSIVE COLLEGE for Young Women Thos. E. Marshall President STRONG FACULTY

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120 South 14th Street, LINCOLN, NEBRASKA. A thoroughly modern business training school with the finest school home and equipment in the West. Strong demand for graduates. Easy enrollment plan. Students may work for board. Enter any time and receive personal help in studies. Fine catalogue free. Address, W. M. BRYANT, President.

THE COLLEGE OF THE SISTERS OF BETHANY TOPEKA, KANSAS.

Conducted by the Episcopal Church. Fifty-Third Term Opens September 16th. A private boarding school for girls of all ages, where mental, moral and physical perfection is developed to a high state. While absorbing the education of the regular courses, the good companionship and environments of the school are building character of a high order. Courses for girls of all ages. Splendid table—comfortable rooms—20-acre wooded campus. Write for catalog. St. Matilda Bailey, Principal.

The Big Store Refunds Railroad Fare

To State Fair Visitors. According to the Amount of Your Purchases. Our splendid new stocks of fall merchandise offer every opportunity for selection from the best of the world's markets afford. Your entire supplies for fall and winter may be purchased here during your visit to the State Fair. You will not only find our prices unusually favorable, but your railroad fare may cost you little or nothing by taking advantage of our Rebate Offer. All the store's conveniences are at your disposal—waiting and rest rooms, writing rooms, free check stand and telephones. Tea room on the fifth floor.

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Burns gasoline, alcohol or kerosene. Make \$20 a day. Fulton Supply Co., 1681 Fulton, St., Chicago, Ill.

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YOUNG MEN WANTED IN AUTOMOBILE BUSINESS

\$20.00 TO \$50.00 WEEKLY

I will prepare several young men for positions in the automobile business in ten weeks BY MAIL, and assist them to secure good positions. NO CHARGE FOR TUITION UNTIL POSITION IS SECURED. Write at once for particulars. R. S. PRICE, Automobile Expert, Box 463 P, Los Angeles, California.

Your Letter Is Your Representative

When a stranger receives a letter from you he unconsciously "sizes you up" from the appearance of your stationery. If your letter is neatly written on letter heads carrying in colors a beautiful farm scene with your printed name and address, there is no doubt but that the right impression will be made.

To a limited number of KANSAS FARMER readers we are making a great midsummer advertising special offer. Write today for particulars.

KANSAS FARMER PRINTING DEPARTMENT

Crystallized Orange Peel.

Take the peel of three oranges and cut in strips. Pour cold water over them and let come to a boil until the peel is tender. Take two cupfuls of sugar and one cupful of water and boil to a heavy syrup. Put orange peel in and cook until clear. Have a dish of granulated sugar, take peel from syrup and roll in sugar and place in sun to clarify. The syrup can be kept in a jar and used again.

To clean lamp chimneys hold them over boiling water until well steamed; polish with dry cloth. It is far less trouble than washing and the glasses very rarely break.

On the hand-made French nightgowns there is a small loop buttonholed in the center, through which the ribbon is drawn and tied. This saves the time required to sew on the made bow.

VETERINARY SCHOOL
Kansas State Agricultural College
 MANHATTAN, KANSAS

Ranked as one of the six best Veterinary schools in the United States by the U. S. Dept. of Agriculture.

Send for catalogue. Address, H. J. WATERS, President, Box 33.

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 4th Year, \$200,000 College Building has 15 Rooms, including Auditorium and Free Gymnasium. SHORTHAND, TYPEWRITING, BOOK-KEEPING, TELEGRAPHY AND ENGLISH. DAY & NIGHT SCHOOLS. Write to-day for FREE Catalogue "F"

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Is there more than enough in your pay envelope to make both ends meet? If not, we can help you. Write for catalog to

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 9th and Frederick Ave., St. Joseph, Mo.

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A College with large variety of courses; an Academy with commercial courses; a Conservatory of Music and a Department of Expression. Expenses very reasonable. Influences wholesome. It emphasizes character. New Bulletin just out.

S. E. PRICE, President, Ottawa, Kan.

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

The GRANGE

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 Sec'y.....C. M. Freeman, Tippecanoe City, O.

Minneapolis, Minn., and Wilmington, Del., are making plans to secure the meeting of the National Grange in 1914.

When the National Grange met in Hartford eight years ago a seventh degree class of 2,490 was initiated. No National Grange meeting has been held in New England since and the chances are the largest seventh degree class ever initiated will be taken in at Manchester next November.

Why not have a reading circle in your grange this fall? We farmers read very often in a careless, haphazard way without getting the benefit that we might. Many granges have tried the plan of taking one or two good works and working them chapter by chapter with a brief discussion at each meeting. This means study, and ten minutes real study is worth an hour of desultory reading.

Grange Children's Day.
 Under the management of the Equity Grange Woman's Work Committee the Grange children of Lone Elm gave their regular yearly entertainment Saturday evening, August 16. The large hall was well filled and all forgot for the time the drouth and other unpleasant things while they listened with pleasure to violin and piano music, songs, recitations and readings by the young Grangers that are to be.—A. B. H.

Shoo-Fly.
 The following is a cheap and effective fly repellent: Dissolve two bars of soap in warm water, add 1 1/2 pounds of pulverized resin and 1/2 pint of kerosene.

Stir until resin is dissolved and then add 1/2 pint of fish oil and 3 gallons of water. Contentment helps to fill the milk pail.—A. B. H.

Suggested Programs for September.
 1. Roll call, responded to by naming persons in neighborhood not Grange members.
 2. Common Inconveniences Around Farmhouses and How to Remedy Them.—Three Sisters.
 3. Review of the National Grange Monthly.
 4. Stories, "How I Started in Kansas," by some members.

SECOND MEETING.
 1. Roll call, responded to by giving school day anecdotes.
 2. Debate, "Resolved, That the Rural Schools Would Not Be Benefited by Free Text Books."
 3. Paper, "Some Defects in Our Rural Schools," interspersed with recitations, songs, etc.—L. S. FRY, State Lecturer.

Schedule Forage Crops Special.
 The extension department of the International Harvester Company under the leadership of P. G. Holden, will in connection with the Union Pacific Railroad run an educational train over the lines of the latter through Western Kansas and Eastern Colorado. On the train will be competent speakers who will discuss the planting, cultivation and growth of forage crops adapted to the section through which the train is run. Here is the complete train schedule:

- September 15—Bunker Hill, 8:00 a. m.; Russell, 10:30; Hays, 1:30 p. m.; Ellis, 4:00; Wakeeny, 7:00.
- September 16—Collyer, 8:00 a. m.; Quinter, 10:30; Grainfield, 1:30 p. m.; Grinnell, 4:00; Winona, 7:00.
- September 17—Luray, 8:00 a. m.; Waldo, 10:30; Plainville, 1:30 p. m.; Palco, 4:00; Hill City, 7:00.
- September 18—Morland, 8:00 a. m.; Hoxie, 11:00; Menlo, 1:30 p. m.; Colby, 4:00; Oakley, 7:00.
- September 19—Sharon Springs, 8:00 a. m.; Cheyenne Wells, Colo., 11:00; Wild Horse, 2:00 p. m.; Aroya, 4:30; Hugo, 7:15.
- September 20—Limon, 8:00 a. m.; Deer Trail, 11:00; Byers, 1:30 p. m.; Denver, 5:00.



POSITIONS.
 Let's start fair by stating that "if it isn't in a student naturally" we cannot bring it out. You need not "hang back" because you doubt your natural ability since at the end of the first month, we will promptly return all your tuition if your progress is not satisfactory.

Our graduates are insured receiving the most thorough, practical, valuable training to be secured in the West because in addition to employing the very best teachers, we offer courses long enough to include advanced work not to be found in any other Western school.

Other schools advertise to graduate you in less time and with less effort on your part than we will, but will such training as that cause you to advance surely and rapidly, or "to stick in the first job?" Is it wise to save a few dollars or a few months' time and lose thousands of dollars because you were not trained to do the "big things?" Are you determined to make the most of your life? Then write us at once for an explanation of what we offer. Address,

THE SECRETARY, WICHITA BUSINESS COLLEGE, WICHITA, KAN.



EARNING EXPENSES

Places found for students to work for board and room. Many of our young men and women are doing this. We have found such places for all who wanted them during the past year.

Dougherty's Business College
 116 to 120 West Eighth Avenue, Topeka, Kansas.

Finlay Engineering College.
 All branches of Engineering; enroll any time; machinery in operation; day and night session. Finlay Bldg., 10th and Indiana, K. C., Mo. Ask for Catalog E. Phones East 295.

