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## KANSAS FARMER.

Established in 1863.

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E. B. COWGILL.....President  
J. B. McAFEE.....Vice President  
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116 West Sixth Ave., Topeka, Kans.

Several valuable letters on fall-sown alfalfa appears in this week's KANSAS FARMER. Several others equally valuable have arrived too late for this paper. They will appear next week.

In answer to the many inquiries as to the solar motor it may be well to say that, up to this time, only one of these machines has ever been put into operation. This one has been pumping water at Pasadena, Calif., for over a year, deriving its power from the sunshine exclusively. Early this year the company began the construction of three additional plants. Many minor improvements have been suggested by the experience of the last year. These have caused unexpected delays in completing the three new machines. Latest advice state that the three plants are now about completed. One of these will be put to pumping water for the Santa Fe railroad at some point in the arid region. Another will be given an opportunity to show what it can do on the farm of E. B. Cowgill, near Great Bend. It was expected that this motor would be on the ground by this time, but the delays incident to perfecting a new machine have been greater than was anticipated by the builders. A member of the Solar Motor Company was in Topeka on Monday of this week negotiating for the manufacture of these machines on a large scale. Kansas can furnish the sunshine, and there is no doubt about the Boston company's ability to furnish the harness. This is not exactly obeying the injunction to "hitch

your wagon to a star," but it comes very near obedience when we hitch one pump to the sun. That luminary holds the earth and all the other planets to their courses and pours out every year energy enough to pump water to drown many sections. When the sunshine machine is ready, notice will be given and the public will be invited to see it, work and to talk and write about it without limitation.

Representatives of sixty leading manufacturing and other industrial establishments of the United States, met at Chicago, April 10, and organized the National Reciprocity League. W. E. Stanley, Governor of the State of Kansas, was elected president. The object of the organization, which is nonpartisan, is to wage a campaign of education concerning the "urgent need of reciprocal trade relations with foreign nations."

These manufacturers say they are manufacturing in excess of the consumption of the home market. They want the United States Government to establish trade-relations with other countries that will throw open the markets of the world for the disposal of their goods. The United States will be asked to ratify at least nine treaties that provide for reciprocal arrangements in the trade relationship of the United States and various countries of the Eastern hemisphere. B. B. Hult, of Topeka, Kans., was chosen secretary of the league, and B. B. Swift, of Chicago, treasurer.

The following board of directors was selected: H. C. Carver, Chicago, Ill., chairman; G. Watson French, Davenport, Iowa; C. B. Hoffman, Enterprise, Kans.; James Deering, Chicago, Ill.; Henry L. Little, Minneapolis, Minn.; L. O. King, St. Louis, Mo.; A. B. Farquhar, York, Pa.; W. S. Thomas, Springfield, Ohio; H. A. Heath, Topeka, Kans.; John A. Kasson, Des Moines, Iowa; John L. Webster, Omaha, Neb.; Adolph Kasper, Chicago, Ill.; A. D. Brown, St. Louis, Mo.; E. T. Brunson, Chicago, Ill.; S. R. Calloway, New York City; and E. M. Barton, Chicago, Ill.

A National convention of the league will be called for the near future, probably at Chicago.

Resolutions were adopted in favor of the ratification of the reciprocal treaties negotiated by Minister Kasson; that a liberal reciprocity treaty should be at once negotiated with Cuba; and that in making reciprocal treaties an active minority should not be allowed to prevail over a passive majority, and the interests of the whole American people should be considered.

### KANSAS WHEAT-GROWING.

Another one of Secretary Coburn's remarkably valuable quarterly reports has just come from the printer. The title of this is, "Kansas Wheat-growing." This report opens with one of Mr. Coburn's notably clear essays, in which he shows that the breadstuff products of the Kansas prairies excel in both quantity and quality. A county map of the State shows the 1901 acreage and yield for each county. Kansas has only one county which produces no wheat. The quantities produced range from Sumner's 6,819,078 bushels down. The "wheat belt" of counties, which each produced over 1,000,000 bushels of wheat last season stretches across the State from north to south and is very near the middle east and west. There

are thirty such counties. Marshall, in the northeast, and Montgomery, in the southeast, are detached from the main central belt. Several counties approach near to the million-bushel limit, while others which fall far below this aggregate yield show acre yields which suggest that whenever the production of wheat shall appear as attractive as the prevailing husbandry in these counties, they are likely to be added to the million-bushel list.

This part of the book contains a large number of most excellent professional papers on wheat-growing, and ends with short papers by practical growers in each county.

The second part of the book is devoted to the addresses, papers, and discussions at the thirty-first annual meeting of the board, January 8-10, 1902. Nearly all of these papers were given in the KANSAS FARMER's report of the meeting. Some of them, notably Professor Shamel's great lecture on "Corn Culture and Breeding," are finely illustrated in the official report.

The report on "Sugar-beet Growing in Kansas in 1901," is included, also a paper on the destruction of gophers and prairie-dogs.

The book is an exceedingly valuable one of 336 pages. Every farmer in Kansas ought to have a copy. Formerly it was necessary to send postage in order to secure the publications of the State Board of Agriculture, but the last Legislature showed its appreciation of these valuable reports by making a suitable appropriation for postage. It is therefore necessary only to write a request to Hon. F. D. Coburn, Topeka, Kans., to secure any of the helpful publications of the board, the edition of which has not been exhausted. The editor of the KANSAS FARMER can not but wish that every reader would write immediately for a copy of "Kansas Wheat-growing."

### BLOCK OF TWO.

The regular subscription price for the KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with one dollar to pay for both. In like manner two new subscribers will be entered both for one year, for one dollar. Address, Kansas Farmer Company, Topeka, Kans.

### Kansas Topographic Sheets.

Among the recent atlas sheets which the United States Geological Survey has issued are eight of the topographic maps of Kansas. These sheets each named after some important town appearing upon it are the Burden, El Dorado, Cheney, and Larned sheets in the southern part of the State, and the Mankato, Junction City, Washington, and Oskaloosa in the north and northeastern portion. Each sheet covers a rectangular section of about twenty-seven by thirty-five miles. All the town, county, and State boundary lines appear, also the cities, villages, roads, and streams. The relief or topography is expressed by contours which also show the elevation above sea level. These maps are now available at the usual Government rate on application to the Director of the United States Geological Survey.

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### Simple Remedy for Horn-flies.

EDITOR KANSAS FARMER:—I see an inquiry in your most valuable paper of April 10, by G. K. Smith, of Lincoln County, in regard to horn-flies. I presume he means on milch cows.

We milked twenty cows last season. I bought a little squirt-gun, or spray-pump, which cost \$1. One can be obtained at any hardware store. With one gallon of crude carbolic acid I got rid of the flies from twenty cows for the whole summer. We just fastened the cows in the stanchions and with the squirt-gun filled with the acid, I would proceed up the line just sprinkling each cow's back and legs. The pump did not really sprinkle, but sent a mist or fog over them. This method catches all the horn-flies on the wing and also kills those sitting in the cow's hair. You can then milk in the day time without a cow switching or stamping. It also keeps the flies off of the cows during the day to a great extent. This method did not destroy the flavor of the milk. The cows were glad to come into the barn to get rid of the flies. We also use this to exterminate the mites in the hen-house and the lice on our hogs.

PETER BLOCHER.

Richland, Shawnee County.



## Agricultural Matters.

### Fall-sown Alfalfa.

A. ANDREWS, WELLSVILLE, DOUGLAS COUNTY.

EDITOR KANSAS FARMER:—In your issue of April 3 you asked for reports from those who have had experience in sowing alfalfa in the fall. I give my experience:

I sowed five acres on land that would be called timber-land last fall. The land sloped north and east. It was seeded to flax the year before. I disked and harrowed the land thoroughly and sowed the seed August 20. I sowed twenty pounds of seed to the acre, using a press drill and drilling both ways. It was very dry, so that the seed was slow coming up, but I got a good stand and it grew all fall, making five or six inches growth that fall and going into the winter in good shape. There was no stock on it last fall. It is looking nice and green at present.

I have had no experience with alfalfa and I am very doubtful of it being a success here, but I am giving it a fair trial. Of others who sowed here last fall, some lost their seed entirely and others have a better showing than I have.

V. B. HOWEY, TOPEKA, SHAWNEE COUNTY.

In May, 1900, I plowed a piece of land and let it rest without any crop through June, July and August, only harrowing it thoroughly to keep the weeds down. About the first of September I cultivated it, and about the middle of September I harrowed it well. I then sowed the seed and harrowed both ways after seeding. I obtained a good stand and it wintered in good condition.

In the spring of 1901 I planted soybeans, but they failed to come. In July I seeded this land to buckwheat and this also was a failure. I plowed the land the first of September with a diamond plow and seeded the land to alfalfa about September 15. I got a good stand and it has wintered well.

Another piece was plowed early and sowed to millet. The crop was a failure on account of the dry weather. I had plowed the land and had harrowed it thoroughly before planting the millet. In August I planted this millet land to Kafir-corn and this, too, was almost a failure on account of the dry, hot weather, but I cultivated the ground and kept the weeds down, and after the third plowing and last cultivating, I seeded this land to alfalfa. This made a good stand. On account of the scarcity of feed and the Kafir-corn being killed when about three feet high, I pastured the alfalfa. It was eaten close to the ground, and the dry freezing the fore part of the winter killed the tops, and it looked as if it was gone. But at this time it looks about as well as the piece not pastured, although it is not quite as green.

## Which Book Shall I Send?

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Mild cases, not chronic, are often cured by one or two bottles. At all druggists.

I used about twenty pounds of seed to the acre and used an eight-shovel cultivator to cover the seed. My observations are that the best time to sow alfalfa is during September or the first part of October. If the land is kept well cultivated and clean, is well pulverized, and there is a good seed-bed at seeding time, there is no question of getting a stand, rain or no rain. But the man who tries to raise a crop of something else and then plant alfalfa the following fall on the same land, will be disappointed four times out of five.

A. MONGER, HOLLIS, CLOUD COUNTY.

I sowed about sixty acres of alfalfa last fall. The first piece was oats stubble. The ground was disked and harrowed, and the seed sown about the middle of September. It came up all right, but a heavy growth of oats came up and choked it out completely. It was dead before winter. Nothing hurt it but the oats.

I also disked, harrowed, and sowed alfalfa on a piece of millet ground about the same time. The ground was very loose; repeated harrowing would not pack it. The alfalfa there dried out and most of it died.

I had six acres of sweet corn. When the cattle had eaten this to within about a foot of the ground I disked, harrowed, and sowed this to alfalfa about the same time as the other two fields. It came up promptly, grew well, and now looks well, except that the spring winds have been hard on it.

I have had more failures with spring-sowing than with fall-sowing of alfalfa. I sow broadcast, using about fifteen pounds of seed to the acre. I sow half each way, and harrow the ground lightly after sowing. If a drill is used it needs to be followed by a harrow or float to level the ridges, or a heavy rain is liable to cause the young plants to be covered with mud. By drilling and floating there is danger of covering the seed too deep. A plank fastened to drag behind a drill can be made to float as you go, but it is open to the same objection of covering too deep if the ground is loose. I have never pastured alfalfa much before it was a year old.

K. HUTCHENS, MARION, MARION COUNTY.

I sowed something like thirty-five acres of alfalfa on land that was sown to millet last spring, which, however, did not amount to anything on account of the drouth. About August 10 or 15 this land was plowed, harrowed, floated, and harrowed again, which made it fine enough for gardening. Twenty pounds of seed to the acre was sown about the middle of August. The land was then harrowed again and was finished just in time to get all the fall rains. It came up splendidly, and grew until freezing weather set in. That killed a large portion of it. At present writing it is puzzling to know what to do with it, and I have about concluded to sow it over again, paying no attention to what is standing.

H. B. HARMON, LATIMER, MORRIS COUNTY.

Alfalfa sown last fall is dead in this locality. A. Johnson has fifteen acres and C. Blythe twenty acres that is most all dead, and W. H. Dodderidge has a large field near White City that has only a few acres alive in it. I had a piece sown last spring that went into the winter in splendid shape and it is about three-fourths dead. These are only a few of the many pieces that have succumbed the past winter. The tap-root seems to be rotten or broken about two and one-half inches to three inches below the surface of the ground.

Now, brother farmers, let us not be discouraged, but let us prepare our ground and sow a larger acreage this year than has ever been sown here before, for all things considered, alfalfa is the best paying crop ever grown in Kansas.

J. E. LANDIS, ABILENE, DICKINSON COUNTY.

I double disked ground, that was in corn last year, in August, harrowed it twice, and sowed alfalfa September 10, with a Hoosier grain drill. I had the tubes behind the shovels so the dirt rolled in and the seed on top of it. I sowed twenty pounds to the acre and covered with the harrow teeth very slant. It came up nicely, made some growth—not as much as it would have if it had had more rain—and was not pastured.

The weather was so dry and windy this spring that some of it died and the wind blew most of it out. I intend to harrow the ground several times and drill alfalfa again in a week or so. I may sow some again this fall if the weather is favorable.

G. BOHRER, LYONS, RICE COUNTY.

I sowed two acres of alfalfa last Sep-

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tember, and got a fine stand and a good growth. I looked over the field this month and found it all dead. I think 12° below zero kills alfalfa sown the fall before, almost without exception. I sowed two acres last May and got a fine stand and a good growth. It is now coming on in fine shape, and the stand is still good. Clean ground and spring-sowing, I feel confident, will succeed oftener than fall-sowing.

B. NEEDHAM, OSAWATOMIE, MIAMI COUNTY.

I sowed twelve acres of alfalfa on stony bottom-land—part good, dry land and part too wet for corn. The land had been in wheat continuously since 1897. It was plowed the latter part of July, and was well harrowed and slabbed. The sowing was done the last of August with a broadcast seeder, using twenty pounds of seed per acre, and harrowing twice after sowing. This, I think, was too much, in the dryest ground the shoots began to appear inside of one week, and it continued to come up for about ten weeks, when there was a good stand on the whole field. On about half the field the alfalfa was fully six inches high when cold weather set in. The rest was smaller—some just coming through the ground. It was not pastured. It wintered all right, and looks as fine as could be desired, being a good, even stand all over.

There will be more alfalfa sowed here this year than ever before. It stood the dry weather the past season incomparably better than any other crop.

J. M. CRAIG, GARNETT, ANDERSON COUNTY.

I sowed a few acres of alfalfa last fall, and had splendid success. I sowed on wheat-stubble ground. I plowed with a stirring plow about August 1, and after plowing I disked and harrowed the ground well. I was ready to sow September 1, but thought it was too dry, so I waited for a rain, which came September 15. After the rain I went over the ground with a float—three heavy boards bolted together—which mashed all the clods, leaving the ground as fine as a garden and well packed. I sowed during the week that came in on September 15, using a press drill, and drilling both ways. I used half the seed one way and half the other way. My drill has no seeder attachment, and I could not regulate the feed so as to sow the alfalfa-seed alone. So I mixed equal parts by measurement of seed and bran. This plan worked very well. I sowed twenty pounds of seed to the acre. The plants appeared in four days after sowing and made a growth of six inches last fall. I have not pastured it any. The plants are now from four to eight inches high, a splendid stand. I

would not sow alfalfa in the spring of the year in eastern Kansas. I am going to sow Siberian millet this spring on ground that I will seed to alfalfa next fall. I will get a crop of millet, have my ground in good condition for fall sowing of alfalfa, and be ahead of my neighbor who sows this spring.

