

KANSAS FARMER

For the improvement of the Farm and Home

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TOPEKA, KA

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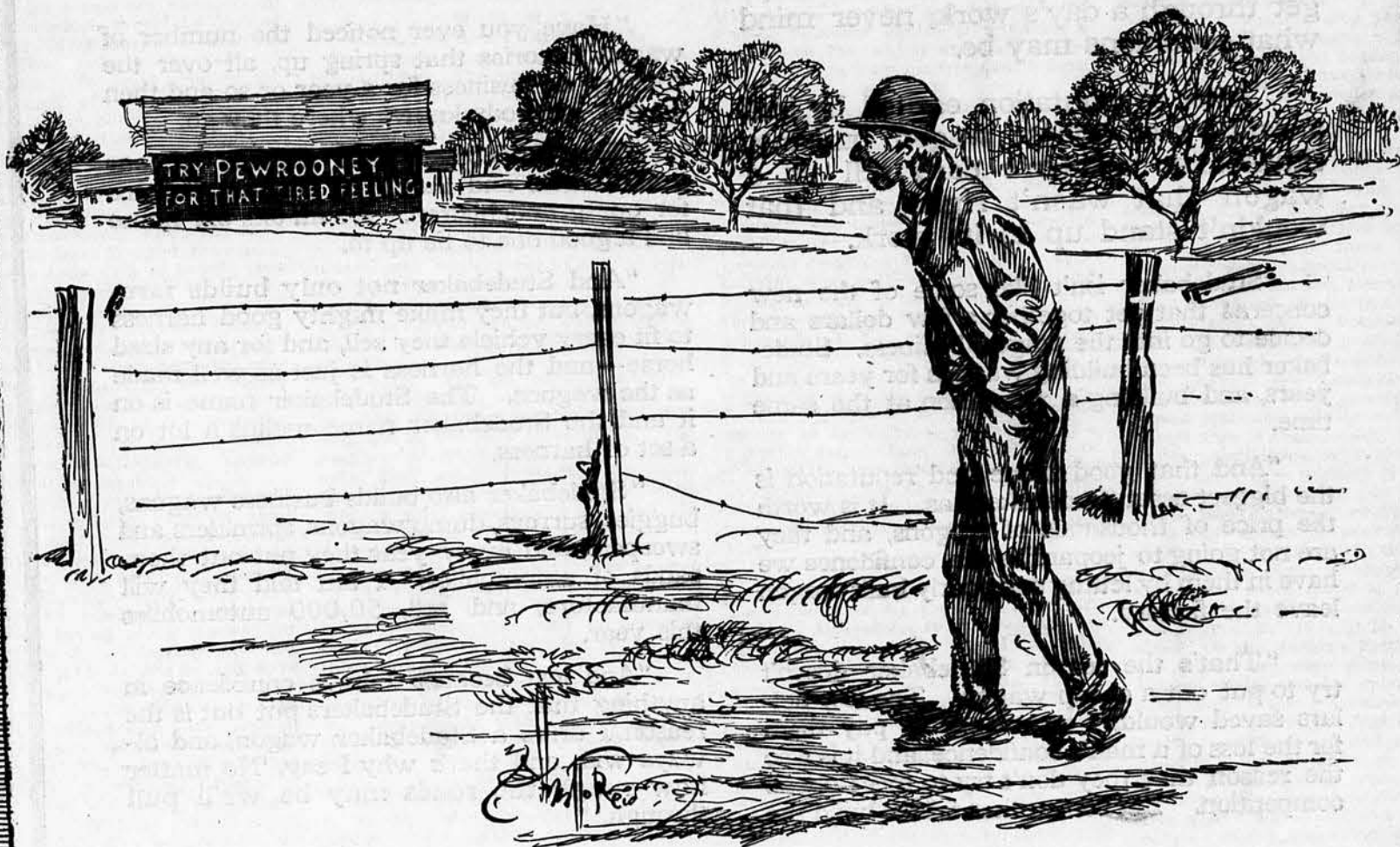
Established 1863. \$1 a Year

EVERYONE selects his own station in society, above which he cannot rise. As you choose, you will become a trailer or a trolley, tagged to a leader through wisdom or folly, or a dynamic force in leadership and accomplishment. Doing a man's part with courtesy and fair play for others assures a place above which none can wish to rise.

But if you half-sole each grouch, take offense easily, keep a pack of dogs, boast of your ancestry, smoke natural leaf, wear one suspender, borrow tools, whistle in company, let the cattle run and allow advertisements painted on the barn to vociferate at the neighbors, you will always trail.

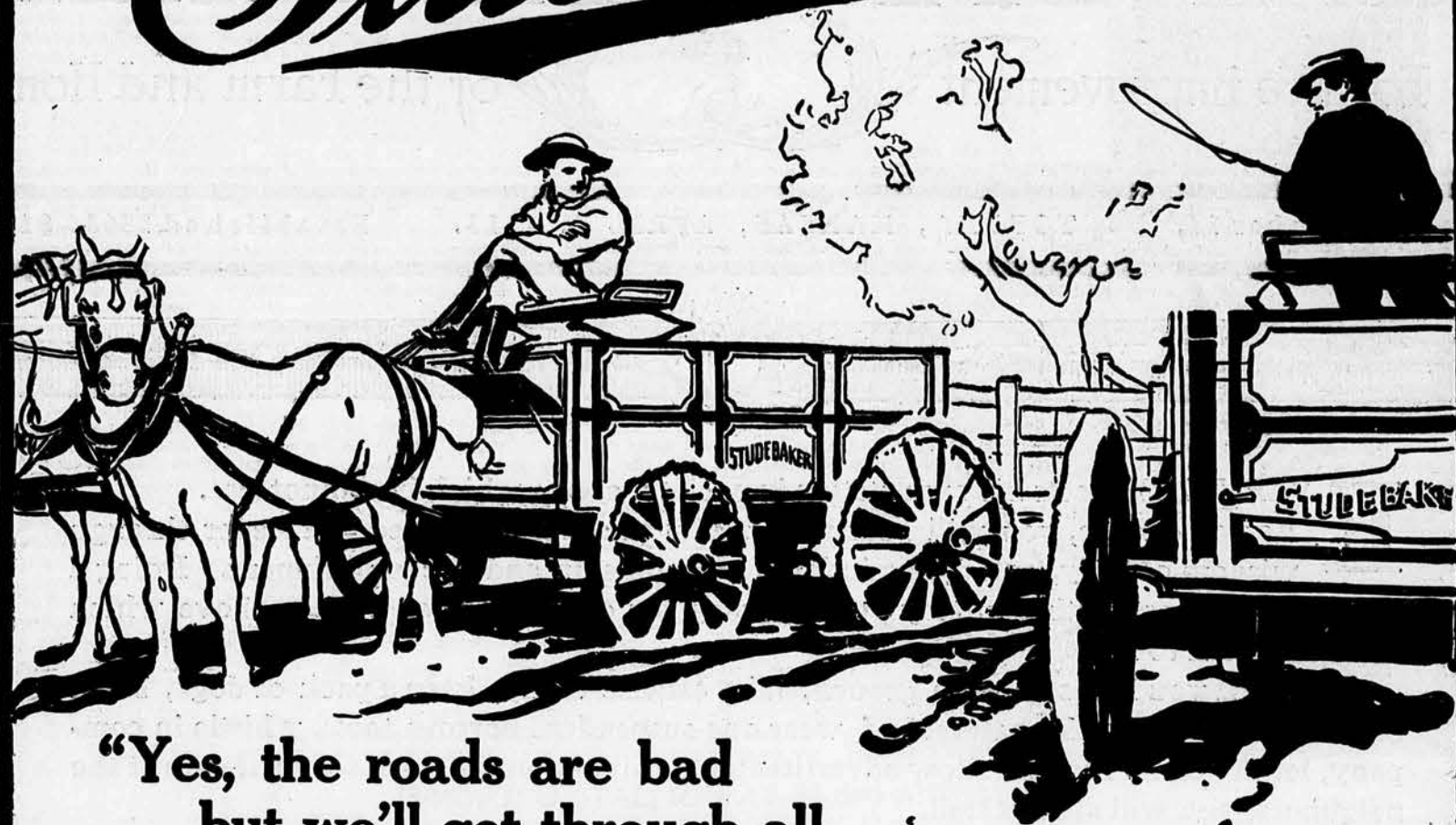
As a goat always strikes a man in the rear because that is the nearest part, so the merchant who paints signs on barns and thinks he advertises, will need a sheep bell on his door.

—I. D. G.



Buildings Are a Part of The Landscape And Their Use to Sell Pills or Peanuts Affronts the Public

Studebaker



**"Yes, the roads are bad
but we'll get through all
right, we both drive *Studebaker* wagons."**

"And it's safe to say that *any* wagon built by Studebaker will always get through a day's work, never mind what conditions may be.

"After a reputation earned by half a century of honest wagon building, Studebaker wouldn't dare sell us a wagon that wasn't right, and that wouldn't stand up to its work.

"Studebaker isn't like some of the new concerns that get together a few dollars and decide to go into the wagon business. Studebaker has been building wagons for years and years, and building a reputation at the same time.

"And that good name and reputation is the biggest asset Studebaker has. It is worth the price of thousands of wagons, and they are not going to jeopardize the confidence we have in them by letting one poorly built wagon leave the factory.

"That's the reason Studebaker doesn't try to put out a cheap wagon. The few dollars saved wouldn't commence to pay them for the loss of a man's confidence, and it is also the reason that they don't try to meet cheap competition. 'Let some other fellow build the

cheap wagons' they say, Studebaker wagons are built to last.

"Have you ever noticed the number of wagon factories that spring up, all over the country, do business for a year or so and then die out—nobody knows where they go.

"But Studebaker built wagons for our grandfathers and they'll be building wagons for our grandchildren. It's an old, old house and a good one to tie up to.

"And Studebaker not only builds farm wagons, but they make mighty good harness to fit every vehicle they sell, and for any sized horse—and the harness is just as well made as the wagons. The Studebaker name is on it and the Studebaker name means a lot on a set of harness.

"Studebaker also builds business wagons, buggies, surreys, dump wagons, sprinklers and sweepers, and every year they put out thousands of automobiles. I am told they will manufacture, and sell, 50,000 automobiles this year.

"And just because I have confidence in anything that the Studebakers put out is the reason I drive a Studebaker wagon, and always will, and that's why I say, 'No matter how rough the roads may be we'll pull through.'"

See our Dealer or write us

STUDEBAKER

New York City
Minneapolis, Minn.

Chicago, Ill.

Salt Lake City, Utah

Dallas, Tex.

Kansas City, Mo.
San Francisco, Cal.

South Bend, Ind.

Denver, Colo.
Portland, Ore.

SUBSCRIPTION PRICE

\$1.00 per year; \$1.50 for two years; \$2.00 for three years. Special clubbing rates furnished on application.

ADVERTISING RATES

30 cents per agate line—14 lines to the inch. No medical nor questionably worded advertising accepted. Last forms are closed Monday noon. Changes in advertising copy and stop orders must be received by Thursday noon the week preceding date of publication.



KANSAS FARMER

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

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

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

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

Entered at the Topeka, Kansas, postoffice as second class matter.
GUARANTEED CIRCULATION OVER 60,000

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.



USE OF THE FARM PAPER.

A farm paper worth buying and reading is worth filing. It is well worth while to at least keep a year's file—in the case of KANSAS FARMER that would be 52 copies. If space is limited, accumulate 52 numbers, then as each new paper is received place it on the top of the pile and remove one from the bottom. We have subscribers who have KANSAS FARMER filed for years, and they say it pays them to take care of it in this way. Each volume has an index and this helps to locate information of value. Ours is the only farm paper printed in Kansas with which an index is supplied. This is done to further assist our readers in getting the most out of the paper.

KANSAS FARMER is helpful to its readers. It is a paper with a farm policy adapted to the conditions of the several natural divisions of the state. It is not a purveyor of farm news. It is a paper which, when it prints a story of a farm success here and there, points out the principles underlying that success and so enables the reader to undertake the same thing with a full understanding of the conditions and elements necessary to its successful accomplishment. We make a special effort in answering farm inquiries to give the information in full and help the reader on any point in connection therewith which we, as a farmer, know he will encounter in working out his plan after he has obtained the bare facts in reply. For these and many other reasons KANSAS FARMER is recognized as a real farm help and as such should be kept available for use as information is desired.

We receive many inquiries which have been answered in former and in fact recent issues. To repeat our views would consume space which should be devoted to seasonal topics or other new material. To repeat, then, reduces the value of the publication. To avoid printing the same thing week after week, we write the inquirer, giving him the information desired by letter. This is a laborious process. In the future we shall refer inquiries to the page and issue of KANSAS FARMER on which the information is to be found—provided the inquiry has recently been answered. Could our readers refer to the issue in which their question has been dealt with at length, they would often get more satisfaction. So it is to the reader's benefit, in several ways, to take care of KANSAS FARMER. Again, it is not unusual for us to refer to an article in a former issue and offer some further comment on the subject. The original article is then necessary to get the full benefit of the remarks. These are some of the ways in which the farm paper—particularly KANSAS FARMER—should be used.

Again, we get dozens of inquiries asking where the various kinds of farm seeds can be had. We have no source of such information except through our advertising columns, or as perchance we may know through some correspondence. Only this morning three inquiries were received asking where cowpeas for seed could be had. During the last month no less than a dozen farmers have advertised cowpea seed in our classified columns, and besides there were the seedmen advertisers who have seeds of all kinds for sale and whose reliability is well known. The point is this: That a study of the advertising columns of KANSAS FARMER will answer many questions, and will, in fact, suggest many things of value. The best use is not made of the farm paper until its advertising columns are used as well as the editorial columns. The files are as valuable from an advertising as from any other standpoint.

Now, if our subscribers who write that KANSAS FARMER is to them a great help, that frequently single issues are worth a dozen times the cost of a year's subscription, are correct in their judgment, then we are justified in assuming that our efforts to make a real farm paper are successful. If KANSAS FARMER is a good farm paper it is worth using to the fullest extent. It is our business to

assist readers in any way possible along the lines of good and better farming—including everything that means. Let us have your inquiries—we will take care of them—but for your benefit, and ours, read carefully or file KANSAS FARMER that it may be of the greatest value to you.

ORCHARD HELP.

If you have an old orchard which you think has passed its usefulness it will pay you to learn how old and unprofitable orchards are being revived and restored to bearing and money-making properties.

There was such revival at Seneca last week. The man who conducted this revival was George O. Greene, horticultural specialist of the extension division of the Kansas Agricultural College, using the St. Benedict's parish orchard for his demonstrations. Greene showed some 80 farmers of that vicinity how to prune apples, pears, peaches and grapes. He also identified and gave the life histories of several kinds of insects injurious to orchards. Then he described and told how to combat the principal orchard diseases.

The demonstration at St. Benedict's was only one of many to be conducted by Mr. Greene and Fred Merrill for the college this spring. Some 50 demonstrations have been planned and dates made. Write the extension division of Kansas Agricultural College for a list. If demonstrations are to be given near, you should attend. If no demonstration can be reached by your neighborhood, arrange for one for your locality.

This work is proving popular and helpful. In fact it is one of the most profitable of the many undertakings of the extension division.

EARLY WHEAT CONDITION.

The Kansas wheat condition is good at this writing. The outlook for a good crop is generally flattering. In the western section the situation is reported as particularly flattering, generally speaking, although in a few sections the winds have done some damage. This is purely a local condition, if our reports are correct. The report of the manager of the Shellabarger Milling Company at Salina, which institution is well in touch with central and western conditions, is verified by other reports. It is:

"I never saw the wheat prospects in Western Kansas and in Central Kansas look so well this early in spring as they do now.

"I judge that the wheat crop prospects at this time are 100 per cent. In no place did I see a wheat field that was not in the best of condition. The excellent condition of the wheat is general. There are no fields that are poorer than others at this time. The wheat made a good growth this fall and the weather has been ideal for spring growth and the recent winds have done no visible damage to the wheat. On account of the fine growth last fall, the wheat has acquired a heavy stand and the ground around the roots is protected well. I think that there is little to fear from spring winds now.

"Although it is entirely too early to make an estimate on the wheat crop, I am positive that with ordinary weather Western Kansas will have a bumper crop."

BACTERIA INCREASE WEALTH.

The subject of inoculation for leguminous crops—alfalfa in particular—is very much alive in Kansas. We believe that hundreds of alfalfa failures are due to lack of inoculation with nitrogen-gathering bacteria.

The Oregon Experiment Station says thousands of dollars were added to the wealth of that state last year through its supplying farmers with cultures for inoculating alfalfa, red clover, alsike, peas, beans, vetch and other leguminous crops which were successfully grown where before these crops had been impossible. Inoculation of the seed before planting, it was found, made it possible to grow leguminous crops successfully

and to increase the amount approximately 75 per cent in the hundreds of trials given in the season of 1912.

Inoculation, of course, will not rectify poor soil conditions, poorly prepared seed bed, lack of moisture for germination, or any other similar deficiency. The commercial cultures—the advertised articles—are within the reach of all, thoroughly proven, and as certain in the results as can be expected. If alfalfa is not doing well, examine carefully for nodules. If they exist, some other favorable condition is lacking.

Kansas' democratic congressmen have fared well in committee assignments. Helvering from the Fifth District has a place on the Agricultural Committee and is Kansas' representative on that committee in the place of Representative Taggart, who has been made a member of the Judiciary Committee. Now, there is wisdom in such appointments. Taggart is a lawyer and his legal experience should stand him well in hand in his new committee. Helvering comes from an agricultural district and it is logical that he should have a place on a committee having to do with agricultural affairs. Under this arrangement Representative Taggart will not be further embarrassed by his action in the dairy-men's oleo bill when it is again considered.

Governor Hodges' recommendation of a commission form of government for Kansas is attracting attention throughout the United States. Oregon discussed the proposition a year ago. Other states have talked about it some, but no definite action has been taken anywhere. Many political economists and students of political governments have discussed the plan in speeches and letters. The Kansas reference library is preparing a bulletin on the subject and this will be issued early in May for free distribution.

The American commission for the study of European co-operation will spend 90 days in Italy, Austria, Hungary, Germany, Switzerland, France, Belgium, Holland, Denmark, Sweden, Russia, the Balkan States, England and Ireland. The scope of the investigation provides for an examination of the methods employed by progressive agricultural communities in production and marketing, and in the financing of both these operations. Special note will be taken of: 1. The parts played, respectively, in the promotion of agriculture by the governments and by voluntary organizations of the agricultural classes. 2. The application of the co-operative system to agricultural production, distribution and finance. 3. The effect of co-operative organization upon social conditions in rural communities. 4. The relation of the cost of living to the business organization of the food producing classes.

The "county farm agent." That is the name given by the Federal Department of Agriculture to the men who are located by it here and there in assisting the farmer with his business. It is a good name, too, and KANSAS FARMER has adopted it. The term is much better suited to the purpose than "farm adviser" or "farm expert." We are not ready to admit that there is much in a name except as is warranted by the work done. But, county farm agent comes nearer expressing the duties and the relation of the man to those with whom he does business. Kansas has a number of such farm agents. We know of one who is making good. The others have not yet gotten settled on their jobs. But these will make good. If they do not it will not be because the principle is wrong, but because the men are not the right fellows for the work.

Are you ready for the planting season? If so, you are to be congratulated. The fellow who drives his work instead of being driven by it knows that it pays to be forehanded.

MORE ALFALFA.

Kansas has, in round figures, a million acres of alfalfa, or about three times the acreage of all other tame grasses, timothy, clover and bluegrass. The fact is that alfalfa as a feed or money-making crop is so far ahead of either of the other grasses named that there is no comparison. It is true, generally speaking, that alfalfa will do well on the land on which these other grasses grow. It is safe to say that alfalfa should in Kansas replace these except in so far as they are grown for pasture. Until this exchange is made the grower is not making the best use of his ground or feeding his live stock as well as he should.

Kansas is growing, and cannot avoid growing, all the carbohydrates that can be used by the live stock of the state, in the growing of her grain in the form of kafir, milo and corn. We are losing millions of dollars annually by growing more carbohydrates than we can use. Should we accept this, we could grow thousands upon thousands of acres of alfalfa without increasing the tillable acreage. By so doing we would take a step toward balancing farm operations, balancing the feed for live stock, which latter would result in greater and more economical growth and flesh, and we could extend the acreage of money-making crops and of which alfalfa is more profitable—for a ten-year period—than either wheat or corn. Alfalfa is thoroughly adapted to a much larger area of Kansas land than is generally believed. The heaviest yield, of course, grows on the most fertile lands and under most abundant rainfall. But, practically all of Kansas soil is sufficiently fertile for alfalfa, and the plant will do fairly as well as any other crop we have on the lands of light rainfall.

As a dry weather crop the value of alfalfa is not yet known. Under dry farming conditions the tonnage yield, to be sure, is not so heavy, neither is the yield of other crops under such conditions, so it must be compared with the yield of other crops under the same conditions. The tonnage, however, is not the measure of value of a farm crop. The superior feeding value of alfalfa makes a ton of this hay easily worth three tons of the common forage. Fed in combination with these forages its worth is still much greater.

The Kansas farmer, everywhere, can afford to try out alfalfa in a thoroughly experimental way. Practically every county in Kansas is growing some alfalfa—although some counties have not more than a few hundred acres. A thousand acres in a county, however, augurs profitable alfalfa cultivation on a large area in that county. Investigate alfalfa possibilities on your farm—you can't afford to be without it provided it will grow, and you do not know until you've made an honest effort to grow it.

On page eight of KANSAS FARMER issue of March 29, in answer to the inquiry of our Latham, Kan., subscriber, we reviewed the whole range of alfalfa seeding and cultivation. Look up the article and re-read it. It will be worth your time. On our father's farm in Dickinson County we were pioneers in establishing alfalfa on the upland. Success came only after a number of trials—efforts so discouraging that many a man would have despaired and given up the attempt. But we kept at it and good stands and good crops came. We learned the kind of seed bed required and with that seed bed prepared and with the use of good seed a stand was made as sure and certain as a stand of wheat or corn, and the article to which we refer you is written in the light of 25 years of alfalfa growing experience.

These are trying times on live stock. The dry feed is unpalatable and stock is tired of it. When the sun begins to shine warm the cattle long to roam over the pasture. This is the time of year when it pays to have some really choice feed—bright alfalfa, oat hay or green millet hay. The silo, though, supplies the need if you have one.

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

SUBSCRIBER A. S. M., Jackson County, writes: "Please advise me of a good forage crop to grow in this county to feed cattle through the winter, or rather through March and April; I run my cattle on stalks until March. I want a forage crop that will not require cultivating, as it will give me less work. How about cane or millet? Is cane good after it freezes?"

It seems somewhat strange that an inquiry of the above character should come from Jackson County—a county which, generally speaking, will produce abundantly any and all of the forages known to Kansas. In this connection it is interesting to note that of the 421,000 acres making up that county, in the year 1912, grew only 6,000 acres of clover and 5,700 acres of alfalfa. These, beyond question, are the most valuable forages for the maintenance and for the production of growth in horses and cattle as well as for the production of dairy products by the dairy herd. Either of these forages will admirably answer the purpose of our subscriber as a palatable and nutritious feed during the late spring and either of which does not require cultivation, but like all other crops, require harvesting. However, each has the advantage of supplying the earliest spring pasture if it is desirable to use such pasture. Clover hay contains more nitrogen than timothy or corn fodder and is therefore well suited as a roughage for growing animals. Alfalfa contains more nitrogen than clover, but in Jackson County as in other eastern Kansas counties, there are conditions of soil which will make clover the preferable crop when considered from the standpoint of yield, feeding, and advantage to the land. Clover in Jackson County, for pasture, for hay, and as a green manuring crop, cannot be excelled. From a strictly feeding standpoint alfalfa is superior to clover.

In Jackson County in the year 1912 was grown 15,000 acres of timothy. A comparison of this acreage with the combined acreage of clover and alfalfa, as shown above, is odious. Timothy hay is inferior to corn fodder, wild hay, clover and alfalfa. Fields that will grow timothy will grow clover, and it would appear at the range from which the editor views the situation, that the best use is not being made of at least 15,000 of Jackson County's acres when this land is sown to timothy. The county grows less than 1,500 acres of cane and kafir, 5,000 acres of millet, and 25,000 acres of oats, and 116,000 acres of corn. The corn, either in the shape of corn fodder or silage, contains all of the carbohydrates or those constituents of feed producing fat, required by the 24,000 milk cows and other cattle owned in that county. In addition to this corn, is harvested annually, 10,000 to 12,000 tons of prairie hay and 5,000 acres of millet, which only adds to the carbohydrates which quality is amply supplied.

To grow cane or kafir—each of these being a fat-making feed and not a complete maintenance ration—along with the corn, prairie hay and timothy grown, is surplusage. The farmers of Jackson County already plow, cultivate and plant, pay interest and taxes on investment in land, horses and machinery, in the maturing of the corn crop which supplies all of this class of roughage required. This roughage will not supply the complete feed for the maintenance of growing live stock or the production of dairy products.

Answering our subscriber specifically, however, noting that he pastures the stalk fields until March and his cattle are so supplied with roughage, he can obtain a palatable and nutritious late spring feed by sowing kafir for hay. From a bushel to two bushels of kafir per acre should be seeded, depending upon the fertility of the land. Enough seed should be sown to cause the stalks to grow small so as to be readily eaten as hay. This crop bound with a wheat binder and cut just so soon as it will keep, will make a palatable late spring feed. Cane hay, seeded and harvested similarly, deteriorates as it becomes older. However, the finer the hay the less juice and sugar and the less tendency to deterioration by souring as a result of freezing. Millet hay cut when the plant is just coming into bloom, will make a desirable late spring feed and the millet hay fed in combination with the kafir hay will give good results. Keep in mind, however, that bright clover and alfalfa hay are superior to millet or kafir—or for that matter any other hay. Oat hay is a particularly ap-

petizing hay late in the spring. Oats should be cut when the straw is green and the seed is in the dough.

Our feeding methods will never produce the results they should until we learn to better balance our feeds. Our feeding in general is at this time one-sided, just as our farm methods are one-sided. We grow too much corn and too little of the feeds needed to go with corn, both from the standpoint of proper feeding for our animals and from the standpoint of best interest of the land on which the crops are grown. Our subscriber can do no better than to supply the feed he needs through clover and alfalfa hay. He cannot arrange for these in a single season and for this year can make a choice from others named.

Firm Believers in Kafir.

A subscriber from Jewell County, writes: "I have just read your article about kafir in the March 1 issue. This article was a revelation to kafir growers although I have been following the principles laid down in that article, for many years. Our kafir last year made 19 tons of silage to the acre. We do not know what the yield of grain was. While we were filling one of our 200-ton silos, about twenty boys from the class in agriculture in the high school visited

his yield, it is certain that the yield obtained by him cannot be other than far in excess of the average yield for this state. KANSAS FARMER has printed sufficient facts with reference to the type of head as applying to high yields, to establish the relation of type to yield and to prove also that in fields planted for grain and giving light yields the high yielding type of head is not to be found. If farmers are to realize the fullest advantage from the planting of kafir, it is certain that during the next few years close attention must be given to the selection and planting of profitable seed. The more we investigate the subject the more we are convinced that the quality of kafir has greatly deteriorated during the past ten years and that the yield can be increased only by more careful selection of the seed. It is to the best interest of every kafir grower to obtain good seed.

Adjusting Sulky Plow.

Subscriber E. H. T., Allen County, asks how much heavier a sulky plow pulls than a walking plow and how it should be adjusted to get lightest draft.

A sulky plow properly adjusted should pull but little heavier than a walking plow of the same size. This is possible only when the downward pressure and side pressure of the plow bot-

tiny blood vessels in the udder. If the udder is injured seriously, bloody milk might be quite apparent and the quarter will be sore. The milk from that quarter should not be mixed with the milk sold. A condition which warrants this special treatment will be plainly apparent. A condition which cannot be noticed except as the little blood may be seen in the separator slime, need be given no attention. The fact that an occasional drop of blood in the milk will be noticeable in the slime of the separator, shows how effective the centrifugal separator is as a purifier.

Our subscriber does not ask for any suggestion relative to his feeding methods. We cannot, however, refrain from calling his attention to the fact that the purchase of bran at \$18 to \$20 per ton, is an unnecessary expenditure. The only excuse for feeding bran with a mixture of oats and corn, is to increase the protein in the feed. This can be supplied at less cost by the use of an increased quantity of linseed meal. A pound of protein in a ton of bran at \$20 per ton, costs approximately 10 cents. The cost of a pound of protein in linseed or cottonseed meal at present prices is about four cents. If our subscriber did not have corn or oats to supply the bulk in his grain ration, then he would have to supply it in some other form and bran would be a good but expensive form in which to supply that bulk. The subscriber can follow the above suggestion and eliminate expense incurred for bran.

Salt For All Live Stock.

It is strange, but nevertheless true, that among farmers of my immediate acquaintance no one gives his stock all the salt it needs or wants all the time. The old-fashioned way of salting cattle in the pasture every Sunday morning, still prevails. This plan has one advantage in that cattle learn the call—"cow-salt"—and come running at the call.

Hog men feed some salt but nearly always mixed with ashes, sulphur, copperas, or some other compound, thereby compelling the hogs to eat something they do not want in order that they may get the little salt they do want and need.

I have neighbors who pay long prices for conditioners of one kind and another but it never dawns on them to let their stock have all the salt it needs. I have had farmers say to me that it would break them up to supply their stock with all the salt it would consume. I believe that all classes of stock should have all the salt it will eat at all times.

We have salt troughs in the pasture and feed lots and hog lots and aim to keep salt in them continually. The cost is trifling. Ground rock salt is the most economical. It does not melt easily in wet weather.—ANDREW SHEARER, Frankfort, Kan.

Treatment For Diseased Potatoes.

Most of the diseases of potatoes are caused by soil organisms that live in the soil. The soil originally becomes infected either from weeds or from the use of infected potatoes. The latter cause is probably responsible in the majority of cases. Diseases which live over from year to year can be controlled only with great difficulty. A few general rules should be strictly observed, namely:

Never plant infected seed.

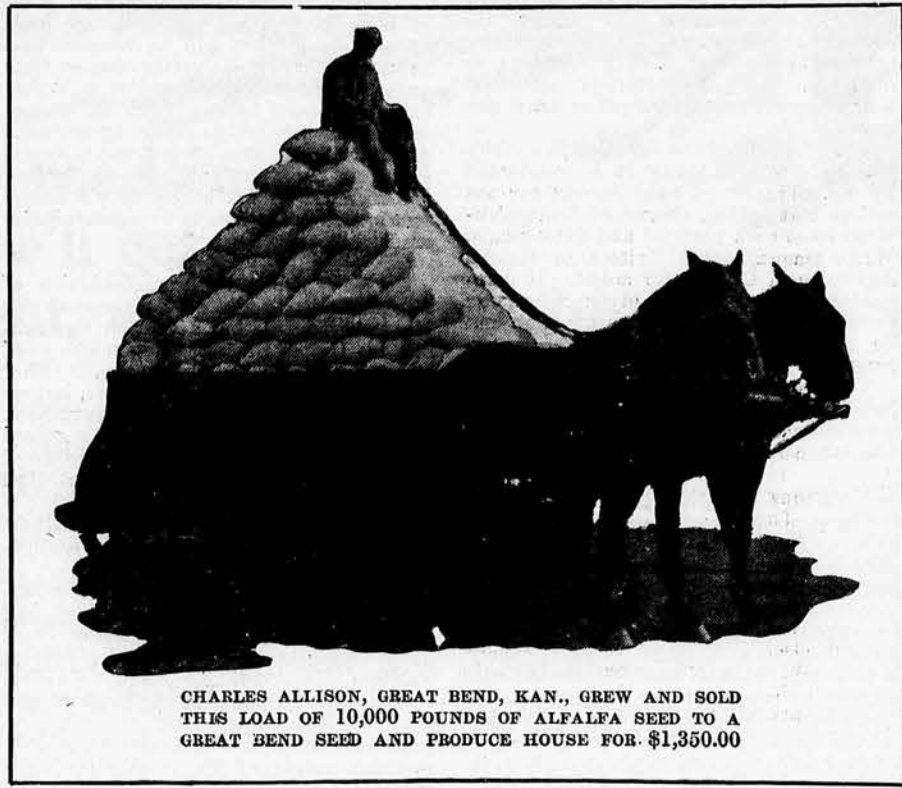
Never plant seed grown in infected soil. The fungus may lie dormant within the seed ready to infect the next crop.

