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THE CORN-ROOT WORM

R. L. WEBSTER,

Iowa State College.

INJURY TO CORN BY ROOT-WORMS.

The corn root-worms are undoubtedly the most serious insect pests with which the Iowa corn grower has to contend. The presence of root-worms in a field is usually indicated by a withering of the young plants, the failure to produce well developed ears, or a general retarding of the growth without any visible cause. A search among the roots of such stalks may bring to notice the tiny root-worms.



Fig. 1.—Corn root-worm, within the root. Enlarged. The root has been broken in two, showing the root-worm still imbedded in it. After Forbes.

The root-worms themselves are small, slender white grubs, about half an inch long when they are full grown. Infested stalks of corn may be pulled out easily and will break off at the place where the root-worms are at working, leaving the greater part of the roots in the soil. Frequently stalks infested by the root-worm are blown to the ground by the wind, the root system having been so cut off that the stalks can not stand the strain. Bowman and Crossley have shown how a continuous cropping of corn on the same ground will very soon increase the number of root-worms to an alarming extent, and consequently decrease the yield.

PREVENTIVE MEASURES.

Rotation of crops is the most effectual preventive of root-worms. The beetles of the root-worms usually deposit their eggs in the old infested fields. By changing the corn from such a field to another which was not in corn the preceding year, these eggs are left behind.

There are two kinds of these worms; the "Northern corn root-worm" and the "Southern corn root-worm." Since the habits of the two are very different in some essential points, a few further remarks concerning them are given below. The two are easily distinguished in the beetle stage, when they are commonly found on the corn silk in the fall.

THE NORTHERN CORN ROOT-WORM.

The northern form of the root-worm in its adult stage is a plain grass-green beetle, about one-fifth of an inch long. In the fall these small green beetles are common objects on the silk of the corn and the flowers of the golden-rod. The spotted beetle of the southern corn root-worm is frequently found along with the plain green beetle. The beetles deposit their tiny eggs in the soil near the stalks of corn.

The next year these eggs hatch out young root-worms which begin to attack the corn almost as soon as it is out of the ground. Throughout the summer these northern corn root-worms are at work on the roots, until the worms become full grown in the late summer. When they become mature they transform to the pupa, or resting stage, in which stage they spend a short time. Finally the plain green beetle emerges from this pupa. The beetles then deposit their eggs for another crop of root-worms for the

next year. As far as it is known there is but one breed of this form in a season.

THE SOUTHERN CORN ROOT-WORM.

The beetle of the southern root-worm is green, with twelve black spots on its back. On this account it may be easily distinguished from the other form. It is also somewhat larger than the plain green beetle, measuring about a quarter of an inch long. The black spots are in three rows across the back of the beetle, each row with four spots. Usually these beetles are found along with the plain green beetles on the silks of the corn, but they are not so common. The black spotted beetles are found not only in the fall, but all through the season from early spring as well. There seems to be at least two broods of them during the year.

The life history of the southern corn root-worm is similar to that of the northern form, except that it is passed through in a much shorter time. In the corn fields the eggs are deposited in the ground near the stalks.

COMPARISON OF THE TWO FORMS.

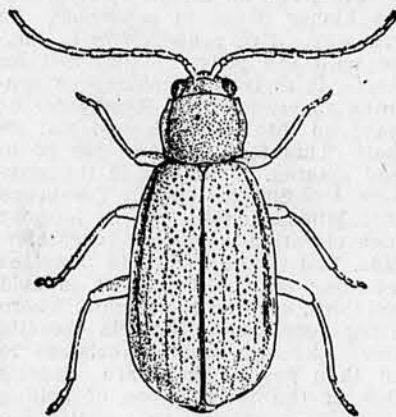


Fig. 2.—Beetle of Northern corn root-worm. Much enlarged. After Forbes.

Corn is practically the only food plant of the northern root-worm. It is rarely found in sorghum. On the other hand, the southern root-worms have been found in wheat, rye, millet, and other grasses. The northern form does more injury to corn, although during last year the beetles of the

southern form were extremely common in Iowa. Since the northern corn root-worm has practically only one food plant, corn, in its grub stage, there need be no especial difficulty in avoiding its ravages. A mere change of crops will bring relief. With the southern form the problem is more difficult, but it is usually not the southern root-worm which does the really serious damage in this state.

Where either the plain green beetle or the black spotted one were seen in very large numbers feeding on the silks of the corn last fall, it is an indication that a corn field on the same piece of ground will be infested with the root-worms this year. Where a proper rotation of crops is put into effect there need be little trouble with these root-worms.

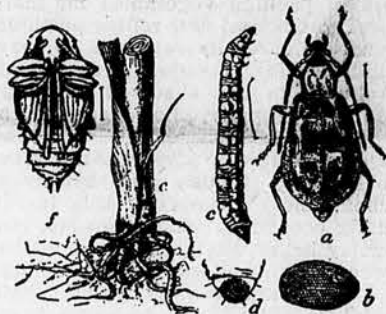
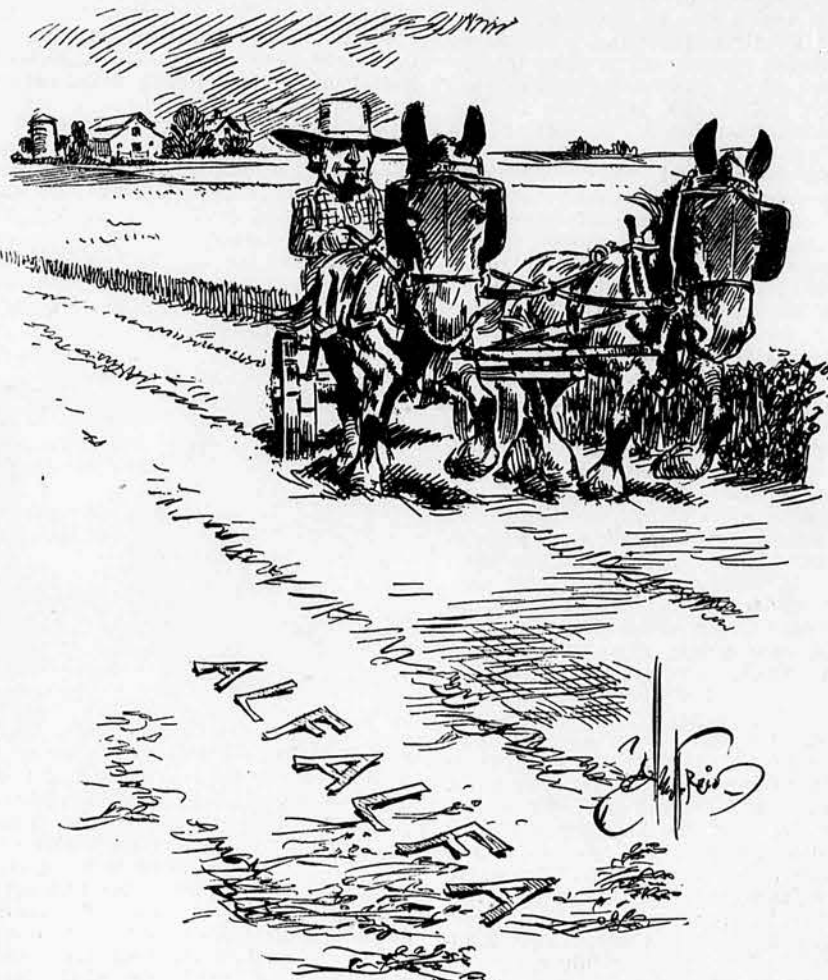


Fig. 3.—Southern corn root-worm. a, beetle; b, egg; c, root-worm; d, anal segment of larva; e, work of root-worm at base of corn stalk; f, pupa. All enlarged except e, which is reduced. (Reengraved after Riley, except f, after Chittenden). Chittenden, circular 59, Bureau of Entomology, U. S. Dept. Agr.



Cutting his First Coupons.

From a drawing by Albert T. Reid.

How to Restore and Increase Fertility.

In Illinois the depletion of the soils has proceeded several decades longer than in Kansas. The deficiency in phosphorus has received careful attention of William G. Eckhardt of the Illinois Experiment Station, who suggests the following plan, in addition to a good rotation and the return of all crop residues to the soil:

"The results in Ohio show that every dollar put into rock phosphate, where used with manure, produced an increase of from 3.5 bushels to 26.8 bushels per acre. But assume an average increase of \$1 per acre. Take, for example 160 acres of prairie land worth \$16,000 to \$30,000. With less money than the interest on its value for one year, we can put this place under a system of farming where it will grow richer from year to year. Buy a 20-ton car of rock phosphate for \$160 and apply it in the fall on 40 acres that has been in clover; count the returns as \$40, and, the second year, put with it \$120 and buy another car load of rock phosphate and apply it to a second 40. The returns from the two forties will be \$80; put another \$80 with it for phosphate for a third field. Returns from the three fields, \$120; add \$40 to it and get the rock phosphate for the last 40 acres.

"Here is a total investment of \$400 and we have added to the land 160,000 pounds of rock phosphate which contains enough phosphorus to grow 117,647 bushels of corn. And we should go on adding phosphate until the increase of the crop will no more than pay its cost."

Canning Vegetables in the Home

By J. F. BREAZEALE,

Bureau of Chemistry, U. S. Department of Agriculture.

SCIENTIFIC AND PRACTICAL CONSIDERATIONS AND THE APPLIANCES.

One of the many problems that confront the American housewife is the supply of vegetables for her table during the winter months. "What can I have for dinner today?" is a question often heard. Since the advent of the modern greenhouse and the forcing of vegetables under glass, fresh vegetables can usually be found at any time in the markets of the large cities. But the cost of forcing vegetables or growing them out of season is and will continue to be very great. This makes the price so high as almost to prohibit their use by people of moderate means, except as a luxury. A healthful diet, however, must include vegetables, and therefore the housewife turns to canned goods as the only alternative. These are sometimes poor substitutes for the fresh article, especially the cheaper commercial grades, which necessarily lack the delicate flavor of the fresh vegetable. There is practically no danger, however, from contamination with tin or other metals providing the containers are made of proper materials and handled carefully. In some cases the proper care is not



Fig. 1.—Mason jar.

taken in packing vegetables for market. The decayed and refuse portions are not so carefully removed as they should be and the requisite degree of cleanliness is not observed in their packing. Happily, however, such carelessness is not general.

Every housewife may run a miniature canning factory in her own kitchen, and on the farm this is especially economical and desirable, the economy being less pronounced in the case of city dwellers, who must buy their fruits and vegetables. Enough vegetables annually go to waste from the average farm garden to supply the table during the entire winter. But usually the farmer's wife cans her tomatoes, preserves her fruits, and leaves her most wholesome and nutritious vegetables to decay in the field, under the impression that it is impossible to keep them. This is a great mistake. It is just as easy to keep corn or string beans as it is to keep tomatoes, if you know how.

THE SCIENCE OF STERILIZATION.

The art of canning or preserving in one form or another is almost as old as history itself. The early Chinese possessed this secret long before the era of modern civilization, but "the reasons why" which lay back of the art have only recently been thoroughly explained.

COMPLETE STERILIZATION.

The great secret of canning or preserving lies in complete sterilization. The air we breathe, the water we drink, all fruits and vegetables, are

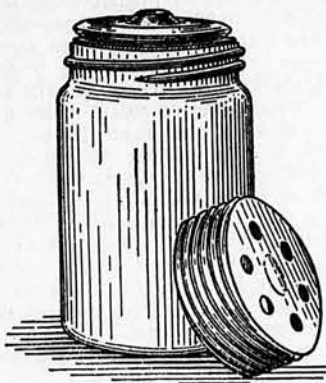


Fig. 2.—Improved Mason jar.

teeming with minute forms of life which we call bacteria, or molds, or germs. These germs are practically the sole cause of decomposition or rotting. The exclusion of air from canned articles, which was formerly supposed

to be so important, is unnecessary provided the air is sterile or free from germs. The exclusion of air is necessary only because in excluding it we exclude the germ. In other words, air which has been sterilized or freed from germs by heat or mechanical means can be passed continuously over canned articles without affecting them in the least. If a glass bottle is filled with some vegetable which ordinarily spoils very rapidly—for instance, string beans—and, instead of a cork, it is stopped with a thick plug of raw cotton, and heated until all germ life is destroyed, the beans will keep indefinitely. The air can readily pass in and out of the bottle through the plug of cotton, while the germs from the outside air can not pass through, but are caught and held in its meshes. This shows that the germs and their spores or seeds are the only causes of spoilage that we have to deal with in canning.

YEASTS, MOLDS AND BACTERIA.

Germs which cause decay may be divided into three classes—yeasts, molds, and bacteria. All three of these are themselves plants of a very low order, and all attack other plants of a higher order in somewhat the same way. Every housewife is familiar with the yeast plant and its habits. It thrives in substances containing sugar, which it decomposes or breaks up into carbonic acid and alcohol. This fact is made use of in bread making, as well as in the manufacture of distilled spirits. Yeasts are easily killed, so they can be left out of consideration in canning vegetables. Molds, like yeasts, thrive in mixtures containing sugar, as well as in acid vegetables, such as the tomato, where neither yeasts nor bacteria readily grow. Although more resistant to heat than yeasts, they are usually killed at the temperature of boiling water. As a general rule, molds are likely to attack jellies and preserves and are not concerned with the spoiling of canned vegetables. The spoiling of vegetables is due primarily to bacteria.

Bacteria are also much more resistant to heat than yeasts. They thrive in products like milk and in meats and vegetables rich in protein, such as peas, beans, etc. All known species of molds require air in which to work. This is not true of bacteria, certain species of which will live and cause vegetables to decompose even when no air is present. When these particular species are present the exclusion of air is no safeguard against decay, unless the vegetable is first thoroughly sterilized. Bacteria are so small that they can only be seen with a microscope, and they reproduce themselves with amazing rapidity. One bacterium under favorable conditions will produce about twenty millions in the course of twenty-four hours. Accordingly certain vegetables spoil more rapidly than others, because they furnish a better medium for bacterial growth.

The reproduction of bacteria is brought about by one of two processes. The germ either divides itself into two parts, making two bacteria where one existed before, or else reproduces itself by means of spores. These spores may be compared with seeds of an ordinary plant, and they present the chief difficulty in canning vegetables. While the parent bacteria may be readily killed at the temperature of boiling water, the seeds retain their vitality for a long time even at that temperature, and upon cooling will germinate, and the newly formed bacteria will begin their destructive work. Therefore it is necessary, in order to completely sterilize a vegetable, to heat it to the boiling point of water and keep it at that temperature for about one hour, upon two or three successive days, or else keep it at the temperature of boiling water for a long period of time—about five hours. The process of boiling upon successive days is the one that is always employed in scientific work and is much to be preferred. The boiling on the first day kills all the molds and practically all of the bacteria, but does not kill the spores or seeds.

As soon as the jar cools these seeds germinate and a fresh crop of bacteria begin work upon the vegetables. The boiling upon the second day kills this crop of bacteria before they have had time to develop spores. The boiling upon the third day is not always necessary, but is advisable in order to be sure that the sterilization is complete. Among scientists this is called fractional sterilization, and this principle constitutes the whole secret of canning. If the housewife will only bear this in mind she will be able with a little ingenuity to can any meat, fruit, or vegetable.

EXCLUSION OF THE AIR.

Even after sterilization is complete the work is not yet done. The spores of bacteria are so light that they float about in the air and settle upon almost everything. The air is alive with them. A bubble of air no larger than a pea may contain hundreds of them.

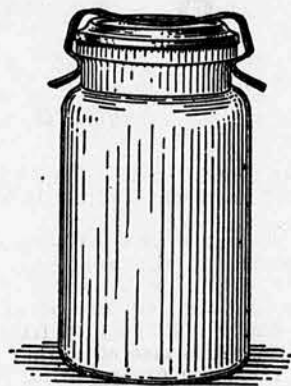


Fig. 3.—Jar with metal lacquered top.

Therefore it is necessary after sterilizing a jar of vegetables to exclude carefully all outside air. If one bacterium or one of its spores should get in and find a resting place, in the course of a few days the contents of the jar would spoil. This is why the exclusion of air is an important factor, not because the air itself does any damage but because of the ever-present bacteria.

All of this may seem new fashioned and unnecessary to some housekeepers. The writer has often heard it said: "My grandmother never did this, and she was the most successful woman at canning that I ever knew." Possibly so, but it must be remembered that grandmother made her preserves—delicious they were, too—and canned her tomatoes, but did not attempt to keep the most nutritious and most delicately flavored vegetables, such as lima beans, string beans, okra, asparagus, or even corn.

SO-CALLED "PRESERVING POWDERS."

There are a great many brands of so-called "preserving powders" on the market. These are sold not only under advertised trade names but by druggists and peddlers everywhere. In the directions for use the housewife is told to fill the jar with the fruit or



Fig. 4.—Spring-top jar.

vegetable to be canned, to cover with water, and to add a teaspoonful of the powder. It is true that these powders may prevent the decay of the fruit or vegetable, but they also encourage uncleanly, careless work, and in the hands of inexperienced persons may be dangerous. While with small doses the influence may not be apparent in an adult in normal health, with a child or an invalid the effect may be of a serious nature. The proper way to sterilize is by means of heat, and as this can be done very easily

and cheaply the use of chemical preservatives in canning is not to be recommended.

KINDS OF JARS.

The first requisite for successful canning is a good jar. Glass is the most satisfactory. Tin is more or less soluble in the juices of fruits and vegetables. Even the most improved styles of tin cans which are lacquered on the inside to prevent the juice from coming in contact with the tin are open to this objection. While the amount of tin dissolved under these conditions is very small, enough does come through the lacquer and into the contents of the can to be detected in an ordinary analysis. While the small amount of tin may not be injurious, it gives an undesirable color to many canned articles. Tin cans can not readily be used a second time, while glass with proper care will last indefinitely.

There are a great many kinds of glass jars on the market, many of them possessing certain distinct points of advantage. The screw-top, or Mason, is the one in most common use (fig. 1). Although cheap in price, these jars are the most expensive in the long run. The tops last only a few years and, being cheaply made, the breakage is usually greater than that of a better grade of jar. The tops also furnish an excellent hiding place for germs, which makes sterilization very difficult. An improved type of screw-top jar is shown in fig. 2. These are fitted with a glass top held in place by a metal cover which screws down over the neck of the jar. If the canning or sterilization is conducted properly, practically all of the air will be driven out of the jar by the steam. Upon cooling, this is condensed, a vacuum is formed on the inside which clamps down the glass top against the rubber ring and seals the jar automatically. The metal cover can then be removed, as the pressure of the outside air will hold the glass top securely in place.

Another type of jar in common use is shown in fig. 3. These require no rubber rings, but are fitted with a metal top, lacquered on both sides and having a groove around the lower edge. This contains a composition of the consistency of rubber which is melted during canning by the heat of the jar and forms a seal that takes the place of the rubber ring. These metal tops must be renewed each year, as it is necessary to puncture them in order to open the jar.

The most satisfactory jar that the writer has had any experience with is the one shown in figs. 4, 7, 8, and 9. This has a rubber ring and glass top which is held in place by a simple wire spring. There are several brands of these jars on the market, so no difficulty should be experienced in obtaining them. Vegetables often spoil after being sterilized because of defective rubbers. It is poor economy to buy cheap rubbers or to use them a second time. As a general rule black rubbers are more durable than white ones.

Buy a good grade of jar. The best

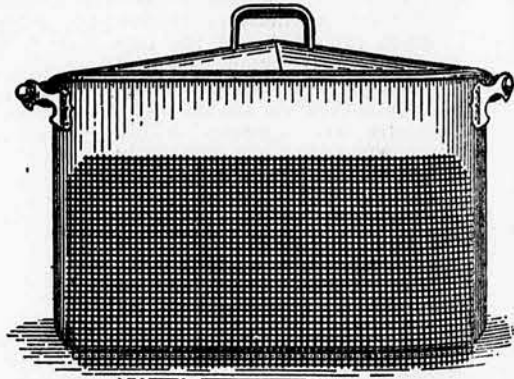


Fig. 5.—Sterilizer, showing false bottom.

quality usually retails at from a dollar to a dollar and twenty-five cents a dozen. The initial expense may be, therefore, somewhat high, but with proper care they should last many years. The annual breakage should be less than 3 per cent on the average. In selecting a jar always give preference to those having wide mouths. In canning whole fruit or vegetables and in cleaning the jars the wide mouth will be found to be decidedly preferable.

(Continued on page 15.)

CONCRETE BARN A SUCCESS

By Menno S. Yoder, Shipshewana, Ind.

The barn is twelve-sided, 60 feet in diameter, and each side is 16 feet long, of solid cement concrete 30 feet above the ground floor and reinforced with 118 rods of heavy wire fencing made of number nine wires and put in the middle of the wall. At the sides of doors and windows and above them the walls are further re-enforced with old iron, mostly bridge iron and some other bought from junk dealers. The bridge beams imbedded in the walls at the top and above the doors have some heavy wire wrapped around them to hold the cement more securely around them.

The foundation is three feet six inches wide at the bottom and slopes in from the sides to the surface of the ground, where the main wall begins 12 inches thick. The concrete for the foundation was mixed one part cement to six parts gravel, and stones were tamped in. What we call gravel here is sand and coarse gravel mixed, as we find it in Northern Indiana. Above ground no stones were tamped in, the walls and concrete was mixed one to five. The walls are 12 inches thick, the third of the way up and then 10 inches thick, and the upper third is eight inches thick.

The bridge, forming part of the driveway to the second floor, is 18 feet long and four feet wide, having a rise of 10 inches, and is made of steel and cement concrete. The ground floor of the barn is all cemented and has a driveway through the center with a row of stalls and mangers on each side. This plan practically puts two stalls in one, giving plenty of working room for handling manure, watering stock, and taking stock or teams in or out of the stable. Part of this stable is used for horses on both sides. Between horses and cows there is no door but a pole laid across at night.

The doors at each end are 8x8 feet, and each door is made in two sections and opening from a three-horse manure spreader to a top buggy can pass through. There is a hydrant on the ground floor for watering stock. Waste water is tiled to the outside.

Nearly all woodwork about stalls and mangers is low down so it will not obstruct the light or the view over the entire basement. There are six eight-inch inlet ventilators through the walls of the stable, each ventilator being made of two elbows and a joint of pipe placed upright in the wall and there is one outlet ventilator 27x27 inches made of matched six-inch planks and leading from 10 inches near the ground floor to the peak of the roof, bringing fresh air also comes in through crevices around doors and windows.

The stairway and hay chute openings are all kept closed in cold weather and we have perfect control of the ventilation by opening or closing more or less of the inlet ventilators. The impure air and the carbonic acid gas exhaled by the stock goes to the bottom of the stable and is carried out by the tall outlet ventilator which is open all the time and blows up air somewhat like a tall chimney.

There are 31 windows in the barn all of the same size, 20 glass with four lights to each sash. The lower windows, 18 in number, have double glass. All windows are protected inside and outside by heavy wire screens. The screen frames are held in place by wood screws tightened up against the cement.

The timbers of the second floor are supported

by 16 tubular iron columns six inches in diameter and filled with cement. This floor is nearly nine feet above the ground floor and is double boarded with 1x4 boards and tar paper between. Above this floor is a frame of timbers across the barn making one open passage or thrashing floor 12 feet wide and 60 feet high and another on the right side of it 10 feet wide and seven feet high, both together forming a floor space of 22x60 feet. This is covered above with a rough floor except a space next to the big barn doors which is left open to draw up hay. The granary bins on the left side of the thrashing floor have spouts down to load grain on a wagon below in stable driveway. When building the wall we used forms on both sides all around the barn made of three 10 inch hemlock planks fastened together with 2x4 inch cleats placed four feet apart. These forms were held in place by removable bolts twenty inches apart.

The heavy work of mixing and lifting concrete, elevating lumber and lifting the forms was done with the gas engine. Every time the forms were raised the outside of the wall

was painted with a mixture of pure cement and water. A double drum hoist was used in connection with the engine and a cable on one drum pulled the gravel truck up above the mixer and a rope on the other drum operated on the jib crane to do hoisting. The center pole of this home made crane was 64 feet high.

The barn is 53 feet high from the ground floor to the opening in the roof over which the ventilator cupola is built. Iron rims of old binder wheels were put in for ventilator outlet and the upper end

of the long rafters are bolted to these rims. The lower king rafters are 23 feet long and the upper 18. Rafters are 2x8 in pieces eight and 10 feet long. The pitch of the roof below the hip is 15 feet rise to 12 feet run and above the hip five to 12. The plate that holds the lower end of the rafters is built up of five thicknesses of 2x12 inch planks of hard wood lumber, well interlocked at corners by some extra interlocking planks six feet long put in the plate across the corners. It is all well spiked and bolted so as to effectually hold the outward thrust of the self-supporting roof.