FRANK HOOVER, COLUMBUS, CHEROKEE COUNTY.

I sowed alfalfa last fall about the last of September, on corn-stubble ground. The corn had been cut and shocked. I harrowed the ground and sowed broadcast, about twenty-five pounds of seed to the acre, and covered lightly with the harrow. It was pretty dry, but a light rain started the seed and it did not kill out the past winter. I top-dressed it with fresh stable manure when the ground was frozen. It is about three inches high now, and I am hoping I have solved the problem in Cherokee County.

We have a gumbo soil here, which is against the deep-rooting tendency of alfalfa, but I am convinced that it can stand gumbo better than crab-grass. My ground has not a weed on it and had been clean all summer. I believe now if this plant can get a good start of the weeds it will succeed almost anywhere in the State.

The field was not pastured last fall. I shall mow it at least three times the coming summer. I believe the only method is to sow in the fall on ground that is cultivated not more than two inches deep. I believe clean corn ground harrowed enough for a seed-bed, is the best.

ALBERT COLMAN, COTTONWOOD FALLS, CHASE COUNTY.

I sowed four and one-half acres of alfalfa last fall. The land had been in corn. I cut the corn and hauled it off the land. The ground was too hard to plow with a stirring plow, so I plowed it with a cultivator the same as if I were plowing corn, and only got a little loose soil. I then harrowed it until it was all level with about three inches of loose ground on top. The lumps were no larger than hen's eggs on top. It was in August when I prepared my ground. I sowed the seed September 10, using a broadcast seeder with twenty-six pounds of seed to the acre. I then harrowed the ground both ways. On September 12 we got a good rain and the alfalfa came up as thick "as hair on a dog's back," and it got about four inches long before cold weather. It was not pastured at all. No snow laid on it at all; it all blew off, because the field was so level.

alfalfa is dead. On pulling up the roots of that which is dead I find that the





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roots seem to be eaten off. I do not believe it was the cold weather that hurt it. This field of four and one-half acres is thick enough yet, but it makes one's heart ache to look over it. I would advise the readers of the KANSAS FARMER to sow in the fall, so they can get a crop the first year.

F. J. WOODWORTH, WALNUT, CRAWFORD COUNTY.

We sowed six acres on our poorest land—what the farmers here call "that poor white land." The ground was planted to cow-peas in the spring of 1901, but they failed, so we let it lay idle, as we wanted to work and manure it. Nothing grew on the ground except some small crab-grass and a five-fourths stand of bull-nettles. The ground was manured the last of July, and plowed about four inches deep August 9 and 10. We harrowed it once and dragged it both ways as soon as plowed. Dry weather prevented anything more until September 9, when we had a rain, which made the ground too wet to work for several days. On September 20 we harrowed the ground both ways, and on the 21st we drilled thirty pounds of seed per acre one way. We have no record of when it came up, but I think it was about ten days after seeding. It looked nice, but rather thick, and went into winter from an inch to two inches high. The plants look well this spring and are now growing nicely. A big hedge along one side of the field, however, did what big hedges have been repeating for the past quarter of a century on thousands of acres of Kansas soil. The plants are puny and the stand thinner for three or four rods next to the hedge. There is a part of it that we did not manure and the line marking the limit of manured ground is easily perceptible a quarter of a mile away.

M. F. TATMAN, ROSSVILLE, SHAWNEE COUNTY.

I sowed twenty-six acres of alfalfa last fall, in four different lots about equal size, which I shall designate by numbers. All were plowed after the rains the latter part of July; all were gone over first with an Acme harrow, then rolled and harrowed with a smoothing harrow; all were sown with a Hoosier press drill with an alfalfa attachment; the seed being sown through the spout. Piece No. 1 had been in timothy for several years, but the timothy was mostly killed out. Pieces No. 2, 3, and 4 had been in wheat for several seasons. Piece No. 1 was sown August 20, but the ground was so dry that I stopped sowing and did not commence again until September 10. The ground was still dry and hot, but I thought I would chance it and I finished up on the 13th. In a few days after we had a very heavy rain and hail, which beat the ground hard. It then turned very hot and dry, and formed a crust so hard that I went over most of the field with a harrow to break up the crust, and the alfalfa soon came up on piece No. 1 and on a portion of No. 2.

The drill was sowing too deep. I told my man so, but he said it could not be changed to sow any shallower; but before we got through we found a way to make it sow shallower from then on. (The attachment was new to us, which none of us seemed to understand.) There was a fine stand last fall, and there is a good stand now. The third day of October I sowed a part of No. 2 broadcast, harrowing with the teeth set back so as not to scratch any of it out. Of the first sowing about half a stand came up at once and grew about three inches high before winter came on. Most of the first sowing got about six or eight inches high that season. In the same time all that sown broadcast October 3, winter-killed. Nineteen pounds of seed was sown on Nos. 1, 2, and 3, and fifteen pounds on No. 4, but there was the thickest stand on No. 4, where only fifteen pounds of seed was sown.

Now as this land is about all alike, and as conditions were about the same, it looks as if sowing too much seed might be detrimental. I have found out that in getting a stand alfalfa is a very erratic and peculiar plant. Mr. Fred McCollough, manager of the Mulvane ranch, recently told me he sowed a piece of alfalfa last spring and got a stand, and cut quite a quantity of hay last fall. It was apparently all right when winter came on, but it is dead

now, while a piece he sowed last fall is dead.

My drill sowed five different fields after it was regulated to sow shallow and on four of them there was a good stand and only a part of the fifth was a failure. It sowed four before it was regulated and all of them were failures. Not many used the drill here and what few that did sowed too deep and made failures. There was a strip through No. 4, about sixty rods long and five or six rods wide, that the snow blew off of, and there I think not a stalk was killed by the winter. This looks as if the snow might have smothered it out. My observations are and conclusion is that the drill-sown alfalfa stood the winter best, and that that is the proper way to put it in; besides about one-half the seed is sufficient as to broadcast it the ground should be almost as firm as the road when the seed is sown. All loose places in the field will be fatal to the stand.

Nearly all the alfalfa which was killed out last winter has been sown over this spring. I sowed mine just as soon as the snow went off, without harrowing it. The first has been up some time and has had several hard frosts on it. Another mistaken idea many of us have had is thinking that early frosts would kill young alfalfa. They have not seemed to hurt mine. Still, I have no confidence in spring-sowing, as I have failed time after time.

C. L. HOLLINGSWORTH, COFFEYVILLE, MONTGOMERY COUNTY.

Last fall I purchased 200 pounds of alfalfa seed and proposed to sow it on ten acres, but the seed ran through the drill so fast that it was all gone when six acres had been sown. I found that twenty pounds or more would run through with the feed shut clear off; just the revolving of the smooth plate was enough. Following are answers to the questions asked in your paper:

1. Wheat was on the ground the year before.
2. I plowed the ground the last week in July.
3. I harrowed the ground after a light rain the last of August, then harrowed again about September 10.
4. I sowed September 16 without further preparation of the ground.
5. I sowed with a press drill with shoes six inches apart. To start with, I set the drill, by the millet gauge, a little less than one-half bushel per acre. After going one round I found it was sowing too fast, so I began to shut the feed off and by the time I had sowed three acres I had the feed all shut off and found I was getting twenty pounds or a little more per acre then. I sowed an average of thirty-three pounds per acre, though I think the first acre got about fifty pounds.
6. The plants began to show in six days, and all that was covered was up in ten days. When winter came it was from two to four inches high.
7. I have not pastured it at all.
8. Now it is from three to six inches high and I think there are a plenty of plants for fifteen acres of land.

A neighbor, Mr. Ingmire, sowed six acres. He plowed and worked the ground about as I did and sowed thirty pounds to the acre broadcast by hand, about a week later, and covered by harrowing lightly. It looks about the same as mine, only mine is in drill-rows. I want to sow some more this fall, but I am not sure that I will use a drill. I want to see those two fields cut first. It looks as though the seed ought to be even over the ground, not in rows. I would not sow alfalfa in the spring; it is too uncertain, and you lose the use of the land one year.

#### "Succotash" as a Crop for Kansas Farmers.

EDITOR KANSAS FARMER:—In your issue of April 3, Mr. A. B. Dille has an interesting article on "What to Do With Thin Wheat." Mr. Dille has certainly given advice which if acted upon by the majority of Kansas farmers would add many thousands of dollars to their income for 1902.

In Minnesota and Dakota the practice of growing "succotash" is familiar to most farmers. This consists of a mixed crop of wheat and flax, wheat and oats, or wheat and barley. Flax is peculiarly adapted to grow successfully in mixture with wheat, because it is so easily separated at threshing time. A flax screen can be put into any ordinary threshing-machine separator for \$5. All the modern threshing-machines on the market in the spring-wheat regions contain a special arrangement by which mixed grain crops may be separated from each other at the time of threshing.

It has been proven beyond a doubt by repeated experiments in France and other European countries, that a mixed ce-



### TO-DAY'S BATTLE

cannot be successfully fought with the inventions of yesterday. They win easiest who are best equipped for the fight.  
And the analogy holds good where the victories sought are the "victories of peace" no less than in those fiercer struggles of war.

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constitute the supreme excellence of modern equipment for the annual harvest campaign. No other machines work so smoothly, so effectively, so steadily. The force of men employed in the manufacture of the Deering product—binders, reapers, mowers, shredders, shockers, and twine—numbers more than 9,000, by far the largest body of operatives employed in any manufacturing concern of its kind in the world. The Deering plant occupies eighty-five acres of ground, and constitutes a veritable "city in itself." These vast resources are possible only because of the firm faith in Deering which demonstration has implanted in the minds of the practical farming public in all parts of the world.

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DEERING HARVESTER COMPANY, CHICAGO, U. S. A.

real crop will give a higher yield per acre than will be received by sowing the two grain crops separately. If I had a thin wheat crop, I would certainly debate the question a long time before deciding to destroy the wheat. If half a stand were still alive, I would give the ground a good thorough harrowing, and would sow about twenty pounds of flaxseed to the acre, and would expect seven or eight bushels of flaxseed and twelve or fifteen bushels of wheat per acre. Wheat ripened with another crop is always superior in quality, because the associated crop keeps down the weeds and prevents the scattering wheat plants from growing too much straw.

If it is found necessary to destroy the wheat, soy-beans would probably give a fair return if properly planted and cultivated. I would not plant corn or Kafir-corn on wheat land, because the chinch-bugs are likely to destroy either one of these cereals. Chinch-bugs never attack soy-beans. Wheat land is especially in fine condition to receive a seeding of alfalfa. The land should be disked thoroughly to destroy what wheat plants are left and about twenty pounds of alfalfa-seed per acre should be sown broadcast and harrowed into the ground with a light smoothing harrow. Although one farmer has reported success in seeding alfalfa with wheat where the grain crop was harvested, yet the experiences of hundreds of others have long ago proven that this method is very uncertain. It is possible that the alfalfa could be sown with the wheat if the latter were mown off as soon as it began to head out, but nine times out of ten, a crop can not be grown on the same land with a young stand of alfalfa without sacrificing the young plants.

One farmer, some time ago, in your columns advocated letting the wheat land lie and rest a year. This is the worst advice that could be given. No land ever gets "tired." Following a Kansas soil is the surest way ever devised for wearing it out. There is enough leaching in a single season from an ordinary fallowed field to grow five or six wheat crops of thirty bushels per acre. The best way to restore and retain the fertility of the soil is to seed it down to alfalfa. Let the tubercles on the roots of the alfalfa plants with their inhabiting microorganisms do the work of building up the soil. This is an ideal season for Kansas farmers to strike for that five million acres of alfalfa which will insure a yield of digestible feed stuff equivalent to two hundred and forty million bushels of corn per annum, whether the season is a dry one or not. To sow the quantity of alfalfa that ought to be grown in Kansas, each farmer would need to add fifteen acres to every acre he now possesses of this crop.

Alfalfa and not wheat should be the watchword of every Kansas farmer.

GEO. L. CLOTHIER.

### Formaldehyde for Smut.

EDITOR KANSAS FARMER:—I noticed an article in the Lyndon People's Herald written by Professor Moore of Wisconsin, on smut in oats, giving the way to prevent the same, as follows:

"Smut spores do not live over in the ground, being unable to survive the winter. They are carried only in the seed. This seed may be made safe by soaking in water and formaldehyde. The combination should be one pound of formaldehyde in fifty gallons of water. The oats should be put in sacks and dipped in the solution, being left there for twenty minutes or more—an hour will not hurt them."

Now the question arises, If the spores of oat smut do not live over, do the spores of corn and cane, and if not, will the same treatment be beneficial? The thought originates from the following facts:

Smut on corn is on the increase. I will put it at a very small estimate. We will say that in 100 stalks 3 are ruined by smut. This is the least possible. I examined a field that was one-fifth smut; have seen cane and Kafir-corn that was nearly one-half smut. What can be done? I do not believe there is any field of corn, cane, or Kafir-corn entirely free from smut. I am an interested reader of your valuable paper.

W. H. SEEVER.

Vassar, Osage County.

EDITOR KANSAS FARMER:—With respect to the inquiry of your correspondent from Vassar, Osage County, Kansas, regarding the use of a solution of formaldehyde for killing smut spores, I will say that the method has been reported from several quarters as entirely successful and as being less dangerous to the vitality of the seed than the Jensen hot-water treatment. A 1 per cent solution of formaldehyde in water has been found sufficient to kill corn and oat smut. Your correspondent quotes an authority who says to take one pound of formaldehyde to fifty gallons of water. Since formaldehyde is a liquid, let us put it in this way: A 1 per cent solution would be two quarts formaldehyde to forty-nine gallons two quarts water. A word of caution is necessary. The formaldehyde should be bought of a reliable dealer. It is frequently diluted and sold in very weak solutions. The commercial formaldehyde can be obtained of any wholesale drug house. The time for soaking the seed need not be more than fifteen or twenty minutes.

H. F. ROBERTS.

"In looking back you never feel that upon any occasion you have acted too generously, but you often regret that you did not give enough."—Andrew Carnegie.

Purify the blood and put the system in order for summer work by using at this time a short course of Prickly Ash Bitters; it is the greatest blood purifier on earth.



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## Horticulture.

### FUNGICIDES, INSECTICIDES, AND SPRAYING CALENDAR.

GEORGE E. STONE, HENRY T. FERNALD, SAMUEL T. MAYNARD, HATCH EXPERIMENT STATION, AMHURST, MASSACHUSETTS.