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TOPEKA, NEXT WEEK, TOPEKA

"Look Into The Jayhawker State's Mirror"

The Most Comprehensive Exposition Ever Presented of KANSAS' Agricultural and Industrial Interests

\$40,000 — IN PREMIUMS AND SPEED — \$40,000

All The Desirable Features of Other Years—Together With New and Instructive Attractions

Mammoth Live Stock and Agricultural Exhibits.
 New Fire-Proof Concrete Buildings for Stock and Exhibits.
 Four Grand Band Concerts Daily.
 New and Up-to-Date Free Acts.
 Five Days' Racing with Free Acts and Band Concerts
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EVERY NIGHT PAIN'S MAMMOTH SPECTACLE

Old Mexico, 1847. The storming and capture of Fortress Chapultepec. The awful and awe-inspiring spectacle of Mt. Popocatepetl in volcanic eruption. Scenic effects 350 feet long, 200 performers, followed by the greatest fireworks display ever seen in Kansas.

Patterson's Shows on the Midway. The Fair at Topeka is in a class with the big State Fairs of the Western country. Every Day a Big One. This Fair is Chartered by the State of Kansas and receives from the State the same recognition financially as any fair in Kansas.

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Is better than the one in which you live. Some parts of it may not suit you but there are many places along the Union Pacific System Lines where you can locate and be satisfied.

Write me and tell me what kind of land you want—Irrigated, sub-irrigated or dry farming, for general farming, stock raising, fruit raising, etc.—in the climate that best suits. I will send you the information that will help you locate in the place best suited to your needs.

R. A. SMITH,

Colonization and Industrial Agent, Union Pacific Railroad Co., Room 2426, Union Pacific Bldg., OMAHA, NEBRASKA.

GENEAL LAND CO

40 acres, \$800 (other 1/4 sections in proportion), \$20 cash, balance \$5 per month with interest. One-fifth the price of Ia. and Ill. lands.

OWNER, 217 W. Monroe St., CHICAGO, ILL.

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

BUY or Trade with us—Exchange book free. BERRIE AGENCY, El Dorado, Kan.

FOR SALE

Improved 120 acres, five miles of two good towns; 40 acres prairie hay land, 10 acres prairie pasture, balance in cultivation. Price, \$4,000.

200 Acres unimproved; 40 acres smooth prairie hay land, 160 acres prairie pasture land; spring water. Price, \$35 per acre. Both located in Anderson County.

W. L. WARE, Garnett, Kansas.

CLOUD COUNTY LANDS

240-acre stock farm; 65 under plow. Good investment at low price. Write, W. C. WHIFF & CO., Concordia, Kansas.

OZARK FARMS—Timber, fruit and pasture lands for sale or exchange, from \$5 to \$100 per acre. If interested write AVERY & STEPHENS, Mansfield, Mo.

ADMINISTRATOR'S SALE.—640 acres, good wheat, corn and alfalfa land; two sets of improvements; in German settlement near church and school, near Carleton, Thayer Co., Neb. Price, \$100 per acre. Must be sold. Address Wm. Gallant, Hebron, Neb.

ALWAYS HAVE

Just what you want in farm or city property. A new list just out. Write for it. List your sale and exchanges with me. Hardware for sale.

ED A. DAVIS, Minneapolis, Kansas.

LAWRENCE REALTY COMPANY

The Home of the "Swappers," handles exchanges of all kinds with agents or owners. Write us for particulars.

Lawrence Realty Company, Lawrence, Kan.

320 ACRES good local bottom land on Republican River. No sand. No overflow. All good alfalfa land; all fenced; 55 acres broken out; never failing spring; water crosses one corner. Three miles from town. \$30.00 per acre. BROWN LAND & LOAN COMPANY, Superior, Nebraska.

FINE FARM, BUTLER COUNTY, KANSAS.

275 acres; 95 a. first bottom, 40 a. alfalfa, 150 a. cult., 120 a. best blue stem grass; new improvements; near El Dorado; beautiful farm. \$20,000.

V. A. OSBURN, El Dorado, Kansas.

SNAPP

Owner of that fine home quarter mile and half Palco, well improved, all fine land, instructs us to sell at once for \$300.00 an acre—just half what it should bring. Write for description. BUXTON, Utica, Kansas.

DICKINSON COUNTY BARGAINS.

We have many fine creek and river bottom farms, also splendid upland farms for sale. Soil deep rich black loam, producing the big corn, wheat and alfalfa. Our prices are reasonable. Write for terms and list.

Briney, Pautz & Danford, Abilene, Kan.

ALBERTA 658 acres fine mixed farm, 1 1/2 miles frontage on lake. About 450 acres tillable, balance pasture; abundant water. 70 acres cultivated. 500 fenced. Good house, 2 story barn, stables, dairy, granaries, henhouse. Snap, \$17 per acre. \$4,000 cash, balance arranged. About this and other bargains write George Grant, Herald Block, Calgary, Alberta.

TO TRADE FOR LAND IN ARKANSAS.

320 acres 9 miles north of Dodge City, Kansas; 90 acres in cultivation, new house 16x28. Stable room 28' head stock. Shed barn. Well and windmill. Chicken house, good granary. Price, \$4,800. \$1,500 against land due 2 years. Will trade this for a farm near Sheridan, Arkansas.

H. B. BELL LAND COMPANY, Room 5 Commerce Building, Phone No. 2 - - Dodge City, Kansas.

VIRGINIA OFFERS fertile farm lands at \$15 to \$50 per acre. Ideal fruit and grazing land at \$5 to \$15 per acre. Abundant rainfall, long growing season, nearness to World's best markets, mild and delightful climate, educational advantages and great promise for the future.

VIRGINIA WANTS 10,000 young and industrious practical farmers to occupy and cultivate the vacant farms and help reduce the cost of living. Write at once.

V. A. LAND IMMIGRATION BUREAU, 6 Gale Block, Dr. W. J. Quick, General Manager, Roanoke, Va.

Attention is called to the card of E. E. Carver & Son, Guilford, Mo., in this issue of Kansas Farmer. Carver & Son own one of the noted prize-winning herds of big Polands. They breed the kind with size and quality and their offering of boars this season will be one of the best that breeders will have a chance to buy this year. Their great show herd will be at Hutchinson and St. Joseph fairs. Don't fail to see this herd.

FOR SALE

Farms in beautiful Western New York. Fine soil, buildings, best fruit country in the world, near the Great Lakes; schools, trolley, telephone, rural delivery, excellent markets; 5 per cent interest; \$50 to \$100 an acre.

SHEELER-BAXTER CO., Inc., 225-229 Granite Bldg., Rochester, N. Y.

FOR QUICK SALE—140 acres imp., 100 acres cult., lies well; 30 acres hog-tight, 25 acres alfalfa; 3 1/2 miles good Lyon County town. \$35 per acre. A snap for the cash. No trades. Easy terms.

FRED J. WEGLEY, Emporia, Kan.

Central Illinois Farm For Exchange. 280 acres joins town; clear; well improved. Want eastern Kansas or western Missouri land.

CHENAULT BROTHERS, Fort Scott, Kans.

FOR QUICK SALE—1,280 a. Lower Rio Grande Valley, \$6.50 a., or trade for clear land or merchandise.

STARK, 308 S. Fifth St., Streator, Ill.

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

KAFIR AND MILO FOR NEXT YEAR.

(Continued from page sixteen.)

through the western two-thirds of Kansas, patch after patch of kafir and milo was still green with prospects for maturing considerable feed and a possibility of some seed if light rains should come, whereas adjacent fields of corn were practically burned up and destroyed. In many cases the corn had been cut and put in shocks or piles in the field in order to secure some little feed from it.

Kansas plants in round numbers about one million acres of kafir and milo every year. The acreage of crops should by all means be increased three-fold. There is approximately eight million acres of corn planted yearly in the state. Kafir and milo should take the place of a considerable portion of this acreage of corn. If the growing and producing of crops of kafir and milo were given primary consideration instead of being taken up as a sort of an afterthought, there would be no question as to the results secured in comparison with the corn under similar conditions. This is no mere theory. There are a few farmers scattered here and there all over the western part of Kansas who have thoroughly demonstrated the great possibilities of these crops when given the consideration of which they are worthy. Results obtained by these occasional farmers here and there through the western section show that farmers are not justified in growing these crops as an afterthought. They should be made the principal crop and the drier sections of the state will not come into their own until this fact is generally recognized and put into practice.

FIELD NOTES

Wiley Will Attend State Fair.

L. R. Wiley has just returned from France and Belgium with a fine string of show stallions and will be at the Topeka and Hutchinson fairs. Don't fail to see the Wiley stallions.