Short 2x4 pieces are spiked securely on the outside of the plate and extend



down over the outside of the wall about six inches and bolts pass through these and the wall. The cornice supports are fastened to these 2x4s.

A round hay track, 30 feet in diameter, is put under the roof and is fitted up with a new hay carrying outfit that hoists the hay to any height and runs to either side without any track stop and without any change of ropes. It will carry hay from the mow to the wagon as readily as to unload it from the wagon.

This barn encloses as much floor space as a square barn 40x72 feet and it required 32 feet less outside wall to enclose it. It also has less roofing in proportion.

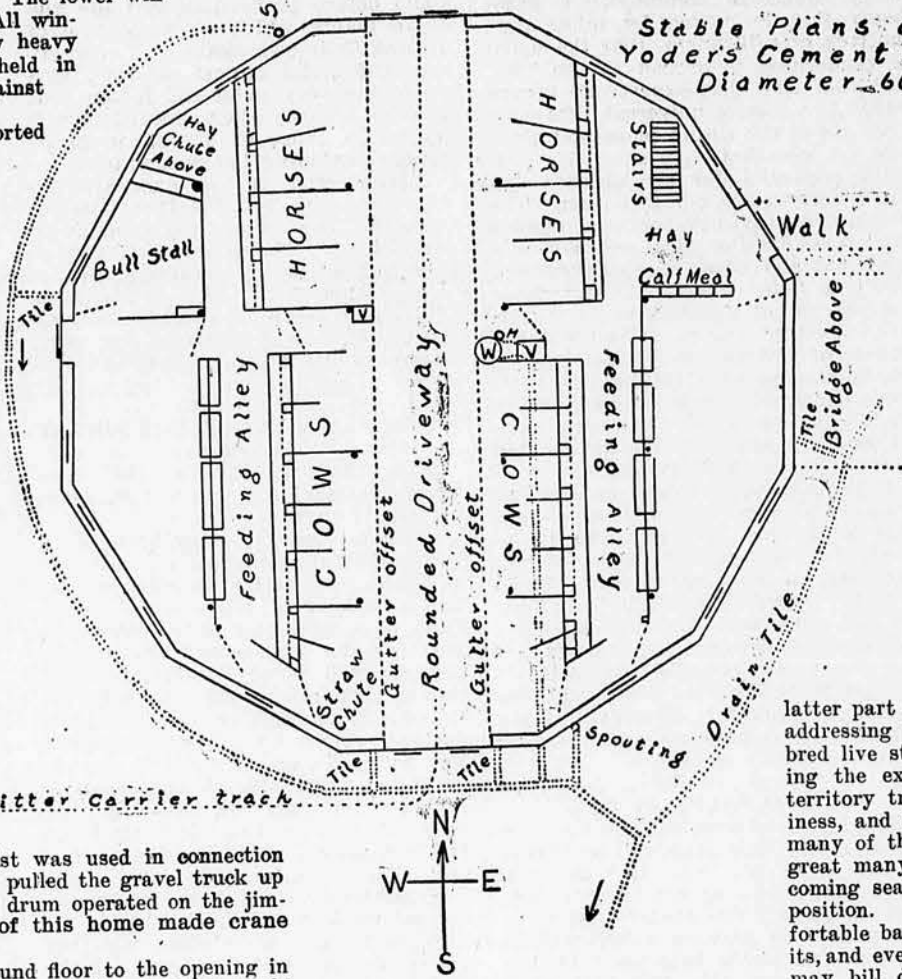
We believe we utilize the space inside this barn as fully as others do in square barns. The barn has cost us about \$1780 besides our own work and what building material was cut on the farm.

The outlet ventilator has more draught upward as the weather gets colder and we allow enough ventilation at all times to keep the air pure.

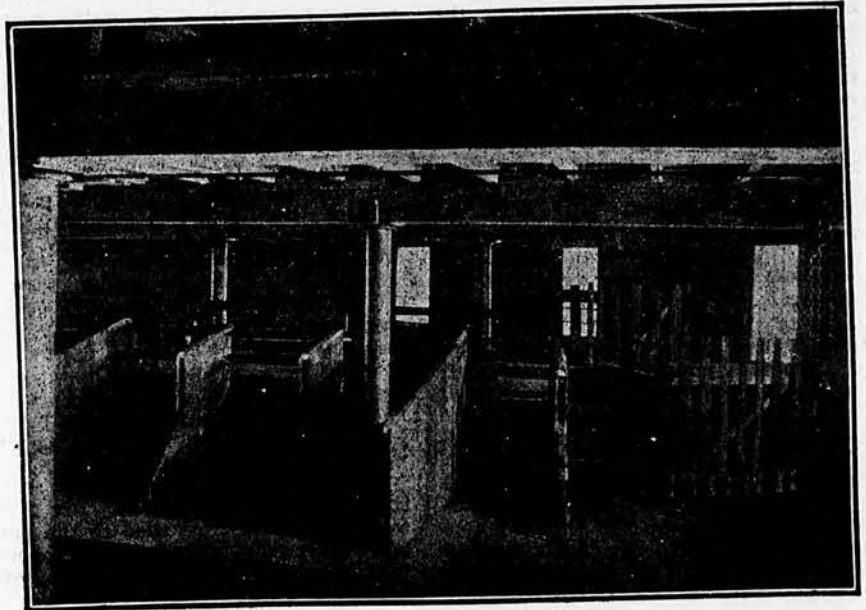
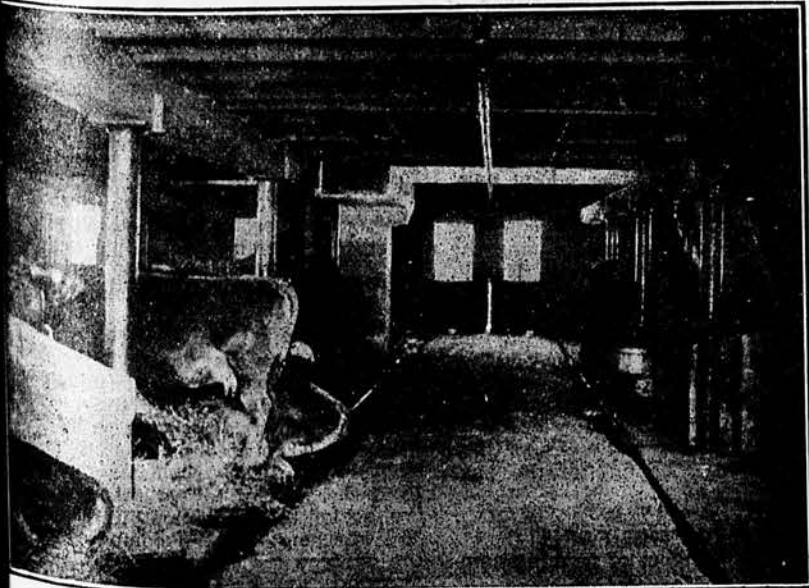
Exposition at Denver.

Extensive and elaborate preparations have been under way since last fall for holding the second annual Colorado Inter-State Fair and Exposition, which will take place on the permanent grounds of this institution at Overland Park, Denver, September 12 to 18, inclusive. G. C. Fuller, the secretary of the exposition, advises there will be complete classifications with liberal prizes offered for exhibits of live stock, as well as the product of other industries, and that the fair of this year promises to equal if not eclipse the most successful of similar exhibitions held throughout the middle and eastern states. The premium list will be ready for distribution the

latter part of May and copies of same may be had by addressing Mr. Fuller at Denver. Breeders of pure bred live stock throughout the country are fast realizing the exceptional opportunities offered in the vast territory tributary to Denver for increasing their business, and the value of exhibiting at this fair. While many of the leading herds were on exhibit last year a great many more are planning to make this show the coming season on their way to the Alaska-Yukon Exposition. The management has provided large comfortable barns and buildings to take care of the exhibits, and every convenience is offered to shippers as they may bill directly to the fair and unload within the grounds.



Courtesy of Indiana Farmer.





KANSAS FARMER

EDITORIAL



DIFFICULTIES OF COMBINATIONS.

Very many of the attempts at co-operation among farmers have come to untimely ends so that it has sometimes been said that the American farmer lacks the characteristics essential to successful cooperation.

The difficulties experienced by farmers have been encountered by others as well. The great cotton thread combine which was entered by the world's leading thread makers had some experiences which read much like those that have been recorded in the epitaphs of some farmers' organizations.

The following from an article in a recent number of the "American Wool and Cotton Reporter" will illustrate:

"The net profits of the company for 1898-99 were £172,992; for 1899-1900, £97,335; for 1900-01, £43,382, and for 1901-02, a loss of £127,006 was shown; the price of the ordinary shares fell from 47s. 6d. in 1899 to 9s. 6d. in 1902."

This showing was followed by an investigation as a result of which a director said that he had found that the cost of selling their goods in Canada was 32 per cent. He had made an arrangement with the Central Agency, who were already conducting the company's foreign business, whereby they stated that they could sell in Canada at a cost of 9 to 10 per cent. In the home department, they had no protection, everything was done in a haphazard, hand-to-mouth fashion. And in a circular he spoke of "the gross over-capitalization, the questionable finance, the extravagant and inefficient management, the bad buying, bad manufacturing and bad selling."

On the question of management the report said:

"It was an awful mistake to put into control of the various businesses purchased by the company the men from whom the businesses were purchased, because these men had got into one groove and could not get out of it."

The account of experiences continues:

"An executive committee of five was appointed by the board, but it became a prey to dissensions. Little wonder that directors should openly and almost ostentatiously confess that 'the administration of the company had been inefficient and extravagant'—it could hardly be anything else."

The chronicler points his moral in the following:

"The contrast with the Coats' Company is striking. We begin with a comparison of an amalgamation composed only of sound, efficient firms with one in which the only object apparently was to sweep every one into the net, and we go on to the antithesis of ability admirably equipped at every point and 'inefficiency and extravagance.' Nor is this the last occasion on which the lesson is driven home in the history of English combinations that the mere aggregation of numbers is by itself no guarantee of success. Moderate capitalization, economy, and above all, good management are the indispensable requisites."

The theory of cooperation is admirable. The failures emphasize the importance of the facts stated in the last sentence above quoted.

MEMORIAL DAY.

The veteran of the great war of 1861-5, who in 1909 marched in the processions and reverently and affectionately strewed flowers over the graves of men endeared by memories nearly half a century old, is less firm in his step and less conspicuous by numbers than a decade ago. His escorts are his grandchildren in whom centers his hope for the future while his own thoughts abound in reveries of the distant past. But, while many of the leading parts in the world's enterprises of today have been surrendered to younger hands and heads less whitened by the passing years, the old soldiers in the procession include many of the men who are yet bearing with ability and with honor many of the labors by virtue of which the country is progressing.

The other people who attended the memorial day exercises were essentially of the sturdy, serious-minded, industrious, virile, capable people upon whom Lincoln so confidently relied in the dark days of the war and on whom in any emergency the country may safely rely for right actions, noble

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OUR GUARANTEE—It is our belief that all advertisements in this paper are from reliable persons or firms. To show that we are in earnest in protecting our subscribers we guarantee the trustworthiness of our advertisements.

sacrifice, and unselfish devotion to duty.

The lesson in patriotism exemplified by memorial day's exercises is one that it is well to teach. The demonstration of the fact that there is in every American community a great heart that is moved by other than motives of selfishness, that the spirit of tenderness is abroad in the land, and that love that expects no recompense is a motive universal, lifts mankind above the sordid plain and glorifies the best that is in us.

On memorial day the obscure and the unknown are not forgotten. The writer saw graves that were so humble that identification was scarcely possible but the hand of gratitude and affection found them. Among those marked by but a simple stone a gray-haired colored woman walked with her tribute of flowers, chiefly wild flowers, which she quietly laid by the little stone, lingered a moment and passed on. When later the decorating committee came other flowers were added to the old aunt's wild flowers.

It is forty-four years since the veterans came home. In all these years they have borne leading parts in the work that has made sure the results achieved on the bloody fields. Their influence and their example have been for the betterment of mankind. Their thinning numbers suggest that but few more years will they be here to incite to lives of labor, virtue and patriotism. It will be well for America if their descendants and other successors shall prove as worthy as they.

SOW ALFALFA IN 1909.

The farmer whose animals are now reveling in alfalfa may well be envied by the neighbor who is limited to feeds produced last season, and still high in price. The moral of it is to get a field to growing alfalfa at the earliest practicable date. A field that is now growing oats or millet, or a field that on any account lies fallow until after harvest may be made excellent for seeding to alfalfa during the last half of August or the first half of September. If the field lies idle it should be plowed and subsequently harrowed or otherwise cultivated often enough to enable it to retain the moisture and to keep down all weeds and grasses. If in oats or millet the soil should be disked immediately after the removal of the crop and later disked or harrowed after every rain, oftener if necessary to keep down weeds and grasses.

If on August 16 the soil is free from weeds and is moist enough to germinate seed, and not too wet, the alfalfa should be sown, preferably with a drill. If the soil be found too dry to make into a ball, sowing should be deferred until after a rain sufficient to wet it down to the moist subsoil.

Persons of experience differ as to the amount of seed to use. But if fifteen pounds of good seed to the acre be evenly distributed and properly planted so that half of it will grow

there will be several times as many plants as can find room for proper development.

Almost every farmer who grows alfalfa finds it necessary to fall one or more times in his attempts to get a stand before he realizes that the vigorous plants which seem capable of holding their own against all competitors and under almost all conditions were once very small and feeble, that in their infancy they needed conditions like those of a well prepared garden, including heavy manuring.

Alfalfa seed is too expensive to waste on any but the best possible chances. The crop is too valuable to do without. The present is a good time to plan for this season's sowing. The prosperity that alfalfa brings is pleasant to think about while cultivating the corn, while milking the cows, or even while waiting for the rain to cease.

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A FOREIGN VIEW OF THE WHEAT MARKET.

The "Miller's Gazette and Corn Trade Journal," London, Eng., in issue of May 19 says:

"Without any apparent change in the statistical position or any seriously enlarged prospective supplies during the remainder of the season, and in spite of a distinctly unfavorable outlook for the American winter wheat crop as well as of the German crop, the market this week has relapsed into quietness, and, in the absence of demand, prices have gradually given way to the extent of about 1s per qr. since last week. This action seems to suggest that the market is getting tired of, and is becoming afraid of the high prices, justified although they are. There can be little doubt, that, high as the level of prices may be, the natural tendency of the market is upward, because of the obvious fact that the requirements of Europe during the period which separates us from the new crop, will be difficult, if not impossible, to supply without draining reserve stocks to a point of danger, if anything should happen to the new crop. When the new crop does begin to move freely, it is possible that we may see a sharp decline, but in the meantime much may happen. The increased Russian shipments have caused some surprise, but the power of high prices is drawing wheat from Russia and India, is well known, and an examination of Russia's officially declared crops and exports during the past five years shows that Russia ought still to have a fair surplus on hand. Notwithstanding these increased Russian shipments, however, the exports to Europe have remained during the past seven weeks quite below the minimum estimated requirements of European importing countries, and this is a condition which looks like continuing until the end of the season."

HELP ON THE FARM.

"The great problem of farming com-

munities today is the scarcity of farm help, which makes it increasingly difficult for the farmer to leave home. It hardly seems possible that within a few hours' ride of our great cities, help cannot be secured, but our farmer friends assure us it is easier to pick bank notes off blackberry bushes than to find a man to milk cows and take care of stock on the farm and yet there are thousands in the cities who are serving long hours at unwholesome work for the merest pittance, who might regain health and manhood by taking up country work."

The foregoing quotation from the National Magazine for June is misleading if it conveys the impression that the one thing needful is to induce the inefficient in the crowded city to amble forth into the domain of the farmer and fall into arms ready to receive him as the long lost brother or as the returning prodigal son to be feasted and fondled, to be treated as a guest and not expected to labor or to know how to perform the various duties of the farm. Further, the error of the saying "any fool can farm" was never so manifest as now.

The cities may as well understand that when the fluctuations of their prosperity leave unemployed, penniless and helpless great numbers of persons each of whom knows how to do but one thing under but one set of conditions, such persons will be as useless to the farmer whose crops need cultivating and whose harvests are wasting for want of laborers as to the city employer whose doors are closed on account of lack of demand for his products.

The farmer needs help, lots of help, but he needs competent farm hands who know how to do the work of the farm and who will be punctual, reliable, efficient at many tasks, and willing to stay by the job.

ADVICE OF AGE TO YOUTH.

The Sterling Bulletin has on its staff a wise writer of mature years who dispenses advice that does much to make the community prosperous, progressive and happy. Here is a little of his admonition to the young:

"Every young person should become a depositor in a bank. We have excellent banks in Sterling and some reason can be given why you should become a depositor. In the first place, it is much safer than to carry your money with you. There is no danger of losing it or having it stolen."

"Another reason is, when you pay a debt by check you have a receipt. This very frequently saves trouble. When you use a check, the bank makes change for you. A bank account is a money saver. You are frequently tempted to buy a thing you have no need of, but you have the money in your pocket and away it goes, but if you have to write a check you stop to consider and finally say, 'Well, I won't do it,' so it will save you dollars in the end."

"And, again, if you have a bank account, you will be careful about reducing it, unless you get something you really need. A young person having a bank account has a kind of feeling that he is one of the business people, a kind of stability of real citizenship. As a rule, the young man who keeps a bank account will become a better business man than the one who carries his money around in his pocket."

VARIATIONS IN PRICES.

The annual report on wholesale prices, just published by the U. S. Bureau of Labor, shows that wholesale prices in 1908 receded as a whole from the high level of 1907 and were only slightly in excess of the prices for 1906. The report gives wholesale prices for 253 representative staple articles for 1908 and completes a series of prices for the nineteen years, 1890 to 1908.

The average price for 1908 was 5.2 per cent below that for 1907, the year of highest prices during the nineteen-year period. It exceeded the average for every other year of the period, but was only 0.2 per cent higher than the average for 1906. As compared with 1897, the year of lowest prices during the period, the advance in 1908 was 36.9 per cent, and as compared with the average for the ten years, 1890 to

1909, the advance was 22.8 per cent. In farm products, taken as a whole, there was a decrease in price of 2.9 per cent in 1908 below the average of 1907, this decrease being the least of any of the seven groups showing a decrease; food increased 2.4 per cent in price; cloths and clothing decreased 7 per cent; fuel and lighting decreased 3.1 per cent; metals and implements decreased 12.6 per cent, which was the heaviest decline of any of the groups; lumber and building materials decreased 9.4 per cent; drugs and chemicals increased 0.7 per cent; house furnishing goods decreased 3.8 per cent, and the miscellaneous group decreased 5.7 per cent.

FARM AND RANCH WORK IN THE ROCKY MOUNTAINS.

W. H. Olin, a formerly of Kansas can well known to the editors of KANSAS FARMER, who is now the industrial commissioner of the Northwest-ern Land and Iron Company, of Den-er, Colo., writes:

"There is likely to be a considerable demand for summer work upon West-ern ranches and farms this season. The work will consist of the usual round-ups of cattle and branding calves on the ranches, hay making, and usual farm work on farm and ranch. The writer has an extensive acquaintance and correspondence in the West and will undertake to help place competent and industrious col-lege students and young men of the Middle West, who would like to make expenses this summer and study Rocky Mountain agriculture in Wyom-ing and Colorado. No charge is made for this service but persons applying for this work will be asked to give their experience in farm work, name two persons who will endorse their character and good habits, and state the kind of work preferred.

"Persons in charge of students or Y. M. C. A's are urged to assist in this effort to enable commendable young men to study Rocky Mountain agricul-ture and stock raising and pay the expense of the trip at remunerative work. Address the writer not later than June 1, 1909, and state when they can begin work."

THE EARLY WHEAT MARKET.

The Grain Growers' Guide, published at Winnipeg, Manitoba, strongly urges the avoidance of obligations that must be met soon after harvest. The custom in Manitoba is to promise payments in November. This compels the farmer to rush his wheat to market at a time when the pressing early demand has been met from fields further south so that the buyer is in position to dictate prices.

The case is different in Kansas. This state furnishes the first big crop of the season. Of late years the early thrashers have met a hungry market and good prices. True, the general rise of the prices of food stuffs have during the last two years maintained an almost continuous advance which was not greatly retarded by the mar-keting of the season's crops. This general upward movement has ob-scured the advantage generally en-joyed by the Kansas producer on ac-count of his ability to reach the mar-ket at a time when the supplies held over from the preceding harvest are at the lowest and before the great rush of northern grown wheat satisfies de-mands of both millers and speculators.

The ability to market wheat before the carrying charges of shrinkage, in-surance, and interest accrue is a sub-stantial one for the farmers of the great winter wheat belt.

HEMP FOR BINDING TWINE.

The Wisconsin Experiment Station is trying to produce a fiber plant from which to obtain materials for the man-ufacture of binding twine. A four-acre field of hemp produced about 1,000 pounds of fiber per acre. This sold at seven cents per pound, giving a gross return of \$70 per acre. The cost of production was almost \$30 per acre, leaving a net return of \$40 per acre.

Some of the experimental plots were upon lands badly infested with quack grass and Canadian thistles. The rank growth of the hemp, which reaches 10 to 12 feet in height and thoroughly shades the ground, so killed out these weeds that when the land was broken after the crop was removed, few weeds were found.

SOME HAY PRICES.

The following prices for hay at San Francisco are quoted as showing a

decline on account of the marketing of new hay:

Choice old wheat hay...	\$23.00 to \$24.00
Good old wheat hay...	19.00 to 22.00
Other grades same....	16.00 to 18.50
New wheat hay.....	15.00 to 18.00
Old wheat and oat....	17.00 to 22.00
Old tame oat.....	17.00 to 22.00
New barley hay.....	15.00 to 17.00
New wild oat.....	14.00 to 16.00
Stock hay	7.00 to 9.00
New first cutting hay..	8.00 to 12.00

If these prices represent compara-tive feeding values it may be worth while to cure some "wheat hay" this side of the Rockies.

THE GOVERNMENT TO FIGHT WHEAT PESTS.

The announcement is made that the Department of Agriculture through its bureau of entomology, will establish a permanent branch office at Wellin-gton, Kan., for the purpose of making a more extended study of the Hessian fly, the green bug and other wheat pests. This office and the investiga-tion will be in charge of E. O. G. Kelly, who has been especially active during the past two years in the campaign against the green bug. Wellington was selected as being the most centrally located city in the great wheat belt of Kansas and Oklahoma.

A novel view of the road question is taken by the American consul at Hanover, Germany, in a communica-tion sent to the State Department. He points out that the German roads which are subjected to a hundred times more traffic than similar roads in the United States are only 20 to 30 feet in width. They are, however, well constructed and this width has been found ample for all purposes. In the United States, on the other hand, the average roadway is 66 feet wide. Taking Minnesota, Wisconsin, Michigan, Iowa, Kansas, Nebraska, Missouri, Illinois, Indiana and Ohio, with 700,000 miles of roads, and re-ducing the width to 36 feet, leaving them even wider than the highways of Prussia, there would be given back to the farmers of those states for cul-tivation the astonishing total of 2,500,000 acres. This land bordering the highways is usually the most valua-ble, and at an average price of \$100 per acre, there would be restored to the prodcng value of the states named a sum the annual interest on which at five per cent would amount to \$12,500,000, enough money if prop-erly applied to road building to sup-ply all the states with really good roads within a few years.

A Michigan farmer gives the follow-ing description of his method of grow-ing alfalfa: "Have tried sowing early in the spring, both with and without a nurse crop and on limed and unlimed soils but seem to have the best suc-cers by plowing early and top dressing with barnyard manure and then har-rowing thoroughly to kill weeds and June grass. We try to sow about June 15 to July 1. Seeding with 20 pounds of the best northern grown seed to the acre. When sown so late it rarely turns yellow and does not need slip-ping, thus insuring a good top for win-ter which seems to be very essential for the first year at least. Last year I seeded three acres in this way and although we only had one good rain during the growing season after seed-ing, yet there is a good stand and it is growing nicely this spring. My soil is a clay loam with a clay subsoil."

That the recent meeting of the Kan-sas State Sunday School Association at Topeka brought many farmers to the capital city was attested by the calls of many friends at the office of the "Old Reliable." It is pleasant to know that these are not only prosper-ing in material things, but that

WHAT CEMENT?

--"Reason out" for yourself what is the best Portland Cement for you to use. Here are the facts:

All Portland cements are not alike. But authorities agree that the cement that is ground the *finest* is the best. Its bonding power—its ability to hold particles together—depends upon the fineness to which it is ground.

So no matter what you want to construct—be it a fence-post or a modern residence—get the cement that will insure the most durable construction. Get

ASH GROVE SUPERFINE PORTLAND CEMENT

for it is ground 10 per cent finer than the U. S. Government specifications require.