Many of the mixtures given herewith can be obtained already prepared from reliable dealers, which saves much time and trouble in mixing them. The following precautions should be taken into consideration:

1. Care should be taken to keep all substances employed in spraying where they can not be gotten at and used by mistake. All substances should be correctly labeled.
2. Solutions and mixtures containing copper sulfate, corrosive sublimate, and arsenate of lead should be made in wood, glass, or earthen vessels.
3. Arsenical solutions should not be applied to fruits, etc., within two weeks of the time when they are to be used as food.
4. Trees should not be sprayed when they are in bloom, as the bees which are necessary to fertilize the flowers, may be destroyed.

#### Fungicides.

##### 1.

#### BORDEAUX MIXTURE.

4 pounds copper sulphate (blue vitrol).  
4 pounds lime (unslaked).  
25-50 gallons water.

Dissolve the copper in hot or cold water using a wood or earthen vessel. Slake the lime in a tub, adding the water cautiously and only in sufficient amount to insure thorough slaking. After thoroughly slaking more water can be added and stirred in until it has the consistency of thick cream. When both are cold pour the lime into the diluted copper solution of required strength, straining it through a fine-mesh sieve or a gunny cloth and thoroughly mix. The standard mixtures are:

- (a). 25 gallons (full strength solution, or 4-4-25 formula).
- (b). 50 gallons, (half strength mixture, or 4-4-50 formula.)

It is then ready for use. Considerable trouble has frequently been experienced in preparing the Bordeaux mixture. Care should be taken that the lime is of good quality and well burned and has not been air slaked. Where small amounts of lime are slaked it is advisable to use hot water. The lime should not be allowed to become dry in slaking, neither should it become entirely submerged in water. Lime slakes best when supplied with just enough water to develop a large amount of heat which renders the process active. If the amount of lime is insufficient, there is danger of burning tender foliage. In order to obviate this the mixture can be tested with a knife blade or with ferro-cyanide of potassium (one ounce to five or six ounces of water). If the amount of lime is insufficient, copper will be deposited on the knife blade, while a deep brownish-red color will be imparted to the mixture when ferro-cyanide of potassium is added. Lime should be added until neither reaction occurs. A slight excess of lime, however, is desirable.

The Bordeaux mixture is best when first prepared.

pared. Stock solutions of lime and copper can be made, and mixed when required.

##### 2.

The following, known as the 6-4-50 formula, is in very general use:

6 pounds copper sulphate.  
4 pounds lime.  
50 gallons water.

##### 3.

#### BORDEAUX MIXTURE FOR PEACH FOLIAGE.

The Bordeaux mixture as ordinarily applied frequently injures to some extent the foliage of the peach, etc., causing a shot-hole effect on the leaves. This injurious effect has been shown to be largely obviated by the use of the following:

3 pounds copper sulphate.  
6 pounds lime.  
50 gallons water.

This is known as the 3-6-50 formula. Some experimenters have also recommended the following for peach foliage:

- (a). 2-2-50 formula.
- (b). 3-3-50 formula.

The latter contains three times as much lime as copper sulphate.

##### 4.

#### BORDEAUX RESIN MIXTURE.

5 pounds resin.  
1 pound potash lime.  
1 pint fish oil.  
5 gallons water.

To make resin solution place resin and oil in a kettle and until resin is dissolved. Cool slightly and then add lye slowly and stir. Again place the kettle over the fire, add the required amount of water, and allow the whole to boil until it will mix with cold water forming an amber-colored solution. Take 2 gallons of the resin solution and add to it 10 gallons of water. Mix this with 40 gallons of Bordeaux mixture. Recommended for asparagus rust on account of its adhesive properties.

##### 5.

#### SACCHARATE OF COPPER.

4 pounds copper sulphate.  
4 pounds lime.  
4 pints molasses.  
25 gallons water.

Slake 4 pounds of lime and dilute the same with water. Dissolve 4 pints of molasses in a gallon of water and mix with the lime. Stir thoroughly and let it stand for a few hours. Dissolve 4 pounds of copper in 10 gallons of water and pour into it the lime-molasses solution while stirring briskly. Allow the mixture to settle. Draw off the clear greenish solution for use. Recommended in France as a substitute for the Bordeaux mixture.

##### 6.

#### AMMONIACAL COPPER CARBONATE.

5 ounces copper carbonate.  
3 pints ammonia (26 degrees Beaume).  
50 gallons water.

Dissolve the copper carbonate in ammonia. This may be kept any length of time in a glass stoppered bottle and can be diluted to the required strength. The solution loses strength on standing.

##### 7.

#### EAU CELESTE.

(Blue Water).  
2 pounds copper sulphate.  
1 quart ammonia.  
50 gallons water.

Dissolve the copper sulphate in 6 or 8 gallons of water, then add the ammonia and dilute to 50 or 60 gallons of water.

##### 8.

#### COPPER CARBONATE MIXTURE.

1 pound copper carbonate.  
40 gallons water.

Mix the copper carbonate with a small quantity of water to make a paste; then dilute with the required amount of water. For fruit-rot of the peach, etc.

##### 9.

#### COPPER ACETATE.

6 ounces copper acetate (Dibasic acetate).  
50 gallons water.

First make a paste of the copper acetate by adding water to it, then dilute to the required strength. Use finely powdered acetate of copper, not the crystalline form. For the same purpose and of the same value as the preceding formula.

##### 10.

#### COPPER SULPHATE SOLUTION.

(Strong Solution).  
1 pound copper sulphate.  
25 gallons water.

Applied only on trees without foliage.

##### 11.

#### COPPER SULPHATE SOLUTION.

(Weak Solution).  
2-4 ounces copper sulphate.  
50 gallons water.

For trees in foliage.

##### 12.

#### POTASSIUM SULPHIDE.

3 ounces potassium sulphide.  
10 gallons water.

Valuable for gooseberry mildews, etc.

##### 13.

#### POTASSIUM PERMANGANATE.

1 part potassium permanganate.  
2 parts soap.  
100 parts water.

Recommended in France for black-rot and mildew of the grape, etc.

##### 14.

#### IRON SULPHATE AND SULPHURIC ACID.

Water (hot) 100 parts.  
Iron sulphate, as much as will dissolve.  
Sulphuric acid, 1 part.

Prepare solution just before using. Add the acid to the crystals and then pour on the water. Valuable for treatment of dormant grapevines affected with Anthracnose, application being made with sponge or brush.

##### 15.

#### CORROSIVE SUBLIMATE.

(For potato scab).  
2 ounces corrosive sublimate.  
15 gallons water.

Dissolve the corrosive sublimate in 2 gallons of hot water, then dilute to 15 gallons, allowing the same to stand five or six hours, during which time thoroughly agitate the solution several times. Place the seed potatoes in a sack and immerse in the solution for one and one-half hours. Corrosive sublimate is very poisonous, consequently care should be taken in handling it, nor should the treated potatoes be eaten by stock. The solution should not be made in metallic vessels.

##### 16.

#### FORMALIN.

(For Potato Scab).  
8 ounces formalin (40 per cent solution).  
15 gallons water.

Used for the same purpose as corrosive sublimate, but not poisonous. Immerse the seed potatoes for two hours.

#### Insecticides.

##### 17.

#### PARIS GREEN—DRY.

1 pound Paris green.  
20-50 pounds flour.

Mix thoroughly and apply evenly; preferably when dew is on the plants.

##### 18.

#### PARIS GREEN—WET.

1 pound Paris green.  
1-2 pounds quick lime.  
200 gallons water.

Slake the lime in part of the water, sprinkling in the Paris green gradually, then add the rest of the water. For the peach and other ten-

## PUNISHMENT.

Social progress has done away with a great many forms of punishment once administered under the laws of enlightened people. But nature never changes or modifies her penalties. She still has



the same punishment for the man who neglects or abuses his stomach as she had in the far off days "when Adam dined and Eve span."

The physical discomfort, dullness, sluggishness, irritability, nervousness and sleeplessness which are visited upon the man who eats carelessly or irregularly have been from the beginning the evidences of disease of the stomach and its associated organs of digestion and nutrition.

Dr. Pierce's Golden Medical Discovery cures the diseased stomach and enables the perfect digestion and assimilation of food, so that the sluggishness, irritability, nervousness and sleeplessness which result from innutrition are cured also.

"I was taken sick nine years ago with fever," writes Mr. M. M. Wardwell, of Linwood, Leavenworth Co., Kansas. "Had the doctor and he broke up the fever all right, but I took diarrhea right away; he couldn't cure it and it became chronic, and then he gave up the case. I got so weak with it and had piles so badly I couldn't lie down, nor hardly sit up. Was that way two or three months; thought I would never be well again, but picked up one of Dr. Pierce's Memorandum Books one day and saw your description of catarrh of the stomach. I thought it hit my case. We had a bottle of Dr. Pierce's Golden Medical Discovery in the house that was got for mother. You recommend it for catarrh of the stomach, so I went to taking it. The one bottle nearly cured me. I got two bottles next time and took one and one-half and was well. I haven't been bothered with diarrhea since."

Dr. Pierce's Pellets cure biliousness.

der leaved plants use 300 gallons of water. Keep well stirred while spraying.

##### 19.

#### ARSENITE OF LIME.

1 pound white arsenic.  
2 pounds fresh-burned lime.  
1 gallon water.

Boil together for forty-five minutes and keep in a tight vessel. Add one quart of this to a barrel (50 gallons) of water for use.

This insecticide has been recommended by a number of experiment stations, but has not as yet been sufficiently tested at the Massachusetts Station to receive an endorsement. (Concluded on next page.)

## SPRAYING CALENDAR.

PLANT.	FIRST APPLICATION.	SECOND APPLICATION.	THIRD APPLICATION.	FOURTH APPLICATION.	FIFTH APPLICATION.
APPLE..... (Scab, codling-moth, bud-moth, tent caterpillar, canker worm, plum curculio, San Jose scale.)	Before buds swell, No. 10. When buds are swelling, No. 1. b. For scale, No. 23, 25 per cent before leaves unfold.	For canker-worm and plum curculio just before blossoms open, No. 30 or 31.	When blossoms have fallen repeat second.	Eight to twelve days later, No. 1, b. 30 or 31. For scale, No. 23, 15 per cent every two weeks, up to October 15.	Ten to fourteen days later, No. 1, b. Use dilute No. 11 solution in September for scab if season is wet.
ASPARAGUS..... (Rust.)	Use No. 4, on all young beds at intervals of two to four weeks from May to September, according to weather.	After cutting use No. 1, b, or No. 4.			
BEAN..... (Anthracnose, leaf-blight.)	When third leaf expands, No. 1, b.	Ten days later, No. 1, b.	Fourteen days later, No. 1, b.	Fourteen days later, No. 1, b. Spraying with No. 1, b, after the pods are one-half grown will injure them for market.	
CABBAGE..... (Worms, club root.)	No. 29, dry for worms. Lime 35 bushels per acre for club root.	Seven to ten days later, repeat No. 29 dry.	Seven to ten days later, repeat second.	Repeat in ten to fourteen days, if necessary, second.	
CARNATION..... (Rust and other fungous diseases.)	No. 1, b, in fields at intervals of from one to two weeks according to weather.	Dip plants in No. 1, b, before planting.	Use No. 1, b, until banking begins, every two weeks.		Freedom from disease depends largely upon good cultivation and an abundance of plant food in the soil.
CELERY..... (Rust and blight.)	Spray in seed-bed with No. 1, b, every two weeks.				Repeat after every rain when fruit begins to color.
CHERRY*..... (Rot, aphid, slug, plum curculio, black-knot.)	As buds are breaking, No. 1, b, when aphides appear, No. 23.	When fruit has set, No. 31 and if slugs appear, dust leaves with air-slaked lime or hellebore.	Ten to fourteen days if rot appears, No. 31, for plum curculio.	Ten to fourteen days later, No. 11. For scale treat as for apple.	After fruit is gathered, No. 1, b.
CURRENT..... GOOSEBERRY..... (Worms, leaf-blight, mildew.)	Spray bushes with No. 1, b, before leaves start. At first appearance of worms, No. 23.	Ten days later, No. 1 and 28. For mildew, No. 12.	If worms persist, No. 28.	Two to four weeks later, if any disease appears.	
ELM..... (Leaf beetle.)	As soon as leaves are formed use No. 20.		Repeat a month later.	Two seasons needed to extinguish this pest.	
GRAPE..... (Fungous diseases, rose bug, etc., leaf hopper.)	In spring when buds swell, No. 1 and 14.	Just before flowers, unfold No. 30.	When fruit has set, No. 30. For leaf-hopper, No. 22, 15 per cent.	Two to four weeks later, No. 11.	No. 11, as fruit is coloring.
NURSERY STOCK..... (Fungous diseases.)	When first leaves appear, No. 1, b, and No. 30 or 31.	Ten to fourteen days, repeat. For scale treat as for apple.	Ten to fourteen days, repeat.	Ten to fourteen days repeat. For scale treat as for apple.	Five to seven days later, repeat.
PEACH, APRICOT,..... NECTARINE..... (Rot, mildew, scab, leaf curl, curculio.)	As the buds swell, for plum curculio, No. 3 and 20.	When fruit has set, No. 3 and 31 for curculio.	When fruit is one-half grown, No. 3, a or b.	Five to seven days later, No. 12*** For scale treat as for apple.	Ten to fourteen days later, No. 11.
PEAR..... (Leaf-blight, scab, psylla, codling-moth, blister-mite, slug.)	As buds are swelling, No. 1, b.	Just before blossoms open, No. 30, when leaves open for psylla, No. 23.	After blossoms have fallen, if necessary, No. 23.	Eight to twelve days later, repeat third. For scale treat as for apple.	Ten to twenty days later, No. 11.
PLUM*..... (Curculio, black-knot, leaf-blight, brown-rot, San Jose scale.)	When buds are swelling, No. 1, b. Before buds swell, No. 23 or 21 for scale.	When blossoms have fallen, No. 31.	Ten to fourteen days later, No. 31.	Ten to twenty days later, No. 31. For scale treat as for apple.	Ten to twenty days later, as fruit is ripening.
QUINCE..... (Leaf- and fruit-spot.)	When blossom buds appear, No. 1 and No. 30.	When fruit has set, No. 30.	Ten to twenty days later No. 1, b.	Ten to twenty days later, No. 1, b.	
RASPBERRY..... BLACKBERRY..... DEWBERRY..... (Rust, anthracnose, leaf-blight.)	Before buds break, No. 1, b.	Just before the blossoms open No. 30.	(Orange or red rust is treated best by destroying the plants attacked in its early stages.)	Spray after fruit is gathered with No. 1.	Ten to twenty days later, repeat.
ROSE..... (Rose-mildew, red spider.)	No. 33, whenever these pests appear.				
STRAWBERRY..... (Rust, Black Paria, etc.)	As soon as growth begins, with No. 1, b. Dip plants in No. 1, before setting.	When first blossoms open spray both young and old plantation, No. 30.	Spray new plantation, No. 1, b.	Repeat third if weather is moist.	
TOMATO..... (Rot, blight, flea-beetle.)	Soon after planting use No. 1, b.	Repeat as soon as fruit is formed. Fruit can be wiped if disfigured by No. 1, b.	Repeat first when necessary.	Try weak solution*** of copper sulphate as fruit begins to ripen.	
POTATO..... (Flea-beetle, Colorado beetle, blight and rot, scab.)	Spray with No. 30, when about one-half grown. For scab, No. 15 or 16.	Repeat before insects become too numerous.	Repeat for blight, rot, and insects as potatoes approach maturity.		
VIOLET..... (Spot, red spider.)	Use No. 33, on first appearance of spot or insects.				