All seed should be soaked for one or two hours in a solution of one pint formalin to thirty gallons of water.

Destroy all infected potatoes. Never allow infected potatoes to decay on your premises. Decaying potatoes should be saturated with lime and copper sulphate, or burned.

Spraying as directed further on for early blight should be given potatoes infected with late blight, in order to save the foliage until the crop can mature.

Only a few potato diseases infect the foliage alone. The most important is that of early blight, caused by a species of macrosporium. The attacks of the early blight usually follow in the wake of the flea beetle. To control early blight, spray with Bordeaux mixture, using five pounds of copper sulphate and five pounds of lime to every fifty gallons of water. Add two pounds of lead arsenate to every fifty gallons of the spray to control the flea beetle. The early blight is readily recognized by the shot hole appearance of the leaves.



CHARLES ALLISON, GREAT BEND, KAN., GREW AND SOLD THIS LOAD OF 10,000 POUNDS OF ALFALFA SEED TO A GREAT BEND SEED AND PRODUCE HOUSE FOR \$1,350.00

the farm to see the work. I asked them to count the heads on a number of rows, making about two acres, to remove sample heads and to dry, shell, and weigh the corn. They reported an acre yield of 125.2 bushels.

"I did not see the heads they selected and I suspect they may have selected heads above the average in size, but I believe the grain yield to have been between 80 and 100 bushels to the acre. Three years ago the kafir crop grown from the same seed, but not planted so thick as in 1912, made 83 bushels an acre. I have been greatly interested in kafir and its possibilities. I am of the opinion that it makes better silage than field corn and yields about double. Kafir silage and alfalfa hay make a combination hard to beat for wintering stockers or for supplementing and cheapening a fattening ration."

A Lincoln County subscriber, writes: "The weekly visit of KANSAS FARMER is like a weekly bath—it is badly needed. I greatly appreciated your article on kafir in the March 1 issue. I make kafir my sole spring crop and have had most excellent success. I harvest the kafir heads and keep them in the granary all winter. In the spring I hand-pick the seed heads, feeding the inferior heads to the stock, but thrash the selected heads together, these being the heavy yielding and ideal type. I make the selection of heads during the winter."

The two appreciations above reported are for the important consideration of Kansas kafir growers. In one instance a yield fully double the average yield is reported and this yield is beyond question due to careful seed selection. While the second subscriber does not report

tom is carried by the wheels. Otherwise, the sulky plow must pull the harder because of the additional weight of the frame and driver.

The downward pressure of the plow bottom is loaded upon the wheels by raising the heel of the land side from the bottom of the furrow, which gives the sulky more "suction" than the walking plow. Also the heel of the share is not flattened to "give bearing" as is that of the walking plow.

The side pressure of the bottom is loaded upon the wheels by setting the rear furrow wheel outside the land side so as to remove all pressure from the latter. Sometimes the land side is removed entirely. Keep the shares sharp because cutting the furrow slices consumes 50 per cent of the draft.

Not Unusual Milk Condition.

E. B. C., Hesston, Kan., writes: "I have two milk cows. One has been fresh since August, the other since the middle of January. I am feeding alfalfa hay and a grain mixture of oats, corn, bran, and a little linseed meal. The cows seem to be in the best of health, but I notice that the slime in the cream separator is occasionally streaked with blood. Can you tell me what might be the trouble?"

It is not unusual to find in the separator slime traces of blood. In the editor's experience as a dairyman and in the operation of a hand separator, we do not believe we ever cleaned the separator bowl without finding some blood in the slime. Our experience convinces us that the condition described need cause our subscriber no uneasiness.

The blood comes from a rupture of the

KANSAS PERCHERON BREEDING

Kansas Stands Fourth in Number of Pure Bred Registered Percherons

By WAYNE DINSMORE, Sec'y Percheron Society of America

DRIFT horse breeding is centered in the big six corn belt states, Ohio, Indiana, Illinois, Iowa, Nebraska and Kansas. These six states are likewise the leading Percheron states, contributing more than 72 per cent of the Percherons bred in America.

Kansas stands fourth in total number and value of horses. She also occupies the fourth place in the breeding of pure-bred Percherons. The last census credits the state with 1,147,056 head of horses in the state, valued at \$112,758,108. Thirty-five per cent of the farms in the state are producing horses.

Figures recently compiled by the Percheron Society of America show that 10,758 American-bred Percheron horses were recorded between August 1, 1910, and May 1, 1912. Of these 627 were bred in Kansas, and the state contributed 5.8 per cent of all recorded in the time mentioned.

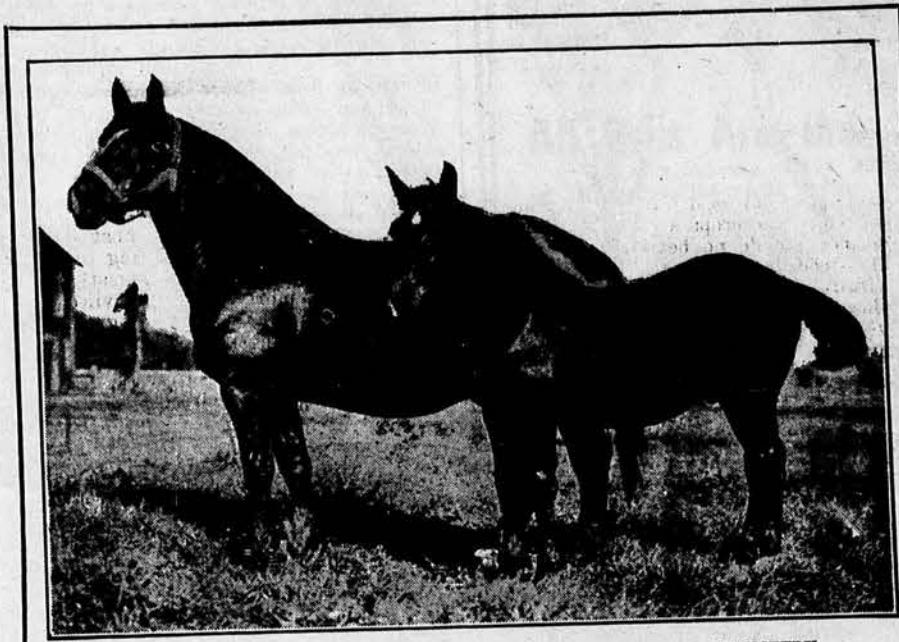
The accompanying map shows at a glance the distribution of Percherons in the state by counties. It also shows the percentage which each county contributed to the total for the state and the number of members of the Percheron Society of America.

Butler, Harvey, Mitchell, Barton, Cowley, Sumner and Phillips are the first seven counties in the state, ranking in the order named. Together they contributed 38.4 per cent of all those bred in the state. It will be noticed that the distribution throughout the state is very considerable, as Percherons are being bred in 72 out of the 105 counties, and no one county has any marked advantage over others, although the first two counties, Butler and Harvey, together contributed a little over 18 per cent of those bred in the state.

These first seven counties constitute three separate groups: one in the south central part of the state, one in the central part, and one in the north central part of the state.

Mitchell County enjoys the honor of having the greatest number of breeders. This county also has the distinction of having the strongest county breeders' association in the state. This has been in existence for some three years, was formed for mutual benefit in the production of better live stock, including horses, and has already accomplished a great deal, particularly in encouraging farmers throughout the county to purchase excellent individuals of pure breeding.

The breeding of Percheron horses in Kansas has been carried on for about 30 years. The first authentic importations of Percherons to Kansas were made prior to 1876 by M. J. Parrott of Leavenworth, Kan., who imported two head. Henry Avery of Wakefield, Kan., purchased Zama 1368 in 1883 and William Dengel



PERCHERONS MEAN POWER, WITH ACTION, ENDURANCE AND SYMMETRY

of Salina, Kan., took Vidou 953 to the state in 1881. There were other scattering purchases throughout the state within the next few years. J. W. and J. C. Robison, of Towanda, Kan., took a number of Percherons to the state in 1885. This stud has been maintained from that time down to the present date and is now one of the noted breeding establishments of the United States.

The general distribution of Percherons in Kansas may be said to have begun about 1885, and breed interests have grown steadily since that time.

The popularity of Percherons in Kansas is attested by the fact that out of the 2,387 pure-bred draft stallions standing for service in the state in 1911, 1,733 or 72 per cent were percherons. This appears to be a higher proportion of Percherons than is found in any other state. This, in itself, is a favorable point, for it indicates that the draft horse breeders of Kansas have selected one breed and intend to concentrate their efforts toward producing better horses of that breed than can be produced anywhere else. These figures were supplied by C. W. McCampbell, Secretary of the Kansas State Stallion Board.

Comparison of the total number of

horses with the total number of pure-bred draft stallions reveals that there is but one pure-bred draft stallion to 480 horses. This means only about four sires per 2,000 horses. Experienced horsemen know that this is not half as many as are needed to permit every farmer to have ready access to a good sire. The need for additional pure-bred horses of the right kind is manifest. The opportunity is before Kansas Percheron breeders.

Strong county breeders' organizations are to be recommended. They will stimulate the production of more and better draft horses. The first step in this is to establish a good market for the horses produced in that particular locality, by advertising and drawing buyers to the county. A broad-minded policy must prevail, and the aim should be to benefit all draft horse breeders, whether they are handling pure-bred horses or not. The farmer who is raising grade draft horses is encouraged to produce better ones if a good market is afforded for those he has produced. Buyers for city markets will readily go to any locality to purchase sound, well proportioned geldings that will weigh 1,650 pounds or over at four years of age. Buyers for

the southern states, and for the west and northwest, will take all the surplus mares of this kind at good prices.

The character of Percherons produced in the county can be improved by the work of such a local organization. Colt shows can be started in various parts of the county. This encourages small breeders to take better care of their young stock, and this is a most important point. In the judgment of a large proportion of the most experienced horsemen in America, 90 per cent of our American Percheron breeders do not feed their colts, yearlings, and two-year-olds liberally enough. Pure-bred draft colts should have a creep where they can secure good oats, or a mixture of corn, bran and oats, whenever they want it. The local organization, through colt shows, can demonstrate the necessity of extra liberal feeding and the profit accruing thereby. Scrub stallions are automatically eliminated. The inferiority of their produce, manifest when brought into deadly comparison with the product of first-class pure-bred sires, brings an abrupt end to their career. These and other practical measures of improvement can be brought out by a strong county horse breeders' association. Annual dues of \$5 or \$10 from each member will permit the local association to compile and publish a booklet giving a list of all pure-bred draft horse breeders in the county, with a statement as to number of pure-bred horses owned by each, and what surplus there is available for sale. It will also provide for a small, clean-cut advertisement in one or two of the leading agricultural papers covering the territory in which sales are sought for. Inquiries resulting from such advertising can be answered by the local secretary, briefly but clearly, by means of printed information which he should have available to mail out to such prospects. By united work along these lines small breeders can secure, at slight cost, publicity of the right kind which will give greatly increased opportunities for selling surplus colts at good prices.

In production, breeding and feeding are the two essentials. Good foundation stock, possessing size, first-class draft conformation, and soundness, is the first requisite; but such foundation stock avails nothing unless the animals produced are given a full opportunity, through extra liberal feeding to develop. American Percheron breeders will do well to adopt a similar policy to that of France. The aim needs to be, in growing pure-bred draft colts, "not how cheap, but how good."

Efficient production simplifies distribution. Buyers once attracted to a locality by proper advertising will never forget the district if they find first-class horses.

About Those Beef Cattle

By E. E. HAZEN, Hiawatha, Kansas

I note that Professor Shaw says that the college professors boomed the dairy cow and in this way made the beef shortage. I don't believe that this had much to do with it. Just as well have a beef shortage as a milk and butter shortage. The facts are that the beef shortage was caused simply by the fact that we could not produce beef and make anything at it on our land. The packer and the consumer were not willing to pay us the cost of production on high-priced land. Then, too, when prices for cattle were low these cattle kept on eating high-priced feed, and the farmer learned that while his corn would shrink, it would not eat, and could be held through low times. This does not refer to a class of renters, as they never were beef producers or corn holders.

I milk a few cows—from four to six—of a beef type, and I have not raised a calf from these cows for six or seven years. Why? I found that they were worth more as veal. I could sell the veal and buy yearlings for the same or just a little more money, but did I buy yearlings? No, I did not want them. I was perfectly willing that the other fellow should buy them and make all he could. I had tried it before until I was perfectly satisfied to let him have them.

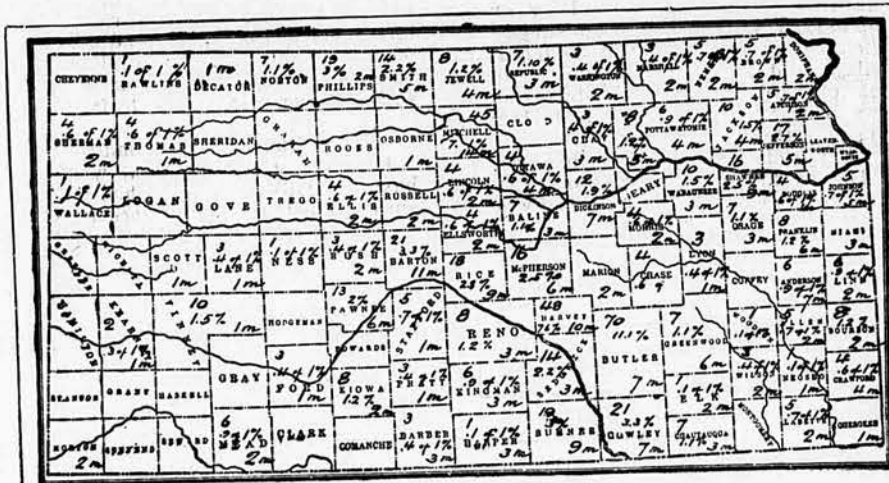
Now beef is high, and the question from the standpoint of the old farmer is whether it is too high. From the consumer's standpoint, it is. There will be an increase in beef animals if the

producer thinks the price will warrant the feed and care.

The veal calf is blamed for the beef shortage, and why should I not have the privilege of selling my product whenever I think best? In my own case I should not have raised these calves

anyway. Now, about the dairy cow: If I were going to milk cows, I would want cows of milk breeds. I would not want to fool with a lot of beef cattle. The dairy heifer is the one that brings the money.

Every little bit the papers print what



THE FIGURES SHOW, FOR EACH COUNTY, THE NUMBER OF REGISTERED PERCHERONS, THE PERCENTAGE OF THE WHOLE, AND THE NUMBER OF MEMBERS OF THE PERCHERON SOCIETY OF AMERICA

the farmers call a sort of "hot air story" about what some man has made in farming along certain lines. Yet they never give the expense of production or the amount of money invested and what the interest on the investment would amount to. Now we have high-priced hogs and had high feed through parts of 1911 and 1912. We always have cholera and always will have under present conditions, but the big factor was the price through the winter of 1911 and 1912. Hogs selling at from \$5.25 to \$6.00 and corn 60 cents to 80 cents was a poor proposition and the hogs went light, and there was no great attempt made by many farmers to stock up. High feed and free wool agitation has undoubtedly cut down our flocks of sheep and it now begins to look like high-priced wool and mutton. In other words, you cannot cut down the price of live stock to a point below the cost of production and keep the innocent fellows in the game. They are the ones that hold the balance of power through the shortage of production. Now they will get in if they feel reasonably sure prices will not fall. They are hunting heifer calves and young heifers now while the butchers are getting them as soon as they are fat enough, and this has been true for the last several years.

Good feed and care is the best possible stock tonic.

GRASS FOR EVERY SOIL

Nature Provides a Variety Adapted to Every Soil and Climate



KANSAS NEEDS MORE GRASS AND LIVE STOCK—WE NEED MORE OF THE FORMER TO PROFITABLY MAINTAIN MORE OF THE LATTER.

THE natural growth of grass over the land had been selected by Nature's horticulturists and had certainly proven to be suitable to the needs and conditions in every particular. Each class or kind of soil was provided with its particular species or variety, and apparently where it could not be easily determined which one should be grown, there was found a mixture. Not only were the true grasses found in abundance, but scattered among them were many plants belonging to the nitrogen gathering family so in reality there was a rational rotation provided, that there would be no soil exhaustion taking place from the growing of the grasses.

On the lowlands where there was plenty of moisture, and especially if limestone abounded in the hills, the bluestems were found in abundance.

On slightly higher land where the moisture supply was not so great there were other kinds of grass. A large number of these are included under the term "buffalo grass." The slender wheat grass, as it is now called, may perhaps not have been included, but it is one of the most valuable of the native kinds and is being propagated and has found an important position among the so-called "tame" grass.

The grama grass and side oat grass would be found on slightly higher land than the slender wheat grass and are important members of the "short grass" family. The grama grasses are distinguished by having one or three heads which hang off to one side of the main stalk, like pennants, which are usually about one inch long and easily turned, and indicates the direction of the wind. It is not common to find large areas of this grass in a single locality. It grows among the true buffalo grasses from which it is distinguished by its tall seed stem, just mentioned. The true buffalo grass forms the bulk of the native grasses on the uplands and is perhaps most important and valuable of the 150 or more kinds found by botanists. The true buffalo grass forms a short compact sod, the plants usually being only a few inches high. It is distinguished by its gray-green color and by sending out long runners which take root at the joints, like a strawberry plant. Of course these runners do not take root at every joint if the ground is already covered, but they grow upon each other until a thick mat of them is formed.

SHORT GRASS HIGH IN NUTRITION.

It has always been a wonder to the intelligent observer that so uninviting a looking pasture as buffalo grass should produce such fat stock. In order to determine why this was so, the Kansas Experiment Station secured a quantity of the dry buffalo grass from the plains and conducted a digestion experiment. Prof. J. T. Willard, reporting the experiment, says: "The most noticeable feature of the test is the high percentage of digestible proteids which this hay contains. In this respect it is consider-

ably superior to Kentucky bluegrass and very much better than timothy. It has about the same amount of digestible carbohydrates and fat as these grasses, but because of its higher percentage of protein, furnishes a better balanced ration. This valuable grass is worthy of most careful protection."

There is nothing more vitally apparent to those who are studying agricultural conditions of the West and Northwest than that the native grasses have been destroyed to too great an extent. In many sections there are very few fields of native grasses growing on land that is at all suitable for farming purposes, and in many cases hundreds of acres of land that are not suitable for farming, but would have been valuable as pasture or meadow, have been broken up.

Apparently the growing of small grains has taken ahold of the settlers as a sort of mania and everything has been ruthlessly swept aside to attain this particular object. It is not a good excuse to say that the land was more valuable for growing small grain than it would have been if left in pasture, because the ten-year average of wheat production of four to 12 bushels per acre leaves absolutely no margin of profit to the farmer. It cannot be said that the land is too valuable for pastures, because in England, land worth from \$300 to \$500 per acre is sown to grasses and pastured, not of course by long horned scrubs, but by animals that are worthy to pasture on such valuable land. It is true that our climate does not admit of conditions for pasture equal to those of England, yet they will admit of grasses being used for pasture to a much greater extent than they are now being used. Certainly our grass is not appreciated.

Wild oats, quack grass, Russian thistles, etc., are the result of a ruinous one crop system—and are putting the land in grass whether the farmer is willing or not. Nature is simply asserting itself. Any field with such a tendency—that is foul with wild oats, quack grass, etc., should be sown to grass, and pastured for several years. What grass to sow is a hard question. Perhaps the safest plan would be to seed a mixture of four or five kinds and see what predominates at the end of two or three years.

In regions of 20 inches of rainfall or more, use four pounds of red clover, four pounds of timothy, four pounds alsike, 10 pounds brome grass, four pounds English blue grass and two pounds alfalfa. If the land is inclined to be very wet, red top should be added and perhaps the English blue grass left out. This makes a heavy seeding, but as conditions will doubtless not be ideal, the seeming extravagance will often prove economy.

In dryer sections, slender wheat grass should form the larger part of the seeding with brome grass and alfalfa. Seeding should not be made until all cold weather is past in the spring, and the

land should be clean of growing weeds at seeding. If a disk harrow will not destroy all weeds the land should be plowed shallow and thoroughly packed immediately following the plow. Seeding should be done with a disk drill—the seed put into moist soil, but not deeper than two inches.

If weeds start to shade the grass the mower should be used—do not allow anything to seed on the fields the first year, and it should not be pastured to any great extent. A few calves may do no harm, but there must be a good heavy growth for winter protection.

The great difficulty with all pastures is that they are too heavily stocked—they are eaten into the very ground. This weakens the plants until they do not make their maximum growth—and with no protection for winter are often killed out entirely.

A patch of corn, millet or sorghum should always be sown near the pasture to be cut and fed green when the pasture gets short. The stock should not be left in pasture without additional feed after frost as the grass has largely ceased to grow and when eaten off the crown and roots of the plants are left exposed.

While alfalfa and clover are not true grasses they are considered as such in this article. Alfalfa is undoubtedly the most valuable of all. The reason that it is not grown on every farm is because its value is not appreciated. The farmer who contends that he cannot grow it admits that he is not as smart as his neighbor. A farmer at an institute once said that he sowed alfalfa seed five times on one patch of land before he got a stand. He said that the reason he tried so persistently was because he knew a neighbor who had a fine patch and he knew that he was just as smart, and his land just as good as that of his neighbor. Alfalfa can be grown on any land that will produce a profitable crop of grain, or wherever a cottonwood tree will grow large enough for a fence post, and will be more profitable than any other crop grown.

Red and alsike clover are valuable grass plants. The former is especially valuable for use in rotations for the purpose of increasing the humus in the soil—also adding nitrogen. Alsike clover will of course perform the same functions but does better on the wetter lands. Grown for hay, either should be sown with some strong growing grass as timothy or red top. For seed, they may be sown alone, using the mower the first year to keep the weeds down.

Timothy is the best known of the tame grasses and is valued particularly for the quality of hay it produces. A seed crop is also valuable and is very easily handled. Timothy grown for seed or hay takes from the soil practically the same elements as do small grains, hence is not so valuable as the clovers in a rotation. Clover and timothy sown to-

gether make a splendid combination—both in benefiting the soil and for hay.

Red top does well on low, wet land and is a good companion for alsike clover.

Brome grass is perhaps more extensively grown for pasture in the West and Northwest than any other grass. It is very hardy and able to withstand more dry weather than any of the tame grasses mentioned, except alfalfa. Brome grass sown for pasture or any other purpose should always have some alfalfa with it. They are a splendid combination.

Slender wheat grass is a recently acquired addition from the native grasses, and is certainly making good. On all the lighter soils with rainfall below 20 inches, no grass mixture should be sown for pasture or hay that is not largely slender wheat grass, except alfalfa. Slender wheat grass alone makes a valuable hay, but belongs to the same class as the small grains, timothy, etc., hence will not restore any nitrogen.

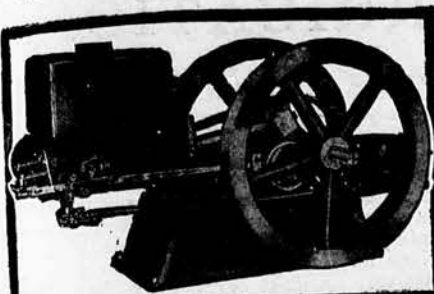
While only alfalfa, clover, etc.—the legumes—restore any element of fertility to the soil, the grasses have a very beneficial effect, which is always observed on breaking up pasture land and planting to crops. The reason for this is that the grasses send their roots perhaps deeper into the soil and bring up plant food which accumulates in the roots and dead leaves near the surface. Also the soil is protected from the action of the sun, air and water, which admits of further accumulation of plant food. The roots decay, forming humus, which holds moisture, a very valuable consideration in light soils especially. The better the soil on which grass is grown, the greater is the benefit from the growing of the grasses, as there will be a correspondingly larger accumulation.

Grass will make poor land good, and good land better. Every farmer in the West and Northwest is certainly interested in his own welfare, and should take advantage of every opportunity to benefit his conditions. The subject of grass is not new, but grass is in the discard. It should be studied and restored to the place it deserves, and is demanding in the agricultural economy of the West.

EDITOR'S NOTE.—Mr. Haney, the writer of the above article, is a Kansas man. We was one time assistant agronomist of Kansas Agricultural College. He was for years manager of the well known Demming Ranch, Oswego, Kan. He is now superintendent of one of the International Harvester Company's demonstration farms.

W. W. Patterson, president of the Bank of Bronson, Bronson, Kan., writes: "I cannot refrain from again complimenting you on the dairy department of KANSAS FARMER issue of the 15th inst. To anyone who is at all interested in dairying, page five is worth many times the price of a subscription, to say nothing of the editorial in the dairy columns."

By J. G. HANEY



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J. M. McCRAE, Manhattan, Kan.

Spring Pasture for Hogs.
PASTURE FOR HOGS A NECESSITY.—The economy of pork production hinges largely on the use made of forage crops. The hog is a natural grazer at all times of its life to a greater or less extent. The hogs which have had succulent food almost constantly available are the ones producing pork for the least money. They are almost invariably the most thrifty and healthy and have made their gains on a smaller amount of grain than the hog which has been confined to dry-lot feeding through a considerable portion of its life.

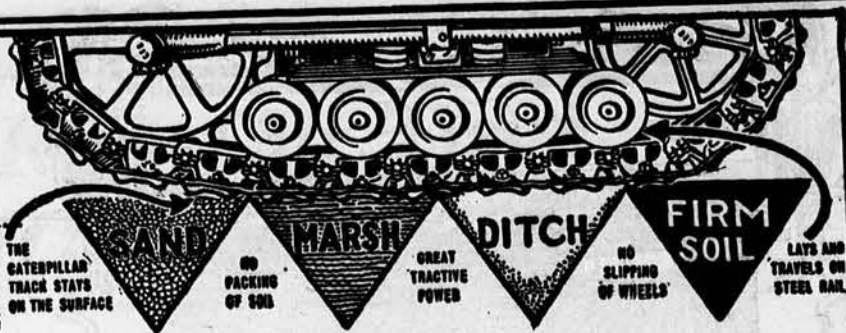
Farmers with alfalfa and plenty of hog fences have admirable conditions for producing pork at a minimum cost. Many farmers are still without alfalfa and therefore must depend on other crops for hog pasture. Even the farmers with alfalfa can often make profitable use of annual forage crops for pasture.

RAPE.—Rape is one of the most satisfactory early pastures for hogs and should be used far more than it is. At the Kansas Experiment Station rape has returned a value of \$12.00 per acre, in combination with proper grain rations. It is very low in crude fiber which makes it especially adapted to the digestive system of the hog. Careful analyses made at the Ohio station show that in proportion to the total dry matter in the plant it contains a higher per cent. of protein than clover, soybean hay, or even alfalfa. An acre of rape will pasture 15 to 20 hogs for two or three months. It is a cool weather plant, belonging to the cabbage family, and may be seeded early in the spring. It produces a rank growth of large succulent leaves, growing 20 to 30 inches in height. It does best on rich heavily manured soils and can be used to great advantage in feed lots which have been used through the winter season. The ground should be carefully plowed and well pulverized. The seed may be drilled in rows 20 to 30 inches apart at the rate of two or three pounds of seed per acre, or sown broadcast at the rate of four to six pounds of seed per acre. Grown in rows it may be given some cultivation, which is an advantage in foul land and in grazing it down the hogs will not trample and destroy as much as where sown broadcast. In drilling it in, a garden drill may be used, or an ordinary wheat drill, using the grass seed attachment. It may be sown from early spring on into early summer, but far better results will come from the early seeding. It is a good plan to make successional seeding so as to be able to move the hogs from one lot to another. If it is not pastured too severely it will grow up again after the hogs have been removed for a time. The hogs should be removed while a few leaves still remain on each plant. If drilled in rows it may be cultivated when the hogs are removed and much better growth will result than if it is left alone. As high as three good crops may be secured from the same plants in this manner.

It will be ready for the hogs in six to eight weeks from the time of seeding. Large hogs should not be turned in until the rape is about 12 to 14 inches tall; young pigs might be allowed on it earlier. If allowed to get too large and rank before the hogs are turned in they are apt to refuse it. There have been some complaints made that hogs would not eat rape. In all our tests at the Experiment Station nothing of the kind has ever been observed; all our hogs eating the rape greedily at the first opportunity. There have also been some complaints made that a peculiar skin disease is produced by the rape plant. This difficulty has been observed to occur with other rank forage plants as well as with rape. It probably is due to the pigs running in the rape, or other plant, when it is covered with a heavy dew and having the sun come out afterwards, resulting in a scalding of the skin. We have had practically no trouble of this kind at the Experiment Station.

RAPE IN MIXTURES.—Rape and oats are often used together for an early pasture for hogs. At the Missouri Experiment Station it has given one of the most highly productive spring pastures ever used. They may be seeded at the same time or the rape may be broadcasted after the oats are up and harrowed lightly to cover. At the Michigan Experiment Station splendid results were secured by sowing broadcast rape and millet, mixed equal parts, using a pint of each per acre.

The Dwarf Essex variety is the only variety widely grown in this country. The seeds are small, very much resembling a large black mustard seed. It can be obtained of almost any seedsman. It is a good plan to secure samples and make germination tests before final purchase of the seed. It should not cost to exceed ten cents per pound.—G. C. WHEELER, Animal Husbandry Expert.



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Wet, dry, marshy, sandy, hard or soft—the Caterpillar works the same on all because its tracks *stay on the surface*. They do not sink into soft ground and so continually have to climb out of a hole caused by the machine's weight. The Caterpillar pulls its load wherever and whenever plows will stand up. There is no limit to its adaptability to all farm work at all seasons.

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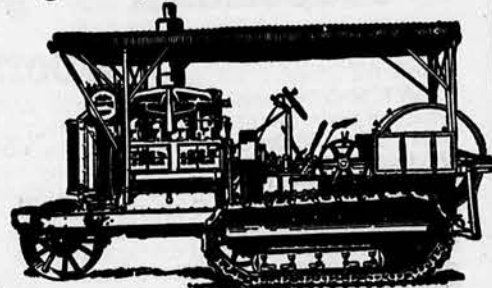
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does not run on the ground, but on a steel track which it lays and picks up as it travels. This makes it independent of surface conditions. The big bearing surface of the track (from 2,500 to 4,000 sq. in. according to width) gives unequalled tractive power, yet has a pressure per square inch less than that of a horse's tread. That's why the Caterpillar has a grip that cannot slip and works successfully, independent of the weather, on wet, swampy or sandy soils, where a horse couldn't. There are no wheels to slip or mire. This is the only engine that can be used successfully for seeding and harrowing on plowed land without packing the soil.