Uncle Sam says that Portland cement must be so fine that 75 per cent will pass through a 200-mesh sieve. That it is the standard of ordinary cements. We make a cement according to the best method known. The result: **85 PER CENT OF ASH GROVE** will pass through the 200-mesh sieve.

This means that in every 380-lb. barrel of Ash Grove you will get 38-lbs. more of the very finest cement than standard ground cement contains.

It also means a saving of 20 per cent in the amount of cement you use. This saving will be fully explained in our free booklet, which tells in a practical way how to use cement. Send for it and send your dealer's name, if he doesn't keep ASH GROVE SUPERFINE.

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The medicinal properties of these springs are unquestionable. The most persistent cases of RHEUMATISM, KIDNEY TROUBLE and STOMACH COMPLAINTS have been cured here. Hundreds of Kansas people visit these springs every year. Delightful health and pleasure resort; excellent hotel accommodations. Rates reasonable. Located 6 miles from Sabetha, Kan. For further particulars address
SYCAMORE MINERAL SPRINGS HOTEL, Sabetha, Kan.

they are taking active parts in the religious activities of their several communities. It is not all of life to acquire more land, to build bigger barns and finer houses, to improve the quality of the live stock and to increase the size of the flocks and herds, but these fit in well with the kind of activities which lead to at-tendance upon the big convention of those who are assisting in the moral and spiritual uplift.

The Governor of Kansas last week appointed Hon. A. L. Sponsler of Hutchinson, a regent of the State Ag-ricultural College to succeed Hon. W. J. Tod of Maple Hill, who found it impossible to give adequate attention to the duties of the office. Mr. Spon-sler's appointment is in every way a fortunate one. He is one of those broad-minded Kansans whose interest in farming comes from contact with the soil, and the production, feeding, and marketing of crops and live stock. As a man of affairs he was several years ago called to the direction and management of the fair at Hutchinson and has built it up to be a great in-stitution in the holding of whose stock there is both honor and profit.

It will be seen from KANSAS FARMER market report that after all that was said attributing the advance in the price of wheat to the heavy dealings in May options, speculative prices on last Saturday, the last day of the "deal," were no higher than the prices paid by millers and others for the cash article that day. KANSAS FARMER disapproves of the gambling which goes under the name of "option trad-ing," but it is well to always keep within the facts regarding things con-demned as in all other matters. Specu-lation sometimes affects prices, but this time it regulated its course ac-

cording to the law of legitimate sup-ply and demand.

The extent of damage wrought to growing crops by insects some of which are unseen is more appalling as it is more fully realized. The eco-nomic entomologists are laying hold of their work with increasing knowl-edge and efficiency. It is well for every farmer to learn the ways of his insect foes so that he may the more effectually apply such preventive measures and such remedies as will reduce the losses. Fortunately the economic entomologists have adopted plain English in their discussions, using only enough scientific names to indicate classifications.

In future, great international ques-tions will be decided upon the ground of justice, and the decisions of di-plomacy and arbitration—not by bloodshed. Hence, the urgent neces-sity for the schooling and training of diplomats who will always be able and ready to represent the interests of the United States. It is no longer war-fare, but adjustment. The demand is, and will be, not for great soldiers and generals, but for efficiency in matters diplomatic, which can only be acquired by training, experience and travel.—Henry Clews.

Measured by its yarn-producing-qual-ities, the cotton crop of 1908 is be-lieved to be the most valuable ever grown. The value of the crop to the growers is estimated at \$681,230,956, of which \$588,814,828 represents the value of the lint and \$92,416,128 the value of the seed. Notwithstanding the fact that the crop was 2,211,845 bales larger than the crop of 1907 and that the spinning qualities of this crop were superior, it has been disposed of by the growers at approximately \$20,000,000 less than that of 1907.

The description and illustrations of a concrete barn built by Mr. Yoder of Indiana, are presented as suggestive of what may be done with this new building material. It is not presumed that readers will desire to build to these plans but the smartest people find profit in the devices of the able men who pioneer in new ways of do-ing.

The proportion of imported wheat to the entire supply during 1908 was: in France, 1.9 per cent; in Germany, 39.1 per cent, and in England, 78.4 per cent.

A good many farmers in the Kansas wheat belt are contracting this year's crop at a dollar a bushel.



A snap shot at some of Sutton Farm A berdeten-Angus cattle, near Lawrence.

READERS MARKET PLACE

HELP WANTED.

WANTED—A SOLICITOR WITH HORSE and buggy to drive through the country and solicit subscriptions. Address Circulation Manager, Kansas Farmer, Topeka, Kan.

WANTED—LOCAL MEN TO TAKE ORDERS for high grade western grown nursery stock. Experience unnecessary. Outfit free. Cash weekly. National Nurseries, Lawrence, Kan.

WANTED—LADY OR GENTLEMAN AS local representative in every Kansas county. Splendid chance to make good wages without great effort and no expense. Write for particulars. Address Circulation Department, Kansas Farmer, Topeka, Kan.

FOR EXCHANGE.

WE CAN GET YOU WHAT YOU WANT in exchange for your farm, hardware, merchandise or other property. We have 500 propositions to choose from. Graham Bros., Eldorado, Kan.

HORSES AND MULES.

STRAYED OR STOLEN—NIGHT OF April 30th, one Sorrel Pony, rather old, weight 640, white in face, blind in left eye, clipped mane. Report any trace to A. H. T. A., Whitewater, Kan.

FOR SALE—ONE BLACK PEDIGREED standard bred stallion, Patrietta 41836, weight 1,250 lbs.; best breeding, two crosses with Wilkes and two with Nutwood. I will trade for Percheron stallion, jack or real estate. Address S. A. Baughman, Marysville, Kan.

SWINE.

BERKSHIRE BOARS FOR SALE—FROM 125 lbs. to 250 lbs. of Masterpiece and Lord Premier breeding. G. D. Willems, Inman, Kan.

POLAND CHINA BOAR, FANCY U. C. by U. C. Perfection, bred by W. J. Honeyman. Farrowed July 8, 1908. A guaranteed breeder and first class individual. G. H. Randolph, Emporia, Kan.

DOGS.

FINE COLLIE PUPS \$5 EACH, BROOD bitches, \$10. John W. Treadway, Kincaid, Kan.

FOR SALE—COLLIES OF ALL AGES. Natural born cattle drivers. Pedigreed stock. Write for circular. Harry Wells, Belleville, Kan.

COLLIES—ALL AGES, CHOICE BREEDING and individuals. Workers and pets. Brookemere Marcellus at stud. G. Wickham, Anthony, Kan.

SCOTCH COLLIES—PUPS AND YOUNG dogs from the best blood in Scotland and America now for sale. All of my brood bitches and stud dogs are registered, well trained and natural workers. Emporia Kennels, Emporia, Kan. W. H. Richard.

COLLIES OF ALL AGES FOR SALE—They are stock drivers, pets and home protectors. 260 head sold last year. Write for illustrated circular and prices. Would like to buy a few ferrets. Address Harvey's Dog Farm, Clay Center, Neb.

MARKETS

Kansas City Stock Yards, May 31, 1909.—Strength was the dominating feature of the cattle market last week, although there was a reverse on Wednesday, caused by a heavy run that day. The close of the week was 10 to 20c higher than close of previous week, with a top of \$7.00 on both heavy steers and yearlings, paid Tuesday. The supply today is liberal at 11,000 head, market steady to 10c lower. Light steers are selling nearest steady today, and the decline is on the heavier steers, although a shipment from feed lots of Fowler & Todd, Maple Hill, Kan., 1,474 pounds, sold at 66.50, today, same price a shipment from same feed lots brought Friday. Smaller proportion of receipts of heavy steers each week, and the gradual expansion of consumptive demand has proven almost sufficient to offset the adverse influence of high retail prices. On the other hand, American exporters of live animals have not been able to make a profit on shipments for some weeks, and export trade is therefore curtailed. The outlook, in summing up the situation, regard the outlook as favorable for stronger prices for red cattle during the summer. Top steers today sold at \$6.90, bulk of steers \$5.90 to \$6.75, best heifers \$6.75, cows \$5.50 to \$5.75, calves \$4 to \$7.25, bulls \$3.50 to \$5.25, stockers \$3.75 to \$5.50, feeders \$5 to \$5.65.

Although hogs closed last week 10 to 15 cents below the best time, average prices for the week were highest of the year, and top price, \$7.50, was also highest for this year, and the best price paid here in the last six years. Run is 11,000 head today, market five higher on heavy hogs, 5 to 10c higher on medium and light weight, top \$7.35, bulk \$6.85 to \$7.30, including all weights. May receipts of hogs show a shortage of 50,000 head from same month last year, or 14 per cent, and predictions of a heavy June movement are not made with as much fervor or confidence as a few weeks ago.

Sheep and lambs advanced 50 to 75 cents last week, and goats sold 25 to 50 cents higher. Run is small today, 4,000 head, market 10 to 11 higher, spring lambs at \$3 today, clipped lambs \$8, clipped fed wethers \$6.65, clipped Arizona wethers \$6.50, ewes \$6.20, killing goats \$3.60 to \$4.25, brushers \$3.25 to \$3.65. The extraordinary prices do not seem to intimidate a sufficient number of consumers to cut down meat sales greatly, and the shortage in supplies for May, 29,000 head, or 17 per cent, from last year, is a strengthening feature.

Chicago, May 31.—Cattle, top \$7.25; cows

Classified Advertising 3 cents a word

The rate for advertising in this department is low, only three cents per word each insertion. There is no more popular advertising than classified advertising. Every one reads classified ads, and just because they are classified. You can reach 50,000 farmers in Kansas and adjoining states, the best farmers on earth, through this page. All ads set in uniform style, no display. Initials and address count as words. Terms, invariably cash in advance.

POULTRY.

BUFF ROCK HENS \$1 to \$2; EGGS, 15, 75c; 45, \$2. W. A. Hilland, Culver, Kan.

FOR EGGS OF THE FAMOUS WHITE Wyandottes write J. H. Brown, Boyero, Colo.

ROSE COMB BROWN LEGHORN EGGS \$1.50 per 30, \$3.50 per 100. Mrs. Henry Rogler, Bazaar, Kan.

HOUDANS—AMERICAN AND ENGLISH strains. Eggs for sale. No more stock till fall. O. E. Henning, Wahoo, Neb.

BUFF COCHIN EGGS, BEST PEN, HIGH scoring birds, 15, \$1.50. Good hatch guaranteed. H. T. Housel, Jewell, Kan.

BLACK LANGSHAN EGGS—\$1 PER SETTING, \$6 per 100. Baby chicks 10c each. Mrs. Geo. W. King, Solomon, Kan.

RHODE ISLAND REDS—WINNERS OF 40 premiums at State Show. Send for egg circular. R. B. Steele, Topeka, Kan.

PURE S. C. BROWN LEGHORN EGGS—From the best laying strains, \$1 for 30, \$2 per 100. A. G. Lorr, Osage City, Kan.

WHITE PLYMOUTH ROCKS EXCLUSIVELY, large birds, good layers, farm range. Eggs \$4 per 100, \$2.50 per 50. Etta L. Willet, R. D. 1, Lawrence, Kan.

MANURE SPREADER.

FOR SALE—A NEW MANURE SPREADER, never used, none better made. It is for sale for a special reason at considerably less than the list price. If you have been thinking of buying a manure spreader, and every progressive farmer is thinking about buying one, here is your opportunity to get an absolutely new one at a special price. Write quick. Address A. Turner, care Kansas Farmer, Topeka, Kan.

CATTLE.

POLLED JERSEYS—FOR BREEDER'S names write Charles S. Hatfield, Box 8, R. 4, Springfield, Ohio.

FOR SALE—CHOICE HOLSTEIN BULLS old enough for service, at farmer's prices. G. V. Pontius, Rantoul, Kan.

CHOICE HOLSTEIN BULL CALVES sired by Prince Ormsby Mercedes De Kel, large, growthy fellows and finely marked. J. P. Mast, Scranton, Kan.

SEE LESLIE OF ALYSDALE BY PRINCE Consort, out of Lord Mayer dam, calved May 8, 1908. Best individual of our last bull crop. I want to show him to you. Also offer some cows and heifers at fair prices. Come and see them. C. W. Merriam, Columbian Bldg., Topeka, Kan.

10@15c lower; feeders steady. Hogs, 44,000; strong to 5c higher; top \$7.45; bulk \$7.20 @ 7.40. Sheep, 12,000; steady. South St. Joe, May 31.—Cattle, steady. Hogs, 5,000, 5@10c higher; top \$7.40, bulk \$7@7.30. Sheep, 2,500; strong to 10c higher.

Cash Grain.

Monday being Memorial Day there was no grain market. Quotations for Saturday: Kansas City, May 29.—Hard wheat—No. 2, choice turkey, nominally \$1.38@1.40; fair to good turkey nominally \$1.37@1.38; dark, nominally \$1.36@1.38; yellow and ordinary, 1 car \$1.37, 2 cars \$1.36. No. 3 hard—Choice turkey, nominally \$1.37@1.40; fair to good turkey, nominally \$1.36@1.38; dark, 1 car \$1.36; yellow and ordinary, nominally \$1.34@1.36. No. 4 hard—Choice turkey, nominally \$1.34@1.36; turkey and dark, nominally \$1.33@1.34; ordinary, nominally \$1.10@1.30. Soft wheat—No. 2, choice, nominally \$1.56; fair to good, nominally \$1.53@1.55. No. 3 soft—Choice, nominally \$1.52@1.53; fair to good, nominally \$1.43@1.45. No. 4 soft—Nominally \$1.28@1.45; fair to good, 1 car \$1.31. Mixed wheat—No. 2, 2 cars \$1.36. No. 3 mixed—1 car \$1.35. No. 4 mixed—1 car \$1.31, 1 car \$1.31. Durum wheat—No. 2, nominally \$1.12 @ 1.14. White corn—No. 2, 1 car 72c, 6 cars 71½c. No. 3 white—1 car 71½c. Mixed corn—No. 2, 3 cars 71c, 4 cars 70½c, 8 cars 70½c. No. 3 mixed—7 cars 70½c, 5 cars 70½c. Yellow corn—No. 2, 3 cars 71½c, 5 cars 71½c, 3 cars 71c. No. 3 yellow—1 car 71½c, 1 car 71½c, 5 cars 71c. White oats—No. 2, nominally 58½@59½c. No. 3 white—Choice, nominally 58½@59c, 2 cars 58½c; fair to good nominally, 57@58c. 1 car 58c, 1 car bulkhead 58c. Mixed oats—No. 2, nominally 56½@57½c. No. 3 mixed—Nominally 56½c; red, 1 car like sample 55c. Rye—No. 2, nominally 83@85c. Barley—No. 2, nominally 73½c. Bran—Per cwt. sacked, nominally \$1.30. Shorts—Per cwt. sacked, nominally \$1.30 @ 1.40. Corn chop—Per cwt. sacked, country, nominally \$1.34.

Butter, Eggs and Poultry. Kansas City, May 31.—Butter—Firm. Packing stock, 17½c; grease butter, 4c; creamery extras, 23c; creamery firsts, 21c; creamery seconds, 19c. Eggs—Firm. Extras 22c; seconds, 17½c; current receipts, flat, 19½c; loss off 20½c; Southern eggs, loss off 19½c. In miscellaneous cases ½c less. All quotations are 1c less when cases are returned.

Poultry and game—Steady. Hens 11c; roosters, 6½c; spring, 14c; broilers, under

REAL ESTATE.

FARM LOANS MADE IN ANY AMOUNT from \$500 up, at lowest rates and on most favorable terms. Betzer Realty & Loan Co., Columbian Bldg., Topeka, Kan.

320 ACRES IMPROVED, 280 ACRES CULTIVATED, balance pasture. Abundantly watered. Price \$8,900. G. H. Johns, Vine, Kan.

150 QUARTERS, \$6 to \$20 PER ACRE; smooth and rich; Meade, Seward and Haskell counties. McConnell, Plains, Meade county, Kan.

FOR SALE—GOOD 120-ACRE FARM near Mound Valley, Labette county, Kansas. Leaving country reason for selling. A bargain. R. B. Wadsworth, Mound Valley, Kan.

FIFTY QUARTER AND HALF SECTIONS and some larger tracts of good farming land for sale in Edwards and Ford counties, Kansas. Thomas Darcey, Real Estate Agent, Offerle, Kan.

ILL HEALTH. \$6,000 QUARTER FOR \$4,800. Free possession including 55 twice plowed corn, 25 tame meadow, 70 tame pasture if sold in 20 days. Editor, Box 70, Mound Valley, Kan.

80 ACRES OF RICH CREEK BOTTOM, four miles from the center of Emporia, with fine improvements, five acres grass, good timber, splendid orchard and water. One of the best homes in Lyon county for \$4,200. Hurley & Jennings, Emporia, Kan.

LAND ON 40 YEARS' TIME. 2 MILLION acres Okla. school land in 40 years' time. Big opening 3 million acres Indian land on 4 years' time. 25c gets booklet telling all about it. M. N. Due, Publisher, Dept. 28, Tecumseh, Okla.

DO YOU WANT A HOME?—WE HAVE 100 of the best farms in southeastern Kansas on the easiest terms of any land sold in the state. Send for copy of the Southeastern Kansas Homeowner, the best monthly land paper published—it is free. Address, The Allen County Investment Co., Longton, Kan.

FREE HOMES FOR EVERYBODY UNDER the homestead and desert acts. Sulphur Springs Valley, Arizona, is fast settling. Water obtained at a depth as shallow as four and one-half feet. As fine alfalfa land as there is in the world. For further information address the McCall Realty Company, Cochise, Ariz.

LAWYERS.

A. A. GRAHAM, ATTORNEY AT LAW, Topeka, Kan.

REAL ESTATE.

CHEAP FOR THE MONEY—240 ACRES good grain and stock farm, fair improvements. Price \$2,500. 200 acres well improved. Close to town. Fine stock and dairy farm. A bargain. Price \$5,800. Write for lists and maps. Garrison & Studebaker, McPherson, Kan.

IMMEDIATE POSSESSION—80 ACRES 15 bottom, 65 cultivated, 15 pasture, new room house, outhouses, good water, 20 acres of wheat, half goats. Price \$3,000. All kinds and sizes. Write for lists. Garrison & Studebaker, Salina, Kan.

FAMOUS CROOKED CREEK VALLEY—If you want one to four quarters good land well located, good neighborhood, telephone daily mail, eight miles from Fowler, Meade Co., suitable for corn, wheat, alfalfa, all the able, no improvements, twenty to thirty dollars per acre, write Owner, Box 83, Fowler, Kan.

MISCELLANEOUS.

CONKEY'S RUP CURE—POULTRY SUPPLIES of all kinds for sale. G. H. Harrison, 210 W. 6th, Topeka, Kan.

FOR SALE—EVERYTHING IN BEE SUPPLIES at lowest prices. Try my collection. O. A. Keene, Topeka, Kan.

GOOD NEW 14-ROOM HOTEL, furnished, in Phillips county, Kan., \$3,000. Write small tract of land. H. W. White Land Co., Phillipsburg, Kan.

FOR SALE—BLICKENSBERGER TYPE writer good as new with leather traveling case; cost \$60; price \$30 if sold at once. Jesse Johnson, Clay Center, Kan.

WANTED—TO RENT A DAIRY FARM everything furnished by an experienced farmer with family. Can give best of references. 317 East 9th, Hutchinson, Kan.

WANTED—FARMERS TO TRY OUT Binder Tongue Supports which takes the weight from the horses' necks. Price \$3.75 each. Wenzelmann Mfg. Co., Galena, Ill.

PORK MAKER WORM EXPELLER FOR hogs. Farmer agents wanted to handle remedy. Liberal commission. Write for particulars. Supplies furnished free. Miraculous Remedy Co., Hebron, Neb.

EVERYTHING IN BEE SUPPLIES at lowest prices. Italian bees \$5.50 per colony. I have some second hand 8-frame hives in good condition with new frames and starters 75 cents each. Supers with new sections and starters ready for the bees, 50 cents. O. A. Keene, Topeka, Kan.

GENUINE BARGAINS IN HIGH-GRAD upright pianos. Slightly used instruments. 12 Steinways from \$350 up; 6 Webers from \$250 up; 9 Krakauers from \$250 up; 1 Knauber from \$250 up; 3 Chickering from \$250 up; also ordinary second-hand uprights \$15 up; also 10 very fine parlor grand pianos at about half price. Write for full particulars. Cash or easy monthly payments. Lyon & Healy, 62 Adams St., Chicago. We ship everywhere on approval.

PATENTS.

PATENTS PROCURED AND SOLD; money in patents; book free. H. S. Sanders, 115 Dearborn St., Chicago, Ill.

SEEDS AND PLANTS.

FREE CATALOG OF SEEDS—1 CENT and up per packet. Send name and address to H. M. Gardner (Seed Grower) Marengo, Neb.

Let us be of good cheer, however remembering that the misfortune hardest to bear are those which never come.—Oliver Wendell Holmes.

School All Year Enter Any Time Highland Park College Des Moines, Iowa 2,000 Students Annually



Terms Open Sept. 7, Oct. 18, Nov. 30, 1909, Jan. 3, Feb. 22, April 4, and May 17, 1910. A Standard College that comes just a little nearer meeting the demands of modern education than any other College in the country. Expenses of students annually reduced many thousands of dollars by the moderate charge for board and room in College buildings, where living expenses are furnished practically at cost.

COLLEGES AND SCHOOLS:
Liberal Arts Standard A Class Iowa College. Academic and Elementary Preparatory Courses in which students of all degrees of advancement are admitted.
Normal Didactic, State Certificate, County Certificate Primary Training—the most complete training school for teachers in the west. Graduate receive state certificates.
Engineering Civil, Electrical, Mechanical, Telephone, Steam, Machinist. Also one-year Electrical and Steam Engineering courses. 12-weeks courses in Gas, Automobile and Traction Engineering. Shop work from the beginning.
Pharmacy 1. Regular Ph. G. and Iowa Courses. 2. Special Course to prepare for Examination. One of the largest, best equipped Colleges of Pharmacy in the United States.
Law Standard Courses in Law offered in resident and extension courses.
Music A Complete College of Music. Piano, Violin, voice, orchestra, band, chorus, harmony, mandolin, guitar, in fact a full course in all grades of music. A fine faculty of teachers, each an artist in his line.
Oratory A Thoroughly Equipped College of Oratory under the direction of the most competent teachers.
Shorthand As Large and Complete College of Shorthand and Typewriting as is found in the country. Every graduate sent to paying position.

O. H. LONGWELL, President
HIGHLAND PARK COLLEGE, DES MOINES, IOWA

position. \$50 for full course. Time unlimited.
Business The Largest and Best Equipped Business College in the West. Not a department of a literary college, but a thoroughly equipped Business College, with the finest business exchange in the U. S. Combined Business and Shortland Courses.
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Civil Service Service. Students may enter November 30, 1909, or January 3, 1910.
Home Study Over 7600 Students Enrolled in the Home Study Correspondence School. Almost any subject you wish by correspondence.
Summer School The Summer Session opens June 14th, 1910. Special work for all grades of teachers.
Expenses Board \$1.50, \$2.00 and \$2.50 per week. Tuition in College Normal and Commercial Courses \$15.00 a quarter. All expenses three months \$49.40; six months \$89.40; nine months \$135.40. Send for catalogue.

Bargains in Farms, Ranches, and City Property

SPECIAL BARGAINS—80 acres 3 miles from Clyde, second bottom, \$50 per acre. 160 acres near Green in Clay Co., 90 under plow, well improved, \$50 per acre. 160 acres pasture near town, \$3,590. Write for fine large list. **WALTER NELSON**, Clyde, Kan.

FOR SALE—Excellent farms from 50 to 1,000 acres at from eight to fifteen dollars per acre; write for catalog. **JFFREYS, HESTER & CO., Inc.**, Real Estate Agents, Chase City, Mecklenburg county, Virginia.

COMPLETE DESCRIPTION Texas Panhandle, covers 25 years, 32 pp., complete birdseye view and wall map Amarillo, 15,000 population, in heart of Panhandle, sent prepaid for 35c; clubs of four, \$1. Order today—edition limited. Mirror Publishing Co., Amarillo, Texas.

320 ACRES of extra good land, house of 14 rooms, a fine barn, and other good improvements, 2 1/2 miles to town. One of Brown county's best. Enquire of **R. A. HENRY**, The Real Estate Man, Hiawatha, Kansas.

THE GREAT WHEAT FIELDS of Ford county are beginning to show themselves the great prosperity for Ford county. We have lands in this territory for \$12.50 to \$30 per acre, close to German Lutheran, Catholic and other churches. Cooperation solicited. Price list furnished upon application. **G. L. PAINTER & CO.**, Dodge City, Kan.