\*Paris green can not be used on foliage of cherry, peach, Japanese plumb, apricot and nectarine without injury.

\*\*Black knots on plums or cherries should be cut and burned as soon as discovered.

\*\*\*If a painful of lime wash, well strained, be added to each barrel full of copper solution—4 ounces to 50 gallons—delicate foliage like that of the peach, etc., will not be injured.



## 20.

## ARSENATE OF LEAD.

4 ounces arsenate of soda (50 per cent strength).  
11 ounces acetate of lead.  
150 gallons of water.  
Put the arsenate of soda in 2 quarts of water in a wooden pail, and the acetate of lead in 4 quarts of water in another wooden pail. When both are dissolved mix with the rest of the water. Warm water in the pails will hasten the process. For the elm-leaf beetle use 25 instead of 150 gallons of water.

## 21.

## WHALE-OIL SOAP.

2 pounds potash whale-oil soap.  
1 gallon hot water.  
For winter use only.

## 22.

## KEROSENE EMULSION.

$\frac{1}{4}$  pound hard soap, shaved fine.  
1 gallon water.  
2 gallons kerosene.  
Dissolve the soap in the water which should be boiling; remove from the fire and pour it into the kerosene while hot. Churn this with a spray pump till it changes to a creamy, then to a soft butter-like mass. Keep this as a stock, using one part in nine of water for soft-bodied insects such as plant lice, or stronger in certain cases.

## 23.

## MECHANICAL EMULSION.

A substitute for the last. Made entirely by the pump, which draws water and kerosene from separate tanks and mixes them in the desired proportion by a mechanical device. Several pumps for this purpose are now on the market.

## 24.

## RESIN-LIME MIXTURE.

5 pounds pulverized resin.  
1 pound concentrated lye.  
1 pint fish or other animal oil.  
5 gallons water.  
Place the oil, resin, and 1 gallon of hot water in an iron kettle and heat till the resin softens; then add the lye and stir thoroughly; now add 4 gallons of hot water and boil till a little will mix with cold water and give a clear, amber-colored liquid; add water to make up 6 gallons. Keep this as a stock solution.  
For use, take  
1 gallon stock solution.  
16 gallons water.  
3 gallons milk of lime.  
14 pounds Paris green.  
The object of this preparation is to obtain an adhesive material which will cause the poison to adhere to smooth leaves. It has been highly recommended by the New York State (Geneva) Experiment Station.

## 25.

## LIME, SALT, AND SULPHUR.

(Oregon Formula.)

50 pounds unslaked lime.  
50 pounds flowers of sulphur.  
50 pounds common salt.  
Slake the lime in enough water to do it thoroughly; add the sulphur and boil for an hour at least, adding water if necessary. Then add the salt and boil fifteen minutes more. Add water to make 150 gallons and spray hot through a coarse nozzle.

## 26.

## LIME, SALT, AND SULPHUR.

(Marlatt's Formula, from Smith.)

30 pounds unslaked lime.  
30 pounds sulphur.  
15 pounds salt.  
60 gallons water.  
Boil with steam for four hours and apply hot.

## 27.

## CARBOLIC ACID EMULSION.

1 pound hard soap shaved fine.  
1 gallon water.  
1 pint crude carbolic acid.  
Dissolve the soap in the water, boiling; add the carbolic acid and churn as for kerosene emulsion. Use one part of this with 30 parts of water.

## 28.

## HELLEBORE.

1 ounce hellebore.  
1-2 gallons water.  
Steep the hellebore in a pint of water and gradually add the rest of the water. Hellebore may also be dusted over the plants, either pure or mixed with flour or plaster.

## 29.

## INSECT POWDER. PYRETHRUM.

Mix with half its bulk of flour and keep in a tight can for twenty-four hours; then dust over the plants. Or,  
100 grains insect powder.  
2 gallons water.  
Mix together and spray.

## Combined Fungicides and Insecticides.

## 30.

BORDEAUX MIXTURE AND PARIS GREEN.  
4 ounces Paris green.  
50 gallons Bordeaux mixture.

## 31.

BORDEAUX MIXTURE AND ARSENATE OF LEAD.  
1 gallon arsenate of lead (made by formula No. 20).  
50 gallons Bordeaux mixture.

## 32.

BORDEAUX MIXTURE AND ARSENITE OF LIME.  
 $\frac{1}{4}$  quarts arsenite of lime (made by formula No. 19).  
50 gallons Bordeaux mixture.

## 33.

## IVORY SOAP.

1 bar Ivory soap (10-cent size).  
15 gallons water.  
Apply warm, as it thickens on cooling. Recommended for rose mildew, red spider, plant lice, etc.

## CAR-SUL CATTLE DIP

CURES Mange and Itch; KILLS Lice, Ticks and Screw-Worms; HEALS Cuts, Wounds, Galls and all Sores.

GUARANTEED to do the work without injury to eyes or other parts of animal.

At dealers or by express, prepaid, \$1.50 per gallon. 25 cent cans—dealers only. Special price in quantities. Write to-day for book and free trial Car-Sul. Address

MOORE CHEMICAL CO.,  
1501 Genesee St., Kansas City, Mo.

# A \$3000.00 STOCK BOOK FREE

FOR YOU AND EVERY READER OF THIS PAPER, POSTAGE PREPAID. This Stock Book Contains 183 Large Colored Engravings of Horses, Cattle, Sheep, Hogs, Poultry, etc. It cost me \$3000 to have our Artists and Engravers make the fine live stock engravings. It also contains a finely illustrated Veterinary Department that will save you Hundreds of Dollars. It gives a description and history of the different Breeds of Horses, Cattle, Sheep, Hogs and Poultry. The Editor of this Paper will tell you that you ought to have a copy of our finely illustrated Book for reference. WE WILL SHIP YOU \$14.00 WORTH OF "INTERNATIONAL STOCK FOOD," ABSOLUTELY FREE, IF BOOK IS NOT EXACTLY AS REPRESENTED.

THIS BOOK WILL BE MAILED FREE (Postage Prepaid) if You Write Us (Letter or Postal) and Answer 3 Questions: 1st—Name this Paper. 2nd—How much Stock have you? 3rd—Did you ever use "INTERNATIONAL STOCK FOOD" for Horses, Cattle, Sheep, Hogs, Colts, Calves, Lambs or Pigs? Answer the 3 Questions and Write Us At Once For Book.

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Capital Paid in, \$1,000,000.00.

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INTERNATIONAL STOCK FOOD.  
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INTERNATIONAL HARNESS SOAP

INTERNATIONAL GALL CURE.  
INTERNATIONAL HEAVE CURE.  
SILVER FINE HEALING OIL, Etc.

## The Stock Interest.

### THOROUGHbred STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper.

April 25 and 26, 1902—H. O. Tudor, Holton, Kans., Shorthorns.  
May 7 and 8, 1902—Collin Cameron, Kansas City, Arizona Herefords.  
May 25-27, 1902—National Hereford Exchange, Omaha, Neb. (Sothern management.)  
December 9, 1902—Gifford Bros., Manhattan, Kans., Shorthorns.

### Range Cattle and Horses.

EDITOR KANSAS FARMER:—In a recent issue of your paper I noticed a statement by Mr. John A. Davidson concerning the inferiority of range horses and range cattle. The writer says that range cattle are "razor-backed, flat-ribbed, narrow-contracted, and mullet-headed," and he hits the range horse still harder saying that they are "little, gnarly, knotty" animals "that have no more intelligence than a Texas steer" and that they are not worth \$36 per dozen.

Now let me say something about the range steer and the range horse. Mr. Davidson advises the farmers of Brown County to buy high-grade beef cows and thoroughbred bulls. Now we are ahead of Brown County farmers, as that is just what we have been doing ever since eastern Colorado settled up with small ranchmen. I know of only a few ranchmen that do not keep registered males and high-grade females. There are a few of the long-horned Southern cattle in Texas and Arizona, but the ranchmen there, for the most part, use good males and send out fairly good steers. Our cattle here are as good as are raised anywhere, although it is true we depend mostly on the grass.

Our horses are of Eastern blood—the offspring of stock shipped here from the East. The elevation or altitude is high, and this gives our horses excellent lung power. They are raised on the plains, and have good muscular power, good eyes, and good feet—are better horses for endurance than any Eastern horse. Where they are raised in large numbers and not handled much they are a little wilder at first, but break just as easy as the Eastern horse and are just as gentle after they are broke. I have 100 head and am raising and breaking them continually and I never had a balky horse of my own raising and breaking. My son, 12 years old, can take many of my horses and work them after I have worked with them two hours. He can harness them and unharness them alone the second time they are used. Our horses compare well with Eastern horses for size and style, and are as intelligent as any horse.

The gentleness of a horse depends a great deal on how he is handled in the start. The first impressions that a horse gets when being broke have a great effect on him. A colt should not be allowed to get the advantage of his driver. He should be managed so that he could not help but mind. If he is inclined to kick, he should be fixed so he can not kick; if he wants to run away, fix him so he can not run away; if he is nervous, be gentle but firm with him, keep him at solid work until he is tired, handle him gently and he will get tame. Tuttle, Colo. IRA J. WHIPPLE.

### The Angora Goat for the Ozarks.

Millions of acres of land in the mountain and hill districts of America are covered with brush and weeds. Nature has provided an agency for their reclamation, in the goat, which not only destroys the weeds and undergrowth but assists in the introduction of nutritive grasses.

R. C. Johnson, of Lawrence, Kans., had 200 acres of pasture-land. It was overrun with buck-bush and sumac, which had killed out the blue-grass. Mr. Johnson purchased a flock of Angoras and turned them loose on his waste land. To-day this 200 acres forms one of the finest pastures in Douglas County. C. B. Bailey, of California, who has recently sold more than \$8,000 worth of

mohair, says, "Farmers owning brushy land can make no better investment than in buying a few head of Angoras. They will thrive on what other animals will not eat, and will increase the value of the pasturage by consuming that which hinders the growth of the grass. Goats are browsers; sheep are grazers. Goats live on leaves and weeds. They kill the brush by cropping the leaves and branches, and the plant soon dies for want of nourishment. Mr. Wilson, of Taney County, Missouri, in a country entirely free from contagious sheep diseases, with a mild and genial climate, located a hilly homestead near Forsyth. He had barely money enough to buy 40 head of sheep and to pay \$14 for his homestead. In seven years, beside supporting his family and improving his farm from the surplus, he had 290 sheep, an increase of over 700 per cent for the seven years. He further declares that he can make 100 per cent on every dollar invested in sheep in Taney County.

If sheep are profitable in the Ozarks, goats are far more profitable, for the following reasons: Because they clear the ground from weeds and undergrowth, and convert rough brush land into fertile pastures. They are more hardy and not liable to contagious sheep diseases. The milk is valuable as medicine. They are more courageous and will protect themselves from dogs and wolves. They require little or no feed. A breeder of Angoras in northern Arkansas says, "I do not feed my flock at all. They run out upon the hills and keep fat all winter. They drop their kids in the woods and I seldom lose one. Give the flocks the freedom of the woods and they will take care of themselves." Failure of crops does not affect them. Drouth that dries up the pastures does not destroy the weeds and brush and things upon which they subsist. They can be sheared twice a year.

Mr. Brooks, of New Mexico, sold 8,000 pounds of mohair from two clippings from 1,325 Angoras, in Boston, for 40 cents per pound. The cost of keeping is nominal. The animals range for themselves and two herders suffice to care for them. The skin is valuable for morocco, the pelt brings from \$1.50 to \$3.50 for rugs and robes and the flesh is superior to mutton, having the taste of venison. The Texas Stockman says, "There is no meat on earth better or more palatable than that of a good fat kid, as can be testified by any one who has ever lived in Texas."

Any timbered or brush country from the sage brush of the Western plains to the pine-clad hills of New England is suitable for Angoras. Western breeders are utilizing the woody lands of southwest Missouri because of the mild climate and the fact of the existence of 150,000 acres of Government lands—too rough for tillage, but a paradise for goats—that can be homesteaded at a cost of \$14 for 160 acres or bought at private entry at \$1.25 per acre.

There is not a State within the borders of our land which has not in some respects splendidly adapted soil and range for the Angoras. There are, however, some places where the Angora can be propagated with more profit than in others. A mountainous country more fully corresponds to the Angora's proclivity. He likes hills, rocks, brush and babbling springs. When furnished with these the Angora takes care of himself. Until recently vast areas in southwestern Missouri and northern Arkansas which have lain unnoticed, are now being purchased and turned into goat ranches. The climate being adapted to the Angora, the mountains, valleys and plateaus to the best range requirements, winters short and summers cool, free feed in abundance; the texture of the mohair among the best, why should not the Ozarks soon become the center of activity in the Angora goat movement of America? I know of nothing which can offer more to the rich man or the poor man than the Angora goat in the Ozarks. The rich man can not invest his money more profitably, minus the uncertainty of a broker's life. The

## Feed Your Cattle Right

It pays to feed a variety of feeds. Make a grain ration of ground corn with

## Gluten Feed and Germ Oil Meal

These digestible feeds are nutritious, easily assimilated and cattle, hogs, calves, etc. eat them with a relish. Write for samples and letters of recommendation, addressing Department K F.

The Glucose Sugar Refining Co.,  
The Rookery, Chicago.

poor man can buy a hilly forty-acre tract for \$1 per acre. He can hew his house from the timber, get his fuel free, his water pure and everlasting, and enough tillable land to raise feed for his family. Ten head of common goats can be purchased at \$1.25 per head, and one fair grade Angora buck for from \$15 to \$30. He thus can have for \$65 a forty-acre goat ranch, with a start in goats which will enable him, in the course of a few years, to get more land, more pleasure, more wealth, better buildings, and take rank among the eminent goat-breeders of our day.

MAJ. J. E. BURBANK.

### Sheep.

JOHN A. PECK, TECUMSEH, BEFORE THE BERRYTON FARMERS' INSTITUTE.

When your president asked me to prepare a paper on sheep, coming as it did so close on the heels of the great drouth of 1901, with its short pasture, it brought vivid recollections of my wanderings as a shepherd in search of the lost sheep that had crept through the hedge fence or barbed-wire, or scaled the highest stone wall, and seemed determined to exterminate the remaining corn and cane plants that were struggling so heroically during that drouth stricken season to fulfill the promise of seed time and harvest. When they made such determined raids on the peach- and apple-trees, and strawberry beds, garden produce seemed such a necessity. So soon after those trying conditions, when it almost seemed that Satan had discarded the roaring lion and had taken possession of the sheep in order that he might vex our souls the more, it seemed that I could not come to you and talk in favor of sheep. Then I remembered that the pastures were very short and dry. I tried to think what it would mean to be really hungry. A vision of those mild, pleading eyes came before me. My stony heart was softened, and I forgave their wanderings. During those moments it seemed to me the fault lay at my own door. I had been guilty of the sin of omission, in that I had listened to the siren voice of the salesman, that any kind of fence would turn sheep, and I had neglected to provide against the evil day.