The offering of O. I. C. and Chester White hogs that will go in J. H. Hevey's sale at Maryville, Mo., October 15, will be an extra good lot of spring boars and gilts. They will be the kind that will improve a herd. Send name and address at once for catalog. Please mention Kansas Farmer.

Hazford Herefords at Topeka and Hutchinson Fairs.

The writer called at the Hazford Hereford farm last week and carefully looked over the large herd of more than 125 head of breeding cows, and also the show herd. These are mostly young cattle all bred and raised on the Hazford farm. In looking at the Hazford Herefords the first impression is one of quality; the next is uniformity. They are "as like as peas in a pod." Few men have been as successful as Mr. Hazlett in developing such uniformity in a breeding herd. Don't fail to see his show cattle while attending the Topeka and Hutchinson fairs this year. It will be a great satisfaction to all lovers of Herefords to carefully inspect this herd.

C. L. Buskirk, manager of the firm of Hammond & Buskirk, Newton, Kan., has just completed a valuable book giving a brief description of the Tattarrax herd of Duroc Jerseys for those who cannot visit this farm and see personally the home of this herd. Those interested should send for this beautiful book giving a complete description of the way the herd is handled. It is nicely illustrated and worth anyone's time to read. A letter or post card will bring you one. Please write today and kindly mention Kansas Farmer.

An Old Time Breeder.

This week we start advertising for N. D. Simpson, Duroc Jersey breeder located at Bellaire, Kan. Mr. Simpson is perhaps the oldest breeder of Durocs living in the West, having begun the business a good many years ago in Indiana. His father was charter member of the first Duroc association ever formed, and Mr. Simpson, Jr., has been identified with the business most of the time since. His present herd boars are Model Topnotcher 108677 and Oakland Lad 138699. The 70 spring pigs that he is now offering were nearly all sired by these boars with a few by The Ruler and Buddy's Red Colonel. The pigs offered are out of large framed sows, daughters and granddaughters of such boars as McParker, Model Topnotcher, Wonder Countess, Bell Prince Wonder, and other richly-bred sires. Mr. Simpson does not believe in pampering, but always keeps his breeding stock in nice thrifty condition. His prices are reasonable and he guarantees every description. He offers 70 spring pigs and some fall sows. When writing him please mention this paper.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items or stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 300,000 readers for 4 cents a word 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.

HELP WANTED.

AGENTS—NOVELTY KNIVES AND RAZORS are lightning sellers. 100% profit. Exclusive territory. Goods guaranteed. Novelty Cutlery Co., 163 Bar St., Canton, Ohio.

WANTED—EXPERIENCED MAN AND wife to work on a farm near Kansas City. Farm equipped for dairying and chicken raising. References required. Address, El P. Adams, Gashland, Mo.

WANTED—MEN AND WOMEN FOR government positions. Examinations soon. I conducted government examinations. Trial examination free. Write Ozment, 44R, St. Louis.

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-899. No obligation. Earl Hopkins, Washington, D. C.

GOVERNMENT JOBS OPEN TO MEN and women. \$65 to \$150 month. Vacation. Steady work. Short hours. Common education sufficient. "Pull" unnecessary. Thousands of appointments coming. Write immediately for full particulars and list of positions open. Franklin Institute, Dept. S-85, Rochester, N. Y.

SALESMAN—TO SELL HIGH GRADE guaranteed groceries at wholesale direct to farmers, ranchmen and all consumers. Earn \$4 to \$10 and up per day. A big chance to get into business for yourself. Save the buyers the retailer's profit. Every customer is a permanent one. Demand constantly increasing. Latest plan. K. F. Hitchcock Hill Co., Chicago.

YOUNG MAN, WOULD YOU ACCEPT and wear a fine tailor made suit just for showing it to your friends? Or a Slip-on Raincoat free? Could you use \$5 a day for a little spare time? Perhaps we can offer you a steady job? Write at once and get beautiful samples, styles and this wonderful offer. Banner Tailoring Co., Dept. 493, Chicago.

REAL ESTATE.

SNAPPY EXCHANGES. TELL ME YOUR wants. Karges, Bennington, Kan.

FOR SALE—640 ACRE FARM AND ranch for cash. Address, R. F. D. 6, No. 107, Sequin, Texas.

ARKANSAS FARMS. WRITE FOR Homeseekers' Guide and large list of bargains. Moore, Searcy, Ark.

SELL YOUR PROPERTY QUICKLY FOR cash, no matter where located. Particulars free. Real Estate Salesman Co., Dept. 77, Lincoln, Neb.

SPLENDID QUARTER SECTION FOR sale in northeast Kansas. Close to town. Well improved. Owner leaving country. No agents. Answer "X" Kansas Farmer.

NORTHWEST ARKANSAS FARMS—Benton County. Ideal climate. Good crops as usual. Map and prices free. Write Behart Land Co., Cave Springs, Ark.

FOR EXCHANGE—CHOICE TOPEKA residence, near Washburn College, equity \$3,500, for clear land. Chaney & Co., Topeka, Kan.

FARMS WANTED—WE HAVE DIRECT buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property free. American Investment Association, 43 Palace Bldg., Minneapolis, Minn.

ELLIS COUNTY—WRITE ME FOR bargains in wheat and alfalfa lands; 80, 160 or 320 acres. Lands to exchange for other property. H. W. Oshant, Hays City, Kan.

SPRING WATERED IMPROVED SUB-urban homes. Neosho schools, gardening, climate. Good fruits, gardening, dairying poultry profitable. Third cash, balance easy. Morse Stock Farm, Neosho, Missouri.

FOR EXCHANGE—CHICAGO INCOME property near Washington Park (Flats). Annual rentals, \$7,500. Owner will exchange for Eastern or Central Kansas lands. C. J. Evans, Columbian Bldg., Topeka, Kan.

DO YOU WANT A HOME IN A WELL-watered, rich alluvial valley; three railroads and near big city—mild climate and natural dairy country; on terms of one-tenth cash, balance nine years. Write Humbird Lumber Co., Sandpoint, Idaho, about cut-over lands.

OREGON BOOK FREE, SENT ON REQUEST. Official state book telling of Oregon's resources, climate and agricultural opportunities for the man of moderate means. Questions will have painstaking answer—we have nothing to sell. Room 16, Portland Commercial Club, Portland, Ore.

HOGS.

WRITE DR. E. G. HARBOUR, BALDWIN, Kan., for prices on registered Duroc Jersey shoats, either sex; also a few Poland Chinas. These hogs are going at dry weather prices. Write today.

DOGS.

SCOTCH COLLIE DOGS FOR SALE—Heel workers and farm raised. E. L. Dolan, Platte City, Mo.

AUSTRALIA.

SPECIAL LAND SEEKER'S EXCURSION next November to Victoria, Australia. Early reservation of berth desired. Reduced steamship passages and free rail travel for inspection. Government of Victoria wants settlers and offers unusual opportunities. Land suitable to all requirements; exceptional terms. Free particulars from F. T. A. Fricke, government representative (from Victoria), Box 34, 687 Market St., San Francisco.

PATENTS

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

CATTLE.

REGISTERED GUERNSEYS TO SELL. Address John Bogner, Mt. Hope, Kansas.

REGISTERED SHORTHORN BULL 12 mos., dark red, to sell. R. L. Skubal, Jennings, Kan.

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

FOR SALE—REGISTERED HOLSTEIN bull calf and some choice bred heifers. G. V. Pontious, R 2, Rantoul, Kans.

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

FOR SALE—25 HEAD 2-YEAR-OLD Jersey heifers in calf; some springing now. Also a few choice Jersey cows. R. F. Hodgins, Topeka, Kan.

TWO REGISTERED HOLSTEIN BULLS. Ready for service. Direct descendants of Aggie Cornucopia Pauline, a 3 1/2 lb. cow. E. E. Kiefer, Lawrence, Kan. Route 1.

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

MISCELLANEOUS.

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

WANTED, BY INDUSTRIOUS BOY OF 19, place to work for board and go to school. Address Farm Boy, care Kansas Farmer.

BOOK-KEEPING OR SHORTHAND course easily mastered. Easy terms. Write for book 26 Brown's Correspondence School, Freeport, Illinois.

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

MILK BUSINESS IN PUEBLO, COLO., for sale. Well established, making money. Must sell because of other interests. Price, \$2,000. Frederick Petersen, 408 Central Block, Pueblo, Colo.

SEEDS AND PLANTS.

KHARKOF SEED WHEAT, TEST 62, sacked, f. o. b. on board car for \$1.10 per bushel. V. E. Carlson, Formoso, Kan.