160 ACRE farm bargain, 7 miles northeast of Ness City. Small frame house 2 rooms, frame barn for 4 horses, hen house, small granary, good well and windmill, 75 acres in cultivation, 35 acres in wheat, one-fourth with place, 12 acres alfalfa. Land can be plowed, nearly level, 1 mile to school. Price \$2,500. \$2,000 must be cash. Enquire of **J. C. LOHNE & SON**, Ness City, Kan.

HERE IS A SNAP—160 acres, creek bottom farm, well located, does not overflow, all cultivated except 10 acres pasture, good 7 room house, cellar and outbuildings good, barn for 8 horses, corn, alfalfa, wheat and English blue grass now on farm. All goes up to June 1 for \$7,500. Write me quick. **C. R. CANTRALL**, Fredonia, Kan.

A GOOD GRAIN AND STOCK FARM. 320 acres of all good land and all can be farmed if desired. 90 acres in a high state of cultivation, balance in pasture and meadow, 10 acres of red clay, small cottage house, barn 32x32 holds 14 horses, large hay mow and other outbuildings, all fenced and cross fenced, small orchard, good well of soft water, located 1 1/2 miles from railroad town and 40 miles from Wichita, Kan. A bargain at \$30 per acre. **THE NELSON REAL ESTATE & IMG. CO.**, 137 N. Main St., Wichita, Kan.

LARGE TRACT OF LAND—If you are looking for a snap in a big proposition it will pay you to come to Great Bend and talk to me in regard to the best of land in Ford county at the price. Consists of 8,000 acres. Practically all farm land, 2,000 acres in cultivation, 800 in wheat, all goes with land, 500 to corn, one-fourth goes, 200 acres now in alfalfa, 1,000 acres of alfalfa land, 20 miles of three wire fence, soil black loam, six room house, barn for 15 head of stock, 4,000 bu. granary only 8 miles from good market. Price \$21 per acre, terms on \$45,000. Perfect title. **C. L. WELLS**, Great Bend, Kan.

ARKANSAS—"Don't you wish you had bought when you were here before?" That is what they all say; and then, buy before it doubles up again. What have you got that half equals it? You can't find it in America. Think of the money bags being hauled in by a single farmer. Thrashing and hauling \$1,000 a day and more—getting the cash the same day. We have other propositions that will beat your best; besides, the best climate, best roads, best water and fine people, and anything else you want. I own the cheapest land on Grand Prairie and can make you terms—won't price you out. Also, fine timber lands. **F. W. HOUSTIN**, Stuttgart, Ark.

LOOK AT THIS. No. 503.—Here is a ranch of 2,960 acres, that we can recommend as good a cattle ranch as there is in the country; all under fence, plenty of water, 600 acres fine bottom land suitable to grow alfalfa; the improvements, stone house, barn 50x35, stone shed 100 feet long, and all other necessary improvements that are required on a ranch of this kind. The survey of the new railroad running from Garden City to Stockton, runs near or through this place. Rural telephone and postoffice on the place. Price \$12.50 per acre, part time will be given. **TEED & ORBISON**, Jetmore, Kansas.

EXCHANGE COLUMN.

If You Want

a quick deal, list your trading property with us. We trade while the other fellow sleeps. We have exchanges for land, merchandise, live stock, or anything of value. Try us.

NEFF REALTY CO., Olathe, Kansas.

Trades Wanted

direct from owners of farms, ranches, income property, merchandise and hardware stocks, hotels, livery stocks. List your property with us, giving complete description. We can get what you want. No sale, no pay. Buyers wanted for good farms.

BERSIE REAL ESTATE AGENCY, Eldorado, Kansas.

500 TRADES.

We have the largest list of farms, ranches, income property, merchandise, hardware, hotels, livery, etc., of any firm in the West. We print description of your property on our list, and will get you a good honest trade of just what you want.

GRAHAM BROTHERS, Eldorado, Kansas.

FOR SALE. 320 acres of Butler county land, 70 acres in cultivation, plenty of spring water, good house and a big barn. Price \$20 per acre. This is a bargain. **GEO. F. RICKETTS**, Eldorado, Kansas.

WASHINGTON COUNTY LAND FOR SALE—Two hundred acres 4 miles from good town, 70 acres wheat, 5 room frame house, new barn 30x60, granaries, cribs, etc. All under fence. Price \$45 per acre. Very easy terms. **W. J. GORDON**, Washington, Kan.

CHEAP LAND. If you are looking for an investment in land that is sure to increase in value 25 per cent in the next six months you can get it by seeing or writing **HALE & ENGLISH**, Dodge City, Kansas.

HODGEMAN COUNTY LANDS. Map, booklet, new list and general information sent promptly on request. Cheapest farms, quality considered in the state. **WINN REALTY CO.**, Jetmore, Kansas.

GRAY COUNTY, KANSAS. 75,000 acres of alfalfa and good farming land that is decidedly the best proposition for homeseekers or speculators to be found in the West. Big new list of farms upon request. **G. N. DAVIS & CO.**, Cimmaron, Kan.

J. W. BRADSHAW, The Land Man, of Herington, Kansas, is offering a section of land with two sets of improvements, six miles from Herington, for \$45 per acre. 200 acres under cultivation. A snap well worth \$50 per acre.

A SPECIAL BARGAIN. From owner, square section wheat land in Logan county, Kan., 6 1/2 miles from station, 1/2 mile from school house. Can about all be cultivated. Will sell right and give terms. Address **R. H. NUNN**, Ness City, Kansas.

GOOD FARM CHEAP—160 acres, 130 in cultivation, all fenced, 3 room house, barn, cow shed, poultry house and well and windmill, only 4 miles to R. R. where an elevator will be built this summer. Will take a small cash payment and give 5 years on balance. Price \$2,500. **KIRBERG & MILLER**, Ness City, Ness Co., Kan.

MARSHALL COUNTY BARGAINS. Large list of improved farms for sale at \$40 to \$100 per acre. 200 trading propositions. Can match you on anything. Write for complete list. **TROSPER & BLACKNEY**, Frankfort, Kansas.

A NESS COUNTY BARGAIN—320 acres 12 miles from Ness City, 3 room house, frame barn, well and windmill. Some very good alfalfa land. Price \$15 per acre. Call or address **LOHNE & CASON**, Ness City, Kansas.

80 ACRES UPLAND. 60 acres in cultivation, 14 acres alfalfa, balance pasture, 5-room house, small granary, some fruit, 2 1/2 miles from good town. Price \$4,500. **J. S. BOYLE**, Bennington, Kansas.

SCHUTTE & SHINEY, the Rush county, Kan., real estate hustlers; 30 years in the same old place. Good farmers raised from 25 to 47 1/2 bushels of wheat per acre here last season. We can sell this land at from \$20 to \$35 per acre. Good improved ranch land, 1/2 good farm land, at \$15 per acre. Good bottom land not over 5 miles from market at \$25 to \$35 per acre. Well improved and running water, plenty of timber. See us or write us at La Crosse, Kan.

FOR SALE—320 acres of good wheat land in the famous wheat belt of Logan Co., Kan. 4 miles from Monument, and 3 miles from Page.

40 acres in cultivation. Price \$12.50 per acre. Purchaser to assume R. R. contract for about \$1,700. This is a snap. **W. H. LINVILLE**, Beloit, Kansas.

A SNAP FOR SOME ONE. 640 acres of fine land 6 miles from Dodge City, Kan., 230 acres in wheat, one-fourth goes with land if sold by June 1. This is all nice level land except about 40 acres and will come in in good shape for pasture; no other improvements. Price \$17.50 per acre. Terms can be arranged on part, at 7 per cent.

C. L. WELLS, Great Bend, Kansas.

SOLD, and you did not get it. The 155 acre farm advertised last week is sold and is now on the market for 30 days only at \$6,400. I now have two other bargains on my list.

160 acres 4 miles from Mound Valley, small two room house, stable for 8 horses, creek running through farm, land all in cultivation. Price \$4,500. 155 acres adjoining town, brick sidewalk right into city, 110 acres in cultivation, balance pasture with creek running through it, fair 6 room house and stable, telephone, rural route and natural gas privileges; an extra good location. Price \$5,000. Come and see, or write **J. P. DONOHUE**, Mound Valley, Kansas.

ARE YOU LOOKING FOR A HOME?

No farmer should think of buying a home before seeing a copy of **THE FARM AND REAL ESTATE JOURNAL**. It contains the largest list of farm lands, city property and stocks of goods of any paper published west of Chicago. It reaches 50,000 readers each issue, 85 per cent of whom are farmers. Every one who has any property they wish to advertise will find this journal one of the best advertising mediums published. Advertising rates, 2c per word each insertion. Send 75c and we will mail you the Journal for one year, or for 10c in silver or stamps we will send it for two months on trial and stop it at the end of the two months unless you renew your subscription. **FARM AND REAL ESTATE JOURNAL**, TRAER, IOWA.

ROOKS COUNTY LAND

One Hundred Farms for Sale. Write for Lists. **C. H. DEWEY**, Stockton, Kan.



Kansas State Agricultural College

KANSAS BARGAINS. 160 acres Rush county, Kansas, unimproved, three miles from market. A bargain at \$2,400.

320 acres bottom land, improved, three miles from market. A snap at \$35 an acre. Write for my latest list.

JAS. H. LITTLE, The Rush County Land Man, La Crosse, Kansas.

For Quick Sale.

160 acres in Trego county, 80 acres wheat. All goes \$1,600. Re quick. **STEVENS & RUBY**, Stockton, Kan.

Missouri Farms For Sale.

Everman has a farm for every man. Write for description and price list. **JOHN W. EVERMAN**, Gallatin, Mo.

Ford County, Kan. Lands.

For sale. Write for price list and crop reports. Cooperation solicited. **BROWN & VERNON**, Dodge City, Kansas.

HELLO FARMERS!

Have you read my list of **GREENWOOD CO. FARMS**? The best corn, alfalfa, clover, cattle and hog country in the west. Fine blue stem pastures. Write for list and prices to **P. D. STOUTON**, Madison, Kan.

Hodgeman County Lands.

Choice wheat and ranch lands. Write for price list and county map. **F. M. PETERSON**, Jetmore, Kansas.

Ozark Fruit Farm For Sale.

120 acres, 60 acres in cultivation, balance fine timber. Good 3 room house, 3 fine springs, fine apple orchard, large thrifty trees, other fruits, 1 mile from town. Good reason for selling. Price \$1,000. Write me for full particulars. **JOHN D. BAKER**, Ava, Douglas County, Missouri.

EUREKA.

No. 48, a splendid 160 acre farm, rich soil, all can be farmed, 65 acres in crop, 1/4 with farm, 8 miles of Dodge City, county seat for the low price of \$2,700. Got to have money; if you want a bargain get next; "enough said!" Send for big list. Address **STINSON & WEYLAND**, Spearville, Kansas.

FIRST-CLASS CORN, ALFALFA AND HOG FARM.

Eighty acres, 65 acres in cultivation, 15 acres in pasture, has 5 room house, new barn for 12 horses with large hay mow and other outbuildings, small orchard, 2 wells of good water, is fenced and cross fenced. Located 3 miles from the packing houses; this is all bottom land that does not overflow. Price \$8,500.

THE NELSON REAL ESTATE & IMG. CO., 137 N. Main St., Wichita, Kan.

Zimmerman Irrigated Lands

The cream of the Pecos Valley. Now open. All river-front sections. The best alfalfa and fruit lands in America. Sold in 40-acre tracts, which will provide a permanent annual income of \$1,500 or more annually. Price \$40 per acre on 5 years' time, without interest or taxes, including perpetual water-right, 50 cents per acre as first payment. Address **THE HEATH COMPANY**, 109 West Seventh St., Topeka, Kan.

SMITH COUNTY, KAN.

160 acres 1 mile from railroad town; 80 acres in cultivation, reasonably well improved. Will sell for \$3,900. Terms \$0 acres 3 miles from Athol, nearly all in cultivation, \$3,750. Terms easy. No improvements but a dandy.

CARL G. ANDERSON, Athol, Kansas.

Buy Western Kansas Land.

Should you want to buy any western Kansas land for speculation or for a home, don't fail to write me. I am selling land throughout all counties in western Kansas. I am myself farming extensively on the kind of land I offer for sale. I can sell you land that will make you money. Write me at once for prices. Address **EUGENE WILLIAMS**, Minneapolis, Kansas.

HOME IN MANHATTAN

or Lands anywhere in Kansas. See Manhattan Realty Co., **HULL & MOORE**, Manhattan, Kan. You should buy or rent this summer. Write us now.

[First published in Kansas Farmer May 23, 1909.]

Notice of Appointment. State of Kansas, Shawnee county, ss. In the matter of the estate of Marcus O. Frost, late of Shawnee county, Kan. Notice is hereby given that on the 19th day of May A. D. 1909, the undersigned was, by the probate court of the Shawnee county, Kan., duly appointed executrix of the estate of Marcus O. Frost, late of Shawnee county, deceased. All parties interested in said estate will take notice and govern themselves accordingly. **MATTIE E. FROST**, Executrix. **P. H. CONEY**, Attorney.

The Stray List.

MAY 22. Harper Co., R. P. Chevraux, Clk. Taken up by Geo. W. Carothers, in Anthony township, Harper Co., on April 26, 1909, one bay filly; wire cut on left fore leg, black mane, tail and legs; small spot in forehead. Wt. about 500 lbs. Value \$50.

JUNE 5. W. H. Shaffer, County Clerk. Taken up on the 31 day of May, A. D. 1909, by J. C. Johnson, Garden Twp., Cherokee County, P. O. Galena, 1 mule, about 13 hands high, mouse color, branded C. C. on breast; scar on right foreleg above knee; valued at \$35.

JUNE 5. Edward Iverson, County Clerk. Taken up by Henry Nieman, April 29, 1909, in Walnut Twp., Atchison Co., a red cow, weight about 800 lbs.; valued at \$30.

MEN WANTED.

We want men to travel in the country and take subscriptions. If you are willing to make an honest effort, and will work we have an offer for you that is a first class money maker. But you must be honest and reliable, and come to us well recommended. We can give you good territory in which to work anywhere in Kansas, or you can take your horse and rig, or bicycle and canvass in your own community.

If you can make a success as a subscription agent, your success as a salesman in any line is assured. It is the best training a young man can have, and working for a publication like **KANSAS FARMER**, that is so generally and favorably known throughout the state practically insures your success.

Write for full particulars to circulation department.

KANSAS FARMER.

Topeka, Kansas.

Safety Hitch Strap Free

This patent Hitch Buckle does away with tying and untying a troublesome knot and keeps the strap from slipping down on the post. The harder the horse pulls the tighter he is hitched, but the buckle can be loosened instantly and it never cuts the strap. Strap is made of web lighter and stronger than leather and will outwear any other strap made. Remember that this



Safety Hitch Strap is the only one made that will stay just where it is fastened and cannot be moved up or down by the movement of the horse. No harness is complete without one. And you can get it for nothing.

Send us \$1.00 for a new or renewal subscription to **KANSAS Farmer** for one year and the strap complete will be sent you absolutely free and postage paid. Address **KANSAS FARMER**, Topeka, Kan.

LIVE STOCK



The Rambouillet.

Rambouillet sheep were bred up in France from Spanish Merino foundation, and are larger bodied than Delaines, with longer, less dense and drier fleece. Occasionally the wool is fine enough to class as Delaine wool. The writer a few years ago took a trip through nearly all the range states looking for fine wool range sheep, and judging from what he saw on the trip, the Rambouillet is gradually displacing other fine-wool sheep on the range. The range man expects to make a good share of his profits in these days from his lambs, and the larger ewe he can get the better the results. A good bunch of pure bred Rambouillet ewes will shear about 15 pounds per head and weigh 150 pounds after shearing.

The Shropshire is the most popular of the blackfaced breeds of sheep, both upon the farm and for crossing upon range ewes. They are of good size, shear a fair weight of fleece and are of superior mutton type.

The Southdown sheep surpasses the Shropshire in mutton type, but on account of their small size have never become popular on the range.

The breeder of rams for the range will find that the Shropshire has one advantage over fine wool sheep, and that is that when he puts his surplus ewe lambs on the market for mutton the Shropshires will be fatter and give a better quality mutton than the fine wools. And this same statement applies to all of the black-faced sheep, as they are all known as mutton sheep.

Hampshires. The Hampshire is a larger sheep than the Shropshire, somewhat coarser and does not have as heavy a fleece. Their special advantage is that the lambs are quick maturing and grow to a heavy weight. As a result the Hampshire is growing in popularity for the mutton cross on the range. The ewes are unusually good milkers.

OXFORD DOWNS.

This breed is the largest of the black faces. They have a long, coarse fleece,

but it is neither long enough nor coarse enough to class as a long wool. The Oxford is fairly popular on the range for the mutton cross, because of the large size of the lambs.

LINCOLNS.

The Lincoln is a long wool. They are the largest breed of sheep used to any extent on the range. When used they are run the year round in the same way as the Merinos, but as a rule no outcross is made with another breed, although some sheep men use the Lincoln or Cotswold cross on Merino foundation.

COTSWOLDS.

The Cotswold is a sheep very similar to the Lincoln, although not quite so large. The range man uses Lincolns and Cotswolds somewhat indiscriminately, and it would be difficult to give one a place over the other on the range.

Young Pig Management.

A hog is half made when past the weaning period without a stunt or kink in its growth. Every check or halt in prosperity through its first two months is more expensive than at any later period. Too much rich, feverish milk of the dam, causing thumps or other ailment, may leave harmful results, perhaps as much so as scant feeding or other neglect of the sow. More injury may be done to a pig's growth in two or three days than can be repaired in a month, even if he is made the subject of special care, which where many are raised is not the rule nor easily practicable. "Good luck" with pigs calls for attention, and that not occasional, but frequent and regular.

From the first week after farrowing until weaning time the sow will be little else than a milk machine, and to be a high-power machine in perfect operation she must have proper care. Nothing else is so well calculated to make pigs grow as a bountiful supply of wholesome sow's milk, and the pigs that have plenty of other feed with the milk of a well-slopped sow for eight weeks will ordinarily have much the start of those weaned at five or six weeks, no matter how much food and attention the earlier weaned pigs may have had.

At eight or nine weeks old most pigs are, or rather should be, fit to take away from the sow; some litters are individually older at seven weeks than others at ten, and better fitted for weaning. Sometimes it is necessary to wean when the pigs are five or six weeks old, and in other cases it may be advisable to wait until the pigs are ten weeks or even older. In the cornbelt the period will generally average longer than in New England. Breeders who wean at early ages generally do so in order to more profitably raise two litters a year.

Provided with and taught to eat suitable feed some weeks beforehand pigs are not noticeably checked in their growth by weaning, but those that have been dependent mainly upon the mother's milk, when abruptly

taken away from it, frequently seem to have their growth partially suspended for weeks. Many breeders successfully let the sow wean her pigs, as she will in time, and the change is so gradual that no pause in growth indicates when the milk diet ceased. A modified application of this, in which the pigs are separated from the sow at an age suiting their feeding and the convenience of the breeder, will not infrequently be found advisable, but by no means should the pigs be allowed to remain with a sow until she is virtually devoured by them as is sometimes done.

It is not a good plan to take all the pigs from the sow, unless one or two of them can be turned with her some hours after, to draw the milk she will have at that time, and again, say after a lapse of 24 hours. The preferred way is to leave about two of the smallest with her for several days, and after that leave only one for two or three days more, by which time the flow of milk will have been so gradually diminished that no injury to the sow will result by keeping them entirely away from her. This extra supply of milk helps also to push the smaller pigs along in growth and put them more nearly on an equality in size with their thriffter mates.—From Coburn's "Swine in America."

Increasing Prevalence of Animal Tuberculosis.

The reports of the Bureau of Animal Industry of the United States Department of Agriculture indicate that tuberculosis among live stock is steadily increasing, as shown by the number of animals found affected at the various slaughtering concerns. The increase in the number of cases found is due in part, but only in part, to the increased efficiency of the method of inspection. The meat inspection figures show that nearly one per cent of cattle and over two per cent of hogs slaughtered are tuberculous, which is surely an alarming condition.

Feeding experiments conducted by the Bureau have proved conclusively that hogs are readily infected through the ingestion of feces and milk from tuberculous cows. There is therefore no doubt that the prevalence of the disease in hogs could be greatly reduced simply by eradicating it from cattle.

Considerable testing of cattle has been done in Washington, D. C., and vicinity for the purpose of assisting the district authorities in obtaining a pure milk supply, and of obtaining for the Bureau further information regarding the extent of tuberculosis in the locality and for other purposes. In these tests about 17 per cent of the dairy cattle reacted.

The percentage of tuberculosis in various states, shown by tests conducted by the officials in those states with Bureau tuberculin, indicates that from 2.79 to 19.69 per cent of the cows react, and it is estimated that in the country at large at least 10 per cent of the cows in dairy herds are tuberculous.

The recent agitation against the milk of tuberculous cows as human food has had the effect of causing many herds to be examined, with astonishing results not only to the owners but to the officials themselves. Can it be wondered at that so many infants and children die of intestinal tuberculosis when so many of the cows from which milk is obtained are tuberculous?

Without considering the matter as a public health question but looking at it entirely from an economic standpoint and as a business proposition, live stock raisers can not afford to have tuberculosis in their herds. As an illustration, Argentina requires that all cattle imported into that country shall be subjected to the tuberculin test upon arrival, and as a consequence exporters from the United States have had the test made on cattle intended for shipment. The results of these tests showed that in some of the pure bred herds nearly 50 per cent of the animals were diseased and in consequence sales were lost.

When the practise becomes general for all buyers of breeding cattle to have animals tested before placing them in their herds the breeder of strictly healthy cattle will be much sought after. Already some breeders of pure bred cattle have established or are arranging to establish such herds. As soon as the breeders fully understand the fact that it is unprofitable to go on breeding cattle while tuberculosis exists in their herds much of the objection raised against the sale

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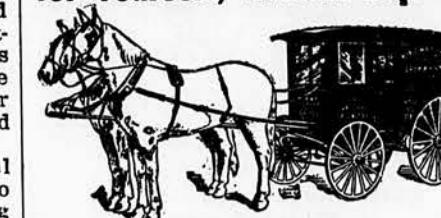
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of live stock subject to inspection will disappear, for it would be worth the price of several condemned animals for the owner of a valuable herd to know the fact as early as possible if the disease exists in his herd, as the longer he delays in taking steps to prevent its spread the greater will be his loss eventually. Figures for the last year secured from abattoirs where Federal inspection is maintained show that over 10 billion pounds of meat was inspected, 46 million pounds of which was condemned, nearly three-fourths being for tuberculosis.

The recent effort of the large packing interests to buy all dairy cows subject to post-mortem inspection shows how serious the plague is becoming. Sooner or later the man who raises tuberculous animals must suffer the loss, unless the loss is paid for out of public funds; and when the loss is placed upon the producer we may know that the end of the disease is in sight.

It may at some time be necessary for the Federal Government to quarantine against interstate shipments of cows from certain states where the disease prevails to a considerable extent, and require a strict supervision over all animals removed from such states for interstate shipment, and only remove the quarantine from sections of the state when it has been demonstrated that the disease either has been eradicated or is under strict local quarantine.

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Combine Efforts to Protect Sheep.

E. E. HAZEN, SECRETARY KANSAS SHEEP BREEDERS' ASSOCIATION.

My neighbor south of town lost 32 sheep by dogs, four killed that night and twenty-eight died since. Sheepmen can not expect to get a dog law unless they make a concentrated effort, and that can only be done by a good strong association. Mad dogs have caused quite a loss in stock, mostly cattle here in Brown county in the last two or three months, just how much is hard to estimate, and reports are conflicting. However, many here think dogs should be taxed and the loss caused by them paid out of the found and to drag our roads with the balance would be my idea, providing such a law would be constitutional.

Hiawatha City, where the first rabid dogs were, has raised their dog taxes to \$5 and in the country it should be not less than \$2. This tax would thin out the worthless cur dogs and usually they are the dogs that do the damage.

These worthless dogs are the greatest drawback to the sheep industry in Kansas and their best places to attack sheep are in the best sheep land, the brush land and hilly land. The brush and hills give the dogs protection during the day.

Mr. Coburn estimates there are in the state 188,000 dogs, each at \$2 these would pay the damage done and help solve the question of better roads, and I find the man who has a good dog is in favor of a tax for he claims that the worthless dog many times spoils his useful dog.

Let us have a good strong sheep association then go after a dog law as other states have done.

The Morgan Horse.

The modern trotting horse is an American product. Love for field sports, which is inherent in the Anglo Saxon, developed the Thoroughbred on English soil and the same love developed the Standard-bred on American soil. The trotting horse is the result of judicious breeding of many different strains upon a Thoroughbred foundation. As a matter of course these breeding operations, conducted by many different men in different sections of the country, have developed different families of trotters. The Hambletonians, the Mambrines, the Clays, the Morgans, the Bashaws and the Pilots are the most famous and when we remember that, less than three quarters of a century ago the American trotting horse, as a distinct breed, was unthought of we must admit that results are marvelous. In no department of stock-breeding is the influence of heredity and of patient selection with a view to the transmission and improvement of a desired quality more apparent than in the breeding of the trotting horse. The oldest of these trotting families is the Morgan and, while they may not have produced our fastest trotters they take the first rank as roadsters and splendid, useful, all-round horses.