Knowing full well that what I say will soon be forgotten and disappear from your minds, like the mist of a May morn-



ing, I would concentrate the result of four years' experience of sheep culture into one sentence and strive to impress it upon your minds. If you neglect my advice I promise you there will come a time some day when you will remember what I say. Do not engage in sheep culture unless you are willing to invest a reasonable amount in sheep fence. Next provide a good shed, where the sheep may keep dry. They do not take kindly to water.

Kansas, with her abundance of sunshine and dry climate, certainly can not be excelled for sheep culture. Do not get too many to start with, and grow in knowledge as they grow in number. Sheep are so different in their habits from other farm animals. Fifteen or twenty would be plenty to begin with. The question of breed is not important. Get the kind that suits you. I prefer a mutton sheep, with the idea of producing as much cheap mutton as possible, not forgetting the matter of wool. The lamb, or two in case there are twins, should bring from \$2.50 to \$5 apiece, according to care and price. The common estimate is that ten sheep will live on the food consumed by one cow, so you have anywhere from \$35 to \$50 for the keep of one cow, and let the lamb do the milking. I believe the early lamb is the most profitable, as he goes on grass better and is best fitted to throw off the stomach worm, which is the worst enemy they have. It has not proved

England supports one sheep on each one-half acre of her valuable soil, while Kansas supports one sheep to each 250 acres. When Kansas begins to support a reasonable per cent of sheep, then we will begin to understand the meaning of that old proverb that has come down to us through the ages, "The sheep is the best manure cart in the world." Farmers of Berryton, I believe that sheep are destined to become one of the mighty pillars in that grand structure, "Improved agriculture," which has made Kansas famous the world over, and covered her people with glory.

Indigestion is the direct cause of disease that kills thousands of persons annually. Stop the trouble at the start with a little Prickly Ash Bitters; it strengthens the stomach and aids digestion.

#### Receives an Enormous Mail.

In Topeka, Kansas, there is a gentleman who is revolutionizing the practice of medicine. Mr. W. W. Gavitt, who for a number of years has been at the head of one of the largest medical institutions of the West and who has been interested in the banking business for over twenty-five years, has made some most wonderful discoveries during the past year in modern methods for treating and curing chronic diseases, especially kidney, liver, stomach troubles, etc.

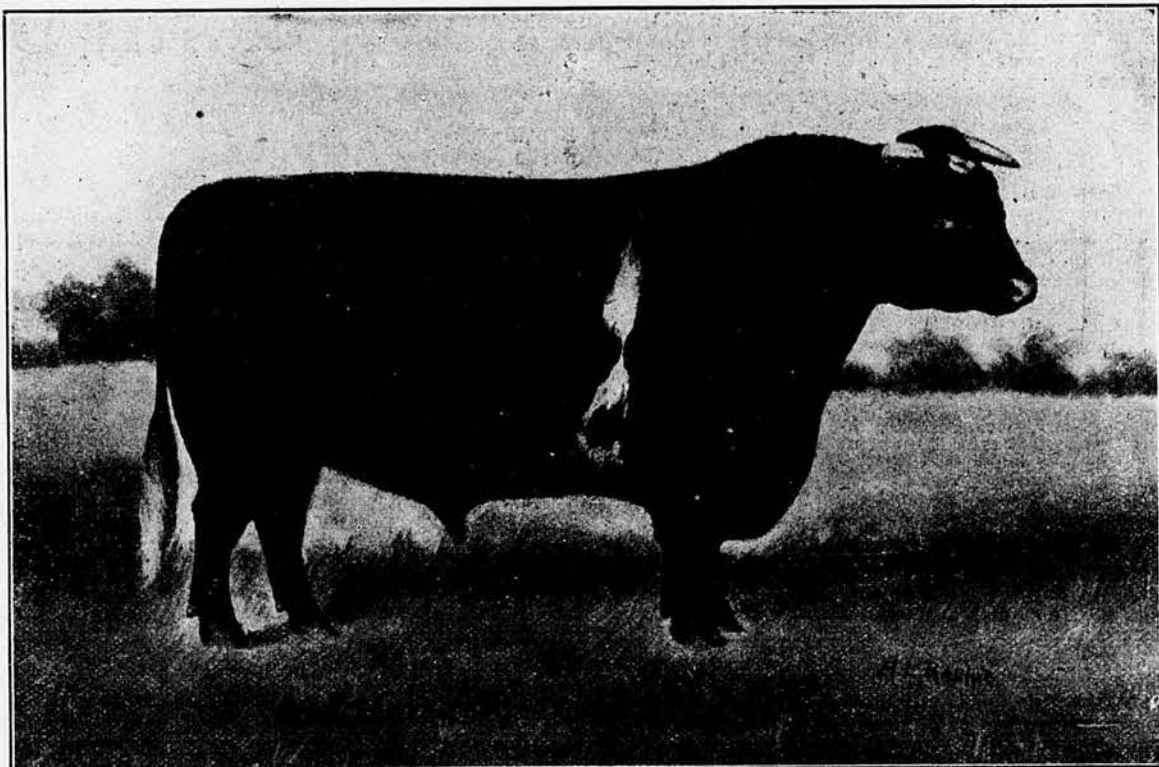
He is receiving thousands of letters each week from physicians and prominent citizens in all parts of the world, praising his great discovery. Many letters are also received from the rich and poor alike, where they have heard of the wonderful

pounds from other cane-sugar countries; and 599,774,613 pounds from the beet-sugar countries of Europe.

Of the 985,568,640 pounds of sugar produced in the United States, about one-third was from beets and two-thirds from cane. Of that withdrawn from the insular possessions, all was from cane, as was also all of that from Cuba and from the other tropical territory; while of the 599,774,613 pounds of beet-sugar imported, 484,344,004 pounds came in the unrefined condition, and 115,430,609 pounds refined.

The following table shows the total sugar-consumption of the United States, stated in tons, from 1880 to 1901, and the quantity supplied by beet and cane production in the United States:

Calendar year.	Total Consumption. Tons.	Domestic Product. Cane. Tons.	Beet. Tons.
1880.....	956,784	88,822	357
1881.....	1,012,206	127,367	629
1882.....	1,134,994	76,372	446
1883.....	1,224,011	142,297	536
1884.....	1,309,383	135,243	737
1885.....	1,298,380	100,876	600
1886.....	1,459,280	135,258	754
1887.....	1,381,714	85,394	255
1888.....	1,519,283	167,815	1,640
1889.....	1,416,474	153,909	2,400
1890.....	1,476,377	136,503	2,800
1891.....	1,888,851	221,951	5,400
1892.....	1,853,370	204,064	12,000
1893.....	1,906,758	235,886	16,000
1894.....	2,012,714	271,336	20,443
1895.....	1,949,744	324,606	30,000
1896.....	1,900,086	243,220	40,000
1897.....	2,070,978	310,537	39,684
1898.....	2,002,902	252,812	34,453
1899.....	2,078,068	160,400	62,826
1900.....	2,219,847	174,450	82,736
1901.....	2,372,316	292,150	124,859



At the head of H. O. Tudor's herd of Scotch and Scotch-topped Shorthorns. See advertisement on last page of H. O. Tudor's sale of Shorthorns at Holton, Kansas.

serious with us. We have lost only one or two lambs a season from that cause.

The lamb should have access to a small trough outside the mother's pen, in which to find shelled corn. In August the lambs should be weaned by placing them in the corn-field. It would do your hearts good to see them go after the crab-grass and weeds. They will not hurt the corn except to eat the lower blades. Last year we placed our corn in the shock and still let the lambs run. They are not wasteful like other stock. They made a splendid growth in that field, and were fit for the butcher.

The question most frequently asked is will sheep eat cockle-burs? I have an old orchard fenced hog-tight containing six or seven acres that was well seeded with cockle-burs, sunflowers, ragweed, and velvet weed. I had mowed it frequently, but the weeds thrived. We have kept the sheep confined in this field a portion of the time since I have kept them, and I would be safe in offering \$10 apiece for each cockle-bur, sunflower, or ragweed found. If the sheep have range they will not clean the weeds up. They have such a roving disposition that they will take a bite of grass here, nip a weed there, and keep going.

Dogs and wolves have not bothered us yet. We yard the sheep every night. I believe sheep have a place in our farm economy, just as swine or poultry have. They convert waste products into choice mutton and wool. I would say to the farmers of Kansas, keep sheep, wear good woolen underwear, keep warm, and quit growling about blizzards. Wear good clothes to town, feed the balanced ration, and the word "hayseed" will soon be an unknown term.

results having been accomplished with his new methods, and asking for particulars in regard to it.

As a token of respect for the interest they had taken in his discoveries, he sends a small treatment free, as well as giving full particulars in regard to the discoveries.

There is perhaps no gentleman in the State who receives more mail than does Mr. Gavitt.

#### Sugar.

Public interest in the sugar problem—the share of the enormous consumption of that article supplied and likely to be supplied by the United States—has led the Treasury Bureau of Statistics to prepare a statement regarding the sugar consumption of the United States; the amount produced in this country of cane and beet, separately stated; the amount produced in its insular territory, Porto Rico, Hawaii, and the Philippines; the amount imported from Cuba, the amount from other tropical territory; and the amount from the beet-sugar producing countries of Europe. The sugar-consumption of the United States has grown from 1,272,426,342 pounds in 1870 to 5,313,937,840 pounds in 1901; or, from 33 pounds per capita in 1870 to 68 pounds per capita in 1901. Of the 5,313,937,840 pounds consumed in 1901, 985,568,640 pounds, or more than one-sixth, were produced in the United States; 852,205,760 pounds, or about another sixth, were produced in the insular possessions, while the remainder, amounting to 3,476,213,440 pounds, or about two-thirds of the total consumption, represented imports for consumption. Of the total imports during the calendar year 1901, 1,302,860,514 pounds were from Cuba; 686,676,954 pounds from the East Indies, chiefly Java; 1,122,803,887

There are two sorts of lamp chimneys: mine and the rest of them.

MACBETH.

My name on every one.

If you'll send your address, I'll send you the Index to Lamps and their Chimneys, to tell you what number to get for your lamp. MACBETH, Pittsburgh.

inch rubber hose and a funnel. Place the hose into the womb a few inches with the hand.

**Injury.**—My three-year-old mare kicked in the barn about three weeks ago and got her hind leg over the partition and probably hung there all night. She got badly bruised in her hock joint. It was not sore at the time, but now it is a large sore. Her leg is quite badly swollen and it cracks in the cords when she moves. I have been using Volcanic-oil liniment. I also used linseed-meal poultice, and now I am using burn alum. But she is not getting any better. Can you tell me what to do for her?

OSCAR BLONGREN.

Randolph, Kans.

**Answer.**—Take two ounces of tincture of benzoin and two ounces of petroleum. Mix and apply twice a day.

**Exzema.**—I have a 6-year-old bay mare due to foal in about two weeks. She has been running on the corn-stalks all winter and has been fed corn so she is in good condition. A few days ago I noticed a big patch of hair was gone from her left side and hip. She seems to bite her hip and pull the hair out. I notice that the hair is beginning to come out on her right hip and the skin is rough and lumpy. What is the matter?

CHAS. O'CONNOR.

Atchison, Kans.

**Answer.**—Wash the effected parts with a mixture of 1 part of creolin and 100 parts of warm water. Feed bran and cut short the grain feed. Bed deep with straw.

**Catarrh.**—What can I do for a 4-year-old horse that has had catarrh for about four months? He looks well and seems to feel well. I am almost compelled to use him.

D. M. JOHNSON.

Mayetta, Kans.

**Answer.**—Give a desert teaspoonful of Fowler's Solution twice a day. Examine the teeth carefully on that side above.

**Worms.**—What can I give to stop cough in hogs weighing about one hundred pounds each? The cough is worst when they are getting out of bed in the morning. They seem to be wormy and their hair looks rough.

D. M. JOHNSON.

Mayetta, Kans.

**Answer.**—Give a teaspoonful of dried sulphate of iron to each once a day for a week.

**Be strong!**  
We are not here to play, to dream, to drift.  
We have hard work to do, and loads to shift.  
Shun not the struggle; face it. 'Tis God's gift.

**Be strong.**  
Say not the days are evil—who's to blame?  
And fold the hands and acquiesce—O, shame!  
Stand up, speak out, and bravely, in God's name.  
**Be strong.**  
It matters not how deep entrenched the wrong.  
How hard the battle goes, the day, how long,  
Faint not, fight on! To-morrow comes the song!

—Maltbie D. Babcock.

When writing advertisers please mention Kansas Farmer.

## The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color, and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the inquirer's postoffice, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kans.

**Leucorrhoea.**—I have a mare that two years ago lost control of her female organs. I gave her sulphur and she appeared to get all right until this winter, when she commenced to have a discharge. She kept getting worse till now the discharge resembles butter-milk in color and consistency. What can I do for her?

J. J. MULLIKIN.

**Answer.**—Give her one dram of sulphate of iron twice a day in her feed. Wash out the womb every other day with two teaspoonfuls of carbolic acid, one dram of tannic acid, and two quarts of warm water, using five feet of half-

### The Best Carriage Offer

No. 5034, Concord Spring Buggy

Our carriages and harness, sold direct from our factory at wholesale prices, save you two profits. We have sold more carriages direct than any other house in the world, because ours is the

**Most Liberal Offer and Complete Written Guarantee ever made by any Responsible Manufacturer.** Our goods have a reputation that we will uphold. Our plan is fully explained in our illustrated catalogue, **SENT FREE**—No matter when, where, or how you buy, you need this catalogue as a guide. It describes vehicles and harness fully, and quotes lowest prices ever offered. Write now.

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**THE COLUMBUS CARRIAGE AND HARNESS CO.**  
Write to the nearest office—ST. LOUIS or COLUMBUS.



### The Tudor, Low, Walker Sale of Shorthorns.

The greatest public sale of Shorthorns ever held in Kansas will occur at Holton, April 25 and 26. The herds have been carefully bred by breeders who needed not to hesitate at expense, but to hinge every purchase solely on the outcome. Mr. Tudor, Mr. Low, and Mr. Walker, are men of hard business sense who have bred for profits and have made them. The feeder's view as to excellence ought to be the breeder's view. Mr. Tudor was for years a buyer and feeder of cattle before he became a breeder. His herd of pure-breds shows in marked degree the beef-making characteristics sought by the successful feeder. They are large, growthy, square-built, straight and board backed, and mellow. Even the young things show to a remarkable degree the blocky type and thick flesh which is too often found only in older specimens. The strings of cows and heifers will surprise even the veteran breeders. There are enough of them to lay the foundations for many herds and to strengthen many more. Two herd bulls, Chieftian 148923—seven-eighths Scotch—and Iowa Scotchman 2d 136861—straight Cruickshank—are in the sale. Their get also in the sale sufficiently certify their abilities. Every breeder of Shorthorns who reads this notice should be at the sale. It will be an educator for the old as well as for the young breeder, and will furnish opportunities such as seldom come for securing just what you want.