ALFALFA SEED FOR SALE AT \$7.00 per bushel, just threshed, clean seed. Write for samples. G. A. Petty, Toronto, Kan.

FOR SALE—FIRST CLASS RE-CLEANED alfalfa seed \$10.00 per bu. R. L. Williams, Pauline, Kans.

ROSE LAWN FARM KHARKOF WHEAT. Pure graded seed \$1.20 per bu., f. o. b. McPherson. Sample free. Wilson G. Shelley, McPherson, Kan.

ALFALFA SEED. FANCY ALFALFA seed for sale. Fine quality, non-irrigated seed, no weeds. \$8.25 per bu. Write for samples. Horney Bros., Neodesha, Kan.

GOOD ALFALFA SEED FOR SALE AT \$8.00 per bu.; just threshed at M. E. Butler's. R. R. No. 2, Belle Plaine, Kan. Send for samples.

BEE SUPPLIES.

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

HONEY.

FOR HONEY FROM HIVE DIRECT TO you, write A. S. Parson, Rocky Ford, Colo.

GUARANTEED PURE EXTRACTED honey gathered by my own bees. Freight paid on 120-pound cases for \$12. W. C. Evans, Route 1, Box 17, Fort Collins, Colo.

NEW, PURE, EXTRACTED HONEY, two cans of 60 lbs. each \$9.50. Special prices on 10-can lots. Broken comb honey, 2 cans of 60 lbs. each, \$11.00. J. M. Ruyts, Carlsbad, New Mexico.

SHEEP

HAMPSHIRE YEARLING RAMS FOR sale. E. E. Hazen, Hiawatha, Kan.

POULTRY.

SILVER WYANDOTTES. MARCH hatched cockerels; reasonable. Blanche Miller, Route 1, Wakefield, Kan.

PURE-BRED CHICKENS, TURKEYS, ducks, geese. Emma Ahlstedt, Roxbury, Kans.

ROSE COMB REDS, COLUMBIAN WYANDOTTES, Indian Runner Ducks, Golden Seabright Bantams. Eggs for hatching. Mailing list free. A. D. Willems, Minneola, Kan.

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

When writing advertisers, please mention Kansas Farmer.

FIELD NOTES

In this issue will be found an announcing the sale of Smuggler, the Poland China boar that twice was grand champion at the Kansas State Fair.

This week we start advertising for the Nebraska School of Business. This school is located at Lincoln, Neb., and is one of the biggest and most complete schools of its kind in the West.

Col. Floyd Condray whose cut is herewith presented is now a regular advertiser in Kansas Farmer, starting his card with this issue.



comes well recommended from the Missouri Auction School and has the appearance of a man who will make a success of the profession selected for his life work.

A Liberal Offer to Stock Raisers. Within a few weeks shoats and young porkers will be taken off pasture and yarded for fattening.

The Haynes Automobile Company have issued a very interesting and instructive booklet entitled "The Haynes Pioneer."

Live Stock Insurance.

It is but logical that live stock should be insured mutually. Fully as consistently and in every way as successfully can the farmer protect his live stock by mutual insurance as he can protect his crop from hail or his buildings from fire.

Insurance. The incorporators are more than 100 of the leading live stock breeders and farmers of Kansas.

For years live stock has been successfully and satisfactorily insured by companies which have made no pretensions, however, at the mutual features of insurance. All of the benefits of mutual insurance as applied to other property are made to apply by the above named company in the insurance of horses, cattle, hogs and sheep, against death from any cause.

The officers of the new company are all experienced live stock insurance men and this should forecast for the new company a great future and a tremendous benefit to all Kansas growers of live stock.

OFFICIAL KANSAS GRADES.

Under provisions of Chapter No. 222, Laws of 1907, the Grain Grading Commission appointed under said act, met pursuant to published call at the Governor's office in Topeka, Kansas, on the 29th day of July, 1913, and established the following grades of grain to be known as Kansas Grades, to be in effect on and after the 1st day of August, 1913.

- A. T. RODGERS, Beloit, Kan.
J. B. NICHOLSON, Topeka, Kan.
A. C. BAILEY, Kinsley, Kan.
Grain Grading Commission.

RULE 1.

Wheat which has been subjected to "scouring," or to some process equivalent thereto, or containing an objectionable amount of rye, shall not be graded higher than No. 3.

RULE 2.

All wheat, corn, oats, barley, rye and kafir that is in a heated condition, souring, or too damp to be safe for warehouse, or that is badly damaged, dirty or where different kinds of grain are badly mixed with one another, shall be classed "Sample grade" and the inspector shall make notation as to the quality and condition; and whenever it is evident that wheat screenings or other dirt has been mixed into wheat, the same shall not be graded better than sample grade.

RULE 3.

Wheat containing live weevil shall not be graded, but the inspector shall give the type of wheat and test weight, and note "Live Weevil."

RULE 4.

Inspectors shall in no case make the grade of grain above that of the poorest quality found in any lot of grain inspected, where it has evidently been "plugged" or otherwise improperly loaded for the purpose of deception.

RULE 5.

Reasons for Grading. All inspectors shall make their reasons for grading below No. 2 fully known by notation on their reports. The weight alone shall not determine the grade.

RULE 6.

The word "new" shall be inserted in each certificate of inspection of newly harvested wheat until August 1 of each year.

RULE 7.

Reinspections. All orders for reinspection MUST be in office within the first forty-eight hours following the original inspection, and in no case will grain be reinspected after a lapse of three days from the date of the original inspection.

RULE 8.

Claims. All claims for damages against the inspectors or weighmasters must be filed in the office before the grain has left the jurisdiction of this department.

RULE 9.

Mixed Wheat. In case of an appreciable mixture of hard and soft wheat, red and white wheat, durum and spring wheat, with each other, it shall be graded according to quality thereof and the kind of wheat predominating, shall be classed No. 1, 2, 3, and 4 Mixed Wheat, and the inspector shall make notation describing its character.

RULE 10.

Sulphured Grain. All oats or barley that has been chemically treated with sulphur shall be classed as "Sulphured Grain," and inspectors shall note same on certificates of inspection.

NOTICE.

These official Kansas Grades are given us by the Grain Grading Commission, and will be the basis of all inspections made. Misunderstandings can be avoided by interested parties making themselves familiar with these rules.

GEO. B. ROSS, Chief Inspector.

KANSAS TURKEY WHEAT.

No. 1 Kansas Turkey hard winter wheat of the long berry, dark amber colored type of the Turkey varieties, shall be sound, sweet, dry and clean and shall contain not more than 5 per cent of yellow hard, and weigh not less than sixty-one pounds to the bushel.

No. 2 Kansas Turkey hard winter wheat of the long berry, dark amber colored type of the Turkey varieties, shall be sound, sweet, dry and well cleaned, and shall contain not more than 5 per cent yellow hard, and weigh not less than fifty-nine pounds to the bushel.

No. 3 Kansas Turkey hard winter wheat of the long berry, dark amber colored type of the Turkey varieties, shall be sound, sweet, dry and clean and shall contain not more than 5 per cent yellow hard, and weigh not less than fifty-six pounds to the bushel.

HARD WINTER WHEAT.

No. 1 Dark Hard—Shall be hard winter wheat of the dark type, sound, sweet, dry, plump and clean, and may contain not more than ten per cent yellow hard, and shall

weigh not less than sixty-one pounds to the bushel.

No. 2 Dark Hard—Shall be hard winter wheat of the dark type, sound, sweet, dry, and well cleaned, and may contain not more than ten per cent yellow hard, and shall weigh not less than fifty-nine pounds to the bushel.

No. 3 Dark Hard—Shall be hard winter wheat of the dark type, sound, sweet, dry but not clean enough for No. 2, and shall contain not more than ten per cent yellow hard, and shall weigh not less than fifty-six pounds to the bushel.

No. 4 Dark Hard—Shall be hard winter wheat of the dark type, tough, sprouted, or from other causes so badly damaged as to render it unfit for No. 3, and shall contain not more than ten per cent yellow hard.

RULE GOVERNING DARK AND YELLOW HARD WHEAT.

Dark hard wheat and yellow hard wheat mixed more than ten per cent shall grade the wheat predominating—dark and yellow or yellow and dark—and inspection certificate issued accordingly; and the other specifications for each of these grades shall be the same as for Kansas hard winter wheat of the same grade.

HARD WINTER WHEAT.

No. 1 Yellow Hard—Shall be hard winter wheat of the yellow type, sound, sweet, dry, plump and clean, and shall weigh not less than sixty-one pounds to the bushel.

No. 2 Yellow Hard—Shall be hard winter wheat of the yellow type, sound, sweet, dry and well cleaned, and shall weigh not less than fifty-nine pounds to the bushel.