The Morgan has glanced out of the lime light with those who place speed above everything else though at one time its popularity was unbounded. It remains true, however, that no blood, excepting that of the Thoroughbred, has been so generally disseminated or held in such high esteem as the Morgan.

The pioneers of the West did their farm work with pony stock. Later the farmers turned to the draft breeds and now there is a growing demand for a horse that is between these extremes and the Morgan may come again to his own. There never was a better all-round horse on American soil than the Morgan and liveries everywhere bear testimony as to its value. This office has a number of inquiries about Morgan horses and if any of our readers can give us the names of Morgan owners, especially the owners of Morgan mares, they will be thankfully received.

These are the days in which the slickers crawl out of their crysalis overcoats and begin traveling around the country in search of easy marks. Shakespeare says: "Give every man thy ear, but few thy voice." Listen courteously if you have time, but beware of making rash promises, especially with pen and ink. Above all things do not be persuaded into buying what you do not want even though it may be the greatest thing that ever happened. If needing anything investigate fully before buying that you may not subsequently have bitter regrets.—Field and Farm.



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would still be the best roofing to buy with such a guarantee, for the guarantee means that we will keep you satisfactorily roofed for ten years, and that is what you want.

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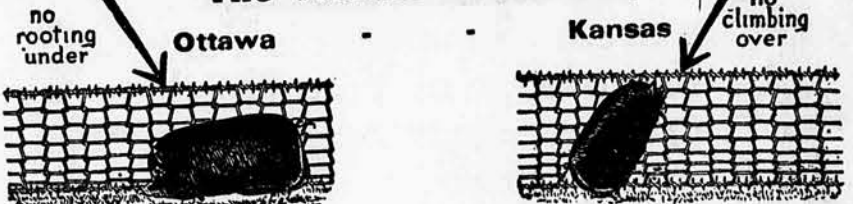
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We make it with a heavy barbed wire cable woven right in the margin, and a hog can't root out or crawl over. He can't root dirt on the lower wires which you know usually starts the rusting in a fence. For this reason Warner Fencing lasts longer. We make it in two kinds. With both margins barbed and with barbed bottom and plain top so that hogs and pigs can't root it, yet it won't injure any other stock you have in the field. Our catalog showing all sizes we will mail you free together with a handsome souvenir of the great fence maker, Abraham Lincoln. Drop us a postal for it.

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THE AGRICULTURAL COLLEGE offers 16 females and 2 bulls, including the 2-year-old Orange Blossom Orange Lavender, a grandson of the champion Lavender Viscount and out of a dam by Imp. Master o the Rolls. He is a very prepotent sire, count and out of a dam by Imp. Master o the Rolls. He is a very prepotent sire, having been used with great success for two years in the College herd. Mary of Elderlawn, probably the most valuable cow ever in the College herd, dam of College Mary, grand champion female at Hutchinson, 1908, and a full sister and full brother of College Mary are listed; also two daughters of the International champion, Master of the Grove.

T. J. WORNALL & SONS offer 5 females and 3 bulls. The Marvel, a Lavender, a red fall yearling by Imp. Conqueror, Gloster's Conqueror 2d, a Duchess of Gloster by The Conqueror, one of the greatest prize winning and breeding sons of Choice Goods, and Grassland Emma, a show helper, a roan Butterfly by The Conqueror, dam by Invincible Hampton are attractions.

T. K. TOMSON & SONS offer 9 females and 5 bulls, among them Director, a yearling prize winner full brother to Delightful, grand champion at Lincoln, 1908; two Mysies, grandsons of Lord Mayor; Gratitude, a roan fall yearling Scotch heifer by White Goods, another great son of Choice Goods, and out of a daughter of a full sister to Lavender Viscount; and the great breeding matron, Poppy's Pride, bred by B. O. Cowan.

As a whole it is a most useful collection and of desirable ages. We invite you to come to the sale. Write to Prof. R. J. Kinzer, Manhattan, Kan., for catalog. AGRICULTURAL COLLEGE, Manhattan, Kan.; T. J. WORNALL & SONS, Liberty, Mo.; T. K. TOMSON & SONS, Dover, Kan. Auctioneers—Geo. P. Bellows and L. R. Brady.



Buy Babcock Tester.

A creamery patron writes that he is selling his cream and his average test is from 23 to 25 per cent butter-fat. He has churned some of the cream and says he can make 10 pounds of butter from 37 pounds of cream. He asks what should be the butter-fat test of the 37 pounds of cream.

Butter is 82 per cent fat. The churned butter should contain 8.2 pounds of butter-fat, which amount of fat would be contained in the 37 pounds of cream. The cream then should test 22.2 per cent fat.

Entirely too many farmers think they are being robbed by the creameries. A little figuring will often dispel the idea. The use of a Babcock tester costing a few dollars will prevent unfair dealing or prove that the guess is a bad one.

The Hard Milker.

Many a valuable, hard milking cow has been ruined, owing to the fact that the milker has used a milking tube and by the use of the milking tube the udder has become infected, oftentimes losing one or more quarters. It is not advisable to use a milking tube if one can possibly get along without it.

The proper method of handling or overcoming hard milking in cows or heifers is by the use of a teat plug. The teats should be washed with a germ killer solution and the teat plug dipped in the same solution, then dipped in a little healing ointment and passed into the point of the teat. The teat plug being itself retaining should be permitted to remain in the teats from one milking to another. This will overcome hard milking in cows and heifers.

This same treatment is valuable in the treatment of sore teats where the sore is at the point of the teat where it interferes with milking.—Dr. David Roberts.

East Twenty Years Behind Times.

Ordinarily the Western dairyman looks to his friends in the East for advanced ideas in dairy practice. It seems that in some lines of progress the East is not in advance of the West. For example all milk used in the manufacture of cheese in the western states has for years been bought on the basis of its butter-fat content. Western farmers are well satisfied that the Babcock test accurately determines the value of milk for commercial purposes.

The Geneva Experiment Station of New York has just issued a bulletin urging the adoption of the fat test as the basis of paying for milk at all cheese factories. Owners of cows producing milk low in fat will suffer some reduction in dividends from the

adoption of the system; but the facts and figures given prove that, quality and quantity of cheese both considered, the simple fat test gives the fairest measure of the value of the milk for producing cheese. Payment by weight of milk alone is condemned as unjust and leading to dishonesty.

Value of a Good Bull.

"Did you use a scrub bull last year, and are you saving his heifer calves from your best cows?" is a question pertinent to all dairymen asked and answered by Malcom H. Gardner, dairy man and writer. "What assurance have you that the calves will be even as good as their dams? Would it not have been better to have bought a pure bred dairy bull? Yes, pure bred bulls cost money, and he might have cost \$100. Is that a large sum to pay out? Let us look into the matter. Suppose that such a bull sires for you but 10 heifer calves, and that each one of them when she comes into milk gives but one pint of milk at each milking more than her dam gave at like age, or 600 pints for the 600 milkings of the year, which is worth six dollars to you. But you milk a cow an average of seven years, and the one cow turns you \$42 more than her dam. Ten such cows means \$420. The probabilities are that the increased milk they would yield over their dams would be worth \$1,000. How, then, can any intelligent man afford to use a scrub bull?"

Silo Advantages.

"There are numerous reasons why a silo is a good investment," writes C. B. Wilson in a dairy paper. "My experience has been that early frosts leave the corn fodder in bad shape for shocking in the field, whereas if it is put up in silage immediately after the frost, none of the feed is lost. Enough water may be added to take the place of the moisture that is destroyed by the frost. Twelve acres of corn will fill my silo and feed my herd of 20 cows, 10 heifers and a number of heifer calves, for seven months. The little fellows are induced to eat silage at an early age. A grain ration is fed with it. My neighbors use the dry fodder from 15 acres to feed 10 head of milk cows but I am pleased to say that one of them has been observing by experience and announced that he will have a silo next fall. He seems to influence others and I look forward to several new silos in this community."

"After taking the corn from the field, plowing can proceed at once, better enabling the farmer to establish the necessary crop rotation. To sum it up, the crop is stored in the silo better than in the crib or in the stack."

Your Best Guide to Buying a Cream Separator is Your Knowledge of Your Needs



OTHER manufacturers have but one style to offer you. Don't be talked into buying any one hobby. It may not fit your ideas, your needs, your purse. Come to headquarters where the different standard styles are made, and where each style is made better than anywhere else. And we manufacture a full range of sizes in each style, giving you double the choice that others offer.



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Because all are first grade machines. They differ in style, but not in quality. They differ in price because one style or model, costs less to make than the other. When a man claims everything for one model, it is because he has no other—he must sell you that or none. We make different styles because we have the necessary patents and facilities and the necessary "know how." Therefore, we can and do give the unbiased truth about each style, we can afford to give facts instead of claims, for we don't care which we sell you—suit yourself in design and separating method—in capacity and price.

No matter how few or how many cows you milk, one of the Empires will just meet your needs as to capacity. And any Empire you choose will do the work year after year, paying for itself over and over again. Remember that, when considering the so-called "bargain price" of the "little while" separator.

DAIRY BOOK—FREE

Write today for the Empire Book, the fairest most impartial cream separator book ever published. As it describes different kinds without prejudice, it will enable you to select the style that will make the most money for you. And our prices and Guaranty will interest you. Address

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UNITED STATES

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The United States Separator has built up a reputation for efficiency and durability that makes it the foremost machine from every standpoint of separator requirements.

We prize that reputation and in the changes we have made for 1909 every feature that has helped to make the United States famous as the reliable separator has been retained.

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We have added "working points" and not fancy "talking points."

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You buy a Cream Separator, not on account of some "fancy talking points," but because it will enable you to handle your dairy product more easily and with greater profit.

A machine that will handle more milk. That will skim it more thoroughly. That will lose least in bowl flushing and that can be kept clean and sanitary with the least trouble.

These are your requirements, and a trial will convince you that the latest model U. S. embodies all of these essential features, to a greater extent than has ever before been reached in Separator construction.

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A Postal Will Bring It

The cobs and the stalks, even the most woody part, are easily digested by the cattle when fed in the form of silage. Silage is the best winter substitute for grass, it is bulky, juicy, nourishing and a splendid producer of milk. There is no waste. It is housed so as not to necessitate exposure to the farmer in feeding even in the severest weather. When abundant provision is made for silage, there is no loss incident to short pastures during the summer drouth."

Official Butter-Fat Records.

The Holstein is each year becoming a greater factor in the dairy industry. As a breed the Holsteins are producing more butter-fat than any other breed doing business on this side of the water. The Holstein-Friesian Association has just reported the official tests of 150 animals of which a few more than one-half were heifers with first and second calves. This herd produced in seven consecutive days 59,998.3 pounds of milk containing 2,140.265 pounds of butter-fat; thus showing an average of 3.57 per cent fat. The average production of each animal was 400 pounds of milk containing 14.28 pounds of butter-fat; equivalent to 57 pounds or 27 quarts of milk per day, and 16.65 pounds of commercial butter per week.

This issue of the official reports demands us of the days of Pieterje 2d, one of the cows reported averaging over 102 pounds of milk per day for a period of 30 days, and another over 110 pounds per day for a period of seven days; only in that day we had no easy way of showing the amount of fat in milk, while in the case of these two cows the fat production for seven days is nearly 25 pounds each. The cows are ready Change, 24.926 pounds fat from 720.4 pounds milk in seven days, 103.357 pounds fat from 3,069.9 pounds milk in 30 days, and Winana Pieterje De Kol 2d, 24.896 pounds fat from 772.4 pounds milk. The milk production for the latter amounts for the seven days to 368 quarts of full measure; which, if sold at six cents per quart, would amount to \$22.08 for the week. This means 52½ quarts of milk per day, with a value of \$3.15. We have not space to comment on the month's production, but the reader can do that for himself; and it must not be forgotten that each of these cows produced fat enough to make 29 pounds of the best commercial butter in seven days.

How to Preserve Wooden Silos.

In case of wooden silos it is necessary to apply some material which will render the wood impervious to water, and preserve it from decay. A great variety of preparations have been recommended and used for this purpose. Coal tar has been applied by a large number of farmers, and has been found effective and durable. It may be put on either hot, alone or mixed with resin, or dissolved in gasoline. If it is to be applied hot, some of the oil contained in the tar must

\$29⁷⁵ For this Low Down AMERICAN SEPARATOR

Get better value. Save money. Deal with the actual manufacturers. Our catalog tells all about the Low Down American Separator, our liberal proposition, low prices, generous terms of purchase, long time of trial and efficient guarantee. Western orders filled from Western points. Address, **AMERICAN SEPARATOR CO.** BOX 1119, BAINBRIDGE, N. Y.

Only \$33⁵⁰ and up

SENT DIRECT FROM FACTORY TO YOU, FREIGHT PREPAID

Never before in Cream Separator history could you get a high grade Separator—with gears running in a "Bath of Oil"—the superior of any \$88 to \$110 Separator at such a low direct-from-factory price as I'll make you. Save \$25 to \$50 this way. I make and sell so many I can afford to make the price as low to you as dealers and jobbers have to pay in carload lots—spot cash—for other high grade Separators.

TAKE 30 DAYS' FARM TEST OF A GALLOWAY "Bath in Oil" Separator

Closest skimmer—Easiest running—Easiest to clean—No trouble oiling or danger of running dry like others, which alone is worth \$50 extra. Costs nothing extra on a Galloway. Send me your name today so I can write you my Special Proposition, at the price I'm making direct to farmers and dairymen, based on my output of 14,500 Galloways this year. I'll also send you my big BOOK FREE. Address—Wm. Galloway, Pres., WM. GALLOWAY CO., 363 Galloway Station, Waterloo, Iowa

OPENS LIKE A BOOK

and is the most easily and quickly cleaned Cream Separator on the market. No other manufacturer can offer such a simple, sanitary and satisfactory cream separator—a machine with a genuine aluminum skimming device that opens in every part, just like the leaves of a book, and admits of thorough cleaning instantly—because

The NEW BUTTERFLY CREAM SEPARATOR

is patented in all the leading Dairy Countries of the world, and has 8 times the skimming efficiency of other separators that sell at double the very reasonable price we ask.

Shipped on our liberal **FREE TRIAL PLAN**

No money in advance. Fully guaranteed. Freight prepaid. Ask us for our Cream Separator Book; it is FREE, and contains valuable information that you ought to know before buying any machine. Write for it today. Address **ALBAUGH-DOVER CO., 918 Marshall Blvd., CHICAGO, ILL.**

PATENTS TRADE-MARKS and COPYRIGHTS

Notice in "Inventive Age."

Book "How to Obtain Patents" **FREE**

E. G. SIGGERS, Box 7, N. U. Bldg., Washington, D. C.

length, from a stick which has been poured into an iron kettle, a handful of straw is ignited and then thrown into the kettle, which will cause the

flash and burn off. The tar is gently burnt when it will string in fine threads, a foot or more in length, and be burnt off. The tar is then put into a blazing kettle and after being plunged into cold water. The tar is then put out by placing a tight cover over the kettle. The kettle must be kept over the fire until the silo has been gone over. A mop or small whisk broom cut short, so stiff, may serve for putting on the

al tar and gasoline have also been used by many with good success. At half a gallon of coal tar and three-quarters of a gallon of gasoline are used at a time, stirring it while it is being put on. Since gasoline is highly inflammable, care must be taken not to have any fire around when this mixture is applied. Asbestos paint has been recommended for the preservation of silo walls, and would seem well adapted for this purpose. Many silos are preserved by application of a mixture of equal parts of linseed oil and black oil, or one of the former to two of the latter. This mixture applied every other year, at filling time, seems to preserve lining perfectly. In building round silos, it is recommended to paint the inside with hot coal tar, and placing painted sides face to face.

Walls of wooden silos that have been preserved by one of the other of the methods will only keep solid and free from decay if the silos are built to insure good ventilation. Prevention will not save a non-ventilated silo structure from decay. A considerable number of wood silos in use that were not treated on the inside with any preservative or paint, and have stood very well. In fact, some writers maintain that if a silo is well protected on the outside, a stave silo received little if any benefit from inside coatings.

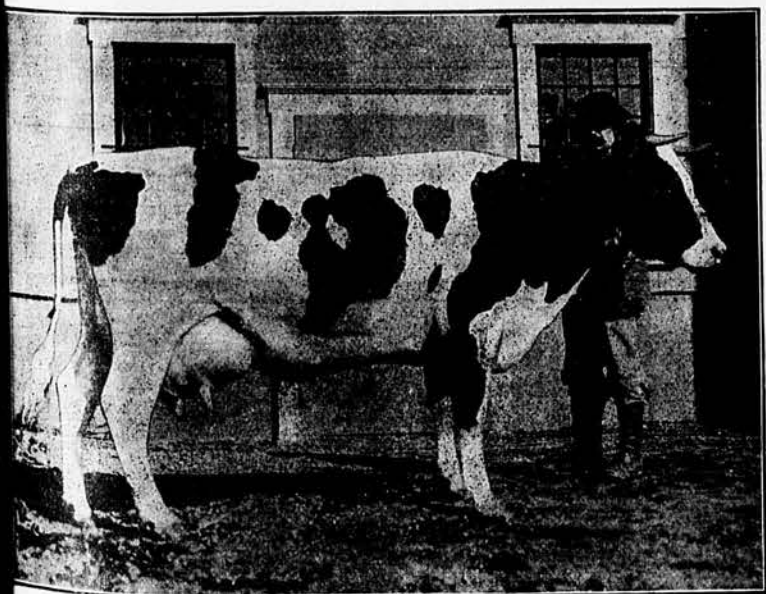
The foregoing appears in "Modern Farming Methods," a 224-page book published by the Silver Mfg. Co., Salem, Mass. Every reader of this paper should look up their ad on another

Clean the Farm Separator.

The mechanical care of a separator is important as affecting its durability. Its sanitary care is doubly so, affecting the purity of the product which passes through it. Milk is one of the quickest to become unfit for use if it is not kept clean and handled in clean vessels. While the purchaser of a separator has been again and again impressed with the idea that it should be kept in perfect order, the

same agent who went to such pains on this point tells him sometimes that the parts which come in contact with the milk need not be washed oftener than once a day and that the cream could be delivered once a week. I would be one of the greatest blessings to the dairyman, the creamery man, and the consumer, if the machine should go to pieces in a month if not kept scrupulously clean all the time. The advantage of the hand separator to the farmer may turn to naught unless cleanliness, which is essential to purity of product and to profit in the business, is thoroughly impressed upon the user. It is not enough to rinse the machine out with a little warm water and let it stand until the next time. The slime and solid particles of unclean matter in the milk that are caught and held in the bowl do the harm. Rinsing will not remove these. The temperature is just right to set this material to decaying at once; and if the parts are not clean an evil smell soon develops. The machine must be well washed after every separation of milk.

There are some things that the average housewife needs to learn about washing vessels that come in contact with milk. The dish cloth as found in the average kitchen should never be used on dairy utensils. It is the exception where one will be found to smell sweet an hour after it has been used; and yet milk utensils are often washed with it and wiped with a towel that has done duty of all of the china and glassware of the household, and possibly the pots and kettles, before the tinware of the separator is touched. Discard the dishcloth and the dish towel when the milk utensils are being washed. Wash them in warm water first, with plenty of some good cleaner or cleanser, and use a brush to do the work, but never a rag. Get into every part of them, after which rinse off with clean warm water, and then either put them in boiling water or pour boiling water over them. Stand the parts up so that they will drain, and use no cloth to wipe them. The hot surface will dry them quickly, and they will be clean. Leave the parts in a sunny place if possible. This may seem to be putting too much stress on the case, but the evidence gathered in the field shows along this line. The outside of the frame, which does not come in contact with the milk, needs the same scrupulous care. Cases have been noted where the color of the machine could scarcely be distinguished because of the grease and dirt or dried milk covering the paint. Pure cream could hardly be expected to come from such a place.—Report of U. S. Department of Agriculture.



GRACE FAYNE 2ND'S HOMESTEAD, PURE BRED HOLSTEIN
WORLD'S CHAMPION COW. 35.55 LBS. BUTTER IN 7 DAYS

World's Record Butter Cow. The milk of the Holstein cow bearing the name above given was tested by a representative of the Cornell University Experiment Station, Ithaca, N. Y., during the last of March, and by the Babcock test showed 28.44 pounds of butter-fat in seven days of 28.44 pounds of milk. As such records are only stated by the Herd-Book, this yield of butter-fat is equivalent to 35.55 pounds of commercial butter at 30 per cent fat. This yield exceeds that of any other tested under the present scientific method in use at experiment stations, and is today the only true test, and a wonderful example of the

capacity and development of cows of this famous breed of dairy cattle. The previous high record was held by a Holstein cow owned by a Wisconsin breeder, and New York state now claims the champion cow of the world, owned and developed in Syracuse, by Mr. H. A. Moyer.

This cow exhibits to a great degree the characteristic vigor of the Holstein. Her last test was begun when she was six years, 23 days old, and showed 5.42 per cent fat. She was the champion four-year-old of 1907, testing 29.16 pounds in seven days and 119.22 pounds.—F. L. Houghton, Secretary Holstein-Friesian Association of America.

Another Infringer Nailed

SHARPLES SEPARATOR CO.

John Deere Plow Co. and Deere & Webber Co.

Sued For Infringement Of

DE LAVAL DISC

Cream Separator Patents

For the information and caution of all whom it may concern announcement is made that THE DE LAVAL SEPARATOR CO., has brought suit in the UNITED STATES CIRCUIT COURT against the SHARPLES SEPARATOR CO for infringement of LETTERS PATENT NO. 743,428 by the manufacture and sale of cream separators containing DISC bowl construction covered by the claims of said letters patent.

And that similar suits have been or will be filed as quickly as possible against the JOHN DEERE FLOW CO. and the DEERE & WEBBER CO., who are jobbing such infringing SHARPLES separators to dealers in the Western States.

Attention is pertinently called in this connection to the recent hypocritical advertising tirade of the SHARPLES concern against DISC separators. We have known for some time that they were getting ready to bring out a DISC machine and thus moving up in line with more modern DE LAVAL imitators and would-be competitors. We have but now, however, been able to obtain one of these new DISC machines and the necessary evidence of infringement. The facts speak for themselves and require no further comment.

In addition to the above suits the DE LAVAL COMPANY now has infringement suits pending against the STANDARD, IOWA, PEERLESS and CLEVELAND Separator Companies and the Wm. Galloway Co., all covering the manufacture or sale of INFRINGING DISC SEPARATORS, which infringement applies equally to machines being made by different ones of these manufacturers and sold under their own and various other names by several "mail order" and other concerns, as well as to EVERY USER of any such infringing separator bought of ANY of these parties.

To avoid any possible misunderstanding and dispel the pretense of some of these concerns that their machines are similar to the DE LAVAL it is proper that we should add that none of the patents sued upon involves the DE LAVAL "SPLIT-WING" FEEDING DEVICE or its combination with the IMPROVED DISC construction utilized in the up-to-date DE LAVAL separators and that none of the machines is in any degree equal in efficiency, all-around practicability and durability to the IMPROVED DE LAVAL machines of today.

We have for years patiently stood the appropriation by would-be competitors of abandoned, discarded or patent expired DE LAVAL inventions and types of separator construction, but have now determined to put a stop to the more brazen utilization of LIVE patents.

There are STILL OTHER infringers of DE LAVAL patents who will be held accountable in due course.

THE DE LAVAL SEPARATOR CO.

42 E. Madison St.
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1213 & 1215 Filbert
PHILADELPHIA
Drum & Sacramento
SAN FRANCISCO

General Offices:
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WYANDOTTES.

WHITE WYANDOTTE eggs for hatching from choice matings. \$1.50 per 15, \$5 per 100. S. W. ARTZ, Larned, Kan.

RHODE ISLAND REDS.

R. C. R. I. REDS exclusively, fine layers; eggs from selected pens \$1.50 per 15 eggs; from utility flock \$4.50 per 100. J. H. CANNON, Preston, Kan.

ROSE AND SINGLE COMB RHODE ISLAND REDS.

In the last 6 years I have built up a flock of heavy weight, vigorous all the year round laying Reds. Have 200 females in 10 yards, mated to males scoring 90 to 94, to furnish eggs for hatching. Prices within the reach of all wanting fancy or utility stock. Illustrated catalog free. All stock sold I can spare this spring.

H. A. SIBLEY,
Lawrence, Kansas.

ROSE AND SINGLE COMB RHODE ISLAND REDS.