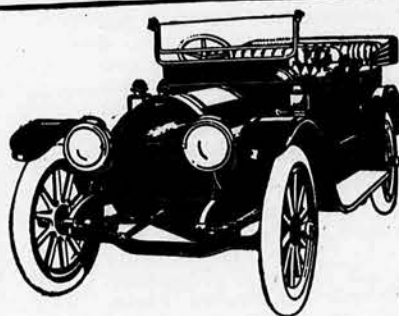
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THERE are at least two good reasons why you should buy IHC harvesting and haying machines and tools. One reason is that we sell only the most efficient machines, the other that we render the service necessary to keep those machines at work all the time during the harvest. You can afford to delay almost any other farm operation, but the harvest you cannot. If the grain is to be marketed at the top price it must be cut, bound and shocked all in the space of a few days. The machines and tools used for work of this nature must be efficient. If for any reason they should not do the work you demand of them, the greater part of your season's effort would be wasted. You can avoid any chance of failure by investing your money in the time-tried, field-developed machines which bear the following well-known names:

**Champion Deering
McCormick Milwaukee
Osborne Plano**

An IHC harvesting machine will always reap the full crop, whether grain be tall or short, standing, down, or tangled—that is part of its efficiency. But when the unforeseen accident occurs, the unavoidable breakdown which may happen even to the best machine, that is the time when you appreciate to the full the prompt service given to all IHC machine users by our organization. If an accident does happen to an IHC machine, somewhere within easy reach, either at the local dealer's place of business, or at an IHC general agency, seldom more than 50 miles away, you can secure promptly any part or parts that may be needed to put your machine back into commission again. This is IHC service—a service organized and maintained for no other purpose than to assist you in harvesting your crops.

Now is the time to decide whether or not it will be wise to buy new machines. It certainly is not wise to take the risk of waiting until the harvest is ready before knowing whether a new equipment is needed or not. Visit the local dealers, get IHC catalogues, see the machines, and make up your mind now which machine will be best for you to buy.

While you are looking at machines, remember also that good grain binding requires good binding twine. The best machines will not bind satisfactorily unless a strong, smooth binder twine of uniform size, strength and quality is used to tie the bundle. A twine of this description is sold under the trade names of **Champion, Deering, International, McCormick, Milwaukee, Osborne, Plano**, each brand made in four grades, manila, pure manila, sisal and standard.

Your local dealers have catalogues which explain thoroughly all the best points of the different machines. They will give you full information, or, if you prefer, write the



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Chicago

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FORTY YEARS'

experience selling to the consumer means success. We ship for examination, guaranteeing safe delivery, satisfaction and to save you money.

Catalog shows all styles of pleasure vehicles and harness, pony vehicles and harness, spring wagons, delivery wagons and harness.

May we send you large catalog?
We also make the "Pratt" Automobiles.
Elkhart Carriage & Harness Mfg. Company
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\$25

SEED CORN TO GROW

Guaranteed and tested, grown under perfect conditions. All our own production, big yields. Varieties—Great White Pearl, the strongest grower and producer known; Reid's Yellow Dent and the "Ever Ready," a corn for late planting maturing in 80 to 90 days. Write us for dope.

W. F. DAVIS, SOUTH ST. JOSEPH, MO.

HIGH GRADE SEED CORN and SEEDS

ASK FOR QUOTATIONS

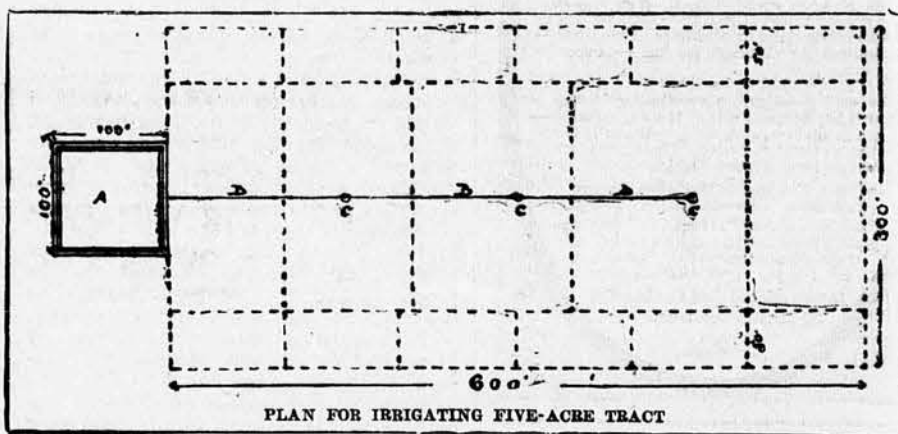
GEO. T. FIELDING & SONS, MANHATTAN, KAN.

SMALL TRACT IRRIGATION

*C. M. Niquette Presents Workable
Plan for Irrigating Five-Acre Tract*

HERE is a plan for irrigating small tracts, which could be used for garden, orchard and truck farming generally, and will be found cheap and practical. The sketch is intended to show a tract 300x600 feet, or about four and one-eighth acres. A is intended for a reservoir, 100 feet square. The bottom of this should be at least as high as the highest point of the land to be irrigated. While it would be well to have this constructed of cement, and

space. The iron piping to be used in a plan of this kind would cost about 20 cents a foot, and the ducking hose, 7 or 8 cents per foot. The hydrants and connections at the reservoir would not be expensive. Almost everybody has a wind-mill, and all of the rest is just plain work which anyone can do. The tract need not be level. Care should be taken, however, to locate the reservoir, so that the bottom of it is approximately on the same elevation as the highest



PLAN FOR IRRIGATING FIVE-ACRE TRACT

made neat and tasty, a common dirt reservoir, which anyone can build in a few days with a team and a scraper, and then puddle thoroughly so as to prevent seepage as much as possible, well answers the purpose. The walls should be high enough so that it will hold three or four feet of water above the flow line.

The lines shown at BBB represent a three-inch iron pipe, which should be laid from 12 to 15 inches below the surface, and in a tract of the size shown in the sketch; it should be about 500 feet in length. CCC represents hydrants where a hose can be attached. I have laid out the tract, as shown by the dotted lines in plots, 50x100 feet on each side, with larger plots in the center. The dotted lines to be small elevations, surrounding the different plots to act as a dam or headland to prevent the water when applied to any one plot, from spreading to another. Water is to be conveyed from the hydrants to the plot to be irrigated by a hose made of eight or ten ounce ducking, sewed so as to form a continuous hose or tube. For this tract the hose should be about 150 feet in length, and I would recommend one with an aperture about four inches in diameter, so that it would convey the water freely and without pressure. This could be easily moved from one plot to another as the operator desired.

If the tract was used for market gardening, the headlands, dividing the different plots, could be planted to such crops as tomatoes, cabbage, sweet potatoes, or other crops of that kind, so that there would absolutely be no loss of

plat to be irrigated. It would not matter if the elevation of the different plots was different, just so that each plot is near enough level that it will water thoroughly. The plots, if of irregular elevation, can be sub-divided into smaller tracts, so that anyone of them can be easily watered.

This plan also does away with the nuisance of open ditches, so that in plowing or cultivating the field, you have only to be careful of the hydrants, which should be set so as to be as near as possible to the surface to be irrigated. The plots can also be arranged in such form that they can be cultivated by horse power. The size of the tract could be reduced to a small garden, 50x100 feet, or even less, in which case a smaller pipe and reservoir could be used, or it could be increased to any extent desired, in which case you would want to use a larger reservoir, larger pipe and hose, and also a much larger water supply.

This plan if carefully handled, would economize the water supply to the greatest extent possible, and with a little practice the operator, by noting the amount of water in his reservoir, and knowing the exact size of all of the plots to be irrigated, could calculate very closely upon the amount of water it would take to irrigate any portion of his tract, and could also calculate very closely the time that it would take to water any one portion of his field. I think that where water can be obtained readily, two good windmills would thoroughly irrigate a tract of the dimension shown in this sketch, and if carefully farmed, it would easily produce from \$1000 to \$2000 worth of product.

IMPORTANT SMALL FRUITS

Strawberry, Blackberry and Raspberry—By O. F. Whitney

OF THE three most important small fruits—Strawberry, Raspberry and Blackberry, each have an important mission on any farm and a strip 80 miles east and west across the eastern end of this state is adapted to some of each of these three fruits and nearly all of this territory will grow all of them. The land further west may be just as good but personally I can only speak of this strip on the east.

Land that will produce corn, wheat or any of the cereals will be adapted to these three fruits although certain localities are better adapted than others—notably the northeastern part of the state. One general law you may write down and always remember it is that the raspberry must be on well drained soil—no wet feet for this lady of fruits. Strawberries will stand some wet ground and the blackberry has been known to mature fruit on ground that has been covered by waters.

These fruits are nutritious but their greatest good comes from their action on the other food taken into the stomach. We are willing to admit that the apple is the king of fruits, but there are many reasons why these small fruits should be grown. An apple tree will

produce fruit in about 10 years after planting, while we get this luscious small fruit the first year after it is planted—a very important consideration. Small amount of capital also is required to start small fruits.

Small fruit will produce more crops in a given number of years than will the apple and many other good and sufficient reasons can be given to prove that every farmer should have a small fruit plantation as well as vegetable garden.

Strawberries have small hairlike roots and must be planted near the top of the ground and will stand much cold weather so plant them early—real early, when mittens and coats are needed to keep the planter comfortable. Plant early and you are reasonably sure of a good stand. Set out a succession of varieties so that the season may be prolonged. Varieties that have proved successful in your immediate locality will be the ones for you to procure. Distant plants will sometimes grow but those from nearby plantations will give you better results. Patronize your home nurseryman. I believe that every Kansas farmer knows that we must cultivate so there is no need to say anything on that subject. Commercial beds are generally only

fruited two seasons but for family use a bed may be continued for a much longer period especially if you will plow out old rows and let the newer plants form the new row and by this method one can use the same ground for ten years and not have to set out any plants.

The raspberry requires more attention than the strawberry. Well drained soil with a south and west protection from the hot sun and drying winds is a very good combination and semi-shade is better than too much exposure. You recall how well they grew at the edge of the woods. We have the three kinds—Black Caps, Purple and Red. No doubt that the reds are more sought than the other two but they are not extensively grown with us on account of winter killing. The purple is a fine berry for quality, but not much for looks. It is soft and falls down quickly and the vines have never been hardy for us for more than two years in succession. Yet it will pay to have some of these for the family's own use—the quality is A-1. Of the black caps, Kansas has been the originator of one of the best, and we owe much to A. H. Greisa for introducing this long time standard—The Kansas. The Cumberland is now displacing it in many localities. The berry is a trifle larger and the picking season is extended for several days. On bottom land plant the black cap about 8 feet by 30 inches, on upland where the wood growth is not likely to be so great, plant about 6 feet by 30 inches.

The blackberry, the great Commoner, responds readily to care and will always reward any extra labor that may be given. It is a wonderful fruit and being so common and within the reach of all does not have the appreciation that it should have. It is thorny and that is one reason that we have it with us—has some protection and man and beast both alike will pass around and not over when it is encountered.

If you have a neglected corner put it into blackberries and let it run wild and you will soon have a small forest and also some very nice fruit but it will be to your advantage to plant and cultivate in rows and keep the sprouts down and your labor will be rewarded an hundred fold.

In this locality the Mersereau is coming into favor and is worthy of your consideration, plant some of them. The Snyder is a standard and will nearly always produce some good fruit which is rather small but from the fact that it is so sure to bear and freedom from rust makes it one of our best commercial varieties. You take no chances when you plant blacks.

If there is any rust in your patch dig out root and branch before the spores ripen and destroy by burning.

Denmark and Cattle Improvement.

If a Kansas breeder should offer to pay \$330 for a bull and an additional \$138 some time later when success had been experienced in the herd for which he was purchased as a sire, it would be considered a joke. Nevertheless, such an actual transaction took place in Denmark, and it is the regular custom to make such deals by which the price is determined not upon prospects but upon actual service. Tuberculin tested Danish bulls run from \$225 to \$450. Two distinct breeds are native to Denmark, the Jutland upon the mainland portion of the country, and the Danish upon Zealand, Funen, and other islands. The former are as a rule black and white, the latter red and also smaller. While attempts have been made at different periods to cross with Shorthorns, Fyrol, Swiss, Holstein, and Ayrshire, and there is no doubt that these have modified strains in some localities, yet the basis has remained as the two distinct breeds of their original cattle, and what great progress has been made has been brought about by breeding up, selecting sires, and keeping the best cows. We hear much about the co-operative creameries of Denmark, but they have also live stock improvement societies federated in unions like the "control" societies. The first cattle breeders' associations were unwieldy and undertook too much. Their object was the fixing of the native breeds. First organized was for the Jutland cattle, and because of its size and scattered membership it failed. Therein lies a lesson to us in our local testing and other co-operative organizations. It is not the bigness that always makes for success. Compact, under good management, people of the same community with a closeness of interests, a definite purpose, not undertaking too much—some of these characteristics of Danish organization are necessary. While there is a smack of "paternalism" that hits our American individual independence hard in the selection and buying of bulls by organization and the passing by judges as to what cows of the members shall be bred to such, and a pledg-

ing of the members together in a number of details, yet it might be of benefit if we followed some concerted plan at this juncture in cattle breeding, and many a splendid animal might be saved from the block by the work of a co-operative organization among breeders that knew the whereabouts and the breeding qualities of every sire. So much have we been accustomed to think in large figures in the west that small things do not appeal to us. Economic waste is fostered by that.

One of the first Danes to introduce Shorthorn sires and improve the native strain of cattle lost money in the venture. Such, however, was the appreciation of his effort that the state allowed him \$11,000 a year for eight years to counter-balance the loss and enable him to continue the work. The grant ceased only when other than Shorthorn bulls were used on the farm. These subventions are made in many ways to help the stock and dairy farmers. Shows and fairs are held also where prizes are given. The state and co-operative organizations furnish these. In fact, the term "prize cattle" is a very familiar one in many European countries. In a recent letter, a prominent East Anglian farmer quoted among other prices, the amount per pound for "prize bullocks"—these sold to go to the block.

Not until 1887 did cattle breeding associations increase rapidly in Denmark.

No-Rim-Cut Tires 10% Oversize

Our Average Profit \$2.90 Per Tire

Goodyear tires sell all the way from \$15.55 to \$104.95, according to size and type.

The most popular type—34 x 4—costs from \$32.95 to \$37.90, differing with type and treads.

And our average profit last year on all these tires was exactly \$2.90 per tire.

Why We Tell You

This is something unusual—this stating of profit.

But the worth of a tire depends, in large part, to what the maker puts into it.

Tires may be made at half our cost, yet the cost per mile is greater.

Tires may be skimmed to increase factory profit, but the skimming shows up in your tire bills.

Your object and ours is the lowest cost per mile. And the best way to show you that you get it in Goodyears is to tell you our profit, perhaps.

Low Making Cost

We are by long odds the world's largest tire builders. Our sales this year will doubtless reach \$40,000,000. Yet our capital is only \$10,000,000, and we have no bonded debt.

That is why a small profit per tire pays us fair returns.

Our mammoth output and modern methods bring making cost down to the minimum. Thus most of our cost goes into materials—into things that count.

Judge for yourself if any tire in the world can offer you greater value.

Note the Result

That's how we give you the uttermost mileage for as little as lesser tires cost.

That's how, at our price, you get tires that can't rim cut—tires 10 per cent over the rated size.

These two features alone, on legions of cars, have cut tire bills right in two.

And that is how Goodyears have come to outsell every other tire in existence.

Legions of these cars have odometers. Tire mileage has been closely watched. On countless cars, rival tires have been compared with ours.

Two million Goodyears have been tested in these ways—in ways that can't mislead.

And this is the result:

Goodyear tires rule Tiredom. No other tire compares with them in sales.

As men know them better sales double over and over. Last year's sale exceeded our previous 12 years put together.

Now you know, as we know, that your results won't differ from the rest.

What these tires have proved, two million times over, they are bound to prove to you.

If you want tires that can't rim-cut—oversize tires—tires that cut upkeep down to the minimum—in-sist on Goodyear No-Rim-Cut tires. It is time you found them out.

Write for the Goodyear Tire Book—14th-year edition. It tells all known ways to economize on tires.

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From that time, however, they were pushed by combined local co-operative and state management, and by expert "agricultural counselors" until by 1906 there were 1095, owning 1360 bulls, and their membership running up to 26200. A few others were in existence which did not receive any state aid, and they would still further increase these figures. And all this in a little country one-third the size of Kansas, and with about one-fourth the tillable land. Breeding and dairy associations work in entire co-operation and the records of cow-testing become very much the basis of some of the success of the former.—ALFRED DOCKING, Manhattan, Kan.

Sore on Pig, Concrete Floor.

"Will you please answer these questions: We have a pig that has a sore on its hip. The first that I noticed it there was only a scratch but now it is as big around as a dollar and about an inch deep. Is that cancer or not, and can it be cured? Which is the best, an earth floor or a concrete floor for a hog house?"—CLARENCE MUELLNER, Mt. Vernon, Mo.

This letter has been answered direct in order to save time. There does not seem to be any indication of cancer. The pig is probably somewhat out of condition, and the sore does not heal readily. Treat the wound daily with a solution of carbolic acid made by dissolving one part of the acid in 40 parts

of water. A good coal tar dip applied under directions would probably serve the purpose also, but the carbolic acid is better.

Everybody has his preference in regard to floors but when we consider that no amount of care can prevent an earth floor from retaining disease germs and when we consider the ease with which a concrete floor can be kept sanitary there should be no doubt as to its superiority. With such supplies of bedding as the animals should have in any case, the concrete floor is just as comfortable as the earth floor and much cleaner.

To Investigate Credit and Co-Operation.

President Wilson has appointed a commission of seven men prominent in the agricultural field to conduct in Europe an investigation of agricultural credit systems and co-operative organizations among the farmers of those countries. The men appointed are Senator Fletcher of Florida, president of the Southern Commercial Congress; Senator Gore of Oklahoma, chairman of the Senate Agricultural Committee; Congressman Moss of Indiana, chairman of the Agricultural Appropriation Committee of the House; Dr. Clarence J. Owens of Maryland, Kenyon L. Butterfield of Massachusetts, Dr. John Lee Coulter of Minnesota, and Col. Harvie Jordan of Georgia, former president of the National Farmers' Congress.



The Men Who Make Big Ben

About 26 years ago a German clockmaker came from the East to La Salle, Illinois.

His only baggage was an idea—the plan of an automatic process he had invented, and which would make more alarm clocks and better alarm clocks than hand labor could ever hope to turn out.

With the backing of some local merchants and with a handful of clockmakers, a small factory was started on the edge of the town. —Beginnings were hard, competition intense. They weathered storms that would have knocked the fight out of weaker hearted men.

But when success at last came in sight they had built one of the best equipped clock plants in the world and one of the greatest names in the American clock industry—Westclox, La Salle, Illinois.

Big Ben is the ideal of the Westclox people. He is their conception of what a perfect alarm clock should be. He is only two years old, but in this short time 18,000 jewelers—70 per cent. of the total United States number—have already adopted him.

Only the finest materials are used in his making—he is strong, massive and punctual. His face is frank, open, easy to read. His keys, big, handy, easy to wind. He rings steadily for five minutes or intermittently for ten. He calls you every day at any time you say. If you have him oiled every other year, there is no telling how long he will last.

He's sold by 18,000 watchmakers. His price is \$2.50 anywhere in the States, \$3 anywhere in Canada. If you can't find him at your jeweler's, a money order mailed to Westclox, La Salle, Illinois, will send him anywhere you say express prepaid.

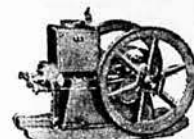


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her in good, growing condition. If she is stunted in growth she is also stunted in her digestive system.

The organs of digestion are developed the same as the other organs of the body, by use; and consequently the heifer should have a training that will tend to develop her feeding capacity. For that reason she should be fed coarse and bulky feeds, as well as easily digested feeds, which not only tend to strengthen the digestive organs, but distend the barrel, or stomach, increasing the capacity of the cow to consume food.—S. E. BARNES, De Laval Educational Department.

Professor Hopkins states that land which will produce 20 bushels of corn to the acre is worth \$21.81, while land that will produce 40 bushels of corn to the acre is worth \$116.36. This of course is intended to show the value of the production over and above the necessary cost in labor, seed, etc. Without stopping to figure it out and with a recognition of Professor Hopkins' ability, we may accept his figures as being approximately right and realize how much value one can get out of the right use of a manure spreader.

Improving Home Grounds.

The country folks of Kansas have become so much interested in the planning of the farmyard that the demands upon the Kansas Agricultural College for information has induced that institution to cause C. D. Steiner, of the extension force, to prepare an excellent illustrated lecture on "Planning and Planting the Home Grounds." The lecture is available now to any organizations of the state that desire it. The college will arrange circuits for Mr. Steiner for April and May with the Granges or other organizations. There will be no charge except for traveling expenses, and if circuits of six or more places can be arranged the cost of each will be small.

Sugar Beet Boom.

Sugar beet promoters and public spirited citizens generally feel a campaign has been started that will at last unify the interests of the Kansas Arkansas River valley and cause its various counties to pull together, as do those of the Colorado section of the valley. The campaign for the general raising of sugar beets through the Kansas section of the valley now being put on by the United States Sugar and Land Company is meeting everywhere with startling success. The company solicitors are endeavoring to get 500 acres of beets planted as a test in each county, but already nearly every community approached has guaranteed more. The widespread raising of sugar beets through the Kansas valley is bound to unify community interests. It will obliterate the line of demarcation caused by irrigation in the western end and get farmers and business men together as never before.

Eastern Kansas Irrigation Experience.

Every year some one in Kansas is demonstrating the value of a small irrigation pumping plant in sections of the state where irrigation is not generally supposed to be necessary for successful farming. A little water by irrigation to supplement the deficient rainfall at critical periods of plant growth makes a big difference in the yield.

This is what Stuewe Brothers of Alma, Kan., found out last year. They grow potatoes. When the hot, dry weather arrived last summer they could not stand it to see their potatoes wither up and die. Accordingly they purchased a centrifugal pump and installed it on the banks of Mill Creek, which runs through the farm. A gasoline engine furnished the power and soon the water from Mill Creek was flowing over the thirsty potato field.

There was a difference in the yield, too, at harvest time. The irrigated potatoes made an average of 298 bushels to the acre. Not all of the field was watered because the pump came too late. The average yield was approximately 230 bushels an acre. That part of the field which received one "extra" irrigation made an increase in yield of 41 bushels an acre. It is not a hard matter to convince the Steuwers that it pays to irrigate.

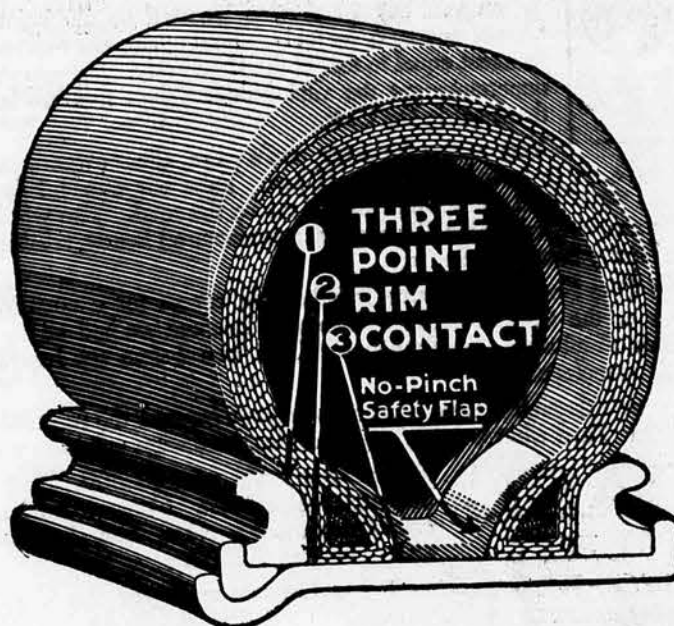
H. B. Walker, irrigation engineer with the Agricultural College, was in Alma last week advising the Steuwers regarding necessary changes in the plant and methods of handling the water for a larger area to be irrigated this season.

Let us hope that hereafter we may have pleasant weather so that the chicks may go on thriving without any setbacks.

Country roads demand Perfect 3-Point Rim Contact—and here it is

Diamond (No Clinch) Tires

made of Vitalized Rubber



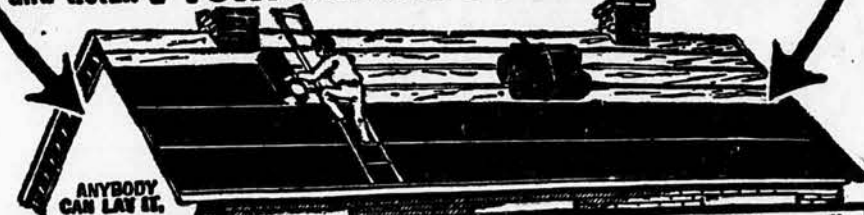
You get in the Diamond (No-Clinch) Tires perfect 3-Point Rim Contact that absolutely protects the tire from being injured by the rim. Then, you get an additional more mileage advantage without extra expense in the Diamond Vitalized Rubber tread—a tread made of lusty, young, pure rubber, toughened by a new process. Also inner tube protection in the Diamond No-Pinch Safety Flap.
So this time specify Diamond Vitalized Rubber Tires
—you can get them of any one of the

25,000 Diamond Dealers always at your service

Diamond Vitalized Rubber
Tires for Automobiles,
Motorcycles and Bicycles

The guarantee on Diamond Tires becomes null and void when used in connection with any substitute for air, fitted to rims not bearing one of these inspection stamps or having had its serial number removed in whole or part.

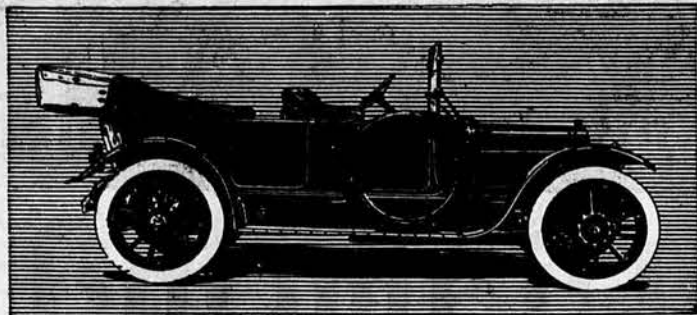
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Here is a car that will outlast your expectations. It is built for extremely hard usage on American roads. A car that is still young when average cars have served their time. We put hundreds of dollars into the vital parts that do not show to the naked eye. But years of service bring them to life.

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You must take some one's word, either owner's or maker's, as to how long a car will last. Take our word for the Case "40" until you have proved it out on the road. The word of a company which for 70 years has manufactured honest, reliable machinery is at stake in them.

The Case Forty, at its price, is impossible except for a concern such as the Case Company. We save because we had an immense distributing organization for Case cars before we began their manufacture.

We save through factory economies that are beyond the reach of others. And what we thus save provides these extra values.

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The Car With the Famous Engine

Westinghouse Electric Starter; Westinghouse Electric Lighting System for all Lamps; Side and Tail Lamps, Combination Oil and Electric; Warner Auto-Meter; Electric Horn; Rain Vision Ventilating Windshield; English Mohair Top, Side Curtains and Cover; 37x4 1/2-inch Tires; Firestone Universal Quick-Detachible Demountable Rims; 124-inch Wheel Base; Three-Quarter Elliptic Springs; 4 1/2x5 1/4-inch Cylinders; Brown-Lipe Transmission; Tinklen Full-Floating Axle; Rayfield Carburetor with Dash Adjustment; Bosch Magneto, Dual System; Single Point Ignition. The usual Tools, Tire Repair Kit, Jack, etc. And in addition, Extra Tire and Tube on Rim, Extra Tube separate, Tire Cover, Tire Chais and Handy Work Light on long wire.

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(133)

THE FARM



Nothing will add so much to the appearance of the farm buildings and the farm yards as an annual application of whitewash. The liberal use of whitewash on fences, gates, small outbuildings, etc., much improves the appearance of a farmyard, which, without the whitewash, would look neglected and much run down. The whitewash, with a general clean-up of the rubbish, will have a wonderfully satisfactory effect upon otherwise uninviting surroundings. The whitewash can best be used after the spring rains have passed. The stables, hen houses, hog houses, etc., can be cleansed and purified by the use of whitewash also.

The most reliable seed houses maintain their analysts for the purpose of detecting foreign seeds in the seeds they have to sell, also they possess the most modern and best cleaning machinery, and such seedsmen are inclined to protect the consumer against noxious weeds and the possibilities of obtaining them through their patronage. The germination of seeds, together with freedom from noxious weeds, are the two qualities which the farmer should insist upon in the purchase of seeds. Cheap seeds, like a cheap animal, are dear at any price. The disposition on the part of the farmer to buy cheap or low-priced seeds is responsible—probably more than anything else—for the dissatisfaction existing with reference to the purchase of seeds. The sowing of poor seeds and dirty seeds can best be guarded against by patronizing the best seedsmen.

It is interesting to know that the Russian thistle came into Bonhomme County, North Dakota, in 1873 in foul flax seed from Russia. Within 20 years after it was introduced it had spread over an area of 35,000 square miles and has been spreading ever since. The western one-third of Kansas, particularly, is infested with this weed. The seed is scattered principally by the wind, which rolls the great tumbleweed into every open space, and as the weed rolls the seed is spread. It is spread into many sections by the purchase of alfalfa and other seeds from the thistle-infested regions. Farmers everywhere know of the damage done by the Russian thistle, and in the purchase of seeds—alfalfa in particular—they should be careful that Russian thistle seed is not found therein. The seed can be removed from alfalfa seed by the use of the best cleaning machinery. This is an argument not only for the thorough cleaning of alfalfa, but of all other seeds. We have in this country so many weeds detrimental to crops that no seed should be sown unless it is free from the seed of objectionable weeds.

It is altogether probable that 90 per cent of the seed corn to be planted in Kansas this year is now in sacks ready for the planter box. We assume that the ears were nubbled before being shelled. That is, the irregular grains were shelled off the tip and the butt and discarded and that the kernels, to be planted are reasonably uniform in size. If the corn, after shelling, has not been run over a grader, it will pay to do that yet. By this plan there will be at least two sizes of kernels and each size should be planted separately, the planter having been adjusted for each of the two sizes of kernels. The adjustment, of course, can be made on the second size only after the first size has been planted, because each of the different sizes of seed will require different adjustment. If the corn planted gave trouble last year you had better order a new planter. A poor corn planter is an expensive implement. This is particularly so in a state in which the corn crop is so important as in Kansas. You should seek a corn planter which is easy of adjustment and which will drop regularly. The planter wheels should be raised clear of the floor, corn put in the boxes, the wheels turned and the planter plates adjusted until the required number of kernels are dropped at the required intervals. If it is the desire of the farmer to drop two kernels of corn in each hill in a check-rowed field, the planter is not working as it should unless it will drop two kernels in 90 per cent of the hills. It is by such means and the exercise of such care that proper stands are to be had. Keep

adjusting the planter and changing plates until your ideal is reached in the matter of dropping. Be it understood that you will not reach such ideal if the seed corn is very irregular in size. This is the object, therefore, in grading. As a rule we have plenty of corn on the ground, but the distribution is irregular and the stand so imperfect. A good stand comes only from good seed properly planted.