No. 3 Yellow Hard—Shall be hard winter wheat of the yellow type, sound, sweet, dry; but not clean enough for No. 2, and shall weigh not less than fifty-six pounds to the bushel.

No. 4 Yellow Hard—Shall be hard winter wheat of the yellow type, tough, sprouted, or from other causes so badly damaged as to render it unfit for No. 3 hard.

RED WINTER WHEAT.

No. 1 Red Winter—Shall be red winter wheat, sound, sweet, dry, plump and clean, and shall weigh not less than sixty pounds to the bushel.

No. 2 Red Winter—Shall be sound, sweet, dry and well cleaned; may contain not more than eight per cent of hard winter or white winter wheat, or both, and weigh not less than fifty-eight pounds to the bushel.

No. 3 Red Winter—Shall be sound, sweet, dry, may be some bleached, but not clean enough for No. 2; may contain not more than eight per cent of hard winter or white winter wheat, or both, and shall weigh not less than fifty-five pounds to the bushel.

No. 4 Red Winter—May be tough, skin-burned or dirty; may contain not more than eight per cent of hard winter or white winter wheat, or both, must be cool, and shall weigh not less than fifty pounds to the bushel.

WHITE WINTER WHEAT.

No. 1 White Winter Wheat—Shall be sound, sweet, dry, plump and clean, and shall weigh not less than fifty-eight pounds to the bushel.

No. 2 White Winter Wheat—Shall be sound, sweet, dry and clean, and not contain more than eight per cent of red winter or hard winter wheat, and shall weigh not less than fifty-six pounds to the bushel.

No. 3 White Winter Wheat—Shall be sound, sweet, dry; may be some bleached, but not clean or plump enough for No. 2, and contain not more than ten per cent of red winter or hard winter wheat, and shall weigh not less than fifty-three pounds to the bushel.

No. 4 White Winter Wheat—Shall include tough, musty, dirty white winter wheat, not to contain more than ten per cent of red winter or hard winter wheat, and shall weigh not less than fifty pounds to the bushel.

NORTHERN HARD SPRING WHEAT.

No. 1 Northern Hard Spring—Must be northern grown spring wheat, sound, sweet, dry and clean, more than fifty per cent of the hard varieties, and weigh not less than fifty-seven pounds to the bushel.

No. 2 Northern Hard Spring—Must be northern grown spring wheat, not clean, sweet or sound enough for No. 1, more than fifty per cent of the hard varieties, and weigh not less than fifty-six pounds to the bushel.

No. 3 Northern Hard Spring—Must be northern grown spring wheat of inferior quality, more than fifty per cent of the hard varieties, and weigh not less than fifty-four pounds to the bushel.

No. 4 Northern Hard Spring—Shall include all inferior shrunken, northern grown spring wheat that is badly damaged, more than fifty per cent of the hard varieties, and weigh not less than forty-nine pounds to the bushel.

SPRING WHEAT.

No. 1 Dark Spring—Shall be spring wheat of the dark variety, sound, sweet, dry, plump and clean, and shall weigh not less than fifty-nine pounds to the bushel.

No. 2 Dark Spring—Shall be spring wheat of the dark variety, sound, sweet, dry, clean and of good milling quality, and shall weigh not less than fifty-seven pounds to the bushel.

No. 3 Dark Spring—Shall be spring wheat of the dark variety, sweet, but may be some bleached and shrunken, and shall not weigh less than fifty-five pounds to the bushel.

No. 4 Dark Spring—Shall include spring wheat of the dark variety, tough, musty, sprouted or that which from any cause is rendered unfit for No. 3, and shall weigh not less than fifty pounds to the bushel.

WHITE SPRING WHEAT.

The grades of Nos. 1, 2, 3 and 4 White Spring Wheat shall correspond with the grades Nos. 1, 2, 3 and 4 dark spring wheat, except they shall be of the white variety.

DURUM (MARCARONI) WHEAT.

No. 1 Durum—Shall be bright, sound, sweet, dry and clean durum wheat, and shall weigh not less than fifty-eight pounds to the bushel.

No. 2 Durum—Shall be sound, sweet, dry and clean durum wheat, and shall weigh not less than fifty-eight pounds to the bushel.

No. 3 Durum shall be dry, sweet, may be some bleached, or from any cause unfit for No. 2 and shall weigh not less than fifty-five pounds to the bushel.

No. 4 Durum—Shall include durum wheat that is tough, bleached, or shrunken, and shall weigh not less than fifty pounds to the bushel.

PACIFIC COAST RED AND WHITE WHEAT.

No. 2 Pacific Coast Wheat—Shall be dry, sound, clean; may be tainted with smut and alkali, and weigh not less than fifty-eight pounds to the bushel.

No. 3 Pacific Coast Wheat—Shall include all other Pacific coast wheat, may be smutty or musty, or for any reason unfit for flouring purposes, and weigh not less than fifty-four pounds to the bushel.

(Note.—In case of a mixture of red or White Pacific Coast Wheat with our home-grown wheat, such mixture shall be graded Pacific Coast Wheat.)

RYE.

No. 1 Rye—Shall be plump, sound, dry and free from other grain, and well cleaned, and shall weigh fifty-six pounds per bushel.

No. 2 Rye—Shall be plump, sound and clean, and shall weigh fifty-four pounds per bushel.

No. 3 Rye—May be shrunken, bleached and not clean enough for No. 2, and shall weigh not less than fifty-two pounds per bushel.

No. 4 Rye—To include all tough, musty, dirty rye, unfit for No. 3, and shall weigh not less than fifty pounds per bushel.

OATS.

No. 1 White Oats—Shall be pure white oats, dry, sweet, sound, clean and free from other grain and weigh not less than thirty-two pounds per bushel.

No. 2 White Oats—Shall be seven-eighths white, sound, dry, and contain not more than one per cent each of dirt and foreign matter, or three per cent of other grain, and weigh not less than thirty pounds per bushel.

No. 3 White Oats—Shall be seven-eighths white, sound, dry, and not more than three per cent of dirt or foreign matter nor five per cent of other grain.

No. 4 White Oats—Shall be seven-eighths white, tough, musty or from any cause unfit for No. 3.

RED OATS.

The grades of Nos. 1, 2, 3 and 4 Red Oats shall correspond with the grades of Nos. 1, 2, 3 and 4 White Oats, except that they shall be of the red variety.

MIXED OATS.

No. 1 Mixed Oats—Shall be mixed oats of various colors, dry, sound, sweet, clean, and free from other grain, and weigh not less than thirty-two pounds per bushel.

No. 2 Mixed Oats—Shall be mixed oats of various colors, dry, sound, sweet, and not more than three per cent of dirt or foreign matter, or three per cent of other grain, and weigh twenty-eight pounds per bushel.

No. 3 Mixed Oats shall be mixed oats of various colors, sweet, and shall not contain more than three per cent of dirt or foreign matter or five per cent of other grain, and weigh twenty-four pounds per bushel.

No. 4 Mixed Oats—Shall be mixed oats, tough, dirty, or from any cause unfit for No. 3.

STANDARD WHITE OATS.

Shall be seven-eighths white, sound, sweet, and shall not contain more than three per cent of dirt or foreign matter or five per cent of other grain.

BARLEY.

No. 1 Barley—Shall be sound, bright, sweet, clean and free from other grain, and weigh forty-eight pounds per bushel.

No. 2 Barley—Shall be sound, dry and of good color, and weigh forty-six pounds per bushel.

No. 3 Barley—Shall include shrunken, stained, dry barley, unfit to grade No. 2, and weigh forty-four pounds per bushel.

No. 4 Barley—Shall include tough, musty, dirty barley.

SPELTZ.

No. 1 Speltz—Shall be bright, sound, dry and free from other grain, and weigh not less than thirty-two pounds per bushel.

No. 2 Speltz—Shall be sound and dry, and not contain more than ten per cent of other grain.

No. 3 Speltz—Shall be dry, not sound, enough for No. 2, and contain not more than ten per cent of other grain.

No. 4 Speltz—To include all speltz that is dirty, musty or tough.

CORN.

The following maximum limits shall govern all inspection and grading of corn:

Table with columns: GRADE, Percentage of moisture, Percentage of foreign matter, Percentage of dirt and broken grains, Percentage of shriveled grain, Percentage of broken grain.

WHITE CORN.

No. 1 White Corn—Shall be pure, white corn and sweet.

No. 2 White Corn—Shall be fifteen-sixteenths white, and sweet.

No. 3 White Corn—Shall be fifteen-sixteenths white, and sweet.