Eggs from any mating half price remainder of season. Mixed eggs Rose or Single Comb from several matings, \$1 per setting. Red pullets hatched in midsummer will make winter layers. Write for descriptive mating list. It is free.

H. A. SIBLEY,
Lawrence, Kansas.

BUFF ORPINGTONS.

BUFF ORPINGTONS—Chicks, pens, baby chicks, eggs. More first prizes State Fairs and State Shows than all other breeders. My Poultry Book, containing information worth hundreds of dollars to farmers sent for 10 cents. W. H. MAXWELL, R. 95, Topeka, Kan.

Eggs For Hatching.

FROM FINE STOCK—NONE BETTER. S. C. Buff Orpingtons, extra fine in shape and color, standard weight. Cook strain. 1st \$2 per 15, \$5 per 50, \$9 per 100; 2d pen, \$1 per 15, \$3 per 50, \$5 per 100.

S. S. White Orpingtons, the big white beauties. Eggs \$2 per 15, \$5 per 50. All second pen eggs sold.

White Rocks, Fishel strain, and Rose Comb Reds, extra fine. Eggs same price as Buff Orpingtons. Baby chicks 20c and 30c each from any of above.

Diamond Jubilee Orpingtons, a few settings at \$5 per 15 in setting lots only. These Diamond Jubilee were the S. E. Wisconsin winners including 1st and 2d hen. Baby chicks 50c each.

MRS. LIZZIE B. GRIFFITH,
R. No. 3, Emporia, Kan.

LEGHORNS.

PURE S. C. B. LEKHORN EGGS \$2.75 per 100. CHAS. DORR, Osage City, Kan.

SINGLE COMB BROWN LEKHORN EGGS 15 for \$1, 100 for \$4. H. N. HOLDEMAN, Meade, Kan.

S. C. B. LEKHORN EGGS—1st pen \$1.50 2d pen \$1 per setting. Range \$5 per 100. F. C. WILSON, Galva, Kan.

JOHNSON'S LAYING STRAIN rose comb Brown Leghorns. Eggs 15 for \$1, 30 for \$1.75, 50 for \$2.50, 100 for \$4. Write H. M. JOHNSON, Formosa, Kan.

GALVA POULTRY YARDS—Breeder of R. C. W. Leghorns and White Wyandottes. Some Leghorn pullets to sell. Eggs in season. JOHN DITCH, Prop., Galva, Kan.

S. C. BUFF LEKHORNS—No stock. Eggs from prize winners. Pen No. 1, \$2 per 15; No. 2, \$1.50 per 15. Incubator lots, \$5 per 100. MIKE KLEIN, Clay Center, Kan.

ROSE COMB BROWN LEKHORNS EXCLUSIVELY. Farm raised. Eggs per setting of 15: \$1; per 50, \$2; per 100, \$3.50. P. K. MAHON, R. E. 3, Clyde, Cloud Co., Kan.

BUFF COCHINS.

BEST BUFF COCHINS IN KANSAS. This variety exclusively. Can furnish eggs from prize winning stock at \$1.50 and \$2 per sitting. J. C. BAUGHMAN, Topeka, Kan.

LIGHT BRAHMAS.

LIGHT BRAHMA EGGS from birds scoring 93 to 94 by Judge Rhodes. \$1.50 per 15, large flock \$1 per 15, \$4 per 100. Baby chicks each month \$2 per dozen. MRS. A. P. WOOLVERTON, R. 8, Topeka, Kansas.

PLYMOUTH ROCKS.

BARRED ROCKS—31 premiums, June and July bargains. Eggs 15, \$1; 60, \$3.25; 100, \$5. Chicks 15c each. Breeders for sale. MRS. D. M. GILLESPIE, Clay Center, Kan.

BREEDERS.

Our White Rock breeders are for sale at right prices.

SMITH & KNOPP,
Route 2, Mayetta, Kan.

BARRED ROCK BARGAINS.

After May 1 eggs from my high scoring pens only \$1.50 per 15. Four settings for \$5. Range eggs 75c per 15.

MRS. CHAS. OSBORN,
Member A. P. A. Eureka, Kansas.

PURE BRED POULTRY.

FOR SALE.

EGGS FROM PURE BRED POULTRY. S. C. W. Leghorn and B. P. Rocks. Birds scoring 95. Eggs \$1 per 15 or \$5 per 100 the rest of the season at the ELNORA FARM, Centralia, Kan. D. Williams, Prop.

SUNNY CREST.

Stock, fruit and poultry farm. Eggs to sell from M. B. turkeys, R. I. Reds and Leghorns. Registered Jersey calves and Poland China hogs for sale. Write me. MRS. WM. BRITE, Pierce City, Mo.

POULTRY



The hatching season of 1909 will soon be over and it will then be time to dispose of most of the breeding stock; for with the high price of feed it will not pay to keep the hens after they have quit laying.

After you have disposed of your old stock you will have more room and more time to devote to your growing stock and these require lots of care and attention just now. Keep them growing and thriving by feeding them all they will eat and keep them free from lice and vermin so that they may grow without any check.

We find that growing chicks suffer more from lack of animal food than any other kind of food. They may have plenty of grain, still without animal food, they do not thrive. Fresh ground bone or meat is the best thing you can feed them. Beef scraps or dried blood the next best meat ration. Lots of skim-milk will help towards a meat diet.

The price of poultry was never in our recollection so high as it is at the present time. Sixteen cents per pound is the retail price for dressed chickens in Topeka. Now is the time to dispose of your surplus stock, after the hens have quit laying. Don't keep a lot of dead-heads on hand to waste what profit you have made on eggs. Let the butcher have them.

Egg Production of the Daughters of "200-Egg" Hens.

There has just been issued by the Maine Experiment Station bulletin 166, having the title "Data on the Inheritance or Fecundity Obtained from the Records of Egg Production of the Daughters of '200-Egg' Hens." This bulletin sets forth the results of an experiment designed to test the plain question of fact as to whether the daughters of "200-egg" hens were or were not better layers than the daughters of hens which were not such heavy producers. The results of the experiment were in brief as follows:

The daughters of "200-egg" hens were in this experiment very much inferior to their mothers in average egg production. This is particularly true of winter egg production.

This experiment gives no evidence that there is a sensible correlation between mother and daughter in respect to egg production, or that egg producing ability is sensibly inherited. A relatively high producing mother was as likely as not to have relatively poor producing daughters in this experiment.

In this experiment the daughters of "200-egg" hens were not such high egg producers as pullets whose mothers' egg records fell in the 150-200-egg class. The daughters of the "200-egg" hens were most inferior, proportionately, to the "unregistered" pullets in respect to winter egg production.

Does It Pay to Hatch Summer Chicks? This question has been asked me so much of late. As for myself I very seldom hatch many summer chicks as my time is so taken up at that season of the year that I could not properly attend to them. I think we might just as well not hatch little chicks if we cannot give them the best of care.

This summer the greater part of my chicks will be hatched during June and July, the reason for this being that the Buff and White Orpingtons produce finer plumage when hatched later in the season.

Will Schadt, secretary of the National Buff Orpington Club, told me this two seasons ago, and since observation has proved that a more soft, even shade of buff is produced during June and July hatching, also about two-thirds of the hatches are pullets, while earlier in the season it is just the reverse. I have also noticed that in white varieties, not only White Orpingtons alone but White Rocks as well. Some say they do not get so large. But I have the prettiest White Rock cock bird which is entirely free from brass that was hatched in June

and his weight is 10 pounds and those from the whole flock have such a glossy pure white color that I have concluded to get the true color in white and buff chicks is to hatch in late spring and early summer. Of course, this does not mean that you can get fine colored birds from inferior stock, but that we can produce that even, mellow shade which win in the show room. I am asked the cause of this. I am sure I cannot say, but it is my belief that the chicks grow quicker and are not stunted by cold, chilly weather and frosty nights which cause them to huddle together until their plumage is soiled and broken and when once so it seems never to thoroughly recover. One can see by a little observation that on a cold, frosty night the little chicks keep crowding and are restless all night and part of the day, while on the other hand on a warm night we will see them all spread out, not touching each other if there is room, even the day-old chick is out from under the hen happy and content.

Then another reason is nature. We can notice a plant that is grown in the house early in the spring and just set outdoors when the weather will permit. How much more hardy the plants grow when they can be out all of the time!

I think it a poor rule that will not work the same wonders in poultrydom. Those especially who have the buff and white chickens try a few summer chicks, at least, and see if you don't find this true. I do not know if the same rule works in other colors, but I expect to try and put some of them from both early and late hatches in the fair and see which come out victorious in the color scheme when they get in the hands of the judge. If anyone else has had any experience in this line I would like to hear what they have to say.—Mrs. Lizzie B. Griffith, Emporia, Kan.

Concerning Bronze Turkeys.
Can you tell me why pure bred

Bronze turkeys do not breed true color? Last year out of 80 hatched all were nicely marked. This from the same breeding stock and of the young are pure white.—A. zled Reader, Ball, Kan.

Ans.—All varieties of poultry occasionally produce chicks that are color which are called "sports." White Plymouth Rocks came from Barred Rocks and the White Wyandottes are sports of the Silver Wyandottes. White turkeys are undoubtedly sports of the Bronze, Buff or Blue turkeys. Sometimes a white chick will not appear for years, and again they come in droves, all sudden. Your white sports are doubtless be appreciated by breeders of White Holland turkeys to introduce new blood into their flocks and to bring a good price. If not disposed of that way, they should be sent to the butcher's as soon as large enough to eat.

No one man knows it all; the where the agricultural paper can be made into profitable usefulness with its columns freighted with the combined investigations and experiences of many men.

J. C. Kendall, professor of dairy at Kansas State Agricultural College in Jerseyville and Vandalla, Ill. attend sales of pure bred Jersey cattle with the view of purchasing some for the college Jersey herd. The last legislature made appropriation by which it is possible for Prof. Kendall to establish a dairy herd of each of the leading breeds of cattle.

A peculiar poison used by the known as "drab" has just been identified in England by J. Myers, as barium carbonate, known to mineralogists as witherite. An old practice of giving was to poison pigs and then eat the flesh, and Prof. Sherrington concluded that if the poison was barium carbonate, the flesh would be safe to eat, provided all parts coming in contact with the entrails were carefully washed.

Bee Supplies

Everything that you will need, such as Hives, Section Boxes, Comb Foundation, Starter, Smokers, Bee Vests, etc., these goods kept in stock for prompt shipment. Send for catalog. TOPEKA SUPPLY HOUSE, Topeka, Kansas.



WHITE PLYMOUTH ROCKS EXCLUSIVELY

For seventeen years I have bred White Plymouth Rocks exclusively of the breed. I refer to Judge C. H. Rhodes Judge J. J. Atherton as to the quality of my stock. I sell eggs at reasonable prices and those I ship are from the same fowls that I hatch myself. Eggs \$2 per 15, \$5 per 45, and I pay expressage to any express office in the United States. THOMAS OWEN, Sta. B., Topeka, Kansas.

CORRUGATED INGOT IRON CULVERTS.

The Sulphuric Acid tests adopted by the American Society for Testing Materials shows the quality Ingot Iron 99.94 per cent pure, and when put to the acid in comparison with any galvanized metal on the market will show to be 90 per cent better. Ask for descriptive literature and prices. We pay the freight.

THE ROAD SUPPLY & METAL CO.,

Topeka,

FREE!

The Latest Craze!

MOCKING BIRD WHISTLE

For Children and Adults
Given Absolutely FREE
For Solving This Puzzle



There are ten faces in this picture. Can you find seven of them? Directions—Trace out the lines of each face heavily with a lead pencil on a separate sheet of paper. Free to the persons sending correct solutions to this puzzle. We will give absolutely free of charge the latest Parisian craze, a Mocking Bird Whistle, which will furnish amusement and pleasure to both children and adults. Credit orders given to the amount of \$40, good as part payment on purchase of a no. Only one answer from a family will be counted. Winners will be notified by mail. All answers must be mailed by June 18th, 1909, with your name and address plainly written.

E. B. GUILD MUSIC CO., 722 Kansas Ave., Topeka, Kan.

Copyright 1906 by the Bobbs-Merrill Company.

"But what made Dominick change?" said Hazel, with avid, anxious eagerness. "Everything was happy and peaceful a year ago. What got hold of him to change him?"

(to be continued)

HOME CIRCLE



A Boy's Mother.

My mother she's so good to me
If I was good as I could be,
I couldn't be as good—no, sir!
Can't any boy be as good as her!

She loves me when I'm glad or sad;
She loves me when I'm good or bad;
An' what's a funniest thing, she says
She loves me when she punishes.

I don't like her to punish me,—
That don't hurt,—but it hurts to see
Her cryin',—then I cry; an' nen
We both cry, an' be good again.

She loves me when she cuts and sews
My little cloak an' Sunday clothes;
An' when Pa comes home to tea,
She loves him most as much as me.

She laughs an' tells him all I said,
An' grabs me up an' pats my head;
An' I hug her an' hug my Pa
An' love him purt' nigh much as Ma.
—James Whitcomb Riley.

OUR NATIONAL FRUIT.

How grand are the scenes when sweet
spring is unfolding
And loveliest pictures are opened to view,
And shining in splendor for eyes then be-
holding
The forests and fields robes of beauty re-
new.
Then warmly we welcome the songsters of
morning
While singing glad praises at advent of
spring
With buds and blight blossoms the orchards
adorning
Awakening our hopes of harvest to bring
The red rosy apple, the bright golden apple,
The ripe luscious apple, of all fruit the
king.

The fading of bloom when fulfilling its
mission
Gives speed to our toll in the light of good
cheer
Inspiring our zeal for a fullest fruition
For picking in days when the harvest is
near.
We gather the fruit with an exquisite
pleasure,
In tasting its flavors how closely we cling,
And sending to others rich gains of our
treasure
We echo the chorus and gleefully sing.
The red rosy apple, the bright golden apple,
The ripe luscious apple, of all fruit the
king.

We choose the sweet bloom for the flower
of our nation,
To reign with our banner wherever un-
furled
And ruling o'er homes in the power of its
station
The light of its blessings will shine through
the world,
And rising in heights of the grandest pro-
motion.
The sway of its sceptre will speed on the
wing.
Till swelling all o'er land, and far o'er the
ocean,
In strains of sweet music its cadence shall
ring.
The red rosy apple, the bright golden apple,
The ripe luscious apple, of all fruit the
king.

—James Handy, Quincy, Ill. Dedicated to
National Apple Show, Spokane, Wash.

A teaspoonful of mustard in a little
warm water will remove the odor of
fish from the hands and also from the
vessels in which fish has been cooked.

A small box of unslaked lime kept in
the pantry will absorb all impurities
and keep the air beautifully dry and
sweet. The lime must be changed
every two or three weeks.

To bleach muslin place a boilerful
of deep blue water on the stove, and
unrolling the muslin, put it in and let
come to a steady boil. Remove from
boiler without wringing, and hang on
line to drip dry in full sunlight. When
dry, iron and depend on the first wash-
ing to make it a clear white, or wash
again in usual way before using.

A Good Scour.

One pound borax, 6 bars Lenox
soap. One pound sal-soda, 2 quarts
water. Cut the soap into small pieces.
Combine all ingredients and cook until
the mixture is the consistency of a
thick syrup. Pour into a jar. When
cold it will be jelly like in form.

What to Read.

Oftentimes a boy does not know
what to read. He wants to read what
will make him wiser and more of a
man, and at the same time he wants
something entertaining. The follow-
ing list recommended by Doctor Coop-
er in the Circle Magazine, contains
some books that are just what a boy
wants:

Stevenson's "Treasure Island."
Mark Twain's "Tom Sawyer" and
"Huckleberry Finn."
"Stalkey and Co.," by Rudyard Kip-
ling.

"Ivanhoe," by Sir Walter Scott.
Cooper's "The Pathfinder."
"The Count of Monte Cristo" and
"The Three Guardsmen," by Alexan-
der Dumas.

"The Moonstone," by Wilkie Collins.
"The Adventures of Sherlock
Holmes," by Conan Doyle.

Mrs. Stowe's "Uncle Tom's Cabin."
"The Man Without a Country," by
Edward Everett Hale.

"The Mill on the Floss," by George
Eliot.

"The Last Days of Pompeii," by Bul-
wer Lytton.

"Westward Ho!" by Charles Kings-
ley.

"The Marble Faun," by Hawthorne.
"Ben Hur," by Lew Wallace.

Longfellow's poems.
Tennyson's "Idyls of the King."
Shakespeare.

Finding the Secretary.

A story is told of a western farmer
who came to Washington to lay some
project before the secretary of agricul-
ture but he was afraid that he could
not approach the secretary on account
of his exalted position. He wandered
aimlessly through the corridors of the
department building for some time
and coming across a pleasant-faced,
white-haired old man, he confided to
him the fact that he wished to see the
secretary.

"Come right in," said the new-found
friend. "Come in and sit down," lead-
ing him through an open door into a
pleasant office room. "What did you
want to see the secretary about?"

Thus invited the gentleman from
the West proceeded to unfold his plan,
much to the interest of his hearer,
who interrupted him now and then
with intelligent and well-put ques-
tions, and when he finished said with
some enthusiasm:

"Why, I believe that is just the
thing the department has been look-
ing for. I am sure it could not do bet-
ter than take up your idea."

"Do you think," asked the man, a
little tremulously, "I could talk it over
with the secretary?" The gray-haired
man threw himself back in his chair
and gave a hearty laugh.

"Why, I am the secretary," he said,
and so another devoted friend and loy-
al supporter was added to his list.

What Does the Parent Expect of the Teacher?

We can only advocate a harmonious
cooperation as the most imperative
need between teacher, pupil and pa-
rent to begin with. What the parent
expects of the teacher, is a subject
which appeals to most of us as having
no boundaries, but I shall try and pre-
sent only those ideas which I think
are of general importance to all pa-
rents who send their children away
from their care for a period of say,
160 days. In the formative period of
a child's life, personal association is
a great force, greater than anything
else in school work. The personal in-
fluence of a teacher goes a great ways
in determining the character of a
boy's or girl's life, and from this point
of view let us have no mawkish sen-
timentality in the school room, but
rather let us expect the teacher to
give to our children that thoughtful,
inspiring, courteous association which
makes the education of the teacher at-
tractive. Let any of us set our mem-
ory at work today to find some influ-
ence that has given a happy trend to
our lives and we will be sure to recall
some teacher away back in early
school days whose influence was so
warm and gentle that we can feel it
yet, and again that same memory will
bring to us moments of regret, when
we recall the unjust criticism given us
by that teacher who insisted upon
forcing facts to conform with their
convictions instead of allowing their
convictions to conform with the facts.
The precepts of wisdom and lessons
taught by the teacher while memory
lasts, will in memory live.

I believe most parents wish their
children taught order, system, and
punctuality, which will give them self
reliance and respect and which is the
solid foundation for all success in life,
for we must all learn that the straight
line in business, as in geometry, is
the shortest. Our children should
find no time during study hours to
write notes or play, and yet I am not
an advocate of overwork in the school

FASHION



8473

8473—A Pleasing Little Model Girls' Dress.

The present day styles are especially at-
tractive for children, and what is more to
the point, they are practical and suitable.
For a dress made after the simple style
here illustrated, lawn, dimity, batiste, ging-
ham or cashmere may be used. The dress
proper is cut with a square neck opening,
and worn over a guimpe, which may be
omitted for warm weather. It may be
made without the scalloped edge. The pat-
tern is cut in 3 sizes—2-4-6 years. A pat-
tern of this illustration will be sent to any
address upon receipt of 10c in stamps or
silver.



8455

8455—A Simple Desirable Blouse Suit.

Boys Suit with Knickerbockers. The sim-
ple lines of this model will appeal to every
home dressmaker. The design is suitable
for wash or woolen fabrics. It is double
breasted and the fullness of the sleeves at
the wrist is disposed of in tucks that simu-
late box-plaits. The pattern is cut in 3
sizes—2-4 and 6 years. This pattern sent
to any address upon receipt of 10c in stamps
or silver.

8486—Comfort, Neatness and
Ladies Shirt Waist with
This model has its fulness in
tucks grouped over front and
on the back extending to the
while the front are tucked to
The fronts lap slightly at the
sleeve is a one piece model finish
upturned cuff. The pattern is
sizes—32-34-36-38-40-42 inches
ure. A pattern of this illustration
mailed to any address upon receipt
in silver or stamps.



8486

8461—Ladies' Thirteen Gore

No matter how simple or elegant
wardrobe may be, the practical
street wear is always necessary.
here shown is sheath fitting as
made with or without the
Among the materials suited to the
ment, are smooth faced cloth,
volls, linen, velvings, and supple
pattern is cut in 5 sizes—22-
inches waist measure. A pattern
illustration will be mailed to any
upon receipt of 10c in stamps or



EACH PATTERN 10 CENTS.

The Kansas Farmer, Topeka, Kan.

Please find enclosed cents, for which send patterns as follows:

Size Number

Name

P. O. R. D. State

room. I believe our present education-
al system has many good features, but
it tries to accomplish too much. Pa-
rents often expect too much of a
teacher; it reminds me of these lines:
"Hurry the baby as fast as you can,
hurry and worry him, make him a
man, off with his baby clothes, get him
in pants, feed him on brain foods and
make him advance. Fill his poor head
full of figures and facts. Keep on jam-
ming them in till it cracks. Once boys
grew up at a rational rate, now we
develop a man while you wait."

I think it best not to crowd unneces-
sary ideas into the small scholar's
head, for while it is a good thing to
know a great deal, it is better to make

good use of what we do know.
Burton writes that "know-
not found in a feather bed."
pupils must earn their educa-
work. Victories that are cheap.
Those only are worth
which come as a result of hard

ing.
And when our children
school room and life open
them in all its full meaning,
sons unwritten, unnumbered,
it will be a source of great
to that teacher who has
worked in the school room
seed her hands have sown
rich, abundant harvest.—Yer-
Bliss.

Kansas State Fair

HUTCHINSON, SEPTEMBER
11-12-13-14-15-16-17, '09

"I desire to announce to the stockmen that the live stock classification and premiums will be practically the same as last year, with the exception of about \$750 added to the premiums on Shorthorns mostly for state exhibitors which is to encourage the Shorthorn breeders of Kansas, and a better classification and more money will be given Polled Durhams. In the swine division a full classification will be given this year to Hampshire hogs, also Chester Whites."

\$35,000 in purses and premiums. Seventeen grand divisions. Unrivalled attractions. The fair for the people, by the people. For catalog or detail information address
A. L. SPONSLER,
Hutchinson, Kansas.

ATLAS PORPOISE SHOE LACES

Each Pair Will Outwear a Pair of Shoes.
Upon receipt of 25 cents, we will mail postpaid, 3 prs. of our guaranteed Strong Atlas Porpoise Shoe Laces.
We are the Pioneer Manufacturers of Porpoise Shoe Laces in America.
THE AMERICAN PORPOISE LACE CO.,
267 Mt. Pleasant Ave., Newark, N. J.

LAWN FENCE

Many Styles. Sold on trial at wholesale prices. Save 20 to 30 per cent. Illustrated Catalogue free. Write today.
KITSELMAN BROS.
Box 399 Muncie, Indiana.

1 MAN HORSE BALES 1 HOUR

On our wonderful new Daisy SELF-THREADING, self-feeding, one horse hay press. It is the only one on the market on which one man can do all the work. This first successful self-threading device—greatest time saver ever. Condenser and open bars on bale hopper.
Increase capacity and prevent work catching.
Five days free trial.
Write today for prices and circulars.
GEO. ERTTEL CO.,
QUINCY, ILL.

3-STROKE SELF-FEED HAY PRESS.

Satisfaction Guaranteed.
All Steel and Iron
Two Men can run it.
The Auto-Feed Hay Press Co.
1504 W. 12th St. K. C. Mo.
Ask for Catalogue No. 64

160 ACRES OF COLORADO FARM LAND FREE

TO SETTLERS ON MOFFAT ROAD

To secure good farmers, we tell you how to locate 160 acres of fine government land in Rout County on Moffat Road, Denver, North-western & Pacific Railway. Big crops, pure water, good soil, fine climate and markets. We have no land to sell, its absolutely free from the Government. Law allows you to return home for 6 months after filing. Write for free book, maps and full information that tells how to get this land free. Address
W. F. JONES, General Traffic Manager,
The Majestic Bldg., Denver, Colo.

GOVERNMENT HOMESTEADS.

30,000 in one huge tract. Open this fall in Dakota. Second entries given thousands. Soil rich, railroads convenient. Booklet, just issued sent your address for three cents in stamps.
INFORMATION BUREAU
443 Gillian Block, St. Paul, Minn.

DAISY FLY KILLER



placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, cannot spill or tip over, will not soil or injure anything. Guaranteed effective. Of all dealers or sent prepaid for 20 cents.
HAROLD SOMERS
150 DeKalb Ave.
Brooklyn, N. Y.