KANSAS FARMER has during the winter had much to say relative to the advantages of deciding upon a crop rotation for every farm, the beginning to be made this spring. We have set forth the various rotations adaptable to the different sections of Kansas. We have given much advice by correspondence to individual readers whose interest in a practical rotation of crops, was apparent. We have reason to believe that on many farms an effort will be made this year to establish such rotation. We have now only to reiterate the statements made regarding the advantages of rotation and what those rotations are and to add one other thing, namely, that after this rotation has been framed up and started the farmer should allow no temporary advance in the price of one commodity or the extremely low price of another, to cause him to deviate from the chosen rotation. A crop rotation cannot be based on any such irregular condition as the prices of the different crops. There is not so much fluctuation in grain prices now as in the years past and unusual fluctuation is not to be expected. However, the feeding of grains grown in the rotation, to live stock kept on the farm, will reduce this fluctuation to a minimum, and inasmuch as the prices of live stock products are high and likely to continue so, and since good live stock will furnish the most profitable market for grains, it would seem that there is little occasion for a change in the rotation plans. Map out a crop rotation and stick to your plan.

We cannot refrain from again calling attention to the most excellent article in KANSAS FARMER issue of March 22, by George A. Dean, entomologist at the Kansas Agricultural College, in which was issued a timely warning that Kansas alfalfa growers be on the outlook for the alfalfa weevil. This insect has done almost untold damage to the alfalfa fields of Utah and the surrounding states. The weevil will find its way to Kansas just as sure as the world moves. We may not see this insect for several years, but it will come, and so soon as it is noticed the entomologist of the Kansas Experiment Station should be notified, that the station may at once take such steps as are necessary for its control and destruction. The article in question described the insect in such way that every grower may be able to recognize it. The Experiment Station with its experts is in a position to render the alfalfa growers of Kansas in this—as in dozens of other ways—a service which, if their teachings be followed, will save the farmers of Kansas many thousands of dollars annually. The way to get the benefits accruing from the expenditures made for the support of the Agricultural College and the Experiment Station is to use these agencies. If we refuse to employ in our work the best that science has revealed in the several departments of farm work, we are in no position to place any blame upon the institutions which are designed to help and to the support of which every taxpayer contributes. The way to get benefit from the Agricultural College or the Experiment Station is to use it. Re-read the alfalfa weevil article and report the first appearance of the weevil to the Experiment Station.

Students in Farmers' Organizations.

A student branch of the Farmers' Union, a secret organization, was organized at the Kansas Agricultural College, recently, with twenty-eight charter members. It is called the College Union. These officers were elected: H. J. Waters, president; D. F. Mossman, vice-president; Martin Shields, secretary-treasurer; C. R. Campbell, doorkeeper; E. H. Teagarden, conductor.

A student chapter of the Farmers' Grange, another secret fraternal order for farmers, has been organized. At

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DAIRY



There is a tremendous demand among Kansas farmers for dairy-bred stock. Only last week seven farmers called on this office for information as to the whereabouts and the selling price of dairy-bred grades and pure-breeds. In each instance our inquirer was desirous of buying a herd of from eight to twelve animals, the major portion of which were to be grades, but the herd to contain two or three pure-bred females and a pure-bred bull as the herd header. In most instances buyers were not particular as to the breed. In each instance the buyer had little idea as to what he should look for in the animals to be bought, either from the standpoint of breeding, production, or conformation. For instance, one question was: "How much milk per day should the cows I buy be capable of giving?" another, "What is the best breed?" and another, "Where can I get these animals cheapest?" another, "How can I depend upon getting what I want?"

This shows that there are many farmers who have set out to acquire dairy-bred stock with no fixed ideas as to the qualification of the stock to be obtained and with no knowledge of selection of such stock. Under such conditions a buyer is poorly equipped to select such animals as are best suited to his purpose and is in a position to be greatly imposed upon. The success of any man's undertaking in building up a profitable dairy herd will depend upon the selection of the animals bought for the herd or for grading up the present herd. In fact the effect of success or failure is more wide reaching than as applying to the individual farmer. For instance, if "Bill" is the only man in the neighborhood who has ventured into building a dairy herd and Bill fails, his failure has a damaging effect upon the development and extension of dairying in his community. So, while only the individual who spends his money for this stock is directly affected, the industry as a whole and the impression the business creates in the neighborhood is a thing to be taken into consideration by all interested in dairying as a means of building up and improving general farm conditions. So it is wise, not only from the standpoint of the individual, but from the standpoint of the industry throughout the locality and state, to drop a word of caution.

In KANSAS FARMER of March 15 was printed a study in dairy conformation, illustrated by pictures of both cows and bulls, a study of which would give the farmer a good idea as to what he should look for in conformation. A study of the conformation of the dairy animal and thorough familiarity with it is absolutely essential in the selection of stock bought or to be used for dairy purposes. The amount of milk a cow will give or the amount of butter fat she will produce in a given period cannot be guessed. There is only one test, and that is the record of the individual cow. In the case of buying heifers not in milk, conformation and the records of the female ancestry are the principal guides. Heifers in milk from the same sire offer another guide. Such records, however, as a rule are obtainable only when buying cows and heifers from breeders. In the case of buying a bull, if he be mature, the performance of heifers and cows sired by him is a good guide, and this, in connection with the breeding as shown by his pedigree, must of necessity determine the merits of such animal. In the case of pure-bred cows and heifers, the breeding as indicated by pedigree is also a valuable consideration, but with the pedigree should be evidences of profitable production and good dairy type should accompany each of the other qualifications.

The buyer should either be sufficiently well posted that he can afford to risk his own judgment or he should obtain his stock from a reputable breeder who thinks more of his reputation as a breeder than he does of the money he is to obtain for his animals; or he should take with him to assist in making his selections, a person whose judgment is good along dairy lines and whose familiarity with the various families of the different breeds will enable him to select animals of satisfactory breeding. One

of the buyers first above mentioned who paid KANSAS FARMER a call was accompanied by Professor Reed of the dairy department of Kansas Agricultural College. The two found nothing in their rounds which justified a purchase except in the herd of a breeder whose surplus was sold out. The result was that this gentleman, accompanied by Professor Reed, will later make a more extended trip and will undoubtedly obtain the desired satisfactory animals. We do not know that Professor Reed can spend an unlimited amount of time in helping buyers locate dairy stock. The point in this connection, however, is that if the buyer does not himself feel qualified to make the proper selection, it will be money in his pocket to take with him a man in whom he has confidence and who does possess the required knowledge. If this cannot be done, the next best chance is that of going to reputable breeders. We do not know of a single breeder of dairy bred stock from whom it would not be safe even for the novice to buy. The breeders of pure-bred dairy animals as well as beef animals are of an unusually high standing, and they can be credited with a high degree of honesty. Breeders of dairy-bred stock, particularly those of the West, are able to sell all the stock they can produce, and when a buyer calls for the purchase of animals they are not placed under the stress of selling by misrepresentation. The breeder who sells the foundation stock for a little herd, is anxious to have his stock do well in the hands of the new owner, and to do so is an advertisement for him; failure is a detriment to him. The reputation of the breeder and his stock is at stake, and the breeder guards his reputation carefully.

The demand for dairy-bred stock has resulted in developing a lot of speculators. These are men who are not breeders but who pick up here and there over the country animals bearing the marks of dairy breeding, and who buy at such price as will enable them to sell and make some money at a figure which will prove attractive to the farmer whose knowledge and ability to judge of the merits of dairy breeding is lacking. The result is that many a man has bought such animals and has not received his money's worth and has lost two or three years in the building up of a herd. Not long since we talked with a man from Smith County who had bought some such animals. Soon after locating the animals on his farm he was able to see that he had not bought dairy performance. However, he was able to fatten and sell these animals without loss to himself, but he was disappointed and had in a measure lost faith in dairying and dairy breeding. Among these men who buy dairy-bred cattle here and there and who sell, there are men of honor and those without. Some of these buyers are and have been in the business for years, they know good dairy-bred animals when they see them, and as dealers have a reputation to maintain, but this reputation is not placed on the same high plane as that of the breeder. The speculator buys his animals largely upon the representation of the seller. The speculator sells the animal on the same representation and so is honest in his representation to his clients, but honesty in this case does not reimburse for failure and disappointment which is much more likely to occur under such conditions than if the animals had been obtained from the herd of a good breeder. In horse trading, if a man gets "skinned" it is regarded as his own fault and he takes his medicine for his lack of judgment. The same rule applies, in fact, when the farmer buys dairy-bred or other kinds of breeding stock from the trader in that stock. The same principle, however, does not apply when the business of buying is transacted with a breeder who is an advertiser, who has been engaged in breeding for years, and who expects to engage the rest of his lifetime in that business. Traders and speculators in any commodity, as well as in the case of dairy stock, are the result of demand. They deal in the thing for which there is a demand. When the demand ceases they are out of the business and take up some other line in the same way. The breeder of dairy cattle in ninety-nine out

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of one hundred cases is a thoroughbred dairyman. He believes in the dairy industry and has the good of the industry at heart.

There are individuals and companies here and there who are endeavoring to improve dairy conditions in their localities by importing into their sections dairy-bred stock and selling the same to their customers. Such are not speculators in this class of live stock. They have not engaged in the business for the purpose of making money from the exchange of stock. The best interest of their business is at stake and they cannot afford to knowingly sell poor stock. In every instance with which we are personally familiar the stock is selected by individuals who know good stock, and in our judgment it is safe for the novice to depend upon the judgment and the reputation of the individual or person selling him the animals. For instance, if a creamery company were importing dairy-bred animals for the use of its customers, this company could not jeopardize the friendship of its patrons and the development of the community along dairy lines by selling animals known to be worthless. Therefore the incentive and the object prompting the sale of such stock is a guide deserving consideration in the purchase.

It is apparent from our conversation with several buyers that the average farm buyer is hoping to obtain good dairy-bred animals at a price considerably below the figure he will be compelled to pay if he gets what he really wants. In this, as in many other instances, the buyer is looking for the low-priced and cheap animal. Good quality in dairy breeding cannot be had at a low price when compared with the price and value of the common run of our cows. For instance, one buyer had—as he said—a good quality of common red cattle, and that he expected to be able to replace the same with good producing dairy-bred animals at a cost of \$10 to \$15 in advance of the value of the cows he was selling. When this man was priced an A. R. O. two-year-old Holstein heifer of top notch breeding at \$200, he was dumbfounded. The fact is that farmers will be fortunate if they succeed in replacing with good dairy-bred grades the best of common cows on a basis of two for one. In the case of good pure-breds, they will be fortunate if common cows can be replaced on the basis of three for one. The farmer must keep in mind that the value of his common cow is based upon the value of the calf she is able to produce and upon the value of her carcass for beef. The value of the dairy-bred animal is based upon the value of her dairy products produced year after year and upon the value of the calf and into which value enters the blood of the sire and the dam as transmitted and as viewed from the standpoint of dairy production. The same rule of values applies to all kinds of pure-bred stock, whether dairy cows, pure-bred beef cows, pure-bred Percheron horses, or pure-bred hogs. This principle of values is what has established the breeding of pure-bred stock. Were this not so, there would be no object for engaging in the breeding business. It is a fact that dairy-bred stock in years past has been selling at a lower figure compared with common cattle than have pure-bred beef animals compared with common cattle. The demand of the last few years, however, has resulted in a continuous increase in the price of dairy-bred stock. This demand is likely to continue. We do not personally consider that dairy-bred stock will in this country ever again be as low in price as it was ten years ago. This is the time for the breeder to make his start.

Our recommendation is that the farmer make a liberal expenditure for a top-notch dairy-bred bull, and with him, if possible, one or two pure-bred females, preferably heifers giving milk; if not these, a couple of pure-bred calves. With this beginning he will in a few years have his grade herd improved and placed on a profitable basis of production, and in addition to the grades will later have some pure-bred calves which will gradually displace the grades. If the farmer can so afford and is anxious to obtain dairy performance more quickly, he can exchange his common cows on such basis of exchange as is possible for good grades. The dairy-bred grade herd should be headed by a good pure-bred bull, and, if possible, he should be accompanied by a pure-bred female or two. If, financially, the farmer is so fixed that he can at once acquire a pure-bred herd of known producing ability, he will make no mistake in so doing, provided, of course, he has had the training in feeding and handling large producing animals which will

bespeak for him success in his undertaking. The money he will have to pay for pure-breds will be governed entirely by the quality. The money he will have to pay for grades will likewise depend upon quality, but the quality of the grade is an unknown quantity as compared with that of the pure-bred.

It is our interest in the success of the undertakings of KANSAS FARMER readers and our interest in the building up of dairying in Kansas, that causes us to remark as above. We know that KANSAS FARMER readers recognize the value of dairying as a means to a more permanent and steady cash income. Failure of an individual here and there to demonstrate that dairying is to the farmer's success what is claimed for it, will result in detriment not only to the business of dairying in Kansas, but also to our thousands of readers. Consequently we urge our readers who buy dairy stock to make their purchases with their eyes wide open and if possible have the aid of a qualified individual in making selection; if this be not possible, that they seek the protection and the advice of those dealing in dairy-bred stock who have reputation and investment at stake.

Handling Dairy Cows.

I want to lay a lot of emphasis on gentleness among cattle. It is so important that cows and growing young stock be gently handled that I want to give you a little advice because it means dollars in your pockets. Making milk is a complex process with the cow and while she is going forward with it from day to day she must be gently treated or her nervous system is disarranged and she cuts down the flow and you notice it in the milk pail. Every comfort must be given her in the way of handling and stabling and she must not want for the smallest thing her appetite or bodily comfort craves if she is to stand up to the strain of making a good profit.

If she is stabled on a hard floor without bedding, is irregularly fed, knocked on the rump with milk stools, whipped, yelled at, until she is so nervous she wants to jump into the manger or through the stanchion—if these things are forced upon her she is going to make her owner pay well for the privilege of doing them. Go into the barn of any first class dairyman and look about for yourself. You will see cows contented and peaceful, chewing their quids, resting, apparently doing nothing—except making milk.

Especially among highly bred cattle will harshness shown to them be seen to result in a lessened milk supply. A heavy milker is always one that is highly strung in nervous temperament. She is just as hardy, as strong and as willing as the loafing cow that takes your bit of rough treatment without showing it. If one of my milkers would go down my line of Holstein cattle, either along the calf pens or behind the milking cows, and rap them with stools or pails or sticks or their hands, I would get him off the farm at once. Every time he uttered a harsh threat while stanchioning the cows I know it would cost me a quart of milk.

A cow that has to lie down on a cold unbedded floor runs chances of injuring her udder by the cold. She soon learns to stand rather than lie down. Then she becomes restless and shifts about and will step on the udder of the cow lying next to her if given half a chance. Many a cow has been injured in just this way.

Regular feeding is very important. When feeding time approaches a good cow begins to move about in her stall or stanchion and look for the feeder. If she is kept worrying about it she will not give the greatest amount of milk because the demand of her digestive organs is not responded to with food.

Habit has much to do with this also. Let a feeder who does not care when he feeds and milks, take charge of a herd which has had punctual attendance, and right away the flow of milk drops down and unless the owner knows the reason, the flow is never recovered.

In winter, force the cows out on a raw day and make them stand humped in the wind or go foraging down the lane and into the corn stalks and you'll get no milk. An abundance of unchilled water winter and summer is one of the important cow comforts. Salting regularly is another. A cow is a very peculiar factory into which is taken the raw stuffs and from which she turns a highly finished product. Every thing she needs to make the most output is an important cog in the wheel and if omitted she fails to do perfect work. Don't forget this. She must have every comfort. She must not be exposed. She must not be abused. She is almost human, for though she cannot talk she can make herself understood by the dairyman who knows his cows.—WILLIAM GALLOWAY.

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A well known authority on the subject of Hog Raising says: "Many hog raisers find it unprofitable to feed hogs after they weigh 200 pounds; the next 100 pounds costs too much. The secret of cheap production is first to grow strong frames on diversified grain and forage crops, always keeping the hogs keen in appetite, then giving them a high finishing feed to which they will respond."

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The surest and cheapest way of keeping hogs is by feeding Merry War POWDERED Lye daily with their rations. Then when ready for their topping off they will quickly put on FAT with the change of food—there is no waste of feed—every pound of corn is changed into profit making pork, because every bit of feed is fully digested—and instead of taking the usual 5 to 6 weeks to put on an extra 50 pounds of live weight, your Merry War POWDERED Lye hog will add that extra 50 lbs. in 3 or 4 weeks—a clear saving in time and feed.

E. Myers,
President,
Merry War
Powdered Lye
Company

POWDERED Lye hog Prevents Hog Cholera

Merry War POWDERED Lye not only keeps hogs keen in appetite from weaning till market time—healthy, strong and in prime condition for quickest and cheapest fattening—but it also prevents hog cholera and protects hogs from that dreaded disease. You need it as part of the daily rations of your hogs. Costs only 5¢ per month, per hog for complete protection. (2 FEEDS PER DAY.) There are no substitutes. Merry War POWDERED Lye is a specially prepared, Powdered Lye that will prevent hog cholera. The use of ordinary, old fashioned

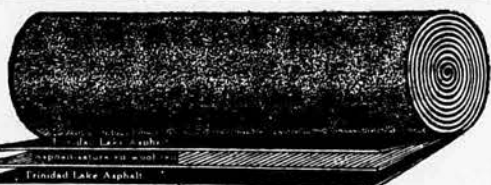
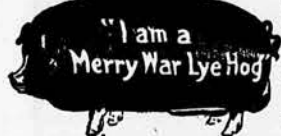
lye for hogs would be but a doubtful experiment—perhaps a most dangerous one. You can't afford to take chances. The actual experience of thousands of hog raisers has proved the real merits of time-tried Merry War POWDERED Lye—the greatest hog remedy the world has ever known.

"Merry War" Gave These Hogs Keen Appetites
"Our seventy head of hogs have fattened fine since feeding Merry War POWDERED Lye. They like the slop better with Merry War POWDERED Lye. My husband said: 'It does our hogs good and helps digest the corn they eat.'"
MRS. EMMA WUTKE, Richmond, Mo.

Make a Test For Yourself.

Sold at most dealers, 10¢ a can—full case of 4 dozen cans, \$4.80. If your dealer can't supply you, write us, sending dealers' names—we will see that you are supplied and send you, FREE, a copy of our valuable booklet, "How to Get the Biggest Profits from Hog Raising." YOU MAY ORDER DIRECT FROM US IN CASE LOTS, IF YOUR DEALERS WON'T SUPPLY YOU.

E. MYERS LYE COMPANY,
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Weatherproof is expense-proof

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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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Largest producers of asphalt, and largest manufacturers of ready roofing in the world New York Chicago San Francisco



GET WOOL

that will net you from 15¢ to 20¢ more on every sheep you shear with a Stewart No. 9 Machine. Don't labor with hand shears, in the old, hard, sweaty way. Don't have aching, swollen wrists. Don't scar and disfigure your sheep with uneven shearing and spoil the wool with second cuts. Take off the fleece smoothly and quickly in one unbroken blanket with a



Stewart No. 9 BALL BEARING Shearing Machine

and get a length and quality of wool that will bring the highest price. The Stewart runs so easily a child can turn the handle while you shear. Extra profits soon pay for it. It's the most perfect hand operated shearing machine ever devised. Has ball bearings in PRICE every part where friction or wear occurs. Has a ball bearing shearing head of the latest improved Stewart pattern. Price complete, including a comb and a cutter of the celebrated Stewart pattern, only \$11.50

Get one from your dealer, or send us \$2.00 and we will ship C.O.D. for the balance. Money and transportation charges back if you are not pleased with it.

CHICAGO FLEXIBLE SHAFT COMPANY, 206 Ontario CHICAGO, ILLINOIS

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The Best for Clipping Horses, Mules and Cows Stewart Ball Bearing Clipping Machine

It's a valuable outfit that should be in every stable. Those who know the horse best have agreed that to clip him at the proper time improves him in every way. He looks and feels better, does more work, rests better and gets more good from his feed.

Insist on having the "Stewart." It's the easiest to turn, does the fastest work, stays sharp longer and is more durable than any other clipping machine made. Get one from your dealer, price only \$7.50 or send us \$2.00 and we will ship C.O.D. for the balance. Satisfaction guaranteed.

Papec Pneumatic Ensilage Cutters "The Wonderful Papec"

Elevate silage to any height at 600 to 800 R.P.M. with one fifth less power than any other blower cutter. This is due to the fact that the Papec first uses centrifugal force, then with its six fans moving the cut silage in a steady stream—not in bunches—the elevating is accomplished under high pressure through a small pipe. Iron and semi-steel construction; easy to operate. Built in sizes for any power from 4 H. P. up. Investigate the Papec now—and save time, annoyance and money at cutting time. Write today for our new illustrated catalog. It is FREE.

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Bickmore's Gall Cure



The old-time remedy for keeping horses free from sores. Don't lose the services of your high-priced horses. Bickmore's Gall Cure cures Galls and Sore Shoulders while the horse works. Approved remedy for Cuts, Wounds, Scratches, etc. Money back if it fails. Be sure to ask at the store for Bickmore's Gall Cure. Gray Horse trade mark on every box. Sample and 84-page horse book sent on receipt of a stamp for postage.

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LIVE STOCK



The peanut plant, as is generally well known, belongs to the leguminous family and like the pea, the bean and the clovers, bears numerous enlargements on its roots, called tubercles or nodules, rich in nitrogen. Where the crop is grazed off, many of the roots are left in the soil and this means increased fertility. A crop of 60 bushels of peanuts to the acre together with one ton of hay has been found to contain about 85 pounds of nitrogen, 15 pounds of phosphoric acid, 32 pounds of potash and 46 pounds of lime. Of course when grazed by hogs not much except the nitrogen on the roots is gained as fertilizer.

Experience in the use of peanuts for hog pasture has developed some very interesting facts, one of which is that it is a wonderful feed on which to develop shoats, while it is too fattening for brood sows. The Spanish peanut is the only kind recommended for the south and west and brood sows should not be turned upon it until after the pigs have worked the field out pretty thoroughly. It is probably true that nothing will make pork faster than peanuts and the hogs can do their own feeding. If you have not yet tried them, get a few and make an experiment this summer, but do not attempt it unless you have a loose, open soil, which will allow a free growth of root and development of the nuts. Sandy land is good if there is plenty of rainfall.

But there is nothing that is quite so palatable for any class of farm live stock as green pasture. Stock will do better in growth and production and will remain in better health and condition on green pasture than on anything else. Silage and alfalfa hay come the nearest to it and offer the finest substitutes in winter feeding for the grasses of June. Too little attention has been paid to forage crops for swine. The greatest and most popular growth is made by the pigs under 100 pounds weight. After that weight has been attained, his growth is slower and more expensive. But in either period of his life nothing helps so much to a proper growth and development as does green pasture in summer and good alfalfa hay in the winter, to which may be added a little silage.

Just a few years ago bran was a waste product of the flouring mill, now it is worth practically as much as the flour. Only a little while back, black-strap molasses was a waste product, while it is now selling for about one-half what the refined molasses brings. The reason for these two facts is to be found in the other fact that feeders now understand that palatability is an element of great worth in the composition of stock feed. An animal can be persuaded to eat a great deal more of feed which is palatable than of that which is not so, and he will digest it better with a consequent increase in weight or in milk production. This fact is taken advantage of by the manufacturers of various condimental stock foods who gain popularity for their products through their palatability.

Right now is the time to consider the horse. He has been standing idle all winter when compared with the amount of work he has to do in the busy season, and is naturally more or less soft, and the first work of spring will be trying upon him. It is absolutely necessary to the horse's comfort that the collar be made to fit. Upon the horse's comfort depends his efficiency and upon his efficiency depends your success. Do not try to bolster up a badly fitting collar with sweat pads or rags wrapped around the collar, because in doing so you simply handicap the horse and are very likely to cause sore shoulders or neck and thus seriously impede your own work. See that the collars fit and that their surface is hard and smooth. An extra dollar spent on quality in a horse collar may save many dollars in the course of a season's work.

Generally speaking forage crops are only a maintenance ration and if gains are to be made, some grain must be fed in connection with them, but with alfalfa hay the case is different. It is

at once a maintenance and a growing ration, and if a little grain is added, gains may be made in winter and conditions maintained as well as on the best of summer pasture with due allowance, of course, for the effects of the weather and the pest of flies and other insects. An acre of alfalfa in the summer time ought to pasture 15 or 20 shoats and still leave a hay crop. Hogs on alfalfa pasture will average a pound of gain for a little more than three pounds of grain, while if fed on dry feed without the alfalfa pasture, more than double this amount of grain would be necessary. If you are not equipped so as to give your hogs alfalfa pasture, you can at least sow some rape in which are included a few oats for early pasture, and if the rape is allowed to get a good start, the hogs can feed on it indefinitely.

There has been a lot of nonsense talked and believed about silage. It has been claimed that it would cause the mouths of cattle to become sore so that they could not eat, especially dry grain. It is also claimed and believed in some quarters that the acid of silage is injurious to the teeth, and also that it will give a flavor to milk, all of which is absolute nonsense. Next to the alfalfa plant, silage is the greatest boon to farmers of Kansas. In the corn growing regions he is absolutely sure of a good crop whether the corn plant matures its full quota of ears or not, while in the central or western portions of the state, where kafir does and should take the place of corn, the farmer is equally well equipped with a crop which will produce just as good silage and just as much of it. There is now no longer any excuse for not having plenty of live stock on the central and western Kansas farms.

When you go to the butcher shop to buy a piece of meat did you ever think that you always order a porterhouse or a T-bone, not so much because you want those particular cuts as because you have gotten into the habit of it. There are plenty of men now in their prime who can remember that the round steak was considered one of the choice cuts, but a visit to a high class butcher shop in the city will show that even the laboring man is no longer satisfied with the ordinary cuts and this is one of the things which has raised the price of meat. There is only a limited supply of loin and porterhouse in a carcass and the demand is strong for them, while the neck and chuck steaks are just as palatable and wholesome, but in little demand. The result is that the high priced cuts not only pay a good profit because of the strong demand, but they must pay the profit on the balance of the carcass.

Another way of taking care of the hogs and one which has become absolutely necessary is in the use of the dipping tank. This is not an expensive proposition, and can be made by the farmers themselves right on the farm. A reader who had the proper kind of soil on his farm built his own dipping tank. He dug a hole two feet wide at the top and eight feet long. At the bottom it was 18 inches wide and four feet long, making the hole three feet deep, straight up and down at one end, with a gradual incline at the other. He then plastered this like a cistern, using one part cement to four of sand. After this coating had set he washed the inside with a whitewash of pure cement to make it tight. The feasibility of this plan depends entirely on the character of the soil.

It will pay every farmer who raises hogs to have a dipping tank, and dip his hogs at least once a month. It keeps their skin in fine condition and contributes materially to their health. The tank described above will answer for both sheep and hogs.

Hogs and cattle command about the same prices on the market. I do not remember a time when the prices for pork hogs and beef cattle were so nearly the same, and out of this fact there grew a discussion as to the relative value of different farm animals as money makers. This discussion took place at

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cure and prevent sore shoulders and galls while the horse works. Stuffed with clean cotton which absorbs sweat. Acts as collar and pad combined. Fits comfortably any shape neck. Will not swell the horse. Sold by most dealers. Send for FREE Memorandum Account Book and particulars regarding Lankford Collars. Price \$1.50 up. THE POWERS MFG. CO., Dept. H-2 Waterloo, Iowa

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a public sale of pure bred swine and was started by a keen observer who asserted that a certain sow, then in the ring, was worth more as a money maker than would be a pure bred Percheron mare of equal quality in her own class and breed. While it is fair to suppose that all the men at the ringside were interested in hogs, it is also fair to suppose that every one of them was interested in horses and a good many of them in cattle, either beef or dairy. After a discussion of this question for some time, it was very generally acceded that a good brood sow of high quality is not excelled by any other class of farm animals as a money maker when she can be protected against the ravages of cholera. Just figure this out for yourself and compare the returns which ought to be secured from a high class, pure bred, brood sow, whose two litters each year will sell for breeding animals at such prices as are reported from such sales in KANSAS FARMER, then compare the produce of a high class, pure bred dairy or beef cow, or of a registered Percheron mare. This will show at once a strong argument in favor of the sow and a very much stronger argument in favor of the serum or any other method which will effectively combat hog cholera.

Notice To Stallion Owners.

Dr. C. W. McCampbell, secretary Stallion Registry Board, states that, "The recent session of the Kansas State Legislature passed a new stallion law quite different in many respects from the old law, but this new law does not go into effect until July 1, 1913; so all stallions standing for public service the present season will stand under the provisions of the old law, which means that stallions that have once been examined and licensed do not need to be examined and licensed again this season. A copy of the new law and circular explaining its provisions will be mailed to every stallion owner in the state in the near future.

The Breeder Gets the Biggest Profit.

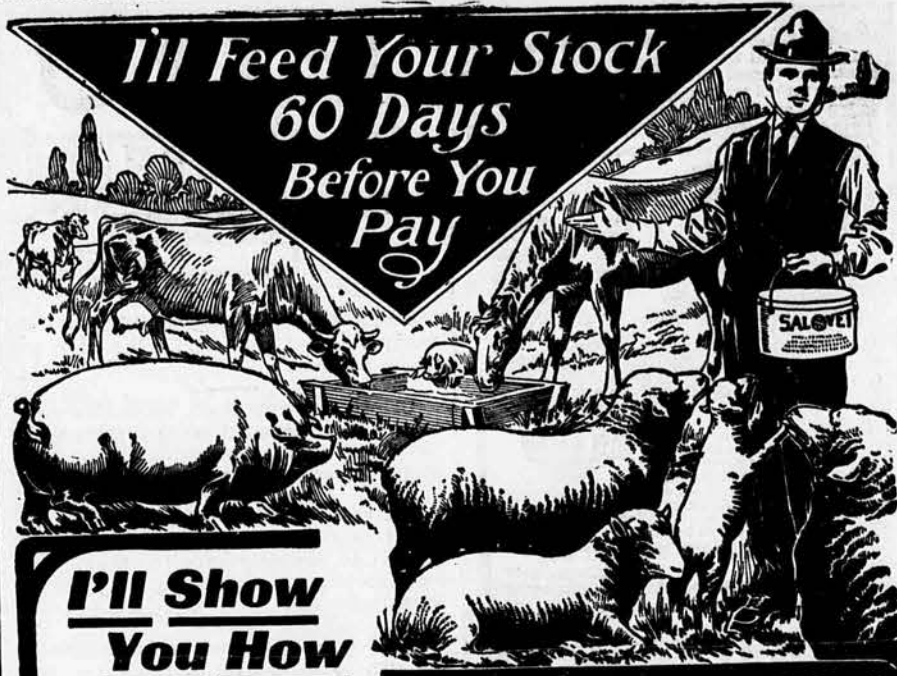
Whenever a live stock raiser and feeder markets his stock there are no complaints from him about market prices. The man who buys his cattle or hogs in the stocker or feeder stage sometimes objects to market prices. The selling conditions on the market are identical for both, and the fact that the raiser and finisher is always satisfied, testified to by commission men at the leading markets, while the man who only finishes live stock, but does not breed and raise it, is not, emphasizes the advantage the one system of stock farming has over the other.