### Rich Quality of the San Rafael Herefords.

Hundreds of men have attended Hereford sales this year and though wanting cattle badly have not purchased, because prices ranged too high for them. In our opinion the values prevailing, though deterring buyers, have not been too high for Herefords of good quality and valued blood. This is about the last sale of the spring season, and all transactions along cattle lines point to increased values at the fall sales. The offering from the noted Cameron Hereford herd presents an opportunity for shrewd buyers not before offered this year.

The home of these cattle is in southern Arizona. They have been raised under range conditions. Pastures are not counted by the acre, but by the square mile. Thirty acres are required to the cow. That the young cattle—excepting the calves—do not, age for age, show quite the size of Herefords grown under more favorable circumstances is expected to make purchasers discriminate somewhat against them in price. Another thing, these cattle all (except the calves) bear a small brand on the hip, the owner's private herd record number, adopted to secure absolute certainty of identification. The prejudice against branded cattle, which causes buyers to discount the prices offered, certainly is an unreasoning one. It should not exist. It certainly can not long continue. It does not in the least injure the cattle as breeders. It is a condition, however, that confronts Mr. Cameron, and although no more potent and valuable blood can be found than that which has entered into the upbuilding of this herd, yet the brand probably is going to militate against the cattle selling for full values.

The most noticeable feature of this consignment will be the splendid breed type and rich Hereford quality, features that make these cattle of especial value to the beginner. This fine quality and choice breed type is no accident in the San Rafael Hereford herd. It is the natural and expected sequence, following the liberal use by Colin Cameron of the best blood to be found in the leading Hereford herds in America. The calves that will be sold with their dams are unbranded and will be indisputable proof that the range life of the dam had no deterrent effect whatever on the produce. The 2- or 4-year-old range-raised cow, after two years on the farm will be the same size as if she had always been there. They are not dwarfed in the sense that their growth has been arrested. They take more years to grow out, that is all that is lost.

The San Rafael calves reveal a wealth of Hereford character that is surprising in the highest degree. At times one sees a number of calves the get of one sire that for short-leggedness, for depth of body, for girth of heart, for breadth and strength of back, are noticeable, but the remarkable thing about the Cameron Herefords is, that all his herd-bulls seem to give this same class of calves, which really, however, is not to be wondered at, when it is borne in mind that for twenty years the sires selected for and used in this herd have been of the same breed type. The first requisite being that the sire must come from a family preeminent for extra constitutions and early maturing qualities, and that the individual must be of the deep-bodied, thick and even fleshed, low-down kind, extra well developed in heart and chest, as well as having the typical Anxiety 4th hind quarter. The second requirement no less important than the first was that the immediate ancestors, sires and dams, must measure up to this same standard and trace to the conceded best individuals of the breed.

The short grasses of Arizona and the trying climate have not abated one jot of their original fine Hereford quality and character. Arizona can not raise on the range cattle as large as some other sections of the country, but the Cameron Hereford cattle show that no State in the Union can beat them for quality. Here is furnished an object-lesson in Hereford thrift that will be a revelation to the oldest breeders who have never visited the range country and who consequently are uninformed as to its possibilities. This demonstration can never be seen so far East, except annually at Kansas City at the Cameron Hereford sales. For this reason, whether buyers or not, all breeders should attend this sale.

The entire San Rafael herd is permeated, one might say saturated, with Sir Richard 2d blood, and there is no better blood in the herd-book. Sir Richard 2d stands in



In the accompanying illustration is shown the spot that marks the center of population of the United States. This spot is situated four miles east and two miles south of Columbus, Ind., very near the residence of Mr. Henry Marr, which, together with his barn, is shown in the photograph. Having just purchased a new McCormick binder, Mr. Marr consented to have himself photographed on his World-Center machine at the spot marking the center of population of the United States. The machine owned by Mr. Marr and shown in the illustration is fully illustrated in a beautiful book entitled the "World-Center" which will be mailed free upon application to

**McCormick Harvesting Machine Co., Chicago, U. S. A.**

the very forefront, as an individual and sire preeminently great, as every tyro in Hereford breeding knows. His blood was sought and used in this herd in connection with that of Fowler, Garfield, Lord Wilton, The Grove 3d, and the Anxieties—every one marking an epoch in Hereford history. The pedigrees of the ninety head to be sold—see advertisement page 446—May 7 and 8, in the Fine Stock Pavilion, Kansas City, are tabulated, catalogues printed, and they can be had by inquiry from Mr. C. R. Thomas, 225 West 12th St., Kansas City, Mo. Write for one.

### Combination Hereford Sale.

The sale, on April 8 and 9, at Kansas City, of 135 Hereford cattle comprised consignments by twenty-five Kansas and Missouri breeders, most of whom appeared for the first time in the Kansas City sale-ring on this occasion. Many of the animals sold were from small or new herds never before represented there. The larger number of the animals were too young to realize strong prices and the presence in the offering of so many young bulls served to reeling the general average of the sale. The prices for bulls ranged from \$50 to \$500, though the latter was a sale made by a son to his father who knew the special qualities of the animal, and this, perhaps, might not be thought of as a representative sale. The latter animal is Columbus Chief 91371 consigned by T. E. Burwell, Colorado City, Colo., and purchased by his father, M. T. Burwell. Some of these bulls were high at \$75, while others were cheap at \$300.

The cow that topped the sale was Miss Maria 94157, by Earl B. 77135, out of Sarah C 2d 73834, by Monarch 50127. She was bred by P. E. Spelman, Clark, Mo., and, with her calf by Regulator at foot, sold to S. H. Godman, of Wabash, Ind., for \$600. The 135 animals brought \$21,900, an average of \$162.22. Of these 105 were bulls and bull calves which sold for \$14,475, an average of \$137.85. The 30 cows brought \$7,425, averaging \$247.50. Taken as a whole the sale was considered a satisfactory one in spite of the small crowd in attendance.

The purchasers were as follows: S. H. Godman, Wabash, Ind.; O. Harris, Harris, Mo.; C. A. Stannard, Emporia, Kans.; Mitchell & Thompson, Whitewood, S. Dak.; I. W. McGrew, Durango, Colo.; B. A. Hathaway, Chicago, Ill.; J. J. Evans, Hartford, Kans.; Louis Duehn, Clements, Kans.; I. A. McNully, Fairfax, Kans.; F. G. Oxshere, Fort Worth, Tex.; Geo. Minor, Chillicothe, Mo.; S. M. Shattuck, Maquoketa, Iowa; M. T. Burwell, Colorado City, Colo.; N. B. Henry, Kansas City, Mo.; J. Rhinehardt, Holt, Okla.; Cattle Investment Company, Miami, Tex.; S. W. Cunningham, Fortescue, Mo.; R. O. Denning, Oswego, Kans.; Jesse W. Monk, McFall, Mo.; John Hutson, Canon City, Tex.; C. L. Frickett, Laredo, Wis.; Wheatley & Ward, King City, Mo.; Jones Bros., Comiskey, Kans.; F. S. Wilcox, McCook, Neb.; B. F. Davis, Odessa, Mo.; John Gosling, Kansas City, Mo.; W. S. White, Mulberry, Kans.; T. W. Carmichael, Odessa, Mo.; L. Wolf, Kansas City, Mo.; C. H. Emdorf, Santa Fe, N. Mex.; J. W. Morrison & Son, Liberty, Mo.; C. G. Comstock, Albany, Tex.; Willard Friesker, Meadville, Mo.; M. G. Oakley, Millersburg, Ill.; T. F. Burwell, Colorado City, Colo.; J. M. Carnahan, Riverton, Neb.; S. L. Standish, Hume, Mo.; Herington Bros., Frankfort, Kans.; A. B. Matthews, Kansas City, Mo.; F. W. Schelle, Duran, Iowa.

### Gossip About Stock.

Cream is money in these days of creameries, and if you can raise your calves as well without it, you are many dollars ahead on each calf. In another column

you will see what the Security Stock Food Company have to say about their calf food. It is worth looking up.

Many complaints are heard about hogs being paralyzed in hind quarters, coughing and generally doing no good. This condition is supposed to be due to worms. Look up advertisement of Security Worm Powder for hogs in another column and if your hogs have any trouble of this kind, write them for pamphlet.

Geo. Groenmiller & Son, of Centropolis, Kans., have a few nice young Red Polled bulls for sale. The Coburn herd of Red Polled cattle owned by them have become well known, and parties desiring well-bred stock of this line of cattle, will do well to call on Groenmiller & Son or write them for description and prices.

Undoubtedly the best time to dehorn is when the calf is from 2 days to 2 weeks old. The old way was to gouge out the horn-button. While this latter operation is wholly effective most men dislike the sight of blood and prefer Noxem which is comparatively painless. The growth of the horn-button can easily be killed by the use of Noxem so that a smooth, hornless head will develop.

To a Kansas man, Mr. G. I. Moyer, of Keats, Riley County, Kansas, belongs the proud distinction of topping the Kansas City market for both hogs and cattle in one day. His long yearling steers averaged 1,190 pounds and sold for \$7.05, and his hogs, 293 pounds at \$7.10. This is the highest price paid in Kansas City this year. Not since September of last year, when hogs sold at \$7.12½, have such high prices been reached. There have been only three months in the history of the Kansas City Live Stock Market in which the above prices were beaten.

McLaughlin Bros., of Lawrence, Kans., and Columbus, Ohio, have just sold the black Percheron stallion, Falsan (42961) 28-186, to a horse company at Meriden, Kans. Falsan was foaled May 6, 1895, and was bred by M. Fontain, Cissai, Orne, France. He was sired by Masseler (37731) out of Milta (33451) by Cabaret (18298). He is a horse of great size, short legs and heavy bone with high finish and good action and will make a very useful animal for the farmers of Meriden and vicinity. The following named gentlemen compose the company: John Lonnberg, Henry Bicke, E. M. Lake, A. E. McCue, G. A. Swallow, James Inaney, Jas. Deweney, J. R. Dresell, C. E. Wendorff, Wm. Young, M. I. George, Geo. Kaufman, S. M. Henly, Andrew Hokanson and C. F. Cook, all of Meriden, Kans.

Mr. G. W. Berry, manager of the Spring Brook Herd of Berkshire swine and one of the best judges of the breed in the West, attended the G. B. Scott sale of Berkshires at Carbondale, Kans., on April 10 and reports that the sale was attended by a small crowd owing to the opening of spring work. The quality of the offering merited a larger attendance of breeders.

A large percentage of the animals catalogued were of first class breeding and show-yard type and were eagerly snapped up by the breeders and farmers among whom were several good judges of hogs. For the thirty head sold, the highest price single animals sold for was \$45, the lowest price \$16 and the average even \$25. Colonel Harshberger and Colonel Hyatt conducted the sale with credit to themselves, and Mr. Scott will be remembered by all present for fairness and hospitality.

S. Y. Thornton, one of the successful breeders of Duroc-Jersey swine, of Black-

water, Mo., has been having a large number of orders lately for his bred gilts. The excellence of his stock has been demonstrated to his satisfaction by receiving many second orders from customers who had been pleased with the first shipment. Edward Rogers, of Winchester, Kans., ordered a second gilt after he had received one from Mr. Thornton, with which he was well pleased; while Mr. Lesures, of Lexington, Mo., ordered three more after receiving his first one. Mr. Thornton recently sold a choice sow, bred to Missouri Prince 8477, to Mr. Morgan, of Chicago, and four gilts with one boar to Mr. Cone, of Memphis, Tenn., for foundation stock. Mr. Thornton has some very choice gilts, bred for April, May, and June farrow, also a number of very fine boars for sale. He writes that his Rose Hill herd is prepared to supply anything in the line of finely bred Duroc-Jersey swine.

Harry Evans, of Pleasanton, Kans., is one of the jolliest men and best hog-breeders in Kansas, although he has not been known in the latter capacity for any great length of time. He started right when he began breeding Poland-Chinas and he has kept right. His Nox All U. S. 24403 was said to be one of the greatest hogs of the breed that was ever farrowed in the West. He was characterized by very heavy bone, a perfect back and loin and what Mr. Evans calls a good business ham. His feet were perfect and he was a sure breeder. Many sows and gilts of his get that are of his type still remain on the farm where they are being bred to Evans Sensation Chief by C.ner's Model 23460 out of Sensation Beauty (51445) by Gold Bar Sanders 16000. This young boar is royally bred, square as a box, extra heavy bone and, in the judgment of Mr. Evans, will be a better boar than any he ever had. In our judgment he is good enough to head anybody's herd and, with such sows as Evans now has, he could not be better placed than he now is. Then there is another of Mr. Evans' herd-boars in Chief Perfection 3d 25304 by Chief Perfection 2d 21701 out of Dot's Daisy 5th 60152 by Illinois Chief 16722 that he regards as being second only to Nox All U. S. He has the heaviest legs and the broadest hams we ever saw in a boar of his age. The writer never saw Nox All U. S., as he was dead before our visit to Mr. Evans' farm, but if he was a better animal than either of the herd-boars mentioned above he was a "corker." Mr. Evans' sows contain the best blood that flows. Missouri's Black Chief, Knox All Wilkes, Chief Perfection 2d, Black U. S., and Corwin are all represented in his herd and they are well represented, too. The Missouri's Black Chief sows are remarkable for their motherly disposition and their great breeding capacity, and Mr. Jos. R. Young, of Richards, Mo., who is one of the best-known breeders of Poland-Chinas in the country, prefers this strain to all others for these and other good qualities. It was noticeable at the recent Evans-Morse sale of Poland-Chinas that Mr. W. P. Goode, of Lenexa, Kans., who stands very close to the head among breeders, did not let any good thing go by him for want of a few dollars. He is so good a judge that a young breeder remarked that whenever he saw Mr. Goode bidding upon an animal he knew it was all right and he began to bid also. Mr. Evans now has his farm well equipped with breeding-pens and with the magnificent animals he owns and the royal lines in which they are bred we predict for him a place among the very foremost breeders of Poland-Chinas as soon as the qualities of the stock, as well as the qualities of the man, become better known among breeders. He calls his herd the "Sensation" herd and he is right. He has the goods. See his advertisement in another column.



## Grange Department.

"For the good of our order, our country and mankind."

Conducted by E. W. Westgate, Master Kansas State Grange, Manhattan, Kans., to whom all correspondence for this department should be addressed. News from Kansas Granges is especially solicited.

### NATIONAL GRANGE.

Master.....Aaron Jones, South Bend, Ind.  
Lecturer.....N. J. Bacheller, Concord, N. H.  
Secretary.....John Trimble, 514 F St., Washington, D. C.