SCOTCH COLLIES

of the very best breeding, have the intelligence of a human. For particulars, address
DEER LAKE PARK, SEVERY, KAN.

500 MEN WANTED
TO LEARN TELEGRAPHY
and earn from \$3 to \$125 per month. We have railroad wire giving actual experiences, making a practical school. Write for illustrated catalog.
Santa Fe Railway and Telegraph School,
Desk 17, Topeka, Kansas.

Failure after long perseverance is much grander than never to have a striving good enough to be called a failure.—George Eliot.

The Mother's Room.

It should be felt throughout the house that this room is no common property, it is mother's alone. Little feet may patter "upstairs and downstairs" if they like, but not "in my lady's chamber" unless mother says so. This may seem rather formal for a close-hearted family, yet children should early be taught the law of mine and thine; it is an essential of good breeding. Moreover, all within the precincts of this room must be held sacred, else its objects will come to naught.

Its chief object is mother's privacy, for her rest and her daily prayers. It should also be used as a tribunal, since a little talk with mother in her own room will be considered quite a solemn thing. And on Sunday afternoons, if the stories and heart to heart talks in honor of the day be held here, their fragrance will be doubly sweet. Let this room be so much a part of your very self that anyone who sees it might guess to whom it belongs. If possible, its windows should command a pretty view, then keep up the blinds and let the view in. A frame containing a photograph of each child, a gilded baby shoe with a pin cushion inside, and many other dainty and fitting accessories will suggest themselves.

It would never do to tumble the bed for your day-time rest, so let there be a cot, crude and inexpensive, perhaps, but hidden by a pretty ruffle and graced by the pillows which will be your daughter's delight to furnish as Christmas and birthday surprises. And the sons, especially if taught manual training at school, can present you with little furnishings of which anyone might be proud.

Yet, of course, it is less the value of the gifts than the thoughtful love of the givers which brings joy to the mother's heart. One of the rarest pleasures of my own childhood was in laboring over my annual Christmas "crazy cushion" for mother's rocker. These cushions were wonderfully and fearfully made and, when finished, any shape but square. Yet mother always used them and had they been laughed at, it would have broken my heart.—The May Housekeeper.

Housekeeping.

A writer from the Colorado Agricultural College has some helpful words to say to girls:

The art of housekeeping is one which deserves special mention.

In Germany the daughters of the finest families are sent to someone who is competent, and who teaches them the art of housewifery; and a girl would be ashamed to be married if she was not a good housekeeper.

Housekeeping ranks as a profession as truly as any other occupation.

There is a far greater demand for women who understand housekeeping than for those who are advanced in the art of dancing.

Domestic economy should be studied by all women.

Clean and sanitary houses, healthful meals, system in housework, and an attractive and cheerful home can do more to promote good health than any physician.

I want to impress upon the girls that housework is fine, honorable work, and that they should know how to do it in the easiest way, so as to make it a real pleasure.—Mary F. Rausch, Colorado Agricultural College, Fort Collins.

If ants are troublesome in the pantry, a free use of insect powder, also sold as "Pyrethrum" and "Persian insect powder," upon the shelves and in the run ways of the ants will usually be effectual in cleaning them out. As this powder is not poisonous to people it may be used in abundance.

Result of Tuberculin Test for Dairy Cows.

The first annual report of D. M. Wilson, Dairy Commissioner for Kansas, gives the results of the tuberculin test as having been applied to 2,000 dairy cows engaged in supplying the cities of the state with milk.

The percentage of tuberculous cows is 8.63 per cent. The per cent of tuberculous cattle in individual herds is very marked, ranging from health to 70 per cent. This amount was found only in one herd. The next highest was 36 per cent. These were extreme cases. A number of herds averaged 12 per cent; while it is frequently found that not more than 3 to 4 per

cent react where conditions are fairly sanitary. The percentage of reacting cows thus far bears a close relation to the insanitary condition of the dairies. In the herd where 70 per cent were found to be tuberculous, the dairyman made a practise of buying newly freshened cows to replace cows that were being dried; the conditions of the barn were such as would encourage the spread of disease; the drainage was bad, as there was sufficient liquid manure underneath the floor of the stable that the liquid would protrude through the floor as the animals were being driven in to be milked; the stable was very dark, no provisions having been made for light.

With the herd having 36 per cent of tuberculous animals the conditions were also very insanitary, with no provisions for light or ventilation. In some of the dairies wherein no diseased cattle were found the sanitary conditions were found to be above the average. This is one of the strongest arguments for the great need of improved sanitary conditions, more light and better ventilation.

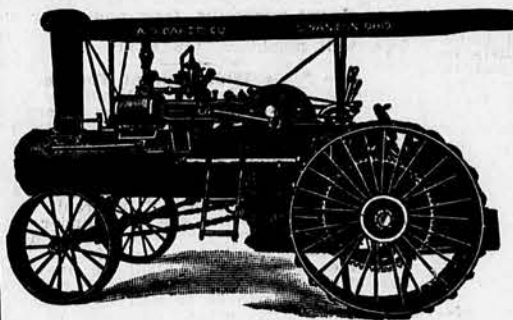
Two recent issues of KANSAS FARMER contained plates made from photographs of barns in which herds showing a large number of diseased animals were kept. Take another look at the plates and reread the above and you will decide that sanitary barns are a necessity.

CANNING VEGETABLES IN THE HOME.

(Continued from page 2.)

CONTAINERS FOR STERILIZING.

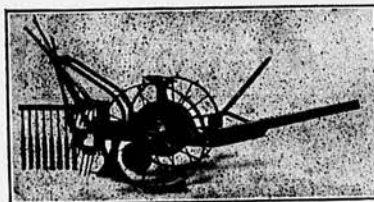
The writer uses a tin clothes boiler with a false bottom made of wire netting cut to fit (fig. 5). The netting is made of medium-sized galvanized wire (No. 16) with one-half inch mesh. A false bottom is absolutely necessary, as the jars will break if set flat upon the bottom of the boiler.



WE ARE AGENTS FOR THE Famous Baker Plow and Thrasher Engines

also manufacturers of the PRAIRIE QUEEN SEPARATOR. We have a full line of engines and separators on hand for your inspection. Write for catalog

THE PRAIRIE QUEEN MFG. CO.
Newton Kansas.



A Real Potato Digger.

Light Draught Potato Harvester

A digger that digs where others fail. Guaranteed to work under all kinds of field conditions with only two horses. Better write for our circulars and field scene pictures.

STEVENS MFG. CO., Marinette, Wis.
Builders of High Grade Potato Machinery. Transfer and distributing points in every potato raising section.

GERMAN-AMERICAN BANK

Kansas Ave. and Third St., Topeka.

A BANK FOR FARMERS.

One of the strong, conservative banks of Topeka, and a farmers' bank in a real sense. Four out of seven of the directors of the German-American Bank are active farmers. We are open on Saturday until 6 p. m. for the accommodation of farmer patrons. We do a general banking business. SPECIAL ATTENTION TO FARM LOANS.

Interest Paid on Time Deposits and on Savings Accounts

You will find the German-American Bank a pleasant bank to do business with, combining as liberal a policy as possible in dealing with customers consistent with conservative management. The business of Kansas Farmer readers is respectfully solicited.
COME AND GET ACQUAINTED.

SPECIAL RATE TO JANUARY 1, 1910.

NEW SUBSCRIBERS can get KANSAS FARMER from the date the order is received until January 1 next, for only 50 cents. Orders at this special rate can be sent direct to KANSAS FARMER, Topeka, Kan., or to any agent. Subscriptions will be started the week they are received. Order at once—the sooner your order is received the more you get for your money. Send stamps if handiest.

KANSAS FARMER ADVERTISERS GET RESULTS

PUBLISHERS' NEWS

The Chanute Refining Company, Chanute, Kan., offers to our readers its crude oil preparation for use as a hog dip and mite killer. The price is quoted in the ad on page 8, freight prepaid.

Bickmore's Gall Cure is a standard veterinary remedy, none better for the purposes for which it is intended. Druggists sell it. See ad on page 8. Send for the free book on the horse and sample of the cure to Bickmore Gall Cure Co., Box 916, Old Town, Maine.

The Century Mfg. Co. makes and sells good buggies, surreys and farm wagons, cash or credit, and warranted for three years. Write for free catalog to Century Mfg. Co., Dept. 462, East St. Louis, Ill. This company makes a good offer to agents. See illustrated announcement on page 13.

A Puzzle Picture appears on page 12 of this issue, in the advertisement of the Reliable E. B. Guild Music Company, 722 Kansas Ave., Topeka, Kan. Here is a chance for some of our readers to exercise their ingenuity. Read the terms of the puzzle, and the offer made to successful solvers. When you send in your solution say you saw the puzzle in Kansas Farmer.

Mr. Galloway advertises his manure spreader at all seasons of the year. He is advertising it now in Kansas Farmer, as you will find out by turning to page 8. We would advise our readers to drop him a postal card as he suggests, and get his big money making and money saving proposition. Address Wm. Galloway Company, 389 Galloway Station, Waterloo, Iowa.

You make your money on your live stock so it pays to take care of it. In case of sickness among your stock you cannot always send for a veterinarian but you can always be prepared by having some Standard Stock Remedy on hand. A very little money invested in Standard Remedies may save you many hundreds of dollars. A dumb animal cannot talk. It is up to you to know when he is ailing and take care of him. Notice the changes made in the advertisement of the Standard Remedy Co., Topeka, Kan., and write them for full information.

What Cement?

Kansas Farmer knows its readers are interested in the Portland cement question. We are hearing from them on the subject. One of the very best cements is the Ash Grove Superfine Portland Cement. It is a Kansas product, made 10 per cent finer than government specifications require. The Ash Grove booklet is worth having. If your dealer doesn't sell Ash Grove cement, send for this booklet. Address Ash Grove Lime and Portland Cement Company, Dept. 2, Kansas City, Mo. See ad on page 5.

Don't Ignore Small Things.

Poor economy is as important in small things as in great, but it is more likely to be neglected. People who are obliged to use a large amount of rope are compelled to study the rope market and soon learn that it pays to buy the best and let the cheap stuff alone. This is likely to be overlooked by the small user because the amount involved is comparatively small, but it is a mistake to ignore the question. The reasons why a good rope is really cheaper than a poor one are just as true for the farmer who buys a piece of rope for his hay carrier as for the ship owner who buys by the ton.

A Real Mineral Surfaced Roofing.

The new mineral surfaced type of roofings is one of the latest and best of labor saving devices for the farmer. The old type of so-called "rubber roofings" were inexpensive and easy to lay, and became

very popular on that account. But they required painting every two years or so to keep them from leaking. Amattite Ready Roofing, which is the most popular of the mineral surfaced roofings, needs no painting or coating of any kind. After it is laid the farmer can leave it strictly alone, and it will continue to give him uninterrupted satisfactory service year after year. A sample of Amattite showing the real mineral surface can be secured without cost by addressing a post card to the nearest office of the Barrett Manufacturing Company, New York, Chicago, Philadelphia, Boston, Cleveland, Cincinnati, St. Louis, Pittsburgh, Kansas City, New Orleans and Minneapolis.

Red-Blooded Exercise.

America is becoming too prone to sit back in contented admiration and watch the trained few engage in games of strength and skill. Exercise should be by the people and not for the people. As a means of exercise nothing embraces so much of pleasure and exhilaration as cycling. Every muscle, every nerve, every faculty is spurred to healthful activity. And best of all, this exercise is in the open, where each deep breath of air fills the lungs with the sweetest and purest of all health tonics, oxygen. Bicycles have been wonderfully improved even within the past five years. It is surprising what a fine wheel a few dollars will now buy. We never realized this so fully as we do after looking through the latest catalog of the Mead Cycle Company of Chicago. If you are interested in bicycles or if you feel the need of this sort of red-blooded exercise, write this company for a copy of their catalog. They will gladly send it and a wheel too for ten days' free trial if you wish. Address Mead Cycle Co., Dept. S. 284, Chicago.

A Big Nebraska Plant Expands.

The Dempster Mill Mfg. Co. is one of the best known firms in the West, manufacturing machinery used by farmers. Its business has grown so that the company is making extensive additions and has other additions in prospect. The company is now erecting an addition to its foundry 80 by 100 feet. When this building is completed the entire foundry will consist of the following: The main foundry 70 by 150 feet, rattle and grinding room 50 by 60 feet, annex 50 by 60 feet, core room 30 by 65 feet, brass foundry 30 by 30 feet. The "south warehouse" will soon have added to it an extension 30 by 140 feet, two stories high, and then the implement factory will be enlarged by a building 65 by 150 feet, three stories and basement. All these improvements will be of concrete and brick construction and will make room for the employment of 50 to 100 more people than are now employed at the Beatrice plant. This surely looks like prosperity, and it is prosperity built up on merit. This big company makes windmills, farm and ranch water supplies, pumps, grain drills, cultivators, well machines, tanks, etc.

The State Wide Fair at Topeka.

Topeka, Kan., Topeka will hold a great State Wide fair this fall. Its gates will open to the public on Sept. 18, with the greatest display ever made on these grounds unless all signs fail, and they will not fail. The fair management has the money and the men and the location and the place in the big state fair circuit. Numerous improvements are now under way on the grounds for the better accommodation of both exhibitors and visitors. An extensive sewer system will be installed. The swine pens will be doubled in numbers and they will be located high and dry and away from other buildings so that there will be plenty of fresh air for the hogs. Free space will be given to machinery and implement exhibitors. Cash prizes in the live stock rings have been increased

Stock Raisers, Attention!

Do you want to save your stock? Put them on the market at the least possible cost without losing them.

Our Remedy will do this for you, a trial will convince you, and we can increase your profits from 10 to 20 per cent. Disinfect your stock and pens, with a solution of Sunflower Dip. The results will be pleasing.

See our statement in last week's issue, and learn what we can do for you. Profits are made by taking advantage of opportunities, and this is your opportunity.

THE STANDARD REMEDY COMPANY,

Manufacturers and Compounders of Stock Remedies, and distributors of Sunflower Dip. 406-7 COMMERCE BUILDING, TOPEKA, KANSAS.



Testing strength of ingot iron culverts manufactured by the Road Supply & Metal Co., Topeka, Kan. See ad on other page.

Amattite ROOFING

B

Lumber is getting scarce and shingles are not only higher in price, but they are poor in quality. When you put a roof on your building, it isn't temporary relief and a medium amount of satisfaction that you want, but permanent relief and complete satisfaction. Amattite is a real mineral surfaced roofing. Get it and you will experience at once what roof satisfaction is and what roofing difficulties can be prevented. You will find that it needs no painting or attention of any kind after it is laid. It doesn't pay to patch old roofs when you can get a new Amattite roof at scarcely any greater cost. Amattite is easy to lay and can be nailed on over the old roof without trouble. Get a sample of Amattite and do a little investigating. It won't do any harm, and when your roof needs attention or you erect a new building you will be glad to use it.

BARRETT MANUFACTURING COMPANY

New York	Chicago	Philadelphia	Boston
Cincinnati	Minneapolis	Cleveland	St. Louis
Pittsburg	New Orleans	Kansas City	

Address nearest office.

Greater Profit!

either Regular or with Self Feed. Lightest draft, greatest capacity and most simply constructed. Our FREE Catalog contains reading matter that will be of much interest to you. Ask for it. EAGLE MFG. CO., 1009 Mich. St., Kansas City, Mo.

In Hay Baling than any other work the average farmer can do, especially if he uses an "EAGLE" STEEL PRESS



and the American Hereford Breeders' Association and the American Berkshire Breeders' Association have already added special cash premiums while the Percheron Registry Company have added their handsome series of cups and medals for Percheron horse exhibits. Most important is the fact that Topeka has an important place in the regular state fair circuit which permits exhibitors to show at Des Moines, Iowa, Lincoln, Neb., Topeka, Kan., St. Joseph, Mo., Sedalia, and the American Royal with short shipments between and good money at each place. Write Secretary R. T. Kreipe, Topeka, Kan., for a premium list and entry blanks.

Claim Your Sale Oats Early.

A successful live stock auctioneer is an important part of a sale. Col. Lafe Burger writes us that he is booking fall dates very rapidly. If you are planning to hold a sale, it would be advisable to claim your date early and write Colonel Burger. Our experience has taught us that the breeder who claims a date early always has a better sale than when the sale is gotten up on a short notice. Write Colonel Burger at Wellington, Kan.

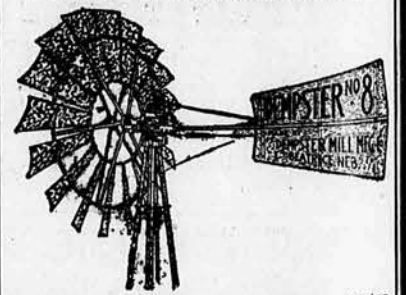
Buy Clark County Land.

Attention is called to the real estate ad of Eugene Williams of Minneapolis, Clark county, Kansas. Choice wheat, corn and alfalfa land is offered at fair prices. Minneapolis is in the best part of Clark county and those who invest in land in this section will have something that will beat bank deposits payable in clearing house

checks. Write today to Eugene Williams for list of valuable lands for sale. Mr. Williams is a man with good judgment, is honest and reliable. Kindly mention Kansas Farmer when writing to him.

DEMPSTER WINDMILLS

Many Sizes and Styles. Steel and Wood. Vaneless and Solid Wheels. The Dempster Steel No. 8. MADE TO WORK AND LAST.



Noiseless, Long Lived Gears. Center Lift Crank. Three Bearings for Wheel Shaft. Reservoir Oil Boxes. Many other good points. Address Dept. G. DEMPSTER MILL MFG. CO., Factory, Beatrice, Neb. Branches Omaha, Sioux Falls, Kansas City

\$10.00 Sweep Feed Grinder.

We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.

CURRIE WIND MILL CO.,
Seventh St., Topeka, Kansas

\$14.00 Galvanized Steel Wind Mill.

We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.

THE OTTAWA MFG CO.
702 King St., Ottawa, Kansas

GALVANIZED STEEL \$12.75 WINDMILL

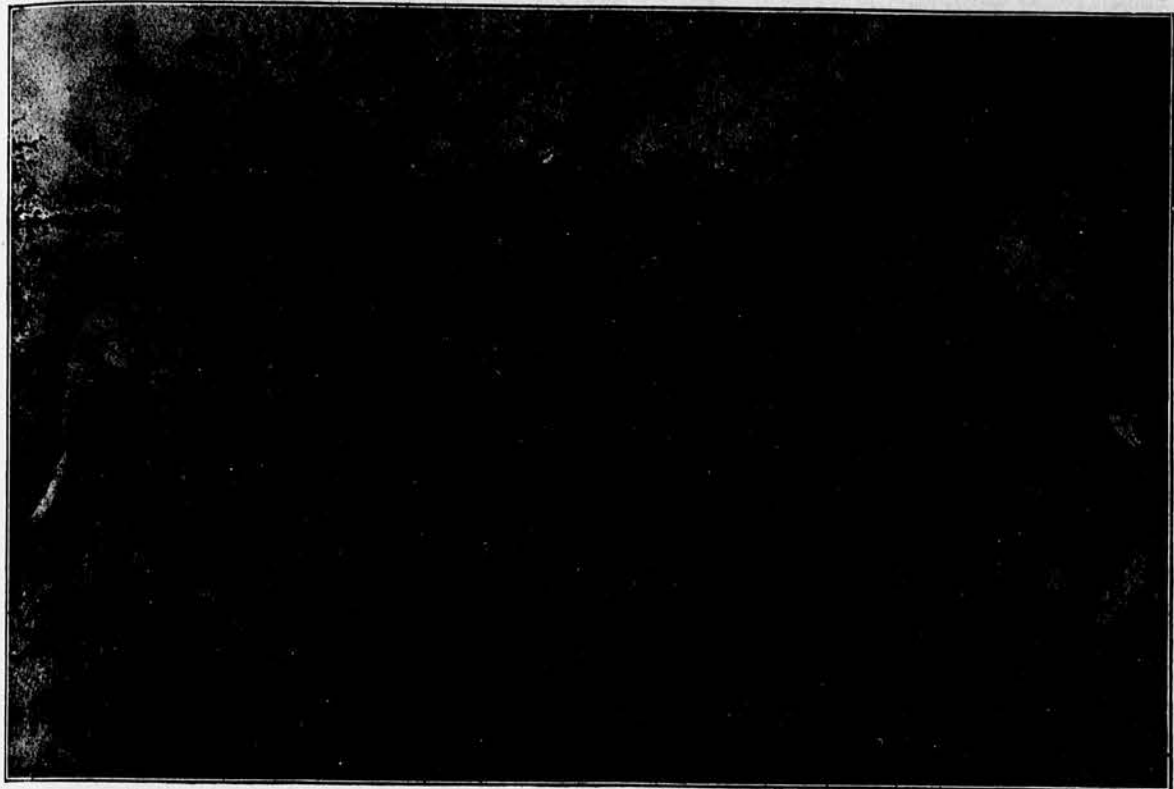
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THE OTTAWA MFG CO.
702 King St., Ottawa, Kansas

L. M. PENWELL,
Funeral Director and Licensed Embalmer.
511 Quincy St., Topeka, Kansas.

THE FEATURE OF MY COMING SHORTHORN SALE JUNE 10

Will be a Choice Line of Cows and Heifers bred to the Champion Bull, SEARCHLIGHT 292031.



of all. The best I can ask is that you come and see—then buy if you wish. In writing for catalog be sure to mention KANSAS FARMER. (Sale on my farm.)

The Females

numbering 37, include 10 choice two-year-old heifers, mostly by my chief stock bull, Prince Pavonia, and all safe in calf to Searchlight. A few super-excellent yearlings, including the first two daughters of New Goods (both Scotch) will also be included. The balance are young cows well along in calf or with calves at foot.

The Bulls

of which there are 10, constitute the best bunch I ever put in the sale ring. There are good roans and reds, mostly by Prince Pavonia, but enough of other breeding to accommodate the buyers of Pavonia heifers. Some in the offering have show yard quality and all are well bred. For pedigrees, see my illustrated catalog, free for the asking.

Beside my own herd bull there will be represented in this offering, Senator Wornall's Imp. Conqueror, Harriman Bros.' New Goods, Wolf & Son's Royal Wanderer, J. F. Stodder's Lord Thistle and Captain Archer, Tomson & Sons' Gallant Knight and Howard Hill's Kinellar—just enough to add spice and variety.

So much for the pedigree—as you will see it lacks nothing. Now I want my customers, old and new, to realize that I sell only practical cattle, grown in a practical way and at prices that mean sure profit to the buyer. My herd is a working herd first and last.

G. S. NEVIUS, Chiles, Miami County, Kansas.

FIELD NOTES

FIELD MEN.

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

If interested in cheap lands write F. L. McCoy, real estate dealer of Eskridge, Kan. Elsewhere in this issue will be found his advertisement in which he offers improved farm in Wabaunsee county for \$39 per acre. This is cheap and worth investigating. When writing mention Kansas Farmer.

A Kansas Farmer fieldman visited Mr. C. G. Nash recently. Mr. Nash is located at Eskridge, Kan., and owns one of the finest herds of Berkshire swine to be found anywhere. His herd boar is Master Long-fellow, winner of grand championship at Hutchinson 1907. The sows in the herd are mostly of Black Robin Hood breeding.

Dr. W. M. Shirley of Hiawatha, Kan., has an advertisement in our Jersey cattle department this week calling attention to a young bull which he has for sale. By reading the advertisement it will be seen that this bull comes from the best kind of milking strains. He is a good one in every way and will be priced very low. When writing please mention Kansas Farmer.

H. B. Giles of Emporia, Kan., starts an advertisement in this issue of Kansas Farmer. Mr. Giles is one of the leading real estate dealers of Lyon county. He has a very large list of desirable town and suburban properties in and near Emporia one of the finest cities in the whole country. For the farmer that wants to retire and be where the school advantages are first class Emporia can not be beaten. If you want something good and a square deal write Mr. Giles. The writer has known him for years and finds it a pleasure to recommend him.

Poland China Show Prospect for Sale.
J. W. Ferguson of Topeka, Kan., is advertising some show prospects in Poland Chinas. Look up his ad on another page and write him. Mr. Ferguson does not raise very many hogs but he always has the best there is, and grows them out well. Write for prices and kindly mention Kansas Farmer.

Poland China Sale Aug. 26.
Mr. A. W. Shriver, Cleveland, Kan., will hold a bred sow sale Aug. 26, 1909, at Cleveland, Kan. Complete announcements will appear in Kansas Farmer. Write Mr. Shriver to put your name on his list for a catalog. He has some very fine brood sows that will add dignity to any herd in the country. It will pay you to write Mr. Shriver about his herd. Kindly mention Kansas Farmer when writing.