No. 4 White Corn—Shall be fifteen-sixteenths white, but shall include tough, musty and damaged corn.

YELLOW CORN.

No. 1 Yellow Corn—Shall be pure yellow corn, and sweet.

No. 2 Yellow Corn—Shall be seven-eighths yellow, and sweet.

No. 3 Yellow Corn—Shall be seven-eighths yellow, and sweet.

No. 4 Yellow Corn—Shall be seven-eighths yellow, but shall include tough, damaged or musty corn.

MIXED CORN.

No. 1 Mixed Corn—Shall be corn of various colors, and sweet.

No. 2 Mixed Corn—Shall be corn of various colors, and sweet.

No. 3 Mixed Corn—Shall be corn of various colors, and sweet.

No. 4 Mixed Corn—Shall be corn of various colors, but shall include tough, damaged or musty corn.

KAFIR CORN.

No. 1 White Kafir Corn—Shall be pure white, of choice quality, sound, dry and well cleaned.

No. 2 White Kafir Corn—Shall be seven-eighths white, sound, dry and clean.

No. 3 White Kafir Corn—Shall be seven-eighths white, not dry or clean or sound enough for No. 2.

No. 4 White Kafir Corn—Shall be seven-eighths white, tough, damaged, musty or dirty.

RED KAFIR CORN.

The grades of Nos. 1, 2, 3 and 4 Red Kafir Corn shall correspond with grades Nos. 1, 2, 3 and 4 White Kafir Corn, except that they shall be of the red variety.

MIXED KAFIR CORN.

No. 1 Mixed Kafir Corn—Shall be mixed Kafir corn of choice quality, sound, dry and well cleaned.

No. 2 Mixed Kafir Corn—Shall be mixed Kafir corn, sound, dry and clean.

No. 3 Mixed Kafir Corn—Shall be mixed Kafir corn, not clean, dry or sound enough for No. 2.

No. 4 Mixed Kafir Corn—Shall be mixed Kafir corn, tough, musty or dirty.

MILLO MAIZE.

No. 1 Millo Maize—Shall be millo maize of choice quality, sound, dry and well cleaned.

No. 2 Millo Maize—Shall be millo maize that is sound, dry and clean.

No. 3 Millo Maize—Shall be millo maize that is not dry or sound enough for No. 2.

No. 4 Millo Maize—Shall include all millo maize that is tough, musty or dirty.

Sorghum seed to be under the same general rule as Kafir.

The foregoing are the rules adopted by the Kansas State Grain Inspection Department establishing a proper number and standard of grades for the inspection of grain. The same to take effect on and after August 1, 1913, in lieu of all rules on the same subject heretofore existing.

GEO. B. ROSS, Chief Inspector. Topeka, Kansas.

KANSAS STATE UNIVERSITY LIBRARY

POLAND CHINAS

POLAND CHINAS

POLAND CHINA CHAMPION SALE
At Hutchinson, Kan., Sept. 18, At Fair Grounds

A letter from Lee Stanford stating he will be at the State Fair at Hutchinson with his hogs and will sell at public auction at his pens, his herd boar Smuggler and his show litter by him, consisting of three boars and two gilts. Smuggler was the Grand Champion at the Kansas State Fair two years in succession, beating several Grand Champions from other states. He now weighs nearly 900 pounds and is three years old. I want all lovers of Poland Chinas to see Smuggler and see his pigs. He is probably one of the best breeding boars living today. I will sell on Thursday, September 18, at 10:30 A. M. If you cannot be there send a bid to O. W. Devine of Kansas Farmer, care Supt. Swine Department, State Fair Grounds, Hutchinson, Kansas.

LEE STANFORD, Owner, Lyons, Kansas

EVERGREEN HERD POLANDS

Expect to be at Kansas State Fair, Hutchinson, September 13 to 20, and St. Joseph, Mo., Inter-State the following week. Those wanting herd boars of the size and quality kind should see our wide-backed short-faced monsters of great bone and quality. Most approved breeding and combining the blood of the greatest prize winners of recent years. One 2-year-old, a line-bred Wonder; one yearling by Great Look 47659, the great sire of big-type winners; one 600-pound senior pig by Capital 53854, the great champion of 1909, and a number of early spring boars of same line breeding.

E. E. CARVER & SON, Guilford, Mo.

Long King's Equal and A Wonder Jumbo

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

JOHN B. LAWSON, Clarinda, Iowa.

35 Immune Poland China Spring Boars

Sired by big Iowa bred boars and out of 700-lb. sows. The blood of A Wonder, Long King, etc. Price for thirty days, \$25 to \$35. Immune and fully guaranteed. Send check with first letter if desired.

J. L. GRIFFITHS, RILEY, KAN.

KING OF KANSAS 65406

BIG POLAND BOARS

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

GEO. WEDD & SON, Spring Hill, Kan.

SAVE FIFTEEN DOLLARS

I have some magnificent old original big-boned Spotted Poland China boar pigs of March farrow, for sale at \$20.00. These are absolutely equal in every respect to what other breeders are asking \$35 for. I also have gilts of all ages, bred or open, and a few sows bred for early fall litters. Write your wants.

THE ENNIS FARM, Horine Station, Mo.
 (30 Miles South of St. Louis.)

ERHART BIG TYPE POLAND CHINAS

50 head of strictly big type Poland China pigs for sale at reduced prices for 30 days. Herd header and herd sows prospects. Sired by Major E. Hadley the Grand Champion, American Royal, 1911. Young Hadley-Giant Wonder-by A Wonder. Write today. We want to sell quick.

A. J. ERHART & SON, Beeler, Kansas.

Hildwein's Big Type Polands

Herd headed by Gold Standard Junior and Wonder Ex. Herd sows representing best blood lines. Fall sale October 29.

WALTER HILDWEIN, Fairview, Kan.

POLAND CHINA BOARS

20 Extra Good Fall Boars, ready for service, sired by Big Logan Ex. and Missouri Metal, out of my best sows. Prices reasonable. Write me.

L. V. O'KEEFE, Stillwell, Kansas.

POLAND CHINA GILTS FOR SALE.

20 Yearling gilts, bred. Sired by a son of A Wonder and bred to a son of Big Orange. March pigs in pairs and trios not akin, priced to sell.

THURSTON & WOOD, Elmdale, Kan.

THIRTY POLAND PIGS

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

FAULKNER'S FAMOUS SPOTTED POLANDS

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

H. L. FAULKNER, Owner, Highview Breeding Farm, Jamesport, Mo.



OTT'S BIG ORANGE OFFERING

Ott's Big Orange at 12 months old, weight 550 pounds. Individuality you won't fault. The kind we breed, feed and sell. The kind \$25 to \$50 will bring to you. February to April farrow. These pigs will range in weight from 90 to 200 pounds. **J. O. JAMES, BRADYVILLE, IOWA.**

Farmers and Stock Breeders ATTENTION!
The Topeka Mutual Live Stock Insurance Co.

(Not an assessment company)
 Home office, Topeka, Kans.

INSURES LIVE STOCK Against Death From Any Cause

At a less rate and under more favorable conditions than heretofore offered to the Kansas farmers and stock breeders.

This Company writes a Blanket or "Herd" Policy covering all ordinary live stock on farm, and pays amount insured in case of loss.

FOR BLOODED AND PEDIGREED STOCK
 This Company has a Specific Policy that is more liberal and costs you less money than that charged by outside companies.

This Company was incorporated by about 100 of the leading farmers and stock breeders of the State for their own protection and has complied with the State Laws of Kansas and is licensed by the Insurance Department.