### KANSAS STATE GRANGE.

Master.....E. W. Westgate, Manhattan.  
Lecturer.....A. P. Reardon, McLouth.  
Secretary.....Geo. Black, Olathe.

Macedonian cries are coming from Marion, Barton, Stafford, and Pawnee Counties and the state organizer, Ole Hibner, is now at Larned, where Bro. A. B. Lovett has been sowing Grange seed since last August and there is good prospect for two granges in his vicinity. More later. E. W. W.

We like to have it shown that it pays to join the Grange and to continue to work in it and through it to make money and to save money. But we do not like to see men lose sight of the fact that the best part of cooperation has nothing to do with money. All acts of neighborly kindness to which good men and women respond by others acts of neighborly kindness are in perfect harmony with the spirit and teaching of the Grange; they are of the very essence of cooperation, and yet they are unprofitable from the point of view of the money-maker. In the larger and truer sense, however, they are the most profitable acts of human beings; they make life endurable, worth living, a very blessing and benediction to all men.

The National Grange has formulated demands to be made upon Congress. State, Pomona and subordinate granges must enforce them. It will be apparent to those who reflect for but a moment that the National Grange will seem very distant to the member of Congress from any particular district; but if the granges which are composed of his own constituency express positive convictions, he will appreciate the nearness and power of those who appeal to him for support. Resolutions, petitions, and memorials have weight in proportion to the known number and the known character of the men who present them. Sometimes a single letter from an influential man who is well known to your representative in Congress or State Legislature will have more influence than a petition signed by a hundred men unknown to him. But if the petition and the letter go together, they will have double weight.

### The Farmer Must Look After His Own Interests.

Reports from various points indicate a remarkable activity among the farmers of central New York. The reader has only to look over the columns of this paper for some time back to find a demonstration of this fact. Almost daily there have been accounts of farmers organizing and cooperating to bring about some end calculated to be beneficial to them. That this is as it should be, no one will deny. For too long has the farmer been content to do nothing but complain and find fault with the times. He now, evidently, has come to the conclusion that if farming conditions are to be improved, he must do something himself to bring that about, and not wait for changes in tariffs and administrations, to which hitherto he has attached vastly too much importance. There is no doubt that the farmer has many difficulties to contend with, difficulties that possibly would appall his urban brother if confronted with them, but it is also true that he has been rather backward in individual effort along right lines. He has not adopted as rapidly as he should, the new methods and new systems which changed conditions have made essential to success and which would have greatly eased his labor and made his vocation a more profitable one. He has expended physical force and worked hard, forgetting that these are factors in these days, relatively speaking, of lessening importance in all spheres of effort, and this applies to farming no less than to other pursuits. The farmer today must do something besides "get up early" and work hard from early morn

to dewy eve. There must be method, calculation and intelligence in his operations, which necessitates that he be, not the hayseed which the caricatures portray him, but a brainy, active, educated man, conversant with subjects once thought important only in the case of professional men. The farmers themselves are apprehending this fact and the apprehension is not only stirring them to greater activity in their own behalf, but it is lending a dignity to the business of farming which hitherto, for at least many years, it has not possessed in the estimation of the masses.—Utica (N. Y.) Press.

### Reflections.

The longer the Grange lives the deeper hold it takes upon the farmer and the higher he appreciates it, and consequently it should grow easier to enlist the farmers in the Grange cause.

The Grange aims to harmonize the farmers' views as much as possible on laws that are essential for his welfare, and anything that will have a tendency to prejudice one against the other should be carefully avoided.

The reason that more has not been attained by the farmer through the Grange is on account of the farmer's indifference toward it. Not that it did not afford him proper facilities or opportunities. The opportunities are as great today as ever for the Grange to do him good, and with his higher education, improved surroundings and better discipline it ought to secure for him equal privileges everywhere. The secret of success in the Grange is in availing ourselves of its opportunities, not one but all.

With proper association comes desire for improvement. The Grange affords the farmer's sons and daughters opportunity for the best association and their improvement never fails to follow. The two principal sources through which we are molded are our associates and our reading. With good associates will come the desire for reading only that which is good.

### Business Education of the Farmer.

No farmer in this enlightened age can afford to measure himself by the standard of muscle. Education furnishes the mental force which is the most productive capital in a business life. The farmer is dealing with all the laws in natural science. He is dealing not only with the complication of the laws which govern plants and animals, but he is dealing with men who have minds sharpened in the keen contests of business life and broadened by education and culture. The Grange is gradually bringing the farmer out from the isolation of his fields to have a broader conception of his business, and it is also teaching him that he can get more out of life in this age if he devotes some of his time to social enjoyment and recreation, and does not develop his muscles at the expense of his brain and mental growth. The Grange is inculcating ideas of raising more and better crops that will bring a more remunerative price, and thus give him more to spend in the enjoyment of those beauties of art and literature, which tend to broaden and elevate the mind and make our agricultural homes so attractive that our sons and daughters will love their homes, and their home lives, more than the gilt and tinsel of city life. The Grange is exerting all its influence in behalf of agricultural schools, the church and the press, public libraries, free rural mail, the telephone, the electric trolley, better roads and to extend the usefulness of our experiment stations. In short the Grange stands for every improvement that has for its object the elevation of the human race to a higher social, religious, moral and political life.—E. B. Norris, Master New York State Grange.

### Publisher's Paragraphs.

W. W. Vansant & Sons, Farragut, Iowa, are still shipping seed-corn to various parts of the country. They can yet supply their customers with excellent seed from both their yellow varieties—Cattle King and Early Reed. They propose to keep their advertisement standing till the corn-planting season is well through so that planters may be reminded where to send for seed that grows. See the advertisement and send your order early.

### The Value of Experience.

"Experience is by industry achieved. And perfected by the swift course of time."—Shakespeare.

Experience is the garnered grain gathered from the field of life, and is valuable in proportion as we use it to avoid repeating mistakes. The farmer who has had experience knows that it never pays to use cheap machines or tools of any kind. He appreciates better than anyone else the necessity of owning those machines which long experience has taught him are the best for the farmer. On page 413 of this issue will be found a picture of a farmer who gives his experience relative to harvesting machines. Our readers should write for "The World-Centre," mailed free to all mentioning this paper.

## HAUNTED!

### An Apparition Which Has Frightened Many Women.

There is a certain horrible fascination about stories of haunted houses, in which the presence of an unseen and unearthly guest makes itself strongly felt. There may be a merry-making, a wedding or a christening, and while laughter echoes from the walls and happiness is at flood tide, a sudden chill falls on the heart. The flesh feels as if a cold wind blew upon it. There is a sensation as of some evil influence near, and a shiver shakes the shrinking body.

Some such fear as this falls on many a woman in the very hey-day of her happiness. She has been so strong, so perfectly healthy that life has been a continual joy to her. Now some unaccustomed feeling touches her. She shivers at the sensation and shrinks from a something which she fears, yet can not

and gave them perfect and permanent health.

"A little over a year ago I wrote to you for advice," says Mrs. Elizabeth J. Fisher, of Diana, W. Va. "You advised me to use Dr. Pierce's Favorite Prescription and 'Golden Medical Discovery,' which I did, and with the most happy result. I was troubled with female weakness and bearing-down pains. Had a very bad pain nearly all the time in my left side, nervousness and headache. Was so weak I could hardly walk across my room. Could not sit up only just a little while at a time. My husband got me some of Dr. Pierce's medicine and I began its use. Before I had taken two bottles I was able to help do my work. I used three bottles in all and it cured me. Now I do all my housework. It is the best medicine I ever used."

### IT WILL CURE YOU TOO.

If you are suffering from any form of womanly disease which medicine can cure, you can use "Favorite Prescription" with a practical certainty that you will be cured. It has cured many women for whom physicians had said no cure was possible, and many others who were told they could not be cured without an operation. Dr. Pierce's Favorite Prescription makes weak women strong and sick women well. It establishes regularity, dries weakening drains, heals inflammation and ulceration, and cures female weakness. It is the best tonic and nerve for weak, run-down women, tranquilizing the nerves, encouraging the appetite and inducing refreshing sleep.

"About two years ago I was feeling very bad, could neither eat, sleep nor work; was very nervous and all run-down," writes Miss Alice Greely, of Westmoreland, N. Hamp. "I had taken Sarsaparilla and had medicine of different kinds from my home doctor, but it did me no good whatever. Finally, I wrote you concerning my case and you prescribed your medicines. I commenced taking Dr. Pierce's Favorite Prescription and took six bottles, also four of 'Golden Medical Discovery' and some of Dr. Pierce's Pellets; these medicines cured me and made me well and strong. I am a new person to what I was before I commenced taking the medicine. Please accept my sincere thanks for benefits I have derived from your medicine."

### ARE YOU SICK?

If you are you can not understand. The apparition of disease has passed and thrown its cold shadow on her.

### DOGGED BY DISEASE.

The steps of every woman are dogged by disease. And one may well shudder when the shadow of this evil presence falls across the life. Disease can steal the color from a woman's cheeks, the brightness from her eyes. It can make her life creep along on broken wing, sunless and songless. It can wither every flower of happiness in the garden of girlhood and blase every joy of wife or mother. It is doing such things as these constantly. The woman who does not suffer from womanly disease is the exception, not the rule. The woman who does not know the meaning of periodic pain headache, backache and female weakness, is a wonder to the majority of her sex.

It is a good thing for women that though disease may grasp them it can not hold them if they take the right means to regain the lost liberty of health. Hundreds of thousands of women who were once fast in the clutch of disease, bear witness that Dr. Pierce's Favorite Prescription freed them from disease,

A GREAT OFFER.  
Dr. Pierce's Common Sense Medical Adviser, containing over a thousand large pages and more than seven hundred illustrations, is sent free on receipt of stamps to pay expense of mailing only. This great medical work tells the plain truth in plain English. Send 31 one-cent stamps, expense of mailing only, for the cloth-bound volume, or only 21 stamps for the book in paper covers. Address Dr. R. V. Pierce, Buffalo, N. Y.



Genuine stamped C C C. Never sold in bulk. Beware of the dealer who tries to sell "something just as good."

Lightest Draft Plow in the World

## Will Plow Anything Anywhere

### The Hapgood-Hancock Disc Sulky and Gang Plows

as great an improvement over the Mold-Board Plow as that plow was over the Crooked Stick. We dare not tell you half the facts. You would not believe us. We want you to see it in the field. Sent on trial, not one cent in advance. We guarantee to plow anything you can plow with a Mold-Board Plow, and do more and better work with three horses on a 24-inch Gang, four horses on a 36-inch Triple Gang, or 48-inch Quadruple Gang plowing 5 to 10 inches deep, than any Mold-Board or Disc Plow on Earth will do with four horses on only 24-inch Gang. Will plow hard dry ground when no other plow will work. We want your help to introduce this plow and will pay you good money for same. Write now. The Only Plow Factory in the World selling direct to the farmer. Exclusive manufacturers for two-thirds of the U. S. of the Genuine Hancock Plow, the only plow branded or advertised as HANCOCK. Beware of cheap imitations that look like our plow, but which lack the essential elements (covered by our patents) that make the Hancock Plow a Wonder and the Only successful Disc Plow on Earth.—HAPGOOD FLOW CO., Exclusive Mfrs., Box 177, Alton, Ill.



## The Home Circle.

### The Blue Juniata.

Wild roved an Indian girl;  
Bright Alfarata,  
Where sweep the waters  
Of the blue Juniata.  
Swift as an antelope,  
Through the forest going,  
Loose were her pretty locks  
In waving tresses flowing.

Gay was the mountain song  
Of bright Alfarata,  
Where sweep the waters  
Of the blue Juniata.  
"Strong and true my arrows are,  
In my painted quiver;  
Swift goes my light canoe,  
Adown the rapid river."

"Bold is my warrior good,  
The love of Alfarata;  
Proud waves his snowy plume  
Along the Juniata.  
Soft and low he speaks to me,  
And then his war-ry sounding,  
Rings his voice in thunder loud  
From height to height resounding."

So sang the Indian girl,  
Bright Alfarata,  
Where sweep the waters  
Of the blue Juniata.  
Fleeting years have borne away  
The voice of Alfarata;  
Still sweeps the river on,  
Blue Juniata!

—Marion Dix Sullivan.

### The Farm Telephone.

MRS. C. A. NEEDHAM, BEFORE TONGANOXIE  
FARMERS' INSTITUTE.

What is the value of the telephone to the farmer? Let us look at it from a financial, as well as social point of view. I will make the statement which I think all farmers can understand, that it is a labor-saving and money-making machine, and proceed to prove my point by a few simple but practical illustrations.

Our neighbor, Mr. Cox, who is a generous, whole-souled fellow, and, to use his own language, will lend a friend anything he has got—except his wife—owns a seed-drill which we wanted to borrow, as we wished to sow some grass-seed. So we just stepped to the phone and this message went over:

"Can I get your grass-seeder this afternoon?" The reply came: "It is not at home, but you can have it when it comes." A short time before this the same neighbor wanted to borrow a post-digger. He had no phone in at the time, and so was compelled to trudge over to our place, only to find that the implement which he sought was in use. He had his long tedious walk for naught.

When he returned home, two-thirds of the afternoon was gone. Now he has a phone, and I fear we shall no more be gladdened by the sight of his cheerful countenance on fruitless borrowing excursions. Since time is money, in these days of push and hurry the farmer can not afford to be without all the conveniences possible to facilitate his labor.

And now ladies, here is one that you can readily comprehend. A friend of mine in town asked me over the phone about some chickens I had for sale. They were just nice broilers and are considered quite a luxury this time of year. She offered me 10 cents per pound for them, and said that more than that would make them pretty expensive eating. I said I thought so too, but said I would let her know later. So I wired down to one of our commission merchants to know what they were worth and the reply came back, "All the way from 17 to 20 cents per pound." Now this would make quite a difference in the price of a dozen chickens. In this instance one can easily see that both time and money were saved, and all through the telephone.

This institute was arranged almost entirely over the telephone, and during the past winter the young people of my family issued invitations and got up several sleighing parties, over the phone. If I wish to have a little social event in my home it is not half the trouble to

engineer it and invite my guests, as it used to be.

I glean from various sources that the telephone is rapidly pushing itself into the rural districts, and the isolation of farm life is fast becoming a feature of the past, and at the low price of \$1 per month the farmer can talk with his neighbor, with his city cousins, and even converse with those in distant towns and cities without leaving his own home.

In Idaho the progressive farmers are utilizing the long stretches of barbed-wire fences for telephone service, and find them quite satisfactory as conductors of electricity. One of the longest stretches is twenty miles.

It has been said that the wealth of the world must be taken from the earth which is beneath our feet, and the farmer must needs dig it out. So it is necessary for him to have all the appliances and help which the world affords, not only to make his toil easy and profitable, but to make him more free from drudgery, his life happier, and his social and public life as compared with other professions, higher and more on a level with theirs. And if we, as farmers and farmer's wives, study to make our home surroundings more attractive and pleasant, we shall have made a great stride toward keeping more of our boys and girls on the farm. I contend that they have the average intelligence of their city cousins, and they should have the same opportunities for education, recreation, and amusement. In a family of young people, the telephone can be made a great source of amusement and diversion. For instance, last Friday evening when the orchestra was practicing at Mr. Peter's, we called up central and she kindly opened our phone and gave us connection with their number and we all enjoyed an instrumental concert, as it were, without being on dress parade, or leaving our own home.