Hog raisers have a very great advantage over those who buy stock hogs in freedom from disease. Authorities say that the value of cleanliness cannot be overestimated. The man who raises his hogs gets the full benefit of his efforts in that line, whereas, the man who buys stock hogs may work as hard in that direction, but his labor may be lost if his hogs have been contaminated before coming into his possession.

M. M. Sherman, of Ellsworth, Kan., raises hogs for profit, and has a way of handling them so that he does not suffer severe disease losses, hence he has hogs to market when other people have none, and gets good prices for them on that account. On March 17, Mr. Sherman marketed 172 head of 202-pound hogs at Kansas City, at \$9.05 per hundred pounds, which was the highest price that had been paid up to that date during the preceding six months.

On March 5, Mr. Fred Warnow, of Salina, sold a car load of hogs of his own raising at Kansas City for \$1,826. Mr. Warnow said at the stock yards that he thought the hog raising end of his live stock business was the most profitable feature on his farm. Mr. A. Hirsh, of Formosa, Kan., marketed the largest drove of Hampshire hogs ever sold in a single drove at Kansas City in February. The shipment numbered 210 head, that weighed 360 pounds each. Mr. Hirsh has lived in Jewell County for 40 years, and has been identified with all its live stock development. In an interview at the stock yards about handling hogs, he said:

"In my experience in handling hogs I find that alfalfa is a wonderful help. Pigs grazed on alfalfa seem to possess more real quality than those fed on corn, which are apt to be short and very fat, but lacking in quality and beauty of form. So far as sickness is concerned, I have not had any to speak of among my hogs since I started to raising these hogs. I endeavor to give them the best of care, which no doubt has much to do with their health. As I regard hogs the most profitable of all live stock, they demand the best care at all times."



I'll Show You How

To make them grow faster—thrive better—look better—Put on flesh on no more feed—stop losses from worms—

I have done it for thousands of farmers and stockmen—I'll do it for you. All I ask is the privilege of sending you enough Sal-Vet to last your stock 60 days. I simply want to show you what a remarkable change Sal-Vet will work on your sheep, your hogs, your horses and cattle. I want to show you how it will improve their condition—rid them of all stomach and free intestinal worms which are the biggest drain on your stock profits. I don't ask a penny of pay in advance. I prove all my claims first—and if you are not satisfied at the end of 60 days, you do not pay me a cent.

The Great SAL-VET and Stock Worm Destroyer Conditioner

Sal-Vet is first a worm destroyer; second, a conditioner; a medicated salt. It contains several medicinal elements which promptly kill and expel stomach and free intestinal worms and in the meantime puts the digestive organs in a healthy, vigorous condition. It sharpens the appetite—tones the blood—puts life and vitality into the whole system. It aids digestion—helps the animal to derive more good from its feed.

No Drenching—No Handling—They Doctor Themselves

It is easy to feed Sal-Vet—you feed it just as you do salt. Put it where all your stock—sheep, lambs, hogs, horses and cattle, can get at it daily and they will doctor themselves. It will keep your hogs, sheep and lambs from dying—make your horses and cattle look better, thrive better—save you money in saving feed—make you more profit by making your stock more valuable. I want to prove all this on your own farm and before you pay me one cent. You cannot afford not to accept this open, liberal offer. You pay the small freight charge when it arrives and I will send you enough Sal-Vet to feed your stock 60 days, after that you pay if pleased. Read this letter:

From Sec'y Amer. Hampshire Swine Record Ass'n.
"I write to say that I have been a free user of Sal-Vet ever since its introduction and find that it is a perfect worm exterminator. I feed Sal-Vet as I would salt and it positively does all that you claim for it. There is nothing within my knowledge as good and reliable or as cheap. It expels worms and puts stock in fine condition."
S. C. STONE, Florida, Ill.

Send No Money—Simply Send Coupon

If you could open and read the letters I get, voicing the appreciation of hundreds of stockmen and farmers—who have taken advantage of my liberal offer, you would not delay a minute in sending me the coupon requesting enough Sal-Vet to feed your stock 60 days, especially when I do it before you pay. Now fill in the coupon, telling how many head of stock you are feeding—mail at once. Sal-Vet costs but one-fourth of a cent per day for each hog or sheep.

THE S. R. FEIL CO., Dept. KF, Cleveland, O.

Prices: 40 lbs., \$1.25; 100 lbs., \$3.00; 200 lbs., \$5.00; 300 lbs., \$7.00; 600 lbs., \$12.12. No order filled for less than 40 lbs.

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See this beautiful, durable buggy in natural colors in our Special Vehicle Catalog—along with many other illustrations and descriptions that guide you right in buying the vehicle you want. Please ask for Vehicle Book No. 65K56.

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This splendid buggy at \$59.90 has triple panel auto seat, genuine leather upholstery, highest type body construction, triple braced shafts, best wheels made, full wrought fifth wheel, real long distance self oiling axle. New style auto skeleton top. Shipped from warehouse near you.



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In a business where you are your own boss. You can make good money at your leisure by a small effort in your own community in a good paying business.

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\$7.55 Still Buys
World's Champion 140-Egg Incubator

Double cases all over; best copper tank; nursery, self-regulating. Best 140-chick hot-water brooder. \$4.95. Ordered together, \$11.50. Freight Paid (E. of Rockies). No machines at any price are better. Satisfaction guaranteed. Write for book today or send price now and save time. Jim Rohan, Pres. Belle City Incubator Co., Box 18, Racine, Wis.

Eggs From Full Blood Stock Eggs

26 White or Brown Leghorn Eggs	\$1.50
13 Barred or White Plymouth Rock Eggs	1.00
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10 White Pekin Duck Eggs	1.00
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Dept. 20, KIRKWOOD, St. Louis County, Mo.

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For mailing 3 dozen eggs. Made strong. Each egg has cotton lined compartment. Be first to keep your grocer supplied with fresh eggs. Price, 90c; 3 for \$2.50, postpaid. Order today. Going like hot cakes.

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White Plymouth Rocks

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

THOMAS OWEN,
Station B. Topeka, Kansas.

FETERITA

A great drought resistant, heavy yielding grain, similar to White Kafir. Feterita grows 4 to 6 feet tall. When about 6 inches high puts out 4 to 10 sucker plants, each maturing a head. Price and 1913 Seed Book mailed free.

ROSS BROTHERS' SEED HOUSE,
317 East Douglas, Wichita, Kansas.

55 BREEDS Pure-Bred Chickens, Ducks, Geese, Turkeys, also Incubators, Supplies, and Collie Dogs. Send 4c for large Poultry book Incubator Catalog and Price List. H. H. HINIKER, Box 57 Mankato, Minn.

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POULTRY



Don't neglect the chicks that are already hatched, for chicks that are yet to be hatched.

In other words, don't be in too much of a hurry to hatch more chicks, while those you now have are dying for want of proper care and attention.

The early hatched chicks are valuable and though it takes lots of time and trouble to properly care for them, it is folly to neglect a pressing duty for an immaterial one.

A chick in the hand is worth two in the egg, so be careful of those you now have on hand, for those in the egg may never see the light of heaven.

Warmth is the most essential thing in the early life of the chick. During the great fluctuations of spring weather, from summer heat one day to zero weather the next, the brooder must be kept warm enough to prevent the chicks from chilling. If the chicks are raised by a hen, then the hen and chicks must be protected from the cold.

Poultry on the farm may be made a profitable branch of the work, if a proper amount of time and care are devoted to it. The crop of oats, rye or buckwheat may amount to a few hundred dollars each, and the farmer is satisfied. If the proper care is given, and time devoted to the work, the farmer would have no trouble in making an even better showing at the end of the year, with his flock of hens.

Quality is what counts in poultry breeding. If you are aiming for eggs, then get a strain of heavy egg layers. If you are hoping to do some exhibiting in the future, get some stock or eggs from a breeder of standard bred poultry. No matter what you intend for the future, get well bred birds in your yards and you will have something worth while. A mixed flock of fowls is an eyesore and even the farmer will find intense satisfaction in keeping a uniform flock of pure-breds.

Don't overfeed your hens. When they begin to act lazy and walk around as if they had little or no ambition, you can make up your mind that they are getting too much food without work. Bury their grain in the soft ground or in deep litter and make them work for it. If they become too fat, they will lay soft or irregular shaped eggs, and many times soft-shelled eggs will be eaten by the hens and the egg-eating habit formed. This extra fat will also at times bring on liver trouble, and in some instances ruin the bird permanently.

Success in the poultry business is fairly well assured if proper and intelligent care is taken in its management; but as in all other kinds of business carelessness and neglect will cause ruin. The work of caring for poultry is neither severe nor intricate, but system and regularity are needed to do the work expeditiously and profitably. If you will stay steadily at work, even under adverse conditions for a time, you will find success at the end. Success is the result of work, care and enthusiasm and choice, well bred stock. Start right, keep at it, be careful, regular and enthusiastic and success will surely come.

The great multitudes of lice do not come till the weather gets warm, or at least we do not notice them until then. But many survive the winter and are ready to pester the hens in spring and summer. If a person can kill a few just before they commence to multiply, it will prevent untold thousands from thriving later on. One of the best preventives of lice propagation that we know of is to grease the roosts with beef or mutton tallow. Grease is sure death to lice and as soon as they get on the greased roost they will die. While kerosene oil is a good thing to kill the lice by spraying on the roosts, it does not last like the thicker grease does. If you mix a few drops of carbolic acid with the grease it will be all the more efficient and while killing the lice will also cure hens of scaly-leg.

Crowding the Poultry Harmful.
An interesting test was recently tried out at the Maine experiment station to ascertain the number of hens most profitable to keep in pens. All the pens were 10 by 16 feet, giving 160 square feet. The hens were Brahmas and Plymouth Rocks, and the tests continued six months.

There were 15, 20, 25 and 30 hens to a pen. The conditions and hens were as much alike as possible to make the test a conclusive one.

The pen with 15 hens made a profit of 80 cents per hen, and the eggs laid numbered 976.

Then pen with 20 hens made a showing of 1,208 eggs for the pen, and a profit of 71 cents per hen.

Then pen with 25 hens had a laying record of 1,328 eggs, and a profit of 35 cents per hen.

Then pen with 30 hens had an egg production of 1,200, and a profit of 30 cents for each hen.

The experiment shows distinctly that hens can be so crowded as to reduce the profit of an egg farm. The difference of 25 eggs per hen for six months is considerable. On the basis of 15 to the pen, the profits of the total 90 hens were \$72; on a basis of 30 to the pen the profits were \$36. In each case the actual cost of feed was deducted.

The National Egg Contest.

The hens and pullets in the National Egg Laying Contest at Mountain Grove, Mo., more than doubled the record made by the hens in the same month for the previous year. The yield for January was 7,016 eggs. The total for the first three months last year was 11,403 eggs, and the total for the first two and a half months this year was 12,970 eggs, or 1,567 eggs more in two and a half months this year than in three months of last year. We attribute this to the fact that we have more pullets this year and the winter has not been so severe as last, and our pens most all appear to be of better quality. They are consuming more feed than last year.

Where we are keeping 28 different kinds of feed before the hens at all times, and are allowing them to help themselves, we are getting the best results. How long this will continue, we cannot say. If hens will lay as many or more eggs where the feed is kept before them, it will save a great deal of labor in feeding. This may work in winter, but we have our doubts about it in the summer. They have eaten exactly the same amount of wheat as they have of corn, 44 pounds of each. They have eaten about three times as much corn and wheat as of any other one kind of feed. Rolled oats, millet and sunflower seed come next. They have eaten but little ground feed of any kind. They are drinking about the same amount of buttermilk as water.

NEW YORK METHOD.—PEN NO. 62.

The method of feeding one pen will be announced each month. This pen in the feeding test is being fed as follows:

Grain mixture in winter.
60 lbs. wheat.
60 lbs. corn.
30 lbs. oats.
30 lbs. buckwheat.
Grain mixture in summer.
60 lbs. wheat.
60 lbs. corn.
30 lbs. oats.

The above grain mixture is fed night and morning in the straw litter.

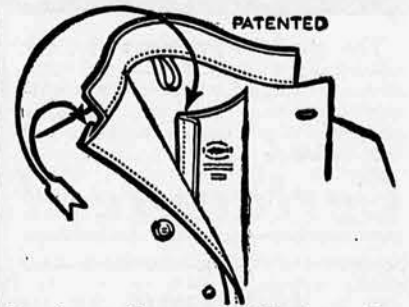
The following dry mash is fed in the hopper, kept open in the afternoon only:

60 lbs. corn-meal.
60 lbs. wheat middlings.
30 lbs. bran.
10 lbs. alfalfa-meal.
10 lbs. oil-meal.
50 lbs. beef scraps.
1 lb. salt.

The fowls should eat about one-half as much mash by weight as whole grain. Regulate the proportion of grain and ground feed by giving a light feeding of grain in the morning and about all they will consume in the afternoon (feed in time to find grain before dark). In the case of pullets or fowls of heavy laying, restrict both night and morning feeding to induce heavy eating of dry mash, especially in the case of hens. This ration should be supplemented with beets, cabbage, sprouted oats, green

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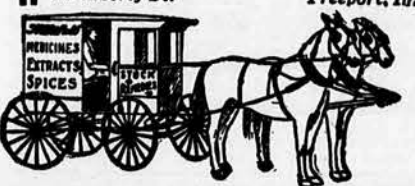
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Kansas City, Mo.

or address Supt. of Immigration,
Ottawa, Canada.

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clover or other succulent food, unless running on grass covered range. Grit, cracked oyster shell and charcoal should be accessible at all times. Green food should not be fed in a frozen condition. All feed and litter should be strictly sweet, clean and free from mustiness, mould or decay. Serious losses frequently occur from disease, due to the fowls taking into their bodies, through their intestinal tract or lungs, the spores of the fungus causing moulds.

Do Not Condemn Incubator.

If the machine is tight, and all there, brush it up, clean it out; and if it did not do good work last season, change the location and have the thermometer tested. It is the cause of much trouble, so be sure it is accurate.

Imitate Hen In Chick Feeding.

If we could understand the old hen, who has been at the business of feeding chicks for thousands of years, we could learn from her that setting 21 days in a nice soft nest was but a trifle to what was to be done before her flock could graduate with honors. She knows the value of both exercise and a mixture of feeds; and she sees that they get both, even if she dies a martyr on a neighbor's flower-bed.

Remarkable Success With Incubator Chicks.

Dear Sir: I run several incubators and have good success with my hatches, but have lost thousands of the little downy fellows from bowel trouble. A lady recommended Walker's Walko Remedy, so I sent 50 cents (M. O.) for a box (post-paid) to the Walker Remedy Co., E. 9 Lamoni, Iowa. I tried it on 350 chicks and they grew very strong, being nearly full feathered at four weeks. I never lost one from bowel trouble. It is certainly fine for incubator chicks; gives them strength and vigor as well as preventing bowel trouble.—MRS. A. D. WELLS, Boliver, Mo. —(Adv.)

Incubator Advice.

The living room, or bedroom, is the most convenient place for the incubator. Here it is under the eye of the operator at all times of the day. Just before going to bed one can assure one's self that the lamp is burning all right—the temperature of the machine at 102 degrees for the first two weeks and 103 degrees for the last week—and that the tank is level full of water. As the incubator is a neat and attractive machine, it is not out of place in the living room. Placed there, it is an object of attention and interest to all.

The cellar has been recommended as the most favorable place in the house in which to run the incubator. The temperature here varies less than in other parts of the house. The incubator in the cellar is out of the way, yet this may prove a serious objection, especially where the cellar is used only as a place to store supplies and visited only once or twice daily. In such a case the incubator in the cellar would require too much running up and down the steps for the time and strength of the operator. Out of sight in the cellar might mean out of mind when the machine needed attention. Lamps can not be trusted implicitly, even though they are known to be well filled and trimmed. They have gone out when no one can answer why, and have smoked and clogged the flue from no apparent cause.

Kansas Poultry Federation.

Memberships are being solicited by the Kansas Poultry Federation recently organized. The purpose of the organization is to promote a state-wide federation to build up the poultry industry in all its branches, and educate the farmer, or any one desiring to make the poultry business a livelihood.

The printed matter reads: "Experience has taught many of us that a uniform flock of fowls of one variety, that lays an even size and color of eggs, is by far the most profitable, in fact they command much higher price even as market eggs and poultry. This education will make a greater demand for pure-bred stock, and if you are a breeder of pure-bred poultry, it is surely going to increase your business. By the aid of all poultrymen we will soon have Kansas at the top of the ladder as the greatest poultry producing state in the Union, and as it is now she stands in fifth place with our good old neighbor Missouri heading the entire list of the United States. There are many things we can do, and one is to try and regulate the price of market eggs during the summer months by increasing the quality, thereby demanding more money for the better grades. One of the special features already voted to take place is

a field meet at the Kansas Agricultural College at Manhattan in the latter part of June."

The officers are: C. J. Page, president, Salina; N. R. Nye, vice-president, Leavenworth; L. H. Wible, secretary-treasurer, Chanute.

Garden for Every Farm.

"Last spring I dug a six-inch well, 102 feet deep, and built an earth reservoir 30 x 60 feet and 2½ feet deep. The well, windmill and pump cost \$170, while the reservoir was built in two and one-half days by three men and two teams. We fenced an acre of ground adjoining and planted it to onions, beans, parsnips, cabbage, lettuce, peas, beets and muskmelons.

"From this acre of ground we sold \$103 worth of vegetables. We put up 200 quarts of tomatoes, gallons of cucumber pickles, 55 gallons of sauer kraut and have 200 head of cabbage pitted.

"We could have sold all that we raised; the returns from the onions alone would have amounted to \$250.

"This acre of ground has been farmed every year since 1886 and only once during that time did it receive manure. That was our first experience in irrigating and we made several mistakes. We didn't level the ground beforehand, so there were low places where the water would settle. We also tried to make the water run too far between rows. Then when the horse plague struck us, we forgot all about the garden for four weeks.

"This winter we enlarged the reservoir so that more water can be stored. We have also put in some fish. We expect to raise more than \$300 worth of garden products this year. By close estimation I find that the vegetables for our table more than paid for the work done on the garden during the whole year.

"We are well satisfied with the results and will enlarge the plant with another well in the near future. The mill we now use has a 12-foot wheel with a 3-inch cylinder and a 2-inch pipe."—S. F. DICKENSON, Lane County.

The above was printed in the Utica Enterprise, and the editor writes: "The raising of garden products, which will take care of a large portion of the living expenses of the family and reduce the canned goods trade to a minimum, is assured by preparing for garden irrigation and a big item of the high cost of living will be thereby eliminated. A fairly good well, a windmill and a reservoir. For best results where it is only intended to irrigate a small patch the ground should be piped for sub-irrigation and it will more than repay the cost in one year, but this is not necessary. It is something that almost anyone can do, and if generally adopted would make a wonderful difference in garden production, result in a substantial improvement of home conditions and be a large source of satisfaction."

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The book entitled "The History of White Diarrhoea, or Why Incubator Chicks Die," will be sent absolutely free by return mail, to anyone sending us the names of 7 to 10 of their friends that use incubators. This book can save you \$100 this summer. It describes white diarrhoea or bowel trouble, the cause, and tells the cure. **BOOK ABSOLUTELY FREE FOR THE NAMES.**

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In his laboratory work of a lifetime and selling his various scientific products Dr. Hess (M.D., D.V.S.) has always taken our farmers into his fullest confidence. He believes that the farmer should know exactly what he buys. It is his belief that the more people that know what Dr. Hess Stock Tonic is made of the better. Then there is no mystery, no exaggeration—all claims that Dr. Hess Stock Tonic will increase growth and milk and relieve stock ailments can be verified by referring to the medical writings of the U. S. Dispensatory. The formula for

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Sulphate of Iron, Blood Builder and General Tonic.
Sulphate of Soda, Laxative and Liver Tonic.
Common Salt, Appetizer, Cleanser.
Epsom Salts, Laxative.
Nitrate of Potash, Stimulates kidneys.
Charcoal, Prevents Noxious Gases.
Fenugreek, Tonic and Aromatic.
The above is carefully compounded by Dr. Hess (M.D., D.V.S.), with just enough cereal meal to make a perfect mixture.

is printed in the left-hand panel here with extracts from the U. S. Dispensatory. Dr. Hess even goes further and makes this proposition: **Our Proposition:**—Feed Dr. Hess Stock Tonic to your horses, your cattle, your hogs and your sheep; especially when you are preparing for market. If you are not convinced beyond the shadow of a doubt that it has proven a paying investment by increasing digestion, improving the general condition and appearance, keeping your animals free from disease and free from worms, go to your dealer and he is under contract with us to refund your money.

Dr. Hess Stock Tonic in 25-lb. pails costs you \$1.60; 100-lb. sacks \$5.00. Only costs 6 cts. per month for the average hog. Furthermore, for any condition which Dr. Hess Stock Tonic does not remedy, write us care of the Information Bureau and special prescription will be furnished you free of charge.

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Ashland, Ohio

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The ingredients of this poultry tonic are also printed on the package. Your druggist will tell you what beneficial effects poultry must derive from these ingredients. We guarantee it to make your hens lay more eggs, help chicks to robust maturity, shorten the moulting period and keep your flock hardy and well. Your money back if it doesn't. If your dealer cannot supply you, we will.

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Ashland, Ohio



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HORTICULTURE



The Boy's or Girl's Own Garden.

A Kansas farmer said that he had never had a good garden until he offered a prize to each of his children, two boys and a girl, with a grand prize to the one that produced the most vegetables on a given area of good garden soil. The gardens were laid off and the children allotted a certain number of feet in which to grow each kind of vegetable. They worked hard and produced three good gardens. In each of the three gardens of 12 feet by 25 feet, there was produced more garden "sass" than the average farmer, with the average sized garden, caring for it in the average manner, produced on an acre.

The children became so interested that they each studied better methods of culture in an effort to make a better yield. If the mother went to one of the gardens to harvest vegetables for the family dinner the children raised a row if the owner was not present to see the crop weighed.

Why not try the children on the farm and see if your boys and girls won't do the same thing? If you live in town, why not ask the real estate man if he will let your boys farm part of a vacant lot and keep down the weeds? Give the boys a chance to have something of their own.—GEORGE GREENE, Horticulturalist, K. S. A. C. Extension Department.

Old Orchard Treatment.

The season of the year is at hand when it behooves the farmer to get into his old orchard and clean out the diseased, dead and otherwise superfluous wood. Our attention is being called every day to the example of some farmer with an idea, who takes a pruning saw and goes into an old and unprofitable orchard and makes it pay attractive dividends. Proper cultivation and spraying are important factors in such a re-

juvenation, but the increase in size and color of fruit is very largely due to judicious pruning.

In old orchards which have been neglected, the thing most noticeable is the fact that the tree tops contain too much wood; too many limbs. Many of these are large limbs which should have been cut out years ago when they were small and the shock to the tree would not have been so great, to say nothing of the saving of plant food used in the production of this superfluous wood. One of the most valuable qualities of market fruit is good, attractive color. It takes light and plenty of it to make good color and the tree top with too many branches will keep out the sunlight and, consequently, will not produce well colored fruit.

In market fruit, size as well as color is important. The tree that tries to produce too many apples will be unable to bring them to a good size. Thinning the fruit will aid very materially in increasing the size, but a good deal of work in thinning can be saved by taking out some of the extra wood this winter.

Needless to say, all dead and diseased wood should be cut out, as it interferes with spraying and picking, besides detracting from the good appearance of the orchard. Care should be taken in cutting off large limbs to see that they do not peel down the bark by falling before they are completely severed. Cutting about a third of the way through from the under side first, will usually avoid this trouble. The cut in all cases should be made parallel with, and as close as possible to the limb from which the severed branch grows.

It is well to paint over with pure white lead and oil any stubs more than 1 1/2 to 2 inches in diameter to prevent severe drying out or the entrance of disease germs.—S. VAN SMITH, Colorado Agricultural College.

THE FARM GARDEN

By CHAS. P. RUDE, Topeka, Before Indian Creek Grange

THE farm garden is, or should be, a part of every farm. What one of you would think of doing without a cow or chickens, and since you have them, doesn't it pay to take care of them? The garden will give good returns for the labor if it is well planned, planted in time and taken care of.

Good soil is of course necessary for a good garden. A little manure helps wonderfully except for sweet potatoes and tomatoes will do very well without it. The garden should be fenced against chickens, but have a gate or opening large enough to get in with tools so that it can be plowed and worked into condition all at one time. This is easier and better than spading.

Good seeds must be planted. There is no economy in getting the cheapest. Buy of a reliable dealer whom you know. His price will no doubt be considerable higher than that of the fellows with poor seed, but good seed pays.

Every farmer should have a hand drill and wheelhoe. These can be bought as separate tools or as a combined drill and cultivator. The two best makes are Planet Jr. and Iron Age. The drill will do the work much quicker and better than you can do it by hand and the wheel hoe will pay for itself in one season.

Now as to what to plant and when to plant it. Seasons often vary so the time given must be changed accordingly. Also some tastes differ, so some varieties may be increased and others proportioned to suit.

I will give standard varieties of the different crops. There are new ones introduced every season but it is best to use them only as a trial until you know they are suited to your needs.

As early in the spring as the ground can be worked, plant one quart of Alaska peas in a furrow three inches deep and follow this about April 1 with some Nott's Excelsior or Gradus, sowing each by hand. Plant the peas on one side of the garden.

Now commence on the other side, leaving room for a row of sweet potatoes, planting one or one and one-half rows

of parsnips and finish the half row with Danvers's carrot. Then a row of salsify which some of you may not be acquainted with. Try it this year, it is fine for soup and can be kept all winter, as freezing does not hurt it. Have two rows of Detroit beets, one row of White Egg turnips, then one or two rows of onions, color to suit.

Next set off a strip about six feet wide and divide into three parts or beds, using one-fourth for Black Seeded Simpson lettuce, one-fourth for onion sets and one-half for radishes, of which latter there are an endless number of varieties. I prefer white tipped turnip radishes. I would only plant half of the radish bed at first, then wait about ten days and plant the balance.

Cucumbers can be planted in the onion sets and radishes as they will not be vining much before they are out of the way. Now have a row of beans, Wardwell's Kidney Wax, and three feet from this a row of early cabbage, using the space where the beans are for late cabbage. Then one or two rows of tomatoes, part early and part late. Plants can be bought of a grower cheaper than you can raise them.

Between the peas plant a few hills of melons. The potatoes and sweet corn I would plant in the field where you can cultivate them with a team.

Now when you have all these planted remember they must be cared for, and don't neglect cultivation. Cultivation has never yet hurt any crop.

Prices of Farm Products.

The average of prices received by producers of the United States for staple crops increased 0.6 per cent from February 1 to March 1, which compares with an increase of 3.2 per cent in the same period a year ago and an average increase of 1.9 per cent during February in the past five years. On March 1 prices of staple crops averaged about 21.7 per cent lower than on like date of 1912, 3.9 per cent lower than in 1911, 19.0 per cent lower than in 1910, and 10.3 per cent lower than 1909, on like date.

BUCKEYE CULTIVATORS

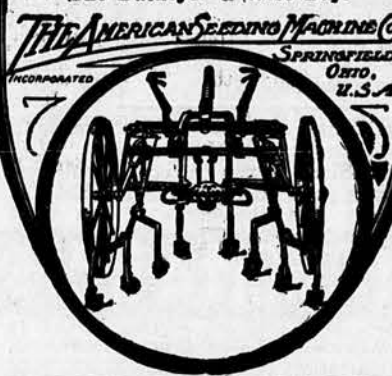
Every farmer should have a copy of the new Buckeye Cultivator Catalogue, and get posted on the most complete line of cultivators on the market. After reading this catalogue, he should go to his local dealer and insist on seeing the Buckeye.

It makes no difference what kind or style cultivator you want, you will find it in the Buckeye Line.

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Large, dust-proof bearings. Thorough lubrication. All like parts absolutely interchangeable. Starts easily at any time. No danger from freezing.

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The GRANGE

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Lecturer.....L. S. Fry, Manhattan
Secretary.....W. E. Wedd, Lenexa
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O. F. Whitney, North Topeka
Chairman of Committee on Education.....
E. B. Cowgill, Lawrence
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Adella B. Hester, Lone Elm
NATIONAL GRANGE OFFICERS.
Master.....Oliver Wilson, Peoria, Ill.
Lecturer.....N. P. Hull, Diamonddale, Mich.
Secretary.....C. M. Freeman, Tippecanoe City,
Sec'y.....C. M. Freeman, Tippecanoe City, O.

Cheerful Sayings.

Smile and the battle is half won,
Laugh and it is wholly done.
Your troubles will grow,
If you let anyone know that you have
one.
If you can't be happy, be as happy as you
can.
Cheerfulness doeth good like a tonic.
—A. B. H.

The Grange stands for equal rights
for all, with the purpose of benefiting
agricultural toilers in particular, but all
mankind in general.

Every Grange should select some
problem to solve and stay with it until
its solution is completed.

Grange No. 1525 at Whiting, Kan.,
reports they have just initiated eight
new members.

There are 31 states represented in the
National Grange. Of these, New York
takes a lead with 804 Subordinate
Granges and a membership of 103,665.

I am glad to see the Grange column
growing in KANSAS FARMER. By your
help, Patrons, we can make this the
most interesting page in the paper, and
do not forget the suggestion that each
Grange have a correspondent.

The reports are beginning to arrive
for the first quarter. If all the secre-
taries would report promptly, say within
30 days, it would give me ample time
and help to make a complete report to
the National Secretary, which is re-
quired to be sent in within 60 days after
the end of the quarter.

The National Grange Monthly for
February paid a very fitting tribute to
our present master, A. P. Reardon, and
Past Master George Black.

O. F. Whitney reports a new Grange
organized by him in Labette County,
with 28 charter members.

The State Master reports a new
Grange organized by him at Burrton in
Harvey County, with 49 charter mem-
bers. Several of his meetings had to be
postponed on account of the weather.
But verily the work goes on.

A timely Grange maxim: "Pessimism
never carpets the path to progress.
Cheer up!"—A. E. W.

A Grange Market Place.

Manhattan Grange is trying to have
an open market established in Manhat-
tan, in which farmers and others can sell
direct to the consumer. The founders
of the city seem to have had this in
mind, for in platting it they left four
tracts, 100 x 40 feet in size, called Mar-
ket Square, for this purpose. These
plots have stables, coal sheds, etc., on
them, placed there by abutting lot own-
ers, and these persons are somewhat
loath to give up their holdings. The
Grange believes that a market of this
kind, if once established, would soon be
quite popular and profitable.

Owing to scarcity of funds it is not
likely that the Kansas Agricultural Col-
lege can do much till after July 1 to-
ward establishing a market bureau, as
was planned during Farmers' Institute
week last winter. The secretary of the
National Grange is working on the prob-
lem of a national market bureau similar
to the one that the college is to estab-
lish.—STATE LECTURER.

A National Grange Resolution.

At the forty-sixth annual session of
the National Grange the following res-
olution was adopted:

Resolved, that the secretary of the
National Grange shall constitute the
head of a bureau of information, and
shall, with the aid of the states having
similar bureaus, list and classify the
probable surplus products of these states
and aid in finding the best markets and
the best methods of marketing, and

make an equally careful inquiry in rela-
tion to those articles needed and con-
sumed by each state, and in all cases
of inquiry render all assistance possible
in the way of demand, supply, prices
and cost of transportation.