Duroc Herd Header Prospects.
F. M. Buchhelm of LeCompton, Kan., is offering some valuable herd header prospects sired by Long Wonder and Taterax and out of such sows as Bessie Advance, Josie Surprise, and Taylor's Pet. Bessie Advance was sired by Proud Advance and a good individual. Josie Surprise has a litter by Taterax the Kansas and Oklahoma champion. Taylor's Pet is a half sister to Taterax and has a litter by High Notcher. Write Mr. Buchhelm for prices. Kindly mention Kansas Farmer when writing to him.

Show Boar Sold.
Mr. O. A. Tiller, Duroc, Jersey breeder of Pawnee City, Nebr., writes us that he has just purchased the show boar Tom Davis

formerly owned by Gilbert Van Patton of Sutton, Nebr. Tom Davis is one of the good sires of the breed. He won first in class at Nebraska State Fair 1908 and second at Iowa State Fair the same year. He sired the first prize male pig under six months at Nebraska State Fair 1907 and his get won at the same show the next year. He has proven himself a good breeder and will be a valuable addition to Mr. Tiller's good herd.

A Show Boar at Head of Herd.
A field man for Kansas Farmer called at the farm of W. S. Hormel, near Plymouth, Kan., and enjoyed a short visit with him. We were greatly surprised to find on this farm, one of the best Poland China boars in the state. Special Bullder, sired by Goodrich Special, his dam was Alert's Daughter by Prince Alert, his grand sire was old Chief Perfection 2nd and his grand dam was Cute Keep On. Special Bullder is not only a well bred boar but is an extra good individual. He has proved a great sire of good litters. Mr. Hormel is growing out a young boar King Corrector sired by Corrector 2nd and his dam was Clover Blossie by Perfection E. L. and out of Crucilla. His third dam was Crusaders, a litter sister to Impudence. Mr. Hormel has only a small herd but will buy a few choice sows this fall to breed to these good boars. We hope to be able to say more about this herd in a short time.

O. I. C. Bred Sows.
Elsewhere in this issue will be found the advertisement of Dr. T. O. Brown, proprietor of Brown farm located at Reading, Kan. Dr. Brown is offering for immediate sale 12 O. I. C. sows and 20 last fall gilts. Also early spring pigs of both sexes. The sows are bred for June, July and September farrow. They are large fine individuals with excellent pedigrees, the Kerr Dick and other good strains being represented. Dr. Brown has over two hundred head on hand and must reduce the size of the herd and for this reason will make very attractive prices for a short time. He is also offering to sell two very fine registered Jersey cows, two bull calves and a couple of young standard bred registered stallions sired by the noted Silkwood. Write Dr. Brown your wants and be assured of fair treatment. Please mention Kansas Farmer when writing.

Jersey Herd Bull.
This issue of Kansas Farmer contains the advertisement of Mrs. L. C. French of Marion, Kan. Mrs. French is offering for sale her great herd bull Jewell's Decanter. She has so many of his heifers that it has become necessary to purchase another bull and her herd being small one bull is sufficient. Jewell's Decanter is a splendid individual, very gentle and having a splendid pedigree. He is a son of Decanter 27744 by Diploma, the sire of Merry Maiden the cow that won sweepstakes at the World's Fair. His dam is Chromo's Jewel 37042, a cow with a fine butter record. She was sired by Chromo 26118, he by Diploma by Combination 4339. His heifers are fine and he is just in his prime. But he can not be used longer to advantage in this herd and will be priced low. Mrs. French has also several good young bulls, all eligible to record, solid colors and fine prospects. Write for prices and descriptions. When writing mention Kansas Farmer.

Public Sale of Poland Chinas Aug. 3, 1909.
J. A. Jenkins and W. L. Clark of Conway Springs, Kan., will hold their first Poland China bred sow sale at Conway Springs, Kan., Aug. 3. They will offer 35 brood sows and gilts, and a few boars. One feature of this sale will be the get of or sows bred to the show boar, Toronado. Toronado is by Meddler 2nd and out of Hold On

Don't Be Deceived About Roofings

Don't judge any roofing by the way it looks before it is laid. The only test of a roofing is how it will wear.

There are more than 300 substitutes for the genuine Ruberoid. Some are known as rubber roofings. Others have names which sound like Ruberoid.

A single summer of use will show the difference.

For there is no rubber in Ruberoid. It is not a tar roofing. Not an asphalt roofing. Not an asbestos roofing.

Its wonderful properties are due to our exclusive product, Ruberoid gum.

This gum is as flexible as new rubber, but it permanently withstands the heat, the cold, the rain, the snow—which rubber will not do.

It is so nearly fire-proof that hot coals thrown on a roof of Ruberoid will set fire neither to the roofing nor the timbers underneath.

Ruberoid roofing is made plain and in colors. These colors, Red, Brown, Green, are a part of the roofing—they do not wear off or fade. They are impregnated under our exclusively owned, patented process.

RUBEROID

(REGISTERED IN U. S. PATENT OFFICE)

Ruberoid roofing was the first ready roofing by several years.

Asphalt roofing and the so-called "rubber" and "asbestos" roofings have come and gone—and been replaced. While the first roofs of Ruberoid, laid more than seventeen years ago, will see many more years of actual use.

Ruberoid roofing is made plain and in colors. These colors, Red, Brown, Green, are a part of the roofing—they do not wear off or fade. They are impregnated under our exclusively owned, patented process.

Get This Free Book

Before deciding on any roofing for any purpose, get our free book which gives the results of our tests with all kinds of roofings—shingles, tar, tin, asphalt and ready roofings.

This book is a gold mine of practical roofing information, and will be sent free to all who address Department 59F, The Standard Paint Company, 100 William Street, New York.

Rider Agents Wanted

in each town to ride and exhibit sample 1000 model. Write for Special Offer. Finest Guaranteed 1908 Models \$10 to \$27 with Coaster-Brakes and Puncture-Proof tires. 1907 & 1908 Models all of best makes. 500 Second Hand Wheels All makes and models. \$3 to \$8 good as new. Great Factory Clearing Sale. We ship on approval, without a cent deposit, pay the freight and allow TEN DAYS' FREE TRIAL. Tires, coaster-brakes, parts, repairs and sundries, half usual prices. Do not buy till you get our catalogs and offer. Write now HEAD CYCLE CO., Dept. 231 Chicago

by On & On. He is a litter brother to Royal Tourist, a champion at the Missouri State Fair last year. Toronado while he never has been shown is considered by good hog judges to be a winner if properly fitted. He is one of the promising young herd boars. He is not only a good show prospect but a breeder of large, even litters. Most of the glits that were in the sale will be sired by Toronado and bred to Keno Imp. by Impudence, a splendid breeding hog by J. C. Hanna's great boar Impudence. Keno Imp. is owned jointly by Jenkins and Clark. While Toronado is owned jointly by Jenkins and G. M. Hebbard. We will have more to say later in Kansas Farmer about this herd and sale. Watch for further mention.

Tolman's Herefords.

The writer recently spent several hours very pleasantly at Sunrise stock farm located in Dickinson county near the town of Hope, Kan. This farm once belonged to C. A. Stannard, now owner of the famous Sunnyslope farm at Emporia. Mr. Stannard began his career as a Hereford breeder on the farm, now known as Sunrise farm, and its present owner, J. W. Tolman, is still engaged in the Hereford business. He has had a very prosperous year as far as sales and good prices are concerned. Among others that he has sold to is E. E. Marsh of Russell, Kan., and a Mr. Armagast of Girard, Kan. The herd bull, Princeps 11th, purchased at Kansas City last fall, has made a nice growth and is getting better every day. He is by Princeps 4th, tracing to Don Carlos. His dam was sired by the great Benjamin Wilton. Mr. Tolman's cows are representatives of the best strains; daughters and granddaughters of Lord Wilton, Beau Donald 19th, Hesiod of Brookside, Archibald Mac, Comet and

TOO LATE TO CLASSIFY.

FOR SALE.

16 a. in Howell County, Mo., 3 1/2 miles of West Plains, nearly 4,000 fruit trees, young and in good bearing age, house, barn and box house. Flowing well, filtered cistern. Climate is ideal, the place is exceedingly pleasant. Poultry, cattle and hogs do well. One could make \$5,000 or \$6,000 a year clear if handled right. Address C. J. F., care Kansas Farmer.

IRRIGATED FARMS FOR SALE.

In the famous Arkansas Valley of Colorado and the Pecos Valley of Texas, reasonable prices, good terms. If you want a money making investment or an ideal home write for further information.

J. F. CURRY, Lamar, Colo.

WABAUNSEE COUNTY LAND.

160 acres ten miles from town, 80 acres under plow, 5 room frame house, barn for 7 horses, 6 acres alfalfa, half acre orchard, good well and running water, cellar, cistern, cribs, hen house, etc. Price \$30 per acre.

F. L. McCOY, Eskridge, Kan.

LYON COUNTY LANDS.

Choice half section, well improved, school, mail, town, 8 miles Emporia \$60. Photos sent. A choice 80, \$5,000. 160 near town, \$50. Send for list.

H. B. GILES, Kansas.

FARMS FOR SALE in South Missouri. I have several good farms for sale on easy payments from \$5.00 to \$10.00 an acre. Please write me for full particulars.

WILLIAM BOWEN, Missouri.

SPANGLER'S BIG POLANDS.—200 spring pigs out of sows by Mastodon, Gold Coin, Mogul Ex, and others; by such boars as Spangler's Hadley by Big Hadley and Progression by Expansion. Fall boars by Progression. Write J. D. Spangler, Sharon, Kan.

BRED SOWS AND GLITS FOR SALE.

A few choice sows and glits for sale bred for fall litters. Write me your wants. I can please you.

A. W. SHRIVER, Kansas.

STRYKER BROTHERS' POLANDS.

Pigs by Meddler 2d, Meddler's Medal, Imp's Likeness and other valuable boars. Excellent herd prospects. Nice bred glits.

STRYKER BROS., Kansas.

BIG TYPE POLAND CHINAS.

For quick sale few Aug. and Sept. boars, out of grandson of Expansion and Victor X. L. winner at World's Fair. 3 of the boars out of Lady Youtell 4th the dam of Prince Youtell. Cheap if sold soon.

J. H. HARTER, Westmoreland, Kan.

FOR SALE.

One Poland China brood sow sired by Mischief Maker; one boar pig just weaned sired by Voter Champion at Illinois 1907, out of the above sow; two weanling boar pigs by Meddler 2d 11111 best son. Their dam by Perfection E. L.; one show boar sired by Corrector 2d, dam by Perfection E. L., whose dam is Crucella, litter sister of Impudence by Keep On; also 3 show glits out of same litter farrowed Sept. 18, 1903. They are very growthy and healthy, will price cheap for such stock. J. W. FERGUSON, Route 1, Topeka, Kan.

KING OF COLS. 2D.

The greatest living Col. boar heads my herd, assisted by G. C. Col. a close second. My sows are by Ohio Chief, old King of Cols., King of Cols. 2d, The Chief, Model Chief Again and other noted boars. 125 very choice pigs nearly all by the Col. boars. This is the Grant Chapin herd and I assure you the best in Duroc blood and individuality. Visitors welcome.

FRANK ELDER, Kansas.

THE BROWN FARM

For sale.—O. I. C. females, 12 tried sows bred for early fall farrow, 20 fall glits. Pigs both sexes, 2 registered Jersey cows, 2 bull calves and 2 registered standard bred Silkwood stallions.—T. O. BROWN, Reading, Kan.

EAST SIDE DAIRY HOLSTEINS

has several sons of Hengerveld Sir De Kol (sire of Pontiac Maid 13.2 pounds at two years); he is by Hengerveld De Kol (82 ARO dau's) and dam is Inka Darkness 2d Queen (over 25 pounds). The dams of these fellows are of Gerben, Pietertje, and Johanna strains and are excellent cows. Two bulls old enough for service. If you are looking for good breeding and individual excellence I have both. Also get particulars on cows and heifers.

F. J. SEARLE, Kansas.

Oskaloosa,

other good sires. Mr. Tolman is offering for sale one very choice young bull, a good individual, well marked with good lines; quite a prospect for a show bull this fall. Mr. Tolman has but the one and so anxious to sell and for this reason will price him very low considering quality. When writing to him mention Kansas Farmer.

Elder's Durocs.

This week we start the advertising card of Mr. Frank Elder, Duroc breeder, of Green, Kan. It will be remembered that Mr. Elder bought the entire herd of Durocs belonging to Grant Chapin. By this deal Mr. Elder came into possession of what is believed universally conceded to be the greatest herd of the breed in Kansas. With the herd was bought the highly improved farm adjoining the town of Green. The herd boars included in the purchase at a price large enough to buy a quarter section of land are King of Cols. 2nd and the best Col. boar living and G. C. Col., a sire almost equal and having a good pedigree as any living boar. The sows 40 of them are the tops Mr. Chapin having shipped out all but the very best when cholera struck the herd last fall. They are a valuable collection representing quite a variety of the choicest breeding. All of them have either been purchased at long prices or have been bred on the farm and kept in the herd because of their excellent qualifications as brood sows. There are nine by that great old sow, Model Chief Again, one by old King of Cols., five by King of Cols. 2nd, one by the noted boar the Chief, one by Golden Rule and a litter sister to Pearl's Golden Rule, and one by old Ohio Chief, one by B. S. Col. and other sires of like note. There are about 125 pigs that are the best ever seen on the farm, most of them are by the Col. boars. Mr. Elder is a born hog man and is demonstrating his ability as a developer. He is making a business of raising Durocs and is making no mistake by devoting his entire time to the work. Those of our readers that are in the market for boars or glits should begin correspondence with Mr. Elder at once. When writing please mention Kansas Farmer.

Agricultural College Students Visit Sutton Farms.

Some weeks ago the writer visited one of the famous Sutton farms at Lawrence, Kan., and came away in the firm conviction that Geo. Porteous has in charge the best bunch of young Aberdeen-Angus cattle we had ever seen on a breeding farm. It is a fact that the herd bull, Champion 1to, is and the coming bull, bred by it, indeed, he has not already arrived. It is very pleasant, therefore, to have this judgment confirmed by such an authority as Prof. R. J. Kinzer of the State Agricultural College who said: "The Angus calves on Sutton farm are the equal of any I have seen on any farm in the land and it is a pleasant surprise to me to know that every female of breeding age on the farm has a calf at foot or is well settled in calf. In so large a herd this is a remarkable condition and is a body blow to those who would belittle the breeding qualities of the Angus cattle." Prof. Kinzer is one of the most progressive teachers of animal husbandry in the country and, on Monday last, he took his large class of students from Manhattan to Lawrence to give them an opportunity to inspect the Berkshire and Aberdeen-Angus herds of Chas. E. Sutton and to study his methods. The occasion was more notable, perhaps, by reason of the fact that Hon. Joseph A. Rosen, chief of the Agricultural Department of his home state in Russia was with the party. Mr. Rosen is investigating the agricultural and live stock conditions and our farming methods for the benefit of his own people and his visits to the Agricultural College and to Sutton farms were important as a means of getting this information at first hand. Mr. Sutton is enthusiastic in his praise of the earnestness of these young men who, in the near future, are to shape the destinies of the state as well as her different breeds of live stock. Two of these students were subjects of the Mikado and none were mere intense in their efforts to gain all possible information. While at Sutton farm the owner offered a Berkshire boar pig as a prize to the student who scored highest in a judging contest. The pig was won by E. J. O'Toole of Oberlin, Kan., on a score of 545 out of a possible 600 points. The students were entertained at luncheon by Mrs. Sutton and, after a thoroughly enjoyable and profitable day, took the train for a visit to the Kansas City stock yards, packing plants and implement houses.

Nevius' Shorthorn Sale June 10.

On Thursday, June 10, C. S. Nevius, of Chiles, Kan., will hold his fourth annual sale of high class Shorthorns. Mr. Nevius has never offered at public sale a better lot of cattle than will be in this offering. The two herd bulls, Prince Pavonia one of the great breeding bulls in Kansas, and Searchlight, the champion of two state fairs and light and grand champion at the Enid Live Stock Show, should attract the attention of all lovers of the breed. There is listed ten bulls and thirty-seven females. The top of the bull offering is the Scotch Violet bull, Prince Violet 6th, a son of Prince Pavonia, dam Violet of Ellerslie, one of the most valuable cows of the Violet tribe. Prince Violet 5th is a yearling bull of plenty of size, a red, thick fleshed and smooth. Good head with the character stamps him as a good herd bull proposition. Sir Magnet is another high-class Scotch bull. He was got by Missie's Robin, out of Silver Magnet by Magnet. Then follow dams got by such sires as Gallahad, Craven Knight and Roan Gauntlet. He is a good red, an evenly turned bull, and should be appreciated. Artie's Lad by Lavender Lad is another that was in Mr. Nevius' 1903 show herd and has made a desirable growth since. May's Prince by Prince Pavonia is a Young Mary that will prove a good bull. There are five or six other sons of Prince Pavonia listed from which buyers can select good bull material. The strong individual character of the cows and heifers Mr. Nevius sells and the fact that many are by Prince Pavonia and bred to the champion, Searchlight, adds interest to the sale. Two heifers by New Goods, the Messrs. Harman Bros.' bull, are rare attractions. One, a Lavender two-year-old, is bred to Searchlight. She is a sweet thing, thick fleshed and desirable every way. The other is a Secret with lots of quality and finish. A Scotch Pavonia, out of the same dam as Mr. Nevius' senior stock bull and got by Happy Knight by Gallant Knight, is a desirable sow. She is safe in calf to Searchlight since December. A Scotch Violet, Charm's Violet by Scotland's Charm and out of Gloster's Violet by Gloster, is desirable, as none have a better pedigree and she is a choice individual. She is in calf to Prince Pavonia. A Scotch Jenny Lind is another of the choice things and is well along in calf to Searchlight. Another Vic-

let is Prince's Violet 6th by Prince Pavonia and bred to the champion, Searchlight. Another good thing by Prince Pavonia and bred to Searchlight is Graceful Princess. Royal Victoria by Royal Wonder and her yearling heifer by Victor Anoka, a grandson of the champion, Viscount of Anoka, are a valuable pair. There are a whole string of just this kind listed and buyers will find the Nevius sale a good one to attend to get good, honest values. The catalog is ready to mail and can be had for the asking. Arrange to attend this sale of high class cattle. The change in the new time card of the Missouri Pacific Railway will prove a great benefit for the Shorthorn sale of C. S. Nevius, Chiles, Kan., June 10. The fast trains, Nos. 1 and 2, on the Missouri Pacific will stop at Chiles on sale day and besides these there are four others on the Missouri Pacific which all ways stop at Chiles. Parties coming into Paola the morning of the sale, or the night before, should take No. 2, which leaves Paola at 7 o'clock in the morning. Parties leaving for the west and south after the sale can take No. 1 which goes through Chiles at 8 o'clock in the evening. All this, as well as the Frisco service at Hillsdale (four miles from Mr. Nevius' farm) is shown in the time table in the back of the catalog. Parties expecting to attend the sale at Manhattan the following day can take the new fast train on the Union Pacific leaving Kansas City at 10:25 p. m. Both the Missouri Pacific and Frisco make connections with this train. Are ready and will be sent on application. Address C. S. Nevius, Chiles, Kan.

HEREFORDS

SPRING CREEK HEREFORDS.

100 head in herd. Prairie Donald 8d by Beau Donald 7th in service. Females represent Anxiety 4th, Lord Wilton, Garfield and other families. Few good bulls 7 to 8 months old at easy prices. Write or come. T. A. WALLACE, Barnes, Kan.

HEREFORD BULL FOR SALE.

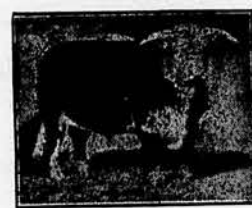
17 months old, grandson of Imp. Lord Saxon, dam by Stonemason 13th, weighs 1,000 lbs., nicely marked, good top and under line, droop horn and a fine individual in every respect. Will price reasonable.

J. W. TOLMAN, Kansas.

HEREFORD BULLS FOR SALE.

12 head sired by Onward 18th and Majestic Baron by Imp. Majestic, ranging in age from 12 to 26 months. All good ones. At least four of them herd headers. Very low prices considering quality. Will also spare few females.

S. W. TILLEY, Kansas.



Beau Brummel 10th 187719.

Modern Hereford. Herd bull Beau Brummel 10th 187719, Beau Beauty 192225 and Protocol 2d 117715. Robert H. Hazlett, Hazfrod Place, Eldorado, Kansas.

SHORTHORNS

CEDAR BLUFF SHORTHORNS. 100 head headed by Double Standard Orange Cup X5565 (253226). SHAW BROS., Glade, Kan., (Rooks County).

A RARE BARGAIN.

My herd of Shorthorns is on the bargain counter. Five bulls \$50 each, 12 young cows with calves or coming fresh \$80; 10 heifers \$45; herd bull \$175. Entire herd \$1,550, a rare bargain.

J. E. WELLER, Faucett, Mo.

GREENDALE STOCK FARM.

25 YOUNG BULLS by Imp. Ardathan Mystery and Best of All for sale at bed rock prices. Can also offer some good Berkshire swine and Shropshire rams. Correspondence solicited.

COL. ED GREEN, Prop., Kansas.

JEWEL SHORTHORNS

A young herd of up-to-date breeding. Also Percheron and Standard bred horses. In stud: the Percheron stallion Marquis De Wierre (Imp.). Also the Standard bred stallion, Red Beth 3185. Farm adjoins town. Come and see us.

W. T. LOWE, Kansas.

Spring Hill Shorthorns

300 Head Scotch and Bates Pedigrees

C. G. COCHRAN & SONS, PLAINVILLE, KANSAS.

ELMWOOD SHORTHORNS

FOR SALE NOW.

Six choice bulls by Lord Marr 249949 and from some of my best cows. Send for a catalog giving breeding and prices.

F. M. GIFFORD, Kansas.

H. E. HAYES,

BREEDER OF SHORTHORN CATTLE, OLATHE, KANSAS.

Herd headed by Baron Marr, a son of "Cumberland's Last" and out of Imp. Lady Marr. 5 Scotch bulls and a few females will be priced right. Come and see them.

SHORTHORNS

N. S. LEUZLER, Breeder of the best in Shorthorns, Almena, (Norton Co.) Kan.

Evergreen Home Farm.

Milking Shorthorn Cattle, bred Hereford, Berkshire Hogs, Oxford down Sheep, Bourbon Red Turkeys. MISSOURI

RENO HERD SHORT-HORN CATTLE

Bulls in service, Forest Knight 226084 and Victor Archer 244155. Breeding stock for sale.

Stewart & Downs, Hutchinson, Ka.

FOR SALE.

10 choice young bulls from 8 to 13 months old, part straight Scotch. Choice yearling and short two-year-old heifers. Good colors, bred right, priced right.

C. W. TAYLOR, Pearl, Kan.

Address mail R. F. D. 2, Enterprise, Kan.

Prospect Farm Shorthorns

The oldest Shorthorn breeders in Kansas. The largest herd of Crutcherhanks in Kansas. Herd headed by Violet Prince 145647 and Orange Commander 320598. Young stock of both sexes and some cows for sale. Quality and prices right.

H. W. McAFEE, Topeka, Kansas.

Bell Phone 59-2.

POLLED DURHAMS

POLLED DURHAMS.

Young bulls, cows and heifers for sale. Prices reasonable. Write for them.

C. J. WOODS, Kansas.

BELVEDERE X2712--195058

son of the \$1,500 Grand Victor X 1856 159444 heads my herd of Double Standard Polled Durhams. A few extra good blocky, thick-fleshed young bulls for sale. Inspection invited. Farm looks town.

D. C. VAN NICE, Kansas.

JERSEYS

JERSEY BULLS.—My herd bull, Jewell's Decanter by Decanter by Diploma, sire of sweepstakes cow at World's Fair. He is gentle as a lamb and will be priced low—also 8 young bulls with pedigrees. Must be sold quick.—MRS. L. C. FRENCH, Marion, Kan.

FOR SALE.

A. J. C. C. bull calf, 4 months old, dam made 362 lbs. butter with first calf (now has 3d calf). Sire's dam, 22 lbs. 10 cts in 7 days with 2d calf. As this is the last bull till next crop will put a very low price on him. Registered and crated f. o. b. cars.

DR. W. M. SHIRLEY, Kansas.

Jersey Cows, Heifers and Bulls

FOR SALE.—A few Jersey cows and heifers. Also two extra good young bulls.

H. F. ERLLEY, Kansas.

Linscott Herd Jersey Cattle

Established 1878. Registered in A. J. C. C. For sale, tuberculin tested, 6 heifers under 2 years old, 13 cows under 6 years, 1 yearling bull.

R. J. LINSOTT, Kansas.

RED POLLS

COBURN HERD OF RED POLLS. Choice young stock of both sexes for sale; also a few cows.

GEO. GROENMILLER & SON, Kansas.

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