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

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We will exhibit at Topeka and Hutchinson three extra good herd headers, two yearlings and one fall boar, also samples of our spring boars and gilts. Prices reasonable. Come and see them. **S. D. & B. H. FROST, KINGSTON, MO.**

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 Forty big-type Poland pigs, sired by Big Four Wonder, grandson of A Wonder, and Orange Model 2d by Big Orange. Will sell them until they are 100 days old for \$25 each. Pairs, not related, \$40. First choice with every sale. Inspection invited.
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 Choice boars and gilts from our show herd. Can sell all kinds of breeding stock at reasonable prices. Also Hereford cattle and standard-bred horses for sale.
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 Four by Mogul's Monarch. Two by Long King, son of Long King's Equal. Two by Gephart.
 Extra good individuals at \$25 each.
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 Bred sows, cholera immune, most popular big-type breeding. Bred to farrow August and September. Priced to sell. Write at once as I have only a few for sale.
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 Fifty big kind Poland China pigs, either sex, sired by Ott's Big Orange, Big Ben and other great boars. Booking orders now to ship when old enough to wean. Pairs not related.
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Ruby Financial Count 87211, a grandson of Financial King, dam a Register of Merit granddaughter of Financial King; milk record of 56 pounds per day.
Herd founded on Finance, Interest and Gamboge Knight families. Cows milk, as three-year-olds, 40 to 56 pounds per day. Every cow in herd on test. No dairyman ever considered a cow beautiful unless she is a heavy producer. Constitution first, production second, beauty third.
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In order to reduce the size of herd we offer choice registered cows of large frame and splendid milkers at very low prices considering quality.
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Phillips County Red Polls and Polands.
All bulls over six months old sold. Bred cows and heifers for sale, also choice lot of big-type Poland China fall boars. Inspection invited.
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SHORTHORN

Cows and Heifers
THREE \$500 Bargain Lots
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20 March boars sired by Dandy Model by Dandy Lad—Dandy Model's litter brothers won first and second at Kansas and Oklahoma State Fairs last year. Priced reasonable.
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Fall and spring gilts bred or open sired by Model Chief by Chief's Perfection, he by Ohio Chief. Write for prices.
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Monarch, Colonel Wonder and Buddy strains. Plenty of fall gilts, open or bred. Fall sale, October 17.
MOSEY & FITZWATER, Goff, Kansas.

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P. I. NELSON, Assaria, Saline Co., Kan.

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Herd headed by Quivera 106611 assisted by M. & M.'s Col. 111095.
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Route 4.

THIRTY EXTRA GOOD REGISTERED DUROC SOWS AND GILTS.
Extra good ones. Popular strains. Sired by Kansas Kruger and College Lad. Bred for August and September farrow to Isenberg's Choice. Can ship over four roads.
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Choice fall gilts sired by Tats Chief bred to Buddy O. K.; also open fall gilts and spring boars.
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March and April pigs, \$15 each, pairs and trios not related. Large, growthy, sired by Goldfinch Jr. 2d, dam by Goldie S. Write at once or come and see my herd.
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20 yearling gilts bred for Sept. and Oct. farrow, sired by my three herd boars, Joe Cannon, Fountain Valley Prize and New Lebanon Coker. \$35 for choice. Want to sell quick. 20 spring boars priced reasonable.
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THE 1400 pound two year old Sir Julian De Kol 7th, No. 74146; Recorded yearling Parkside Sir Lyons for sale at bargain prices.
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175 head of strictly high grade well bred fancy marked heifers; thirty 2-yr. olds due in Sept. and Oct.; forty 2-yr. olds due in Dec. and Jan.; fifty 2-yr. olds bred in July. Forty yearlings and twenty five heifer calves from four to six months old.
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SUNFLOWER HERD HOLSTEINS.

Highest A. R. O. backing. The entire herd, including heifers, average nearly 20 pounds each, 7 days. More cows above 20 pounds than all other Kansas herds combined. Best sires obtainable head herd.
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We have a number of fine cows and heifers (some fresh, some springers), for sale. Some new ones just received. All animals tested and guaranteed sound.
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High-class Holstein breeding stock at reasonable prices. Tuberculin tested.

PURE-BRED SELECTED HOLSTEINS.

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

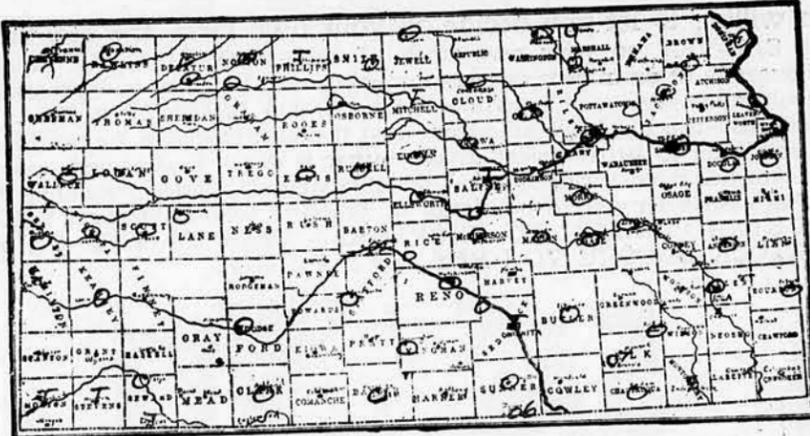
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Large registered bulls, cows and heifers. Also five carloads of grade cows and heifers. Our herd is state inspected and tuberculin tested.

THE SPRINGDALE STOCK RANCH.

Concordia, Kansas.
HOLSTEIN BULL CALVES always on hand, and worth the price.
H. B. COWLES, Topeka, Kansas.

KANSAS CROP REPORT FOR WEEK ENDING AUGUST 30



Rain Chart prepared by T. B. Jennings from reports collected by the Weather Bureau. UNITED STATES WEATHERS OBSERVER'S REPORT BY COUNTIES.

Allen—Conditions same as last week.
Anderson—Rain needed for late fruit. Water scarce.
Barber—Clear, hot and dry; no rains.
Barton—Very little ground plowed for wheat. Wheat acreage will be smaller than last year.
Brown—But little fall plowing done.
Decatur—Kafir and cane still green. Creeks dry.
Douglas—Corn cutting for fodder still going on. Plowing for wheat not all done yet.
Elk—Farmers working hard to save fodder crop. Stock water scarce.
Greeley—Crops being cut for feed. Plenty of feed for stock in county if properly taken care of.
Greenwood—Corn fodder all cut. Alfalfa seed being threshed—averages four to six bushels to the acre.
Jewell—Fodder is being cut and prairie hay put up this week.
Johnson—Not much to put in silos. Smaller acreage of wheat this year than usual.

Kearney—Live stock looking and doing fairly well. Grazing short.
Leavenworth—Fair peach crop. Apple crop dwarfed. Stock shows effects of long heated term.
Marshall—Prospects for good acreage of wheat this fall. Trees dropping their leaves.
Mitchell—Very hot winds. Corn being cut for fodder and silage.
Morton—Milo heading after recent rain. Is best thing left.
Ottawa—Plowing for wheat wherever possible about finished. Fodder all in silo or shock. Some of it very good.
Pottawatomie—Plowing for wheat about half done. Will put in more wheat than last year. Plowing hard to do.
Reno—Many silos. Corn fodder about all cut.
Rice—First planting of broom corn about pulled. Crop very light but of fine quality.
Scott—Dry weather does not effect wells. Plenty of water for irrigation and stock.
Washington—Great deal of corn cut for winter use. Plowing hardly started as yet.

FIELD NOTES

The Benfer Farm.
A new advertiser in Kansas Farmer this week is E. L. M. Benfer, of Leona, Doniphan County, Kansas. Mr. Benfer is one of the most successful and progressive of farmers and stockmen in this state. He lives on the same farm and in the same house where he was born, and has been adding for the past several years he has been adding something in the way of the finest herds stock. He owns one of the finest herds of registered Jersey cattle to be seen on any Kansas farm. The foundation for this herd was a couple of richly bred cows bought several years ago. One was a daughter of the Golden Lad bred bull Gold Links Gold Boy, and the other was by Idol's Signal. Both cows were of great merit and have produced well, each one

having a large number of daughters and granddaughters now in the herd. Mr. Benfer has since added several good ones at different times, among them an imported double cross Golden Fern's Lad cow and a granddaughter of Eminent 2d. The herd bull, Sultan of Comfortholme, is an extra fine individual. He was sired by Oakland Sultan, the noted imported bull heading E. J. Linscott's herd, and his dam was the cow, Rosette of Brondale. He also has a young bull, a grandson of the great Viola's Golden Jolly. Mr. Benfer also breeds Duroc swine and has a few registered Percherons. He now owns Dandy, the Percheron that won first and reserve championship at the American Royal last year, and numerous sires and championships at other leading shows.

HOLSTEIN CATTLE

COOKE'S HOLSTEINS.
Cows 3 years or older, \$225 to \$600. Nothing cheaper. No heifers or heifer calves for sale. Bulls 4 to 10 months, \$125 to \$175. Mostly sired by grandson of Pontiac Korn-dyke.
S. W. COOKE & SONS, Maysville, Mo.

HOLSTEIN BRED COWS AND HEIFERS.
Eighty Head. Choice Individuals. Personally selected. Wisconsin-bred, tuberculin tested, pure-bred, unrecorded and high grade females. Recorded bulls. Grade heifer calves.
ARNOLD & BRADY, Manhattan, Kansas.

BUTER BRED HOLSTEINS.
For Sale—Some choice bull calves. Prices very reasonable. Write me your wants today, as these bargains will not last long.
J. P. MAST, Scranton, Kan.