Resolution unanimously adopted, ac-
cording to a recent communication from
the National Secretary, C. M. Freeman.

County Grange Program.

The Pomona Grange, of Anderson
County, held at Greeley, Saturday, April
12. The program as follows:

Open in 4th degree at 10 o'clock.

Music by the Grange.

"In What Ways Are We Better
Qualified for the Duties of Life By Be-
ing a Granger?" by W. F. Corney, of
Westphalia.

Recitation by Ward Grieb.

Lecturers' conference: "What Can
We Do to Develop a Higher Manhood
and Womanhood Among Ourselves?" by
the lecturers of Union, Greeley, Kincaid,
Lone Elm, Colony and Red Star Granges.

Music by Greeley Grange.

"As Lecturer, am I Making Good and
How?" by the lecturers of the Garnett,
Sunflower, Amiot, Selma, Haskell and
Central City Granges.

Open at 1:30 in 5th degree.

Conferring degrees.

"Best Methods of Strengthening and
Making More Useful our Subordinate
Granges," by Jas. Paradise, of Greeley.

"The Members' Responsibility to the
Lecturer," by Joe Fox, of Greeley.

Ladies' hour, Mrs. W. F. Corney,
Master, of Westphalia.

Music by Lone Elm Grange.

"Canning Vegetables; How Can We
Kill the Spore Producing Bacteria?" by
Mrs. Minnie Corley, of Greeley.

"How I Would Manage a Farm, If I
Were a Man," by Mrs. Barner.

Recitation by Miss Belle Brownrigg.

"Is An Allowance for a Woman a
Proper Method of Conducting the Finan-
cial Affairs of the Household?" by Mrs.
C. T. Miner.

Music by Union Grange.

Report of Standing Committee.
LETTA A. MEYERS,
Lecturer, Lone Elm.

What Equal Suffrage Means.

What does equal suffrage mean to us?
It means that the good men of Kan-
sas have seen fit to vote us to equality
with themselves; that we now stand
shoulder to shoulder with our brothers
and have an equal chance to vote for
the betterment of humanity and for all
moral reforms that hitherto we could
only advocate.

It means that the men of Kansas have
joined with the eight other states that
have given women the ballot, thereby
showing us increased security in in-
creased respect, while all the other
states of the Union still class their
women with the criminal, the idiotic and
the insane.

It means that the supreme moment of
our lives has come—that we are a part
of this great political world and are
recognized as a factor in our govern-
ment.

It means that we must begin to edu-
cate ourselves for the ballot and that
those who feel that they are ready have
a great work yet in helping our sisters
who think women should not vote to see
where and how a good woman's vote will
kill the vote of the ignorant and those
not interested in reforms. It means that
we must not shirk our duty and allow
the lower class of both sexes to make
laws for us and our children. It means
that the stigma of taxation without
representation, which is tyranny, is re-
moved.

And I feel that it will mean, when
all women have the ballot, that many
of the pitfalls that lie in the paths of
our growing youths, such as the open
saloon and "social evil," will be erad-
icated. It means that American women
are rising to the highest levels ever
reached by womanhood and that we must
do all in our power, for if women are
to run the ship of state upstream we
must begin at the bottom and work
for the top.—MRS. LETTIE MYERS, Equity
Grange.

On May 31 the third annual agricul-
tural commission will leave for Europe.
Its mission is a tour of Europe for the
observation of European agricultural
methods, and to attend the International
Congress of Agriculture, Congress of
Domestic Economy, and the Congress of
Farm Women Institutes to be held at
Ghent, Belgium, June 9 to 18. It is to
be hoped the journey will be a profit-
able one, for the great call is for a more
complete co-operative system.

Insure Your Hogs Against Disease

As long as you do raise hogs—see to it that they are always kept
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It is growing because it is a better binder than any other. Gives
better service—is more simple in construction—lighter draft—costs less
for repairs. Its design is such that it works easier—without the strain
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carefully and scientifically designed to produce the greatest durability
with lightness of draft.

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Manager and Head Cattle Salesman. 390 Live Stock Exchange, Kansas City, Mo.

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Can you imagine anything more durable than a roof cut out of solid rock! Such a roof would be practically indestructible. Fire couldn't burn it. Acid fumes, gases, rain, snow, sun and extreme temperatures couldn't injure it.

A roof of this description—a roof that is cut from solid rock to all intents and purposes—is

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Adapted to any building and any climate. Easily and quickly applied. If your dealer can't supply you, we will ship direct.

Write our nearest branch for sample of the Asbestos Rock from which this roofing is made and Illustrated Book No. 2380

H. W. JOHNS-MANVILLE CO.

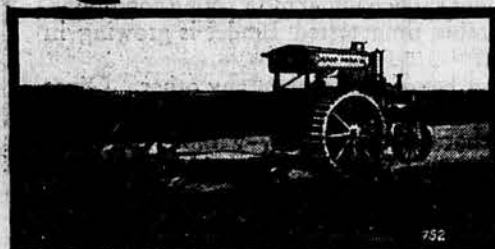
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Toronto Montreal Winnipeg Vancouver 1931

Use This Small, Light Tractor and "Self Lift" Plow On Softest Ground

YOU will not sink and mire in soft soil with a Hart-Parr Small Tractor and "Self-Lift" Plow. The tractor is built mostly of steel, thus insuring greatest strength, yet lightest weight, with no dead weight to drag around and waste power.



The Hart-Parr "Self-Lift" easily weighs one-third less than any other. In combination, they form a strictly One-Man Outfit, built strong to stand up under heavy plowing but so light it stays on top of the ground. The wonderful wave form driver lugs also prevent miring and do not injuriously pack the soil.

No Horses to Clean or Feed

The tractor will easily replace 12 sturdy horses, and do all your work better and cheaper. It has two speeds, is throttle governed, uses cheapest kerosene at all loads, and is oil cooled. For every kind of farm work—plowing, discing, seeding, harrowing, harvesting, threshing, hauling, shelling corn, husking, grinding feed and countless other jobs, it furnishes the handiest power imaginable. The price is within reach of every farmer of modest means.

A "Self-Lift" That Beats Them All

Here are some special features found only in the Hart-Parr "Self-Lift" Plow: Strongest construction with one-third less parts and one-third less weight than other plows. Large clearance—no chance for bottoms to clog. No gears to clog or break. Three point support over entire frame. Furrow wheel that keeps plows in the furrows, even though engine swings a foot or more to either side. Special spring beam coupler enables plows to skid around obstructions and return at once to line of draft. Hand and "Self-Lift" attachments, each independent of the other. Any individual bottom can be raised while plow is moving, without disturbing the adjustment of rest of plow.

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Black hulled white, high yielding type,
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1912 crop yielded 80 to 100 bushels an acre
and 19 tons silage. Price, 20 pounds or
more, 5 cents a pound.
J. W. BERRY, Jewell City, Kan.

Weather Bureau and Fruit Crops

Forecasts Enable Fruit Grower to Save Crops if He
Will—By S. D. Flora, U. S. Weather Bureau

There are times of the year when the Weather Bureau is of more value to the horticulturist than those engaged in any other branch of agriculture. Cereal plants and vegetables are generally planted late enough to avoid damage from frosts or freezing weather and even should they be killed by an unseasonable cold snap other seed can nearly always be planted that will mature a good crop before autumn.

Until a comparatively few years ago the loss of the fruit crop by a late freeze or frost was looked upon as one of the unavoidable acts of Providence. It was natural that in California, where the science of fruit raising has reached the highest degree of perfection, steps should have first been taken to protect trees and small fruit on a large scale against the danger of freezing, for, even in that world renowned climate, the liability of damage from freezing at certain times of the year is as great as it is in Kansas in late spring.

Covering small fruit, smudging and orchard heating have passed the experimental stage in Kansas and neighboring states and horticulturists are generally familiar with the different means employed in frost fighting.

All of these entail much work and a considerable outlay of money for equipment, which has prevented their use by many of the smaller fruit growers, but it has been demonstrated to the satisfaction of many growers of fruit on a large scale that it is more economical to provide equipment and use it during the few hours that the temperature may fall below freezing in the spring than to lose the greater part of a year's crop from one night's neglect, for it is neglect and in most cases nothing else that permits the destruction of a fruit crop on account of the occurrence of a few hours with the temperature below freezing.

Aside from proper equipment the important problem in frost fighting is just when to begin the work of covering small fruit and heating the orchard. To do this when there is no real danger of freezing weather means an expense that will cut deeply into the profits of the crop, and to neglect it for a few hours after freezing temperatures occur may mean a very serious loss.

If every fruit grower knew definitely by noon of any day whether the next night's temperature would be low enough to be damaging to his crop, the work of frost fighting would be greatly simplified, for much of the work connected with it must be done several hours ahead of time. Supplying just such information as this is one of the important duties of the weather bureau. It is true that there are days when it is uncertain whether the critical temperature for fruit will be reached before the next morning, but in nearly every case the officials of the weather bureau are able to state definitely whether freezing weather will occur or whether it will be safe to forego preparations to fight frost. They can do this because the warnings of the weather bureau are based on the judgment of expert forecasters who have before them in concise form telegraphic weather reports from the entire country. Even the most shrewd observer, basing his conclusions on local observations, is unable to make a good forecast of weather for more than a very few hours in advance.

One thing that should be especially emphasized in this connection is the need of a careful study of temperatures in different parts of an orchard or other place where small fruit is raised. Sometimes a difference of several degrees will occur in different parts of an orchard on a still, clear night, and some orchards and fields are so located that the temperatures in them average lower or higher than the rest of the neighborhood.

A number of reliable thermometers hung from the lower limbs of trees in an orchard and read frequently at critical times are of invaluable assistance in determining when to begin the work of firing, how much fuel to use while firing is in progress, and when the fires may be safely allowed to diminish.

A standard thermometer will cost \$2 or \$3, but a 50-cent thermometer is often fairly satisfactory and can be easily tested for accuracy at a temperature of freezing by holding it a few minutes with the bulb in a pan filled with cracked ice and just enough water added to take up the space between the pieces of ice. The temperature of this ice water will be within a fraction of a degree of 32 degrees.

The weather bureau has perfected a very effective system of distributing forecasts and warnings of all kinds, and, while there is a limit to the funds available for telegraphing warnings at government expense, owing to the widespread co-operation of the telephone companies it is nearly always possible to provide a way for persons who need these warnings to obtain them early in the day.

Weather forecasts and cold wave and frost warnings, besides being given a prominent place in all daily papers, are now telegraphed at government expense to a hundred places in Kansas from which they are given a general distribution by mail, telephone, and the display of weather flags. There are about 125 telephone companies in the state that receive these forecasts regularly and make them available to approximately 125,000 subscribers each day, and two-thirds of the postmasters of the state receive the weather forecasts by mail daily. A distribution of weather forecasts similar to this exists in every state of the Union.

Fully equipped local offices of the weather bureau, with commissioned employees on duty, are located at five places in Kansas: Topeka, Wichita, Iola, Dodge City and Concordia, besides two more just across the Missouri line, at St. Joseph and Kansas City. The larger fruit growers and others especially interested in weather conditions make it a rule to keep in close touch by telephone with the officials on duty at one of these stations during periods of critical weather.

In the fruit belts of Colorado and California it is not uncommon for officials of the weather bureau to be on duty day and night when a drop to damaging temperatures is imminent, and frost warnings in those localities are given as rapid and thorough distribution as the hurricane warnings of the Gulf Coast. Instances are frequent in those localities of every fruit grower in the community being engaged in orchard firing on a cold night.

Forecasts of the probable drop in temperature during critical periods in fruit protection are furnished at local offices of the weather bureau by 9:30 A. M. or 10 A. M. of week days, and frost and cold wave warnings, when indicated, are issued on Sundays and holidays as well. Persons who are located too far from a weather bureau office to be in direct touch with the officials on duty by telephone can usually find it possible to obtain the warnings through the telegraphic distribution upon application to the weather bureau office which is the section center of the state. For Kansas this office is at Topeka, for Oklahoma at Oklahoma City, and for Nebraska it is at Lincoln. A list of the section centers of other states can be obtained from any local office of the weather bureau.

Profit From Dairy Cows

Three years ago, after having taken a course in the Kansas Agricultural College, J. C. Blake, of Glasco, Kansas, decided to go into the dairy business. At a public sale nearby, he bought a registered Jersey cow with a heifer calf by her side, for \$106. A year later this cow dropped another heifer calf, and the following year a bull calf. On a ration of corn silage, alfalfa hay and corn chop, she produced 8,000 pounds of milk and 492 pounds of butter fat during the year. The two heifers are now in milk, each having produced a heifer calf and the older one a bull calf also, making four female and two male descendants from this cow in three years. Mr. Blake has been offered \$175 for one of these heifers, and the old cow, her daughters and grand-daughters would probably sell for \$750.

This is an illustration of the profit from good dairy bred cows. The value of the milk from the cow mentioned above was sufficient to pay for her feed and care, and also pay for feeding the calves up till the time when they came into milk. Consequently, there has been a net profit of the present value of the four female and two male descendants, of something like 200 per cent per year on the original investment of \$106.—A. S. NEALE, Extension Department, K. S. A. C.

When washing windows, have a cham-
ois skin wrung out of clean soft water
to wipe them with. They will require
little or no drying and will be clear and
shining.

When writing advertisers, please mention **KANSAS FARMER**.

Her Little Way.

Young Spring came marching up the glen,
Her warm breeze flags a-flying,
And all the folks, they jumped for joy,
Old Winter'd been so trying.

The Birds, they sang a round-a-lay,
And all the little flowers,
Sprang up to have their faces washed
By April's perfumed showers.

The snow ran crying down the streets;
All things were glad, and then—
Just as the world began to bud,
Young Spring marched back again.

—Margaret Erskine in Holland's Magazine.

Olives, celery and cold macaroni on lettuce leaves make a good salad.

Green Peppers.

There are a great many kinds of this excellent vegetable, which for many years was rather neglected by American cooks except for pickling purposes. The pepper came originally from India, but it is now grown freely here and even exported to other countries. One of the finer varieties is the bell pepper, mild and sweet almost as the sweet Spanish kind. The bird pepper is hot and good, and when red ripe is introduced to advantage in white fish sauce, crab meat preparations and with creamed chicken or other white fricassees, to which it gives pleasing color.

The American cayenne pepper is cultivated in New England and there is a demand for it abroad on account of its superior quality. There are also chili peppers, cherry peppers, guinea peppers that ripen yellow instead of red, and others that grow to a deep purplish blue when ripe.

Once the cook becomes accustomed to the addition of the green pepper to various dishes it will hardly be omitted from at least one item on the menu daily, says the New York Sun. Of course, it must not be overdone. One pepper dish is enough on a bill of fare. If repeated it loses its savor.

As an ingredient for breakfast dishes it is excellent. Chopped fine by itself or combined with chopped spring onions or chives and a little parsley, it gives to the simple dish of scrambled eggs a new and appetizing relish. It is a perfect morning food. It must not be allowed to cook too much, as its crispness, when it is cut very fine, is its great charm. It must be used a little sparingly, otherwise it makes the eggs heavy and darkens the color of the dish. An omelet or scrambled eggs with chopped pepper calls

for but one small pepper or half a large one for four eggs.

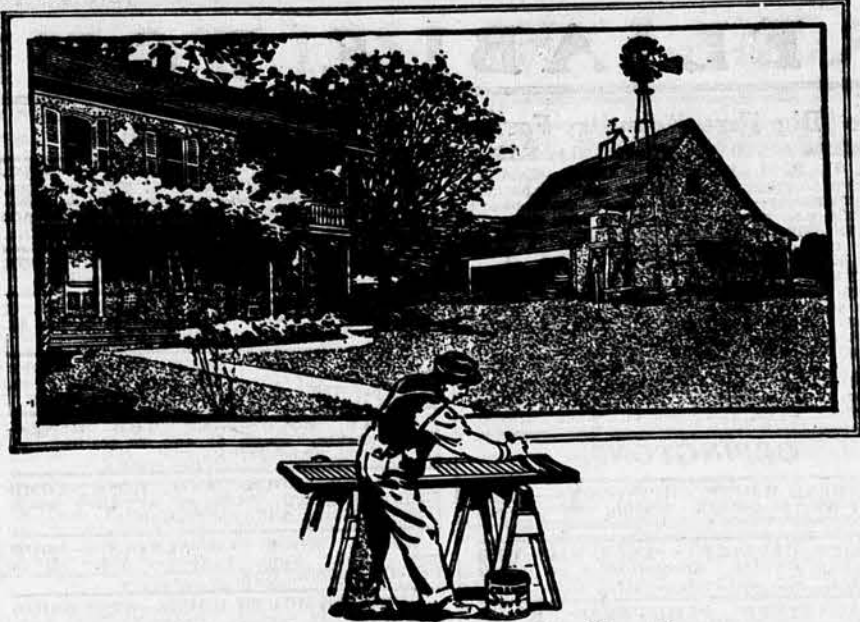
The eggs should cook to a golden yellow and white with the particles of pepper showing in speckles of green. It is a good idea not to beat the eggs for scrambling but to break them in a bowl and pour them into a hot pan in which there is plenty of melted butter of first quality. Then add about a tablespoonful of lukewarm water and stir lightly with a wooden spoon. When the eggs begin to cook, add the peppers and cook for two or three minutes, stirring lightly to keep the mixture from settling.

As a sandwich filling combined with olives, cucumbers, onions or meat, the green pepper is very good placed between well buttered slices of bread, white or brown. Fresh peppers that have been kept on ice, cut lengthwise and fried in butter or with bacon are good if first parboiled.

Parboiled and allowed to cool they make a splendid salad to mix with other vegetables. This parboiling is desirable for those who prefer the pepper soft rather than crisp. A corned beef hash made with this vegetable recommends itself to those who like this old fashioned dish.

Very lean meat is not the best for hash. It is a good idea to chop it the night before it is wanted for use, and some boiled potatoes may be added in small quantity with butter to moisten. This mixture may rest in the refrigerator and the freshly chopped peppers added just before frying in the pan. Onions can be added if desired. The hash should be warmed to a delicate brown.

Minced lamb on toast with peppers is a favorite dish at the clubs. The addition of this vegetable to almost any of the usual left-overs is an improvement, and hashed meats with crumbs can be used as a stuffing. The seeds of peppers should always be removed.



Be Paint Wise this Spring

This means protect and beautify your home by painting, and prolong that protection and decoration for the longest possible time by using the right paint, one that starts its service by staying tight and strong through all kinds of weather—and gives the same good service for several years.

Such a paint is Sherwin-Williams Paint, Prepared, S.W.P. That is the decision of the largest number of people buying any one brand of paint. It is made of pure lead, pure zinc and pure linseed oil, combined with the necessary driers

and coloring matter. It is thoroughly ground and mixed and put up in sealed cans, full U. S. standard measure. S.W.P. not only covers the largest possible surface but also lasts for the longest time. It is just one of the Sherwin-Williams Paints and Varnishes made for various purposes about the farm, outside and in. Sold by dealers everywhere.

Send for our free booklet, "Paints and Varnishes for the Farm." It tells a most interesting story about the economy of wise buying, and which paint to use for different purposes, as well as why and how.

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Style, Comfort and Service

Get This Nobby Pump

"SOCIETY" shoes are now worn and approved by discriminating women everywhere. The pump here shown is one of the finest models our designers have produced—Ask for style 5338.

It is made of the finest quality gun metal leather over the new "Vogue" last. The heels are one inch high, which is a happy medium between extreme high and low. The same style is also made in tan leather.

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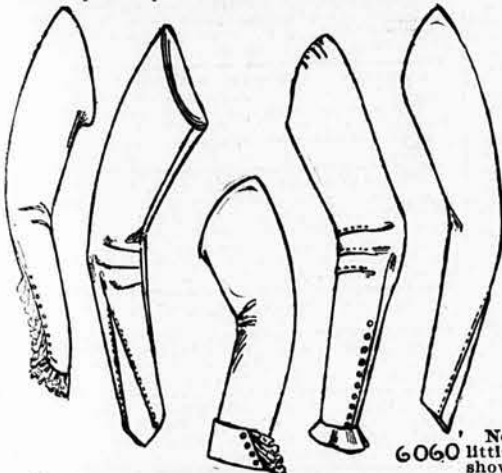
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R. C. R. I. REDS—EGGS, \$1.00 SET- ting; baby chicks, 10 cents. Mrs. W. M. Robb, Neal, Kan.

SINGLE COMB REDS—100 EGGS, \$3.50; 20, \$1.25. Mrs. Rosa Janzen, Route 3, Geneseo, Kan.

R. C. R. I. REDS—HIGH SCORING heavy laying strains, \$1.50 per 15; \$4.50 per 100. Mrs. O. Fitzsimmons, Yates Center, Kan.

BIG-BONED DEEP RED R. C. REDS— Long body, low tail, red eyes; scored 90 to 94. Cockerels, \$2.50 and \$5. Eggs, 15 cents. Guaranteed. Highland Farm, Hedrick, Iowa.

SINGLE COMB REDS—BEST BLOOD lines. First prize winners wherever shown. Dark, large, long, red to skin. Cockerels and eggs for sale. J. B. Hunt, Oswego, Kan.

ROSE COMB RHODE ISLAND RED eggs. First pen, 92%, cockerels, \$2.50 per 15; second pen, first cock, Hutchinson, 1913, \$2.00 per 15. Lloyd Blaine, Nickerson, Kan.

EGGS FROM S. C. REDS THAT ALWAYS win. Chicks cockerels for sale. Write for mating list. Moore & Moore, 1239 Larimer Ave., Wichita, Kan.

BRED R. C. REDS NINE YEARS. FINE flock farm range. Eggs, 15, \$1.00; 100, \$4.00. Ancona hens, \$8.00 a dozen. Mary Bartley, Barnes, Kan.

PURE-BRED S. C. REDS—THE BEST and heaviest layers I ever owned. Satisfaction guaranteed. \$1.00 setting, \$5.00 hundred. Belmont Farm, Reece Van Sant, Topeka, Kan.

S. C. RHODE ISLAND RED EGGS FOR hatching, both prize winning and utility stock. Send for my free mating list. Big values for little money. Satisfaction guaranteed. H. R. McCrary, Concordia, Kan.

ROSE COMB REDS—WON EIGHT firsts, four seconds and one third last season. Eggs, \$1.50 and \$2 per 15; cheaper in larger numbers. Mrs. H. F. Martindale, Madison, Kan.

EGGS FROM BUSCHMAN-PIERCE SINGLE Comb Reds, \$2 and \$5 per setting. Won every place shown. Send for mating list. Fertility guaranteed. H. A. Berg, Woodward, Okla.

S. C. R. I. REDS—WINNERS WHERE- ever shown. Stock for sale. Eggs from \$1.50 to \$4 per setting. Won more premiums at state shows than any two competitors. R. S. Steele, Route 7, Topeka, Kan.

RHODE ISLAND REDS—ALSO ORP- ingtons, White and Buff. Males and females, eggs for hatching, and baby chicks for sale. Extra good stock, priced right for ready sale. C. W. Landrum, Carthage, Mo.

OUR EGGS ARE NOT ALL FERTILE, but we make good to our customers. If you want the best R. I. Reds, write for mating list at once. Our guarantee is satisfaction or money back. E. H. Hartenberger, Route 4, Box 1, Newton, Kan.

ROSE COMB RED EGGS, FROM PENS headed by roosters costing from \$10 to \$30 and out of splendid hens. These are very choice matings. Fifteen eggs, \$1.50; 30, \$2.50; 50, \$4; and 100, \$7.50. Good range flock, \$4 per 100. Grandview Stock Farm, W. R. Huston, Prop., Americus, Kan.

EGGS AND STOCK FROM BLUE RIB- bon winners. Single Comb Reds, Ricksecker strain, and White Wyandottes. Exhibition matings, \$4.00 per setting; utility, \$5.00 per 100. Satisfaction guaranteed. Mrs. H. Bowler, DeKalb, Ill.

LANGSHANS.

FOR SALE—WHITE LANGSHAN COCK- erels, \$1.50 and \$2 each. Eggs, 15 for \$1; 100 for \$5. Henry Neldig, Madison, Neb.

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

BLACK LANGSHAN EGGS, 15, \$1.50; 100 \$7.00. Baby chicks, 15 cents. Mrs. George W. King, Solomon, Kan.

BLACK LANGSHAN AND HOUDAN cockerels, \$1.50 to \$5 each. Write for mailing list. E. D. Hartzell, Rossville, Kan.

BUFF AND BLACK LANGSHAN EGGS— \$2.00, 15; \$6.00, 100. Positively no better Langshans in America. John Lovette, Mulhville, Kan.

BLACK LANGSHANS—EGGS, 15, \$1.25- \$1.50 by parcel post; 100, \$6.00. Baby chicks, 15 cents. Mrs. J. B. Stein, Smith Center, Kan.

EGGS—WHITE BLACK LANGSHANS, \$3.00 per 50, \$5.00 per 100. Bronze Turkeys, \$2.00 per 11. Toulouse Geese, \$1.50 per 7. Rouen Ducks, \$1.25 per 13. W. L. Bell, Funk, Neb.

POULTRY WANTED.

PAYING 13c FOR HENS, 20c FOR broilers and turkeys. Cope's Sales System, Topeka, Kan.

PURE BRED POULTRY**DUCKS AND GEESE.**

INDIAN RUNNER DUCK EGGS, 20 FOR \$1.00. D. Fleisher, Princeton, Kan.

INDIAN RUNNER DUCKS—FIFTEEN eggs, \$1.25. Gertrude Haynes, Meriden, Kan.

INDIAN RUNNERS, FAWN AND WHITE Eggs, \$1 per 15. Baby ducks, 25c each. J. W. Fretz, Bosworth, Mo.

WHITE INDIAN RUNNER DRAKES, Fishel strain, \$2.00 each. J. B. Hunt, Oswego, Kan.

INDIAN RUNNERS—BLUE RIBBON fawn and white. Color, shape and size right. George Wasson, Anness, Kan.

WHITE INDIAN RUNNERS—THIRTY- nine premiums. Cleared \$50 per duck. Booklet free. I. H. Drake, Nickerson, Kan.

AMERICAN FAWN AND WHITE RUN- ners—Eggs, 13, \$1.25; 40, \$3.25. W. A. Hilda, Culver, Kan.

WHITE INDIAN RUNNERS—EGGS, \$2 per 12; \$5 per 24; fawn and white, \$1 and \$1.50 per 12. Circular. Mrs. E. F. Lant, Dennis, Kan.

INDIAN RUNNERS OF QUALITY— Light fawn and white. White egg strain. Send for egg circular. Ed H. Kilian, Manhattan, Kan.

INDIAN RUNNER DUCKS, AMERICAN Standard light fawn and white. Prize winners. White eggs, \$1.50 per 15, \$4.00 per 50. Mrs. D. A. Pryor, Route 3, Fredonia, Kan.

EGGS FROM BLUE AND BUFF IM- ported Orpington Ducks, \$3.00 per dozen. Selected matings, \$5.00. Orpington Ducks won two successive year egg laying contests. Emma Holtz, Wilbur, Neb.

INDIAN RUNNER DUCK EGGS—FAWN and white, both light and dark. Heavy layers of white eggs. \$1.50 for 13 eggs, \$5, \$6 and \$7 per 100. Mrs. Annie E. Keen, Route 1, Carlton, Kan.

INDIAN RUNNERS, AMERICAN STAND- ard and English Penciled. Great laying ducks, mated to racy type drakes. Eggs—15, \$2; 30, \$3.75, charges prepaid. Mrs. Ed Bergman, Route 2, Paola, Kan.

SEVERAL BREEDS.

PURE-BRED EGGS, SIXTY VARIETIES. Quick delivery. Catalog free. Jordan Poultry Farm, Coffeyville, Kan.

BIG BARGAIN IN EGGS—RHODE IS- land and Reds, Turkeys, Runner Ducks, Guinea. M. E. Gallaher, Hammond, Kan.

EGGS FROM BLUE RIBBON WINNERS—Single Comb White Leghorns and Orpingtons, Fawn and White Indian Runner Ducks. Thol R. Wolfe, Conway Springs, Kan.

55 BREEDS PURE-BRED CHICKENS, ducks, geese, turkeys, Collie dogs. Catalog free. Belgrade Poultry Farm, Mankato, Minn.

SINGLE COMB REDS—FIRST AND sweepstakes pen and sweepstakes pullet. Eggs, \$2.00, 15; range flock, \$4.00 per 100. White Indian Runner Duck eggs, \$2.00 per 13. F. Vrtiska, Pawnee City, Neb.

FOR SALE OR EXCHANGE—ONE 8- months-old Collie bitch and several pups sired by Imp. Orskirk Sample. Want poultry or other, no \$5 dogs. A. G. Hillman, Red Oak, Iowa.

HARRY INMAN & SONS, ROUTE 1, KEOKUK, Iowa, can furnish you eggs for hatching from Black Javas, Reds, Hamburgs, White Polish Bantams and Indian Runner Ducks. Write for mating list.

FOR QUICK SALE—EGGS—STOCK from Moore's Partridge Columbian Silver Penciled Buff, Barred and White Plymouth Rocks; Cochins Bantams. Eggs prepaid. Favorite Poultry Farm, Stafford, Kan.

BOOK YOUR ORDERS FOR EGGS OF Barred, Buff, White Rocks, White and Brown Leghorns, Wyandottes, Langshans, Brahmas, Orpingtons, R. I. Reds, Geese, Ducks, Turkeys and Guinea with the Monroe Poultry Yards, Monroe, Iowa.

EGGS—FROM THOROUGHBREED Toulouse and Emden Geese; Turkeys; Pekin, Muscovy and Runner Ducks; Houdan, Rhode Island Reds, Wyandottes, Hamburgs, Orpingtons, Games, Plymouth Rocks, Langshans, Cochins; Pearl and White Guinea; Bantams. Hen eggs, 15 for \$1.00; by the hundred reasonable. Also rabbits. All kinds of fancy pigeons. Say what you wish and get a free circular. D. L. Bruen, Platte Center, Neb.

BIG SNAP IN WHITE PLYMOUTH Rocks—Two of the finest pens in the state must be sold quick—and the price is low. 1912 hatched, fully developed and over Standard weight. Pullets laying. Good enough to show and win. Buy now and have them for this year's breeding. This is unquestionably the White Rock bargain of the year. J. E. Spaulding, Care Kansas Farmer, Topeka, Kan.

ANCONAS.

MOTTLED ANCONA EGGS, 15, \$1.50; 50, \$3.50. Hens, \$1.00. Mrs. Del Fitch, Burt, Iowa.

PRIZE WINNING MOTTLED ANCONAS. Eggs and baby chicks. Circular free. W. Hardman, Frankfort, Kan.

BUFF COCHINS.

FOR SALE—BUFF COCHINS OF QUAL- ity. Send for mating catalog. J. C. Baughman, Topeka, Kan.

BUFF COCHIN EGGS, \$2 AND \$3 PER fifteen. Mrs. L. O. Housel, Smith Center, Kan.

MINORCAS.

SINGLE COMB BLACK MINORCAS— Eggs, \$2.00 per 15; \$3.50 per 30; utility flock, \$1.00 per 15, \$5.00 per 100. Dan Oberhellmann, Holstein, Mo.

R. C. BLACK MINORCAS AND WHITE Orpingtons. Large number males and females, reasonable. Many prize winners. Eggs in season. Dr. C. J. Forney, Woodward, Okla.

BARGAINS IN LAND

BARGAINS in Ness County land, large and small tracts. Write now for lists and literature. C. H. Brassfield, Ness City, Kan.

EXCHANGES EVERYWHERE. Get our fair plan of making trades all over the United States. Graham Bros., El Dorado, Kas.

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

A SNAP.

680 acres, 3 miles from town; 150 acres in wheat, balance fine pasture. Price, \$15.00 per acre. Write Pioneer Realty Co., Protection, Comanche Co., Kan.

KINGMAN 1,120 a. solid body, 350 cult., 500 COUNTY bot., fair bids, near market; price \$32.50, half cash, bal. at 5 per cent. JOHN F. MOORE LAND CO., Kingman, Kansas.

WILL TRADE my \$2,700 automobile for a Kansas farm. Must be unincumbered. Auto is in good condition. One of best makes. Address Auto Man, Care Kansas Farmer, Topeka, Kan.

TWO BARGAINS. 100 acres near Olathe, well improved, fine, \$110.00 per acre. Fifty-seven acres, improved, best of Kaw bottom land, greatest bargain in the county. AT KANSAS CITY'S DOOR. Write for lists. T. H. MILLER, Olathe, Kansas.

FIELD NOTES

Branic Sells April 23. C. L. Branic, Poland China breeder of Hiawatha, Kan., has decided to hold a dispersion sale on Wednesday, April 23. The offering will include about 60 head, many of which will be outstanding individuals. Watch this paper for announcement next week.

The Independent Silo Company is advertising in this paper, and they sell their silo direct from factory to farmer, that they can save you money if you buy your silo from them. If you are interested in the purchase of a silo, write them for catalog explaining how they save you money. Independent Silo Co., 2326 University Ave., St. Paul, Minn., or 1515-D Genessee St., Kansas City, Mo.

S. E. Smith's Hampshires. Attention is called to the card of S. E. Smith of Lyons, Kan., in this issue of Kansas Farmer. Mr. Smith owns one of the good Hampshire herds in the West. The head of his herd, T. R. Nancy 19581, by Chicago 6965, by Miller's Piew Boy 3367, and out of Price's 1st 7314, by Col. Stone 2669, is one of the most promising young boars of the breed now in service. He is an outstanding individual and is proving an excellent breeder. Mr. Smith has a herd of brood sows that are right in size, quality and breeding. He has carefully selected them and they are of the type of sows that produce the prize winners. Mr. Smith is booking orders for boars and gilts sired by his great young boar. They were farrowed in January and are an excellent lot of youngsters. Write him for prices. He will interest you if you are interested in Hampshire hogs. Please mention Kansas Farmer when writing.

E. C. Jonagan's Durocs. E. C. Jonagan of Albany, Mo., is one of Missouri's most progressive breeders of Duroc Jersey swine. Mr. Jonagan commenced breeding Durocs a few years ago and for foundation stock bought the best in breeding and individuals regardless of the price. He has added to his herd each year, always buying the best he could find, and as a result he now owns one of the high-class herds of Duroc Jerseys in the corn belt. His sow herd is one of the most select lots of sows now assembled. They have the size and quality that make ideal brood sows, and the record of the herd for prolific qualities is remarkable. The present head of his herd is a son of Crimson Wonder Again 44785, dam Lottie 57580. He is one of the good young boars now in service. Mr. Jonagan expects to be ready for the fall trade with some of the best of the breed, and Duroc breeders wanting of the high-class breeding stock should keep this herd in mind. Please mention Kansas Farmer when writing.

Crescent Jersey Farm Co. Dispersion Sale. Attention is called to the card of the Crescent Farm Jersey Company, Bethany, Mo. On April 24 they will disperse their choice herd of Jersey cows and heifers. The 40 head of cows and heifers to go in this sale are the utility kind. They are an outstanding lot of individuals and the blood lines are the best of the breed. Rosebud Victor 73321, one of the best Jersey bulls in Missouri, heads this great herd. He is assisted by Golden Jubilee's Lad 94792, a grandson of Golden Grand 53563, the great son of Golden Lad, one of the greatest bulls ever imported to this country; also a great grandson of Diploma 6219, sire of 55 in list, including Merry Maiden, sweepstakes cow at Chicago World's Fair and of Stoke's Page of Prospect 29121, sire of 69 in list. This will be an opportunity to secure foundation stock that is right in every way and at the buyer's price. Write for catalog at once. Address Crescent Jersey Farm Co., Bethany, Mo. Please mention Kansas Farmer when writing.

Witte Engines to User at Wholesale. Every farmer can now buy the famous Witte gas, gasoline and kerosene engines at wholesale prices. For 26 years these engines were sold through dealers. Some time ago, however, the manufacturers changed their method of selling, and now sell direct to engine users for the same prices the dealers used to pay. Through the inventions of that master engine builder, Ed H. Witte, thousands of power users in all parts of the United States and in foreign countries have profited to the extent of hundreds of thousands of dollars per year in money saved on fuel and repairs. And all money saved on fuel and repairs. And all power—no shut-downs, no delays, no troubles in starting or stopping. Witte engines meet the demands of buyers who insist on engines of long wearing qualities, with all wearing parts always easily and inexpensively renewable—qualities possible only with the best of materials, workmanship and designs. Not only are five-year guarantees demanded, but engines like the Witte will more than make good under them. A new book, "Witte Power," is just coming out. It contains vital engine information not before published. A copy can be had for the asking. Write the Witte Iron Works Co., 1604 Oakland Ave., Kansas City, Mo.

THREE FARMS FOR SALE

One—320 Acres in Solomon Valley; 100 acres in alfalfa. All alfalfa land.

One—70 Acres in Illinois. Part creek bottom, good house. Other improvements fair.

One—80-Acre Farm in Illinois. Part creek bottom. Fair improvements. Full information and prices on request. J. E. BURBANK, Kansas City, Mo.

For Sale—The**"Crescent Lawn Home"**

Absolutely the finest around Topeka. Finely improved, 24 acres lying perfectly, between two main avenues, on macadam road, 10 blocks west of Washburn College. \$17,500.

R. A. HENRY,

632 Kansas Avenue, Topeka, Kansas.

BEST TOWN TO LIVE IN.

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.

FINE DAIRY FARM

240 Acres, highly improved, in high state of cultivation; good orchard, silo, alfalfa; near best college town. \$52 per acre. Write for farm list. T. B. GODSEY, Emporia, Kan.

FOR SALE—A BARGAIN

Eighty to 160 acres in the famous Membr Valley of N. M. Have two farms and can not farm both. Farms well improved. Address Lock Box 462.

SAM S. MCADAMS, Deming, New Mexico.

Live Trades

Would you trade if suited? Write for our list of snappy exchanges and listing blank. Describe property first letter. Eberhard & Mellor, Whitewater, Kan.

BUY or Trade

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

FARMERS, TAKE NOTICE.

Do you want to sell, exchange or buy farms? I can locate you in any state. W. F. Broadus, Leavenworth, Kan.

FOR SALE—Farms and ranches in Kan-

sas, Missouri, Arkansas, Oklahoma and New Mexico. Write for list of bargains. FUGATE & FUGATE, Newton, Kan.

LAND BARGAIN EXTRAORDINARY.

I have two 160-acre farms that must sell by May 1. Either one is priced at just two-thirds of its actual value. One-half the wheat goes. Will be cut and threshed inside of 90 days. Will take the half crop and guarantee you 10 per cent in advance. Do you know a bargain? Let's see.

F. L. NEWTON, Clay Center, Kan.

EXCHANGE—Will trade my equity in 80

acres, Saline County; 6-room house, barn, well and mill, cistern, chicken house, some fenced hog-tight, 50 acres cultivated, 1 1/2 miles to school, 3 1/2 miles to two towns; mortgage, \$3,500, at 6 per cent. For live stock, hardware, or clear rental.

ED. A. DAVIS, Minneapolis, Kansas.

120 ACRES

3 1/2 miles of paved streets of Ottawa, Kan. Six-room house, barn 40x50, 15 acres hog-tight, 15 acres clover, 40 acres fine blue-grass, remainder in cultivation. Price, \$75 per acre. Terms to suit. Don't wait to write, come at once. Owner must sell.

MANFIELD, Ottawa, Kan.

FINE 100 A. FARM, fine stone soil, good

house, barn, etc. Nicely located. Will produce wheat, corn, clover, alfalfa. Part cultivated, balance pasture, meadow. Close to Fredonia, Kan., in oil gas belt. Will take \$40 a. and is worth \$75. Address Owner, Lock Box 807, Fredonia, Kan.

IDEAL FARM—320 acres, mile of town;

9-room house, two well-built chicken houses, large granaries and other outbuildings and stables; lots of shade and fruit trees; 160 cult. bal. pasture, some alfalfa, all tillable land. Price now is \$7,000, about half cash. Buxton Land Co., Ulica, Ness Co., Kansas.

ABILENE, KANSAS.

106 acres, unimproved, all fine river bottom land, no overflow, 1 1/2 mi. to good R. R. town; rich black loam soil; 86 acres now in wheat, all to go to purchaser if sold soon. Good terms at 5 per cent. Write for list. Bracey, Pautz & Danford, Abilene, Kan.

\$1.75 PER MONTH

For ten months, buys level, well located lot in Plains, Kan. "Special bargains." Only a few to be sold at this low price. Act quickly.

JOHN W. BAUGHMAN, Plains, Kan.

FOR EXCHANGE.

Florida land, 320 a. near Arcadia, on Prairie Creek. Heavy soil, well drained, no better half section in De Soto Co. Land around it held at \$40 per acre. Price, \$30 per acre; no incumbrance. Prefer Kansas land. Address M. W. Cave, Salina, Kan.

320 A., 3 mi. from shipping point, 5 mi.

from Hamilton; 150 a. of it is fine bottom land; part in alfalfa now; 5 a. timber, about 200 a. in cult., 9-room house, good barns. A fine farm, worth \$16,000.

A. F. DOVE, Hamilton, Kan.

OUR RED LETTER SPECIAL.

Will trade your property. Get into touch with live wires. Guaranteed deal. List today. Write for particulars. MID-WEST REALTY EXCHANGE, Riverton, Nebr.

FARM—One section for sale, 3 miles town.

400 acres wheat, 100 alfalfa, 100 pasture, bal. spring crop. All goes. Possession this spring. For price and terms write S. A. Y., Box 75, E. F. D. 3, Plainville, Kan.

CENTRAL KANSAS FARMS—320 a., fine large buildings, good well and wind mill, at \$50 per acre. 160 a. cultivated only, would make a fine home, for \$9,000, and others, all close in.

WALDO HANCOCK, Beverly, Kan.

Classified Advertising

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

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

HELP WANTED.

RAILWAY MAIL CLERKS WANTED—\$900 first year, promotion to \$1,800. Examinations May 3 in every state. Common education sufficient with my coaching. Full information free. Write for booklet V809, Earl Hopkins, Washington, D. C.

WANTED—RAILWAY MAIL CLERKS, \$90 month. Examinations everywhere May 3. Write for vacancy list. Franklin Institute, Dept. M 85, Rochester, N. Y.

WANTED—RAILWAY MAIL CLERKS. Examination May 3. Splendid salaries. I conducted gov't exams. Can help you pass. Trial lesson free. Write Ozment, 44R, St. Louis.

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

MEN AND WOMEN WANTED FOR GOVERNMENT parcel post and other government positions. \$90 month. Annual vacations. Short hours. Thousands appointments coming. "Pull" unnecessary. Farmers eligible. Write immediately for free list of positions open. Franklin Institute, Dept. M 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.

SITUATION WANTED.

MAN AND WIFE AND 9-YEAR-OLD boy looking for farm work. Both raised on farm. Will work for farmer on the shares or wages if such help is wanted. Call or write to Mr. E. Ham, 1720 Winchester Ave., Kansas City, Mo.

SEEDS AND PLANTS.

SEED CORN—LAPDART STOCK FARM, Lawrence, Kan.

ALFALFA SEED, GARDEN AND FIELD seeds. Grubb & Fumort, Enid, Okla.

BOONE COUNTY WHITE SEED CORN, fine quality, \$1.50 bushel. J. B. Hunt, Oswego, Kan.

FOR SALE—100 BUSHELS OF WHITE Wonder seed corn. Call or write to E. S. Saylor, Route 3, St. John, Kan.

SELECTED BLACK-HULLED WHITE kafir, bushel, \$1; 5 bushels, \$4.50. J. F. Notz, Burns, Kan.

MAMMOTH BLACK-HULLED WHITE kafir, hand-threshed. Selected for early maturity, 17 years. J. G. Mitchell, Lafontaine Kan.

KAFIR—HIGH YIELDING, EARLY, black-hulled, white. Absolutely pure. \$1.00 bushel. Jeff Burt, Macksville, Kan.

DWARF BLACK-HULLED WHITE kafir seed for sale, \$1.25 bu. Amount limited. I. N. Farr, Stockton, Kan.

SELECTED WHITE KAFIR SEED, black hulled variety, \$1.75 a bushel; big yielder. Hallgren Bros., Route 2, White City, Kan.

YODER'S CORN MULCHER IS A NEW invention for corn growers. Write for circular. M. S. Yoder, Shipshewana, Ind.

CATALPA TREES FOR SALE, 1 year old. Genuine Speciosa, \$4.00 per thousand. H. G. Adams, Maple Hill, Kan.

WHITE-HULLED KAFIR, GROWN from heads selected in 1911. Cleaned and graded, \$1.00 per bushel. Schuyler Nichols, Herington, Kan.

BERMUDA ROOTS, HARDY, \$1 FOR bran sack full; 6 sacks, \$5. Howard Pendleton, Yukon, Okla., Tamworth Swine Breeder.

75 CENTS BUYS SEED SWEET POTATOES, onions, parsnips, carrots, Red River Ohio potatoes, or apples. Cope's Sales System, Topeka, Kan.

CHOICE BLACK-HULLED WHITE Kafir and Dwarf Milo, cleaned and graded. Kafir, \$1.00; Milo, \$2.00 per bushel. A. L. Beeley, Coldwater, Kan.

WATER MELONS, HALBERT HONEY. Pure guaranteed seed, \$1.10 pound; extra good, 75c; good, 50c. H. A. Halbert, Originator, Coleman, Texas.

SEED CORN—CORN PLANTER (white), largest yield; highest germination; hand picked; graded; sacked. Per bushel, \$2.50; two or more bushels, \$2.25 bushel. George Dasher, Dwight, Kan.

BOONVILLE NURSERIES—TREES, plants, vines, from nursery to planter at wholesale. Buds from best bearing trees. Finest varieties, best assortment. Satisfaction or money back. Boonville Nurseries, Boonville, Mo.

PLANT OUR KAFIR CORN. RIPE, selected seed from 80-acre field, averaged 56 bu. per acre. \$1.00 per bu., sacked, Topeka. Grand Champion white seed corn from \$280 prize corn, \$3.00 per bu. Snyder Seed Co., Topeka, Kan.

NICE WHIPPOORWILL COW PEAS, \$2.75 per bushel, sacked. Four varieties of native seed corn—Reid's Yellow Dent, Hildreth's Yellow Dent, Ninety-Day Old Yellow, and Boone County White, shelled, cleaned and graded, put up in even weight sacks of 2 bushels each, \$1.45 per bushel, freight prepaid. Brooks Wholesale Co., Ft. Scott, Kan.

CATTLE.

REGISTERED JERSEY CATTLE FOR sale by C. S. Hart & Sons, Milan, Mo.

FINE REGISTERED HOLSTEIN BULL calf for sale. J. T. Meierdicks, Marion, Kan.

FOR SALE—ONE VERY NICE D. S. Polled Durham bull, 12 months, dark red, \$125.00. Enoch Lungren, Osage City, Kan.

FOR SALE—JERSEY BULL, SONIA'S Tormentor 84145, calved February 5, 1907. Cannot use longer. E. S. Farmer, Route 1, Stockton, Kan.

FOR SALE—ONLY A FEW MORE FINE Double Standard Polled Durham bulls of serviceable age. C. M. Albright, Overbrook, Kan.

FOR SALE—AN ENTIRE DAIRY HERD of 40 cows, Jerseys, Guernseys and Holsteins; all young, with milk records. Will sell reasonable. Satisfaction guaranteed. Jack Hammel, 215 Adams St., Topeka, Kan.

I NOW OFFER FOR SALE MY GREAT Polled Durham herd bull You Know X 5624, Shorthorn 276023. A prize winner on a sure dehornor even to horned cows. Excellent breeder. C. M. Albright, Overbrook, Kan.

FOR SALE—75 HEAD OF YOUNG dairy cows, just shipped in from Minnesota. Jerseys, Guernseys and Holsteins. Prices reasonable for quick sales. Also have some extra fine 2-year-old bulls. O. N. Himelberger, 405 Fillmore St., Topeka, Kan.

HOLSTEIN CALVES—SIX CHOICE HOL- stein heifers and one bull, fifteen-sixteenths pure, three to four weeks old. \$20 each, crated for shipment anywhere. All nicely marked and from heavy milkers. Edgewood Farm, Whitewater, Wis.

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AUTOMOBILE—WILL TAKE \$1,025.00 for my \$4,000 automobile. Will demonstrate to buyer's satisfaction. No trades considered. Speak quick. Address Bargain A. Care Kansas Farmer, Topeka.

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

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GET YOUR CANADIAN HOME FROM Canadian Pacific. One-twentieth down, balance in 19 equal annual payments. Loan up to \$2,000 to improve your farm—can be paid off in 20 years. Six per cent interest. Good, rich land in Western Canada—for every kind of farming—from \$11 to \$30 an acre. This offer only to farmers or men who will actually occupy or improve the land. We supply best live stock at actual cost—give you the benefit of expert work on our demonstration farms—equip you with a ready-made farm prepared by our agricultural experts if you don't want to wait for a crop. All these lands on or near railways—near established towns. Free booklets on Manitoba, Alberta or Saskatchewan. Address J. M. Thornton, Colonization Agent, 112 West Adams St., Chicago.

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PATENTS SECURED. IDEAS BRING wealth. Prompt service. Personal attention. Harry Patton Co., 323 McGill Bldg., Washington, D. C.

Scours in Calves.

The most common disease of the young calf is indigestion, or scours. Naturally the digestive system of the young calf is weak, and is very easy to upset. The old adage, "An ounce of prevention is worth a pound of cure," is very applicable here.

There are two kinds of scours that effect the young calf, white scours, sometimes called calf cholera, and common scours, caused from indigestion. The white scours is a contagious form, and if the calf becomes affected at all it is within several days after birth. The germs gain entrance to the body through the umbilical cord soon after birth. The remedy for this disease is a preventive one, and the best way to insure against it is to keep the stalls and pens clean, stalls used for calving purposes should be cleaned and disinfected after each calf is born. Additional precaution should be taken by tying a string around the naval cord of the young calf immediately after it is born, and apply some good disinfectant to the exposed parts.

The common scours or indigestion may usually be traced to faulty methods in feeding the young calf. The principle causes are as follows:

1. Overfeeding.
2. Feeding cold milk.
3. Feeding sour milk.
4. Irregular feeding.
5. Feeding alfalfa or other highly nitrogenous hay to the young calf.
6. Using dirty pails.
7. Dirty stalls.

The first signs of indigestion or scours among calves is usually the characteristic foul-smelling dung. When a calf shows the first signs of scours the milk should be reduced one-half or more, and then gradually increased again as the calf improves. This method of treatment is usually sufficient to check a mild case. There have been many remedies suggested for treatment of the scours and all are used with more or less success, but the writer will mention only two in this paper. The feeding of dried blood to calves has proven very effective. In addition to receiving the milk, add about a teaspoonful of soluble dried blood and stir in well with the milk. Dried blood not only acts as a tonic, but it has a food value and it is often fed along with milk at each feed, on account of its feeding value as well as a prevention treatment of the scours.

Another remedy that has been tried with success is the formalin treatment. This method consists of adding fifteen ounces of distilled water to one-half ounce of formalin. One teaspoonful of this mixture is added to each pound or pint of milk fed. This treatment should be given at the time the feed is reduced, and continued at each feed until the calf shows signs of improvement. These simple remedies used with judgment and common sense will usually cure any case of scours.—O. E. REED, Dairyman, K. S. A. C.

Col. N. E. Leonard of Pawnee City, Neb., whose cut is herewith presented, is one of the wide-awake young auctioneers of his state. He has been in the auction business now for more than 10 years. His father, L. W. Leonard, was one of the best known auctioneers in the West, and it was but



natural that the son should take to the work that the father loved so well. Colonel Leonard, Jr., is a splendid judge of all kinds of live stock, having maintained a herd of Shorthorns for the past dozen years. Besides this he has raised hundreds of hogs and has been an extensive dealer in all kinds of live stock all the time. He bred and developed the first pig that ever sold in Nebraska for \$100. Colonel Leonard has left the farm and bought a nice suburban home near Pawnee City and will devote all his time to the auction business. He is known and liked by nearly every resident of his county. There is no question about his ability to deliver the goods and he wants to make your next sale. Write him early about open dates.

HORSES AND MULES.

FOR SALE—PERCHERON AND SHIRE stallions from rising 3 up. James Auld, Wakefield, Clay Co., Kan.

REGISTERED SHETLAND PONIES—The pure Shetland is the true child's pony. Choice young stock for sale. Write N. E. Stucker, Ottawa, Kan.

FOR SALE—HIGH-GRADE GERMAN Coach stallion, 5 years old; weight, 1,500, wits style and action. Priced to sell. C. F. Day, Colony, Kan.

HOGS.

TEN DUROC FALL BOARS AND 15 gilts, all vaccinated. A. G. Dorr, Osage City, Kan.

I HAVE SOME VERY NICE DUROC Jersey pigs, either sex, 6 months old, \$12 and \$15, out of Osage Chief, he by Tatarax by Ohio Chief. Enoch Lungren, Osage City, Kan.

GOATS

TOGGENBURG, FAANEN; HEAVY milkers. Pea fowl, Pekin ducks, mink. Prospectus, 4 cents. Golden Goat Reserve, Combs, Ark.

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SEND KODAK FILMS TO US TO BE finished. Will develop and print first roll free. Percy S. Walker, Sixth and Jackson, Topeka, Kan.

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FOR SALE—MARLIN REPEATING shotgun, 12-gauge; two sets barrels, one for ducks, one for quail; good condition, little used. First check for \$25 takes gun. A. M. Graham, 625 Jackson St., Topeka, Kan.

DOGS.

SCOTCH COLLIES—WESTERN HOME Kennels, St. John, Kan.

HOUSDS WILL TRAIL AND RUN UN- til holed or killed. Fox, Wolf, Coon, etc., pedigreed. Sent on 10 days' trial. R. F. Johnson, Assumption, Ill.

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Big Boned Spotted Boars

We have some fine ones of September farrow to close out at \$20.00. Glits all sold. Booking orders spring pigs. Get our prices. Also Jersey Cattle, Buff Orpington Chickens.

THE ENNIS FARM, Horine Station, Mo.
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Some good September and October pigs at \$30 a pair. Strictly big type breeding. Don't forget February 22 bred sow sale. Write for catalogue.

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Model Bill 54634 heads our herd, assisted by Model Wonder, one of the largest yearling boars of the breed. Fifteen spring boars for sale, priced to move them.

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Seventy-five Poland Chinas, out of 700 and 800-pound sows. Booking orders now, \$15 each, either sex; \$45 per pair, when old enough to wean.

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Of the large type, with quality. Heavy boned, well balanced pigs at right prices.

JAS. ARKELL, Route 4, Junction City, Kan.

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Because I cannot use him longer I will sell my herd boar, Colossus Pan, a son of Colossus and out of the noted Expansion sow, Queen Over Pan. Also fall pigs, either sex.

Hubert J. Griffiths, Clay Center, Kan.

SATISFACTION OR MONEY BACK.

For sale, 12 young boars, will make herd headers; 30 choice glits; 100 spring pigs. Prices reasonable.

W. A. BAKER & SON, Butler, Mo.

DUROC JERSEYS

TATARAXX HERD DUROCS

Chief Tataraxx 74239 at head of herd. For Sale—Six fall yearling Tataraxx glits that raised October litters and are now bred for May litters. Price, \$40. Also fall glits and fall boars in pairs and trios not related at reasonable prices. Write at once if you want them. Mention Kansas Farmer.

HAMMOND & BUSKIRK, Newton, Kan.

FOR SALE—Duroc March pigs, \$9.00 and up, by Model Again, Long Lad, or Tataraxx Box. Five railroads. E. W. BALDWIN, Conway, Kan.

DUROC BARGAINS

Durocs with length, bone and quality. Some good males for sale, also a few choice sows to farrow in June. Immuned against cholera.

C. G. DITMARS & COMPANY, Turney, Missouri.

QUIVERA HERD OF DUROC JERSEYS

A few choice summer boars and glits by Quivera 106611 and M. & M's Col. 111095, for sale.

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DUROC JERSEY BOARS

Of serviceable age. Also 40 fall pigs selected both sexes, at reasonable prices. Inspection invited.

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For Sale—20 Spring Duroc Jersey glits and spring boars, pairs and trios, not related. We sell at farmers' prices. CLASSEN BROS., Union, Okla.

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Headed by the great Dreamland Colonel sows; carry the blood of noted ancestors. Stock for sale.

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Crow's Durocs

Twenty-one good Duroc boars from 125 to 280 pounds. All vaccinated. Price reasonable.

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Bred glits all sold. Choice fall boars and glits at current prices. Choice breeding and individuality.

R. F. WELLS, Formoso, Kan.

OHIO IMPROVED CHESTERS

O. I. C.—125 Head Hogs

Pigs in pairs. Bred sows, and 40 boars ready for service. Fifty fall glits.

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WOLFE'S O. I. C. SWINE.

Large, prolific kind, March and April boars. Glits bred or open. Fall pigs. Prices low. Pedigrees free. Write your wants.

D. W. WOLFE, Route 2, Carrollton, Mo.

O. I. C. PIGS—PAIR, \$25.00.

H. W. HAYNES, MERIDEN, KANSAS.

OXFORD DOWN SHEEP

Largest flock west of Mississippi River. Fifty rams, 100 ewes for sale. All stock sired by imported rams. 140 ribbons at the Iowa State Fair in last eight years. Call on or address, John Graham & Son, Eldora, Ia.

GALLOWAY CATTLE

SMOKY HILL RANCH.

Largest Galloway Herd in the West. Twenty-five coming yearling bulls. Also trained Russian wolf hounds. Orders booked for puppies when old enough to wean. First orders will have choice.

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FIELD NOTES

FIELD MEN.

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

PURE BRED STOCK SALES.

Percherons.
May 21—J. C. Robison, Towanda, Kan.

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

Shorthorns.
April 24—W. H. Graner, Lancaster, Kan.
June 6—C. S. Nevius & Sons, Chiles, Kan.

Jersey Cattle.
April 12—D. T. McCarty at Hannibal, Mo.
B. C. Settles, Palmyra, Mo., manager.
May 5—M. A. Sullivan and others, at Humphreys, Mo.
B. C. Settles, Palmyra, Mo., manager.
May 7—R. F. Tesson at Clayton, Mo.
B. C. Settles, Palmyra, Mo., manager.
May 24—R. M. Ball, Birmingham, Ala.
B. C. Settles, Manager, Palmyra, Mo.
June 11—H. J. Morris at New Cambria, Mo.
B. C. Settles, Palmyra, Mo., Manager.

Poland Chinas.
April 18—W. F. Fulton, Waterville, Kan.
April 23—C. L. Branic, Hiawatha, Kan.
May 1—C. S. Nevius, Chiles, Kan. Bred sow sale.
May 27—H. C. Graner, Lancaster, Kan.
Oct. 21—H. B. Walter, Effingham, Kan.
Oct. 22—H. C. Graner, Lancaster, Kan.
Oct. 28—Walter Hildwein, Fairview, Kan.
Feb. 10—H. B. Walter, Effingham, Kan.
Feb. 11—H. C. Graner, Lancaster, Kan.

Hampshires.
Nov. 4—H. D. DeKalb, DeKalb, Iowa. Sale at Council Bluffs, Iowa.

The Reeves "40" Gasoline Tractor is well illustrated and described in booklet form by the Emerson Brantingham Implement Co., 311 Iron St., Rockford, Ill. Anyone interested can receive this booklet by writing this company.

One of the most interesting and helpful features in the seed catalogs issued this spring is the page of special purpose collections in the 1913 book of Vaughan's Seed Store, Chicago and New York. Everyone with a garden has his own difficulties of location, soil and climate, certain needs he wants to provide for, and the desires of himself and his family which he wishes to fulfill. These collections are designed to meet just such specific conditions at a minimum of cost in each instance. More than twenty such collections have been prepared, including both vegetable and garden seeds.

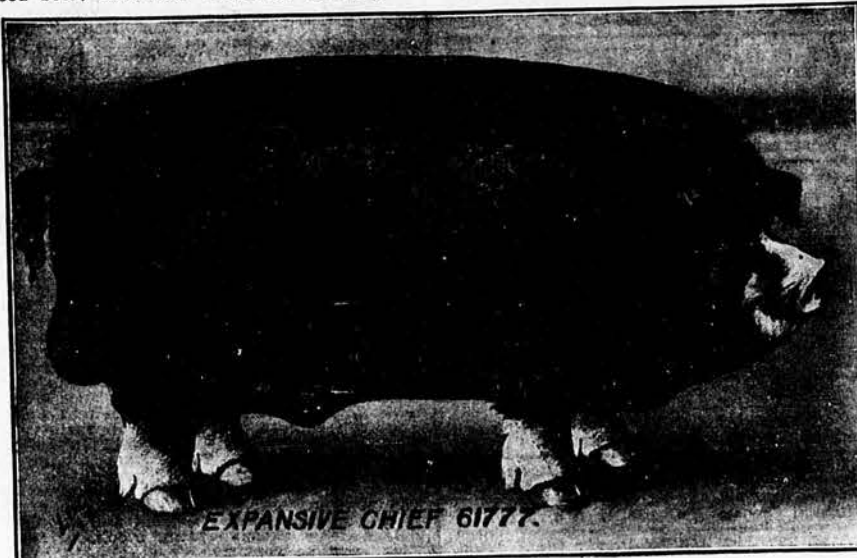
Ditmars & Company's Durocs.

The attention of Duroc Jersey breeders is called to the card of C. G. Ditmars & Co. of Turney, Mo., in this issue of Kansas Farmer. The writer recently visited the Ditmars & Co. breeding farm near Turney and inspected their great herd of Duroc sows that easily take rank with the best herds of the breed now in existence. This herd is the result of ten years of careful scientific breeding with a foundation of the best blood of the breed. They have an extra lot of pigs farrowed in February and early in March. These pigs were sired by such boars as Miller's Chief 104061, Guymore 120049, Tony 95091 and Buddy Top 114063. A quartet of Duroc sires that are right as to size and quality and all of them proven breeders. They are also using a son of R. L.'s Model Chief that promises to make a great boar. At this time they are offering some very fine young boars sired by Miller's Chief 104061. They have the length, bone and quality. They also offer a few choice sows bred to farrow in June. Their hogs are all immuned against cholera. They guarantee satisfaction and their guarantee is on their description of stock. This firm recently sold a large number of bred glits to J. W. McDonald of Eskridge, Kan. If you want Durocs that are right in every way, write them. Please mention Kansas Farmer when writing.

Good Light for Your Home.