FIELD NOTES

An important step in the reorganization of the Executive Staff of M. Rumely Company is the election of M. R. D. Owings as director and Vice-President in special charge of the credit and collection departments of the business, which has just been announced. Mr. Owings has had a long and varied experience in the implement business. Beginning with a preliminary training in the business of the Sandwich Manufacturing Company, he entered the employ of the Milwaukee Harvester Company about the time he became of age, and was shortly thereafter appointed its auditor. He then became assistant to the general manager, head of the purchasing department, sales manager, and in 1898 was made secretary of the company, which office he held at the time of the organization of the International Harvester Company. During the re-organization period in the Harvester Company Mr. Owings took an important part in the organization of the international branch houses, establishing the credit bureau, re-organizing the office system at the various plants, and assisting in much of the organization work at the head office of the company, thus extending his experience into all parts of the business. For the past eight years Mr. Owings has been in charge of the advertising and publicity departments and service bureau of the International Harvester Company and has broadened the scope of this work until it has become recognized as a substantial factor in the development of agricultural education and betterment, not only in the United States, but all over the world. Mr. Owings was one of the first men in the implement business to recognize the fact that the making and selling of farm machinery is more than a business enterprise, because of its vital connection with the food supply of the world, and has been largely instrumental in enlisting the great resources of the Harvester Company in the encouragement of improved methods in agriculture. In his new position as vice-president of the Rumely Company, Mr. Owings will bring to his work an accumulated experience as an organizer on a large scale, as a trained advertiser, and as a credit and collection man of long and successful experience. His training in all departments of the implement business will be of especial benefit in his new field. Mr. Owings leaves the International organization on the friendliest terms.

"Sal Vet" has come up fully to your promises. Have been keeping it before my horses all the time, and have never had horses do as well. Have found it equally good for hogs.—Andrew Kosar, Prop. Star Herd O. I. C. Swine, Glasco, Kan.

I have used "Sal Vet" and find it a good remedy. It has kept my hogs well and thrifty in spite of the fact that there is cholera all over the neighborhood.—Samuel A. Page, Nortonville, Kan.

Am well pleased with "Sal Vet" results. Hog cholera raging one-half mile from me on one side and one and one-half miles on the other. My hogs having access to "Sal Vet" never looked better at this time of the year.—Henry Murr, McLouth, Kan.

Your "Sal Vet" worked just as you claimed it would. I did not lose a single hog, while others within one-half mile lost their entire herds.—C. H. Devore, Narka, Kan.

All Around the Circuit At Every Fair and Stock Show

Good Judges Feed and Recommend

SAL-VET For All Stock



L. M. COOCH, Editor of the Practical Farmer, Philadelphia, Pa. says—After feeding "SAL-VET" to my horses and cows for a month, I am glad to give the preparation my hearty endorsement. 21 cows fed "SAL-VET" showed a condition that was really remarkable.

ROSCOE M. WOOD—Sec'y The Standard Delaine Mending Record, Saline, Michigan, says, "I've found a worm preventive in 'SAL-VET' when proper conditions are maintained and it is kept constantly before the flock so they can eat all they want and have no other salt."

MR. A. J. LOVEJOY, Breeder, Ill., Pres. International Live Stock Exposition, Sec'y Eastern Swine Breeders Ass'n, and State Swine of Illinois, writes "SAL-VET" is the best thing we have ever used. We can heartily recommend it to all sheep and swine breeders."



S. R. FEIL, President
Registered Pharmacist; Graduate National Institute of Pharmacy

Now I Ask You to Judge It For Yourself

I am willing to let you decide on your own farm, the real value of using SAL-VET on your own stock. I have PROVED to the satisfaction of thousands of prominent farmers and stockmen, breeders and prizewinners, agricultural colleges and experiment stations, that SAL-VET is DEATH TO WORMS—is a big profit producer—that it prevents losses by putting stock in condition to better resist disease—that it saves feed—saves worry and makes healthier, thriftier, more valuable animals. Notwithstanding the fact that I can refer you to hundreds of breeders who have used SAL-VET I STAND READY TO PROVE ALL THIS TO YOU ON YOUR STOCK BEFORE YOU PAY ME A PENNY.



The Great Worm Destroyer and Conditioner

is a wonderful medicated salt, prepared especially to rid farm animals of their greatest enemies—the stomach and intestinal worms. These destructive pests cause 90% of live stock losses and no telling how much in wasted feed. They keep your animals in a weakened, unthrifty condition and consume the feed that ought to be making your profit. You may not always notice their presence, but all stock are infested and cannot thrive until you rid them of these pests. Let me rid your stock of these profit-eaters. Let me make your stock healthier, sleeker, more profitable. I'll prove my claims before you pay.

Stock Relish It—Doctor Themselves

There is no drenching—no dosing—no trouble—in feeding SAL-VET. Simply put it where stock can get to it. They'll make better gains with no more feed. You will be repaid many times over in bigger profits and protection against loss.

Don't Send Me One Cent—Just the Coupon

Mail the coupon properly filled in—tell me how many head of stock you have and I'll ship you enough SAL-VET to last them 60 days. You simply pay the freight charge when it arrives. Let your stock run to it freely. In 60 days report results. If SAL-VET does not do what I claim I'll cancel the charge, and you won't owe me a penny. I could not make you a fairer offer.

SIDNEY R. FEIL, President
THE S. R. FEIL CO., Mfg. Chemists
Dept. KF CLEVELAND, OHIO

These Men Have Fed It

"Sal-Vet" was a great asset in feeding our undefeated home-bred animals at the fall shows, and we must have it to produce winners for the next season. The Champion Oxford Ram at the 1912 International has had constant access to "Sal-Vet."
—Geo. McKerrrow & Sons Co., Pawaukoe, Wis.

"Will say that 'Sal-Vet' is the best stock remedy I ever used; beyond all doubt, it clears the worms from all stock, gives them soft, smooth, glossy hair, and tones up the system better than any stock powder I have ever tried."
—J. M. Hodges, M. D., Physician and Surgeon, Cranberry, N. C.

"Since I have fed 'Sal-Vet' I have not lost a single hog nor cow this spring. Everybody else around here has lost hogs and a great many cattle are dying in the neighborhood."
—Lewis E. Choate, McAlester, Okla.

"After using 'Sal-Vet', I find it possesses the essentials to a good stock remedy: 1st—its handiness to feed, 2nd—the fact that it is effective for all kinds of stock, 3rd—its low cost. Am very well pleased with the results."
—A. H. Loucks, Aurelia, Iowa.

"I have seen such great improvement in the condition of my stock that I am fully satisfied that your 'Sal-Vet' does even more than you claim. It cleared my horses of worms, after all other medicines had failed. You have a great stock remedy."
—R. C. Pecht, Milroy, Pa.

"I was losing my lambs right along, until I began feeding 'Sal-Vet'; since then, I have lost only one. After six weeks, I shipped them to the Pittsburgh market, where they sold for \$9.50 per hundred, which was 5 cents over and above anything that sold in the market that day. This is what 'Sal-Vet' has done for me."
—Geo. Horn, Gambier, Ohio.

"Sal-Vet" surely is a great medicine. My lambs were dying at the rate of one or two every day. After I began feeding "Sal-Vet" I lost but one that was nearly dead by the time the remedy arrived. Since then I have not had any more losses and the lambs are all in tip-top condition. I would not think of keeping sheep without "Sal-Vet."
—J. A. Biedert, R. No. 3, Findlay, Ill.

"My hogs certainly did fine while fattening, and I did not lose a single one, while some of my neighbors lost their entire herds. I must, and do give "Sal-Vet" credit for these results."
—J. Wales Munroe, R. 6, Plainfield, Ill.

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on all SAL-VET packages. Don't be deceived by imitations.
Don't buy "Sal" this or "Sal" that. Get the original genuine SAL-VET.



PRICES: 40 lbs., \$2.25; 100 lbs., \$5; 200 lbs., \$9; 300 lbs., \$13; 500 lbs., \$21.12. No orders filled for less than 40 lbs. on this 60-day trial offer. Never sold in bulk; only in Trade-Marked SAL-VET packages. Shipments for 60 days' trial are based on 1 lb. of SAL-VET for each sheep or hog, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular size packages.

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Just tell me how many head of stock you have, or want to feed—Fill out the coupon below—Send it to me personally according to the address given, and I'll ship you enough SAL-VET to feed your stock 60 days. DO THIS NOW. Don't take chances. Insure good health in your herds and greater profits.

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Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and at that time pay for it if it does what you claim. If it does not, you are to cancel the charge.

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P. O.
Shipping Sta..... State.....
Number of Sheep..... Hogs..... Cattle..... Horses.....

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