Good light is just as important for the farm home as for the city home, and this is made possible with the Marvel Acetylene Gas Plant manufactured by the Marvel Acetylene Generator Co. of Topeka, Kan. These plants can be installed at a low cost and can be operated by a woman or child without any trouble. No mantles to buy, no broken glassware, no excessive heat on a warm evening, just as convenient as electricity at about half the cost. This company will furnish you a complete plant with full instructions how to install or will install it for you at a very low cost. Write them your wants in this line and they will give you a price that will surprise you. State size of house that you want lighted.

Expansive Chief, shown in the accompanying cut, is one of the greatest sons of the noted Expansive. Owing to the fact that Mr. H. B. Walter, his breeder and owner, has a brother of his and does not need both, this boar is offered for sale.



EXPANSIVE CHIEF 61777

POLAND CHINAS

C. S. NEVIUS, GLENWOOD HERDS
The Designer kind of large type Poland Chinas and Searchlight Short-horns

We are sold out of early-bred sows but have some good young boars, ready for service, to spare. Sired by Designer 39199, Major Look 48038, Good Metal 51700, or Forest Wonder 62329. Poland China sale May 1. Shorthorn sale June 6. Send for catalogs. C. S. NEVIUS, Chiles, Kansas.

Dean's Mastodon Polands. The big-boned type, will weigh when mature 800 young boars, ready for service, to spare. Bred Sows and Glits for sale. ALL IMMUNIZED BY DOUBLE TREATMENT AND ARE IMMUNE. Phone, Dearborn; Station, New Market, and Postoffice, Weston, Mo. Address CLARENCE DEAN, WESTON, MO.

WRAY & SON'S BIG TYPE POLAND CHINAS

Herd headed by Sterling Prince, one of the largest and best 2-year-old boars of the breed. Assisted by Chief Price's Wonder, one of the best sons of the great breeding boar, Chief Price Again. Young stock for sale. Better than your grandpa ever raised.

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BRED SHROPSHIRE EWES

Both imported and American bred, and all mated to the best imported rams obtainable. These rams have won many important English prizes, as well as the most coveted American blue ribbons, and now head the flocks at Henley Ranch.

Our flocks are large and we can offer you the best values on all classes of Shropshires. We absolutely guarantee all stock shipped. Place your order with us early, while the ewes can be safely handled.

HENLEY RANCH, GREENCASTLE, MO.

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PHILIPS COUNTY RED POLLS.

For Sale—Cows and heifers, sired by the great Launfal and bred to Crema 22d.

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Five head of bulls from 11 to 17 months old, ready for service and for sale right. Herd headed by Prince, one of the best sons of Actor.

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

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Choice Young Shorthorns

Several blocky, sappy bulls, in age from 7 to 12 months. Females all sold. 25 choice strictly big type Poland China fall boars and glits. \$20 to \$25 each. IMMUNE FROM CHOLERA.

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One of the oldest and strongest herds in the west. Scotch and Scotch-topped. Reds and roans. Good individuals and tracing to noted ancestors. Choice young bulls for sale. Sold out on females. Can ship over Rock Island, Santa Fe or Missouri Pacific. Inspection invited.

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High Class Shorthorn Bulls

"LORD'S DUPLICATE"—Fit for light service and good enough to show anywhere or head any good Shorthorn herd. Price, \$150. Nice young bulls at \$90 to \$100.

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125 Miles Southeast of Kansas City.

Kansas Farmer Sold Him.

The following letter shows appreciation both of a good bull and a square deal: Gretna, Kan., March 22, 1913.—C. M. Albright, Overbrook, Kan. Dear Sir: The train that brought the Double Standard Polled Durham bull, which I bought of you without seeing, came on time and the bull is O. K. He is really a better calf than I expected to see, and I am well pleased with him. I want to thank you for a square deal.—GEO. H. HOOVER.

POLAND CHINAS

C. S. NEVIUS, GLENWOOD HERDS
The Designer kind of large type Poland Chinas and Searchlight Short-horns

We are sold out of early-bred sows but have some good young boars, ready for service, to spare. Sired by Designer 39199, Major Look 48038, Good Metal 51700, or Forest Wonder 62329. Poland China sale May 1. Shorthorn sale June 6. Send for catalogs. C. S. NEVIUS, Chiles, Kansas.

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B. T. WRAY & SONS, Hopkins, Mo.

BRED SHROPSHIRE EWES

Both imported and American bred, and all mated to the best imported rams obtainable. These rams have won many important English prizes, as well as the most coveted American blue ribbons, and now head the flocks at Henley Ranch.

Our flocks are large and we can offer you the best values on all classes of Shropshires. We absolutely guarantee all stock shipped. Place your order with us early, while the ewes can be safely handled.

HENLEY RANCH, GREENCASTLE, MO.

Members American Shropshire Registry Association. Henley & Vrooman, Managers.

HAMPSHIRE HOGS

ECLIPSE FARM HAMPSHIRE.



Tried sows and glits for sale, bred for spring farrow. A few fall pigs left.

A. M. BEAR, Medora, Kan.



High quality Hampshires. Herd headed by T. R. Fancy, prize winner 1912. Boars and glits, January farrow, priced right.

S. E. SMITH, LYONS, KANSAS.

MULE FOOT HOGS

THOMPSON'S growthy Mule Foot Hogs have won more first prizes than any herd in America. Stock of all ages for sale, sired by or bred to my 6 State Fair first prize winning males. Prices low, quality high. Write for prices and information. CHAS. K. THOMPSON, Letts, Ind.

HOLSTEIN CATTLE

M. E. MOORE & CO.

A special bargain in registered young bulls, sired by our herd bull, and tuberculin tested. Females all sold at present.

MISSOURI HOLSTEINS.

Largest herd of Holsteins in the state. Nothing but registered stock for sale. Eighty head to choose from. Twenty-five bulls, all ages. Will sell one to a carload. Write us just what you want and we will describe and price some to pick from.

S. W. COOKE & SON, Maysville, Mo.



Pure-Bred Registered HOLSTEIN CATTLE
The Greatest Dairy Breed.
Send for FREE Illustrated Booklets.

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CHENANGO VALLEY GRADE HOLSTEINS
Fifty extra fine, well bred, nicely marked young cows to freshen in two months. Also high grade, well bred heifers coming two and three years old and bred to registered bulls.

F. J. HOWARD, Bouckville, N. Y.

HOLSTEINS FOR SALE.

Fifty head of registered heifers and bulls; also 75 head bred heifers and young cows, \$58.50 up. Come and see them.

M. P. KNUDSEN, Concordia, Kan.

CORYDALE FARM HERD.

Holsteins. For sale, three registered bull calves, 1 to 5 months old. Also 20 head of % or better grade Holstein cows and heifers.

L. F. CORY, Belleville, Kansas.

HOLSTEIN BULL CALVES always on hand, and worth the price.

H. B. COWLES, Topeka, Kansas.

POLLED DURHAM CATTLE

ROAN HERO,
THE INTERNATIONAL CHAMPION, AND
ARCACIA PRINCE X 8079-308159

the first prize winners, head my herd of Double Standard Polled Durhams. M. P. Ry. 17 miles S. E. of Topeka, Kan. Farms adjoins town. Inspection invited.

D. C. VAN NICE, Richland, Kan.

POLLED DURHAMS.

One yearling bull and several bull calves sired by Roan Choice (junior champion of 1911), also a few young cows and heifers from the greatest show and prize winning herd in Kansas, priced reasonable.

C. J. WOODS, CHILES, KANSAS.

SHROPSHIRE SHEEP

Yearling and Two-Year-Old Shropshire Rams, sired by imported sire and out of registered ewes, priced right for quick sale.

ED GREEN, Howard, Kan.

FULTON'S REGISTERED BIG TYPE POLAND AUCTION

WATERVILLE, KANSAS, FRIDAY, APRIL 18, 1813

THIRTY HEAD IN ALL, COMPRISING EIGHT CHOICE FALL BOARS, TEN BRED SOWS AND GILTS, TWELVE OPEN GILTS.

Sired by such boars as Chief Hutch 61094, Bell Boy 58287, Cavitt's Masterpiece 61916, and Copeland's Hadley 56995. Out of wonderfully big sows of Hutch and Expansion breeding. I regret to make this sale, but am compelled to because I haven't the room to care for them properly, otherwise they would not be for sale. I will also sell one five-year-old fresh pure-bred Jersey cow, and offer privately eggs from high-scoring prize-winning S. C. Minorca chickens. Write for catalog, and either come or send bids to auctioneer or fieldman in my care at Waterville.

AUCTIONEER—T. E. GORDON.
FIELDMAN—JESSE JOHNSON.

W. F. FULTON, WATERVILLE, KANSAS

HORSES AND MULES

Imported Stallions: Percheron, Shire, Belgian

Each year we show our new importation the same month they land. Each year they win more than all other exhibitors combined. At the American Royal this year they won, second on 4-year-old Percheron; first, third and fourth on 3-year-old; first and third on 2-year-old, and first and champion group of five stallions. Our horses are handsome and the best to buy; our guarantee and insurance the very best.

PERCHERON IMPORTING CO., Chas. B. Kirk, South St. Joseph, Missouri.



First and Grand Champion Belgian Stallions at American Royal, 1912, owned and exhibited by J. M. Nolan at Paola, Kan. Our barns are filled with Percheron, Belgian, French Draft and Coach Stallions, imported and home-bred, priced to sell. Come and see me. We can deal.

J. M. NOLAN
Paola Kansas

PRAIRIE VIEW JACK FARM

LAWSON, MO.
Headquarters for Missouri, Kentucky and Tennessee Jacks; sold singly or in car lots. I guarantee more size, more bone and more good jacks and Jennets than any breeder in Missouri. Every one black and from 15 to 16 hands high. Have them all ages. Thirty-five years doing business with the public; never had a lawsuit with one of my customers.

ED BOEN, Lawson, Mo.
Lawson 28 Miles from Kansas City.



DIAMONDS IN THE ROUGH

I am offering for sale at very low prices a fine lot of young Percheron, Belgian, French Draft and Coach Stallions. These horses are not fat but in good, thrifty condition and will make good. Come and see me.

C. T. RICKETTS, Paola, Kansas.



JACKS AND JENNETS

17 head large mammoth black jacks for sale, ages from 2 to 5 years; large, heavy-boned, broken to mares and prompt servers. Prices reasonable. Come and see me.

PHIL WALKER,
Moline, Elk Co., Kansas.

Thompson's Mammoth Jacks

Forty head of Mammoth Jacks and Jennets. Ten big, high-class Jacks ready for service, from 15 to 16 hands high. Black with white points. Herd headed by Gen. Wood 850, winner U. S. championship cup, 1907. Jacks sold on a guarantee and priced right.

C. D. THOMPSON, Brimson, Missouri.

AL. E. SMITH STOCK FARM.

Black Mammoth Jacks and Jennets, Percheron Horses. You will find what you want in large boned, registered, 15 to 16 hands standard. Special prices on fall sales. Both phones.



AL. E. SMITH, Lawrence, Kan.

When writing advertisers, please mention KANSAS FARMER.

HORSES AND MULES

HORSES and JACKS

FOR SALE—Two Percheron Stallions, aged 5 and 7 years. Will weigh 1,700 and 1,900 pounds. Both are fine breeders. Also one 7-year-old jack, weight 1,000 pounds; black with white points. A good performer and fine breeder. All priced to sell quick.

ISAAC C. LOHMAN, R. 3, Turney, Mo.

Imported and Home Bred Stallions and Mares PERCHERONS—BELGIANS—SHIRES



Percherons—Belgians—Shires The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perch this year. See what we have before buying elsewhere.

Address, HART BROS., Osceola, Iowa.

JACKS JACKS JACKS
I have an exceptionally good lot of jacks for sale. They are from 2 to 6 years old from 14 1/2 to 15 hands high, black with white points. They are all big boned mammoth jacks, priced to sell. Come and see them. Lawson is 38 miles from Kansas City.

MOSS B. PARSONS, LAWSON, MO.
HOME-BRED STALLIONS \$275 to \$850. Imported stallions \$700 to \$1,000, two higher. All draft breeds. Reference: Any banker in Creston.

FRANK L. STEAM, Creston, Iowa.
EXCELSIOR SHETLAND PONIES.
Registered stock. Ponies for sale, reasonable prices. Spotted and solid colors. W. Fulcomer, Belleville, Kan.

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Col. W. B. RYAN LEBANON, KANSAS.

Live stock and farm sales auctioneer. The man that gets the high dollar and works for you like a brother.

Col. L. R. Brady

Live stock auctioneer. Manhattan, Kansas. Ask about my work.

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Kansas Live Stock Auctioneer. Write or wire for date. Hutchinson, Kan.

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Live Stock and General Auctioneer. Use up-to-date methods. Pawnee City, Nebraska.

GOOD YOUNG JACKS Ready for Service. \$300 to \$500. One Imp. 6-year-old Belgian. BRUCE SAUNDERS, Holton, Kansas.

JERSEY CATTLE

Register of Merit Bull—Born May 11, '12. Solid fawn, black tongue and switch. Sire, Flora's Golden Fern 69584 (son of Golden Fern's Lad), sire of four in R. of M. Dam, Sultan's Beauty 231914, R. of M. 1719, test 512 lbs. 1 oz. butter one year, 23 months old at start of test. Daughter of Oakland's Sultan. Sire 3 in R. of M. Second dam an imported granddaughter of Miss Viola, P. S. 9644, H. C. (sister of Noble of Oaklands). Cannot be excelled. Price, \$150.00.

R. J. LINSOTT, Holton, Kansas.

GOLDEN RULE JERSEYS.

Richly bred heifers and bull calves for sale. The blood of Golden Lad and other noted sires. Farm one mile north of town. Inspection invited.

Johnson & Nordstrom, Clay Center, Kan.

60 HEAD of solid fawn-colored Jersey cows and heifers of fashionable breeding. Will make special prices on car lots. Most of them in calf to "Blue Boy Baron," sired by half brother to Noble of Oakland. His five nearest dams on mother's side made 102 pounds butter in 7 days. A few light fawn bull calves. S. S. Smith, Clay Center, Kan.

EXPANSIVE CHIEF BY EXPANSIVE.

Owing to the fact that I own another good son of Expansive and have considerable of his get, I will sell EXPANSIVE CHIEF. Will be glad to show this boar and his get to any breeder that desires to place an outstanding boar at the head of his herd. Also 15 fall boars, sons of Expansive Chief. Long King's Best and Expansive Wonder. Inspection invited.

H. B. WALTER, EFFINGHAM, KAN.

FIELD NOTES

Polands and Jerseys.
If in the market for Poland Chinas, either sex, or registered Jersey cattle, write O. E. Nichols, Abilene, Kan. Mr. Nichols makes a specialty of the breeds. His farm is one mile west of town, and visitors are always welcome.

Spring Pigs, \$25 Each.
J. L. Griffiths, Riley, Kan., advertises to book orders for Poland China spring pigs at \$25 each, or pairs not related for \$45. The express on pigs at weaning time is a mere trifle and they can be fed to suit the ideas of those for whom they are to work. These are also immune from cholera.

Beatrice Tent & Awning Co.—I had my covers over stacks that are estimated at 40 to 50 tons of alfalfa, and the price at which I sold it was from \$1 to \$1.50 per ton more than that stacked without your covers. So there is no question about the covers paying for themselves the first cutting.—W. C. COX, Red Cloud, Neb.

Graner Sells May 27.
H. C. Graner, Poland China breeder of Lancaster, Kan., claims May 27 for a sale. The offering will consist of fall boars and gilts for the most part. Watch for later announcement. Mr. Graner has about 60 spring pigs to date, and ten sows yet to farrow, mostly sired by Long King's Best.

Shorthorn Sale April 24.
W. H. Graner, Shorthorn breeder of Lancaster, Kan., authorizes us to claim April 24 as the date for his coming Shorthorn sale. On the above date Mr. Graner will sell 50 pure-bred Shorthorns, 20 of which will be bulls. Write him at once for catalog, mentioning Kansas Farmer.

Hildwein Has Fall Boars.
Elsewhere in this issue will be found the advertisement of Walter Hildwein, the well-known big-type Poland China breeder of Fairview, Kan. Mr. Hildwein offers ten big, strong, husky September and October boars at the extremely low price of \$20 each in order to close them out quickly and make room for the spring pigs which are coming along every day. These boars are out of big-type sows and are sired by Gold Standard Jr. and Wonder Ex. by Sampson Chief. His dam was by Expansive. Any one in need of a fall boar should write Mr. Hildwein at once before the supply is exhausted. Please mention Kansas Farmer when writing.

Poland China Sale April 18.
Owing to the lack of room and other conditions which have arisen, W. F. Fulton, the very successful big-type Poland China breeder of Waterville, Kan., finds it necessary to make a sale on April 18. The offering will be a first-class one and will contain many of the splendid breeding sows that Mr. Fulton would not have sold for anything under different conditions. Of the 30 head to be sold, 10 will be bred sows and gilts, 12 open fall gilts, and 8 fall boars. The boars are well grown out, as are the gilts. Among them are real herd boar prospects, and the gilts will be most excellent buys for breeders wanting something choice to put in bred sow sales next winter. The advertising which appears elsewhere gives a pretty good idea of the blood lines of the offering. Quite a lot of it was sired by the herd boar, Chief Hutch, a splendid sire carrying the blood of the famous Hutch and Expansion families. Mr. Fulton has always bought the very best of big-type breeding, and the boar, Fulton's Chief, the sire of Chief Hutch, was one of the greatest boars ever owned in this part of the state. This sale, while being held a little out of season, will afford a most excellent opportunity for both breeders and farmers to buy as good as can be found in strictly big-type breeding. The sows that are to farrow will bring their litters at a time when the weather is most favorable and the pigs can be saved. This is one of the last good sales of the season, and should be attended by those needing stock, or sealed bids may be sent to Jesse Johnson in Mr. Fulton's care at Waterville, Kan. Write for catalog.

BANKS' FARM JERSEYS

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

W. N. BANKS, Independence, Kan.

WINELAND FARM JERSEYS.

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

REGISTERED JERSEYS AND POLANDS
Best strains and individuality. Fed and handled intelligently. Stock for sale always.

O. E. NICHOLS, Abilene, Kan.

TOO LATE TO CLASSIFY

10—BIG-TYPE POLAND BOARS—10
September and October farrow, just right for hard service. Sired by Gold Standard Jr. and Wonder Ex. \$20 each. First money, first choice. Representations guaranteed.

WALTER HILDWEIN, Fairview, Kan.

Hubert Griffiths of Clay Center, Kan., offers for sale at a low figure his Poland China herd boar, Colossus Pan. This is one of the good breeding boars of the state and is being sold for no fault. Mr. Griffiths also offers fall boars and gilts.

Want to Be an Auctioneer?

If so, write Jones National School of Auctioneering for their large, handsomely illustrated catalog, just issued. It should be in the hands of every man or boy that aspires to be a successful auctioneer. Write today, and mention Kansas Farmer.

Don't Have Worm-Infested Pastures This Year.

Right now, before you turn your stock out to grass, it will pay you to see that the older ones, especially, are free from the profit-eating stomach and intestinal worms. Unless you do this you can depend upon it that your young lambs, calves, pigs and colts will become badly infested with these pests as soon as you turn them out to pasture. The older animals have been harboring these parasites all through the winter months, and millions of the tiny larvae will be deposited in your pasture fields along with the droppings. Here the worms will hatch out and crawl to the top of the grass blades, where they are sure to be taken directly into the stomach along with the food and thus infest every animal. The attacks of these robbers on little lambs, pigs, calves and colts are especially severe and the damage they will do to all your stock if neglected cannot be estimated in dollars and cents. They keep the weaker ones gaunt, thin and sickly, and some even die. None of their victims thrive as they should, and the foundation is laid for hog cholera, swine plague, horse plague and other dread diseases. "An ounce of prevention is worth many pounds of cure." The S. R. Fell Co., Cleveland, Ohio, recommends "Sal Vet" because of the unlimited good reports concerning it and because of Mr. Fell's generous offer to send to any of our readers enough "Sal Vet" to last all their stock 60 days, without a penny of pay in advance and on the understanding that if it does not do what he claims the 60 days supply won't cost you a penny. All you need to do is to fill out the coupon, telling him how many head of stock you have, and send it at once to Mr. Sidney R. Fell, President the S. R. Fell Co., Dept. K. E., Cleveland, Ohio, and he will do the rest.

Lomax & Starrett's Herds.

Among the big-type Poland China herds that will attract big-type breeders this year is the herd of Lomax & Starrett. This herd is located on the farm of Dr. J. H. Lomax near Severance, and was founded by Doctor Lomax during the past two years. He has bought a number of the best big-type sows that have been sold by leading big-type breeders, until the herd is now one of the best lots of big-type sows in the corn belt. Among the sows of this herd is Helen W by Pan I See by Pan Famous, dam Queen 3d by Wright's Chief; Big Osborne 5th by Chief Jumbo by Columbia Chief, dam Big Osborne by Osborne's Perfection; Fancy Ex by Expansion's Son by Expansion, dam Fancy Lady by Western Chief; Likeness Coin by Hadley's Likeness by Big Hadley, dam Banner Lady by Banner Boy, and other good ones. The herd is now headed by Exalter's Pride 64869 by Exalter by Expansion, dam Lady Hayes 2d by First Quality. This is one of the outstanding good young big-type boars and as a breeder he is proving to be a remarkably good one. They have at this time over 40 head of extra good early spring pigs. They also have a fine lot of fall gilts and a few extra good fall boars. They expect to have a fine offering at their annual fall sale, and it will be to the interest of breeders wanting size and quality combined to keep this herd in mind. Doctor Lomax also owns one of the best herds of Jersey cows in the West. His herd is made up of representatives of the best families of the breed, and a finer lot of individuals would be very hard to assemble, and it will be one of the famous herds in the West. Doctor Lomax reports a recent sale of a young bull calf to C. C. Ashley of Leavenworth, Kan., at a long price. This calf is said by competent judges to be a prospect for a herd bull that will make Jersey history.

FRANK IAM'S DRAFT STALLIONS AND MARES

are "up to the minute." They are the "drafty, big-boned type"—"nifty, big black boys"—the real "medal winners"—sensational "show and business horses" of note, "ripe peaches." Big, classy "peaches and cream" black boys. The "Iams brand" of "top notchers." Iams' importation of Percheron and Belgian stallions and mares are in the "pink of condition" and ready for a "good selling." "Ikey boy," smile sweetly, and hundreds of Iams' satisfied customers "will sit up and take notice" that Iams, the "king pin" horse importer, is still "doing business" at the "old stand." Iams is "pushing" his horses to the front. The big "peaches and cream" "boys and girls" are attractions that can't be overlooked. Iams mesmerizes buyers with "real drafters" at "bargain prices" and having the "horses as advertised." Iams' "competitors" and "hammer knockers" are "boosting Iams" by their "knocks," until now he is known as the "millionaire horseman," and on "Easy Street," and growing fast. Ikey, buzz around" and sing Iams' song. He is selling these "aristocratic," fancy "black boys" cheaper than ever—or better horses for less money—\$1,000 and \$1,400 (few little higher.) Iams has

60 PERCHERON AND BELGIAN STALLIONS AND MARES 60

They are "models"—"drafters." They are 2 to 5 years old, weigh 1,700 to 2,500 pounds, 80 per cent blacks, 60 per cent. ton horses. All "registered," "approved and inspected by governments of France and U. S. and certificates "stamped O. K." Iams gives a certificate of "soundness and health" with each horse—signed and sworn to by a "Nebr. state V.S." Many Paris "prize winners" and "gold medal horses." Big, drafty "topnotchers," with big bone, quality, style, finish and action to burn. They are "eye openers"—larger and better horses than seen elsewhere. Big "business propositions" that make "the wheels work fast" under a "buyer's hat." "Georgie, dear," Iams made a "big killing" by buying his horses in Europe. "War scare," "bad crops," "close money" and "Iams' cash" caused the "prize winners" and "tops" to be thrown on the market for a "good selling."—Iams cut the melon" and bought the "rippers" at "knock-out prices." Iams will give his customers the benefit of his "good buy." "Ikey boy," "come on along"—see Iams—"Everybody is Doing it."

Get into Iams' "get rich wagon" and save \$1,000 on a "top stallion"

(and you wear the diamonds.) Iams is a "big fly in the jelly" in the horse world. "He keeps the gang guessing." Iams sells "imported horses only." They win 90 per cent. of prizes at big horse shows). No "American-bred full-bloods"—no "auction stuff" or "peddler's horses"—only "choice drafters" of big size, bone, quality and finish. Iams has the "crack stallions and mares" you "read about." Buy horses of Iams and you won't "get stung" in horse or price. "Dolly D." waltz me around once again, "Ikey," land me at Iams' box office and importing barns. Full to "the roof" with "black boys" (and all must be sold). Reduced prices. All the world knows Iams and his "peaches and cream" horses. 1913 promises to be a bumper year to Iams and his customers. He saved \$300,000 to stallion buyers in 1912. Watch "Iams' smoke." Iams' 31 years of successful business make him a safe man to do business with. Iams sells horses "on honor." A boy or a lady can buy as cheap as a man. Iams' 1913 horse

Catalog is an "eye opener." It has a "laugh" and a \$1,000 bargain in every line. A "bunch of gold" to stallion and mare buyers. It is full of real "peaches and cream" stallions. It is the finest, most elaborate and original up-to-date horse book in the world. Iams, the "square deal" horseman, makes every statement in ad or catalog good—or you get the \$500 he hangs up. Iams guarantees to sell you a better

IMPORTED STALLION AT \$1,000 AND \$1,400

(few higher) than are sold to stock companies for \$4,000. Imported mares, \$700 and \$1,000. Iams gives 60 per cent breeding guarantee; pays freight on horse and fare of one buyer. He can furnish \$1,500 insurance. Iams buys and sells every stallion himself. Saves buyers \$1,000 in middlemen's profits. He buys stallions by "train load." He speaks languages—(saving 20 per cent). He is not in the "stallion trust." No partners to share profits. He "pays cash" for his horses—and sells "top notchers" by "hot advertising" and having "the goods." "Big Ikey," leave your "happy" home and buy a "top" stallion or pair of imported mares (of Iams) that bring colts that sell at \$500 each. "Papa," don't let those "auction men" "hand you a lemon" in one of those "so-called" "American full bloods" of questionable breeding. Buy an imported horse of Iams, the "reliable horseman." (Then we will "all wear diamonds.") Iams' "selling clothes" fit all buyers. Write for Iams' million-dollar horse catalog. Iams won't let you go without a peaches and cream stallion or mare. "He sells the tails off them." Iams' guarantees are backed by "half million dollars." References—1st Nat'l and Omaha Nat'l. Banks, Omaha; Packers Nat'l. Bank, So. Omaha; Citizens State, 1st State and St. Paul State Banks, St. Paul, Neb. Iams buys big ad space because it is cheaper than flannel-mouthed horse salesmen.

ST. PAUL, NEBRASKA

IMPORTED DRAFT HORSES



I have now for sale a lot of personally selected coming 2 and 4-year-olds as good as France and Belgium can produce. Good heavy bone. Straight draft type with quality and the best of breeding. I give a gilt-edge guarantee, good for two years, with each horse sold. All in just good breeding condition and will be a good investment to the purchaser. I can save you some money on a stallion. Barns four blocks from the A. T. & S. F. depot.

W. H. RICHARDS, - - EMPORIA, KANSAS

STALLIONS AND MARES AT BARGAIN PRICES

Forty Percheron Stallions, 2 to 4 years old; several a ton or over.
Fifteen Belgian Stallions, the good kind.
Thirty Percheron Mares, 22 showing heavy with foal.
Ten Shere Mares and Stallions.
Ten head of good Jacks.
If you want a Stallion, Mare or Jack, come and get a bargain. I mean business.

L. R. WILEY, EMPORIA, KANSAS

LAMER'S PERCHERONS

A CHOICE LOT OF STALLIONS AND MARES TO SELECT FROM.

Owing to this time of season, we are quoting prices that will certainly interest you. Also 15 good Kentucky Jacks.

INQUIRE ABOUT THEM.

C. W. LAMER & COMPANY, SALINA, KAN.

50—PERCHERON STALLIONS—50

Bishop Brothers have 50 big boned stallions that weigh 1,700 to 2,100 pounds that they can and will sell for less money than any firm in the business, quality considered. Write us what you want. BISHOP BROS., TOWANDA, KAN.

DEIERLING & OTTO'S

BIG WINNING JACKS

40 HEAD OF MAMMOTH JACKS 40



We are showing the best lot of big, high-quality jacks that can be found anywhere. They are from 2 to 5 years old, from 15 to 16 hands high, and are all black with white points. Our offering includes our prize winners at Missouri, Iowa and Illinois State Fairs, 1912. We have the big, high-quality kind that make good. We sell our jacks on a positive guarantee. Queen City is on the Moberly-Des Moines branch of the Wabash Railway. Good train service. Barns in town. Come, let us show you.



DEIERLING & OTTO, QUEEN CITY, MISSOURI



Sunflower Herd Holstein-Friesians

An A. R. O. herd, where records are made, and since December, 1912, am placing all A. R. O. cows in semi-official yearly test. Inka Hijaard DeKol 76076 has produced from December 1 to March 1 over 6,700 pounds milk and over 200 pounds butter fat and still milking above 70 pounds a day. Cows in this herd have A. R. O. records as high as 18 pounds butter seven days at under two years to 25 pounds at full age. Young bulls and service bulls from this herd will add materially to the value of your present herds.

Several nice, straight, registered cows for sale that are due to calve soon. Tirania Lady Aouda 5th King 61250 and Sir Pontiac Artis De Kol 77152 head this herd, a combination hard to beat.

F. J. SEARLE, Prop. Oskaloosa, Kans.

For Sale at Riverside Stock Farm—Registered Percherons.

10 head of young stallions from 2 to 3 years old. 4 head coming 3 years old that weigh from 1650 pounds to 1800 pounds. 4 head coming 2 years old that weigh from 1500 to 1600 pounds, blacks and dark greys. They are the big bone kind. 2 head standard bred and weigh from 1250 to 1280 pounds. 4 head of large young jacks, Mammoth bred, from 15 to 15½, well broke. 2 black registered Percheron mares and 1 imported German Coacher, Mikus 4861 (133105), weight 1650, stands 16.2, and 7 years old. A warrantee goes with every animal as to soundness and breeding.

O. L. THISLER & SONS, Chapman, Kan.

PARK & FIRKINS' PERCHERONS AND JACKS.

Imported and American-bred stallions. All blacks and grays, all registered in P. S. of America. Some ton 3-year-olds. Also Kentucky and Missouri Mammoth Jacks from 15 to 15½ hands high, heavy bone and good performers, registered. Everything sold with safe breeding guarantee. Barns in town, 50 miles north of Kansas City, on Rock Island Railroad, 35 miles east of St. Joseph on Burlington Railroad.

J. E. PARK AND A. A. FIRKINS, CAMERON, MO.

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Dreams of more comforts, more luxuries!*

Dreams of more of those things that make life worth living!

Dreams of—

But why dream?
Why not put Montgomery Ward & Co.'s new 1,000-page catalog back of your dreams and turn dreams into realities?
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The conservation of the dollar is the vital issue in these days of high cost of living.
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This great text book is free for the asking. All you need to do is to write us a note today saying: "Send your new 1,000-page book without cost or obligation to me,"—and it will come by return mail.
You have had the dream of better living, of getting more comforts for all the family than you have had in the past. Why not let this dream come true? Why not send for the book today—Now, while you think of it.

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