The young folks frequently sing solos, duets, and even quartets to each other over the phone. And then, we are occasionally treated to the spectacle of catching some love-lorn swain whispering very confidentially to his best girl at the other end of the line, and the obliging little hello-girls at central seem to be especial favorites. The young gentlemen of my family go to the phone when they come in if only for a few minutes conversation with Central; they say it relieves the monotony of her situation. She is so lonely, etc. Disinterested kindness you know, and very thoughtful and kind of those young men! How all the boys and girls can readily appreciate the advantage of the phone, for such purposes, and methinks many of our confirmed old bachelors, who were too bashful or timid to make protestations of love to the one whom they adored above all others, in the old way, might long ere this have joined the ranks of the benedicts and hen-pecked husbands, if they could only have been encouraged a little by a telephone.

I read not long since, of a couple living hundreds of miles apart being married over the telephone. Just think of that, ye bashful ones, who are already quaking in your boots, and dreading that trying ordeal, when every man is expected to make a fool of himself. I hope that these suggestions will cause some of our laggards to take courage and be up and doing.

And right here, I want to say that we are under obligations to some kind friend who plays the French harp beautifully—the sweetest of all music, I think—for a rare treat on Tuesday night last. Mrs. Bullard and I were conversing over the phone and every little while this player would cut in on us, and we would have to stop and listen. His music was really exquisite, and much appreciated by us.

And here is a case or two which I will suppose, by way of argument. And these cases are constantly occurring, and are familiar to all living in isolated farm districts. Suppose, then, that John Smith lives several miles from the nearest village. John's baby, on a dark and tempestuous night, suddenly develops unmistakable symptoms of croup. What did John do? He had no telephone. He left the baby with its terrified mother and hitched the old horse to the road-cart, and plunged through the storm and darkness after the doctor, and then, back again three hours later, wet and weary, only to find his baby beyond the help of human aid. Or suppose his house caught fire, or was broken into by burglars. Again he had to ride mile for assistance. Of if John had an important business engagement which he could not keep that day in the city, something about paying off the mortgage, or reducing the note, or any of those little matters which farmers sometimes find themselves forced to grapple with. He had either to trust to the

## HALF THE QUARRELS

in married life are caused by bad digestion. It makes a person cross and inclined to fault finding.

## Prickly Ash Bitters

makes home happy by keeping the digestion, liver and bowels in perfect order, strengthens the stomach, purifies the blood, promotes sound sleep and cheerful spirits.

PRICE, \$1.00 PER BOTTLE.

AT DRUG STORES.

mails or take the train to town just to return again.

That was in the old days. What does he do now? Just steps to the phone and calls up Central and in a minute is connected with whomsoever he desires to converse.

The doctor comes on the jump; the grocer sends the flour; the lawyer, receives the explanations about business matters, and all for a small expenditure.

I have found upon investigation, that there are scores upon scores of independent telephone companies which supply service for certain districts, generally in the neighborhood of a large, central city, from which radiate in all directions, like the threads of an immense spider-web, these smaller lines, making connections with small villages, which in turn connect with the farm-houses in their vicinity and in many cases this system is extended by a scheme of cooperation whereby half a dozen independent companies combine their lines so that the service may stretch half way across the State. By this system the condition of the rural districts is rapidly changing, the people are becoming more closely knit in their relations, and little by little the old-time isolation of the farmer and his family is disappearing.

### Foreign Immigration.

EDITOR KANSAS FARMER:—I noticed in the KANSAS FARMER of March 6 the articles by O. M. Rice, of Agricola, Kans., and by F. B., of Cottonwood Falls. If you will kindly give me space I will say in answer to Mr. Rice's letter that I do not think any one would prefer Chinese labor to American, or that even the ones that employ labor want to see wages depressed; but when you have work that has to be done and can not get Americans to do it, what are you going to do? Your cooperative plan might work in thickly settled districts and villages, but I fear it would not do over the most of Kansas. Even if it would, some poor person would have to be doing all the hard, warm work in the kitchen and laundry.

I do not think there is a State in the Union where women are treated any better than they are in Kansas, and yet many of them are overworked; some because they can not raise the paltry sum of \$3 per week to hire a girl, and others because they can not get girls at any price. I think too many girls are raised in idleness and taught to look with awe and disrespect on honest labor.

Now, F. B., of Cottonwood Falls, I do not blame any girl for doing that which suits her best. If she would rather clerk in a store and board herself for \$2 than to be a "hired girl" at \$3 and get her board, that is her business. I infer from your letter that you think they are overworked and not treated well enough. Do you know of a woman that does her own work that always has time to stop and rest when she feels tired, or can go calling or driving just when she likes, and can the majority of them have the "paltry sum of \$3" at the end of the week just to spend for clothes for herself or family?

I have been in Kansas nearly twenty years and have been with "hired help" all the time, part of the time have been "hired help," and I know that what ails "hired help" is that they do not, as a general thing, try to earn the money they get. The majority of the girls expect a woman to do all of the hard work and help with the most of the easy, and if any one sits down a few minutes it ought to be the girls. I do not think the people of Kansas doubt that a "hired girl" is as good as the ones she

works for, but people do not usually hire help unless they have work to do.

No doubt there are plenty of Americans to do all the work, but is it a fact that they are not as good to work, as a general thing, as foreigners? I have always been told that when a Chinaman learns to work like Americans he expects the same wages. I think we can well afford to drag our American laborers, or rather Americans that will not labor, down to a level with Chinese, or any other foreigners, until they are willing to work for living wages. Nineteen men out of twenty, who hire help to till their farms, do not have as much clear money at the end of the year as their help can have if they will save their money like the man they work for has to.

We have thousands of Americans in the East, and I expect the West too, who live as low, degraded lives as any Chinaman could live, and yet you could not hire them to come and work at any price. They would rather live in dirt and beg on the streets than to work and have plenty to eat and wear. Now, for my part, I have always got work to do and can not always find help enough to do it; and while I give the preference to Americans, I would often be glad to hire any foreigner who would be honest and do right, to get my work done, rather than have it go undone and some of my crops spoil for lack of sufficient help to care for it.

E. A. DRUMM.

Esbridge, Wabaunsee County.

The official train for the sixth biennial convention of the Federation of Women's Clubs will be known as the "Kansas Special" and will go over the great overland route of the Union Pacific to the destination at Los Angeles, Cal., and the trip has been so planned that it will leave the Missouri River points and arrive at destination, both in daylight, starting from Kansas City at 10 o'clock on April 24 and passing up the valley of the Kansas River, the train will arrive at Denver at 7 o'clock the next morning, where the day will be spent in sightseeing until 6 o'clock p. m., when the journey will be renewed over the Rocky Mountains toward the "Land of the Setting-sun." Salt Lake City will be reached at 3 o'clock p. m., and a stop made for sightseeing in and about "Zion." This will occupy the time until noon the next day, when the trip will be continued over the magnificent Sierra Nevada Mountains in daytime and Sacramento and Oakland will be reached, the bay crossed, and San Francisco gained in time for supper. A day is to be here spent in sightseeing and the trip to Los Angeles is to begin at 5 o'clock the next evening. This is probably the most magnificent excursion that could be planned in the United States and the whole cost for the round trip, for railroad fare from Kansas City to Los Angeles and return, is only \$45. Add to this \$5 more and you can secure a double berth in a Pullman tourist sleeping-car for the trip one way. This berth will accommodate two persons and divide the expense. Tickets may be bought at any of the prominent railway stations on the Union Pacific from April 21 to 27 inclusive. Mention the Kansas Farmer and ask your ticket agent about it.

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## The Young Folks.

Conducted by Ruth Cowgill.

Ben Bolt.

(Printed by request.)  
Oh! don't you remember sweet Alice, Ben Bolt;  
Sweet Alice, with hair so brown?  
She wept with delight when you gave her a smile,  
And trembled with fear at your frown.  
In the old church-yard in the valley, Ben Bolt,  
In a corner obscure and alone,  
They have fitted a slab of the granite so gray,  
And sweet Alice lies under the sod.

Oh! don't you remember the wood, Ben Bolt,  
Near the green sunny slope of the hill;  
Where oft we have sung 'neath its wide-spreading shade,  
And kept time to the click of the mill?  
The mill has gone to decay, Ben Bolt,  
And a quiet now reigns all around.  
See the old rustic porch, with its roses so sweet,  
Lies scattered and fallen to the ground.

Oh! don't you remember the school, Ben Bolt,  
And the master so kind and so true,  
And the little nook by the clear running brook,  
Where we gathered the flowers as they grew?  
On the master's grave grows the grass, Ben Bolt,  
And the running little brook is now dry,  
And of all the friends who were school-mates then,  
There remains, Ben, but you and I.

### A Son of the Soil. XI.

NEAR THE END OF HIS FRESHMAN YEAR, According to his promise, John accompanied the baseball team on their trip, and, as he told the Doctor, had the "time of his life."

He came back with a store of jokes to tell that lasted till the end of the term; there was the dinner at the swell hotel where the only things on the menu which he could call for with certainty were water and tooth-picks; there was the time when Drake, who had earned the name of "Preacher" by the extreme correctness of his behavior, mistook a joint for the board-house at which they were stopping en route, and entering, was received with open arms by a tipsy bystander, who hailed him as his long-lost brother; it was in this same town also, that they all rushed into the room where "Cap" was peacefully snoring at midnight and told him his room was afire. Each one drenching him the while with a pitcher of water to convince him of their zeal in his behalf, while the poor fellow sputtered, and shivered, and dripped, and threatened vengeance. The other boys were fond of telling how, when the conductor came to the door of the car in which they were riding and called the name of the town, "Solomon! Solomon!" John said courteously to him, "He isn't here, I don't think."

Among the twelve who went on the trip were representatives of almost every class of young men. Dickinson, handsome, fascinating, dissipated; John's former room-mate, Carl, who was fast losing his former innocent verdancy and becoming a swearing, smoking, swaggering, mimic of Dickinson's toughness; "Cap," the boy's alert, efficient leader on the ball-ground, the stupid, stammering dunce in the class-room; "Sleepy" Jamison, who, John said, would catch a ball if it fell into his hands, but decidedly objected to moving rapidly for any purpose whatever; "Preacher" Drake, for whose piety the boys had more respect than they would admit, for "his eternal preaching did make them tired"; and so on through the team, most of them robust, manly fellows, each with his failings and foibles, yet for the most part kind-hearted and full of pranks and fun. Among them all John, I think, was the favorite. He was so uniformly good-tempered, so honest, so ready to lend assistance and sympathy to friend or foe, yet so abundantly able to take care of himself withal and so ready to take the lead in any lark, that he could not fail to be popular. Being rather lacking in the virtues of kindness and long-suffering, he lost his temper once or twice, quarrelled with his captain before almost every game, and once very forcibly told the umpire his opinion of him, but he generally owned up with a good grace when he was wrong and he never was guilty of "explaining" about the loss of a game—a failing which, I am sorry to say, was quite evident in some of his colleagues on their return home. In John's opinion, if they were beaten it was because they were out-played and the less said about it the better.

They had their "ups and their downs," as John said, but on the whole the trip was very successful, and they were met at the train on their return by a great crowd of the students, who took them in triumph through the streets in a

wagon draped in the college colors and drawn by the college mules, while the college band marched before them and a cheering, yelling, enthusiastic crowd of their friends brought up the rear.

And so closed John's first and only season with the college baseball team; for he saw that with the numerous other things which necessity compelled him to do, he could not afford to indulge in the sport, much as he loved it.

One day, when the close of the year was about six weeks distant, one of the seniors came to him, saying that he had heard John wished to purchase a paper route, and offering him his own, one of the best, for \$400.

John looked at him thoughtfully, then said that he would think of it. Four hundred dollars was rather more than he had calculated on borrowing, but Dr. Brown said, "If it's worth the money, buy it. A good route pays for itself quicker than a poor one."

So John arose early for several mornings thereafter, and went over the route with the boy while he carried his papers. He found that it was a large route and taking notes shrewdly but silently, he thought it was capable of growing and so becoming more valuable. When he had made sure that the route was worth the price asked for it, he paid for it with the money that Dr. Brown loaned him for that purpose, and at once set to work to make it pay. He gave up forever his seat on the grocery wagon. It had been his salvation, once, but now he had risen to something higher—an independent business of his own, in fact! Indeed, John felt very proud at his step up in the business world.

But, oh, the things John learned while carrying papers! For a while he grew cynical—everybody seemed ready to beat a fellow out of a penny. It seemed to him that the women in the fine homes on his route must watch for his coming when his collecting day came and then tell their maids to inform him that they were out. The smallness, the petty dishonesty, the rudeness of some of the people with whom he came in contact, astonished him. But the doctor laughed him out of his cynicism. "My dear boy, the people in this world are not all noble and upright—you may as well make up your mind to that. But they are not all dishonest and low either—and that is a fact you'd better hang on to. No, no, don't get sour—that's cheap, and besides it doesn't pay! Pshaw! You'll come out all right on this business—most of them will pay all right when you learn how to go at them. Bless my soul! If I got out of heart whenever people didn't pay up, I'd be out of heart all the time. People pay everybody else, then if they happen to have anything left they may pay their doctor! Keep at them, John; keep at them, and don't act the baby!"

So John braced up and he found that it was as the doctor had said—people weren't nearly so bad when you learned how to get at them, and his good cheer returned, and it helped him in more ways than he knew.

One thing that he found very pleasant, though he had rather expected the opposite, was that one of his "subs" was Mr. Samuel R. Blake, the father of his rival in the algebra class, the pretty class president. And very frequently she was studying on the porch when he brought their paper, or playing croquet in the yard with some of the young people of the neighborhood, and very frequently John was late to his supper and came home looking as if he had been having a good time.

Soon after his purchase of the paper route, John wrote home to his mother that he could not afford to come home the following summer, since his father never paid him anything for his work, and here in Shilling he could earn a good deal by carrying his route himself instead of renting it, which he would have to do if he went home. Besides which his friend McLain had told him that there would be a vacancy in his father's book-store in the summer-time and that he would get his father to reserve it in case John wanted it—which John decidedly did. He did not tell his mother how homesick he sometimes felt; how he longed to see her, and to eat some of her cooking; how he pined for the free, wide country, the budding, growing green things; the lowing of the cows; the sound of the horses stamping in their stalls; the cackling, noisy hens; the downy little chicks; how he dreamed of following the plow over the fields and of the smell of the freshly-turned, moist earth. He did not tell her of this, but mothers can read between the lines, and one day she wrote him a letter and all that day he went absentmindedly about his duties, with a troubled meditating look on his face.

Now, why should a boy whose heart is all right, look troubled and worried over a mother's letter? Why, indeed?

(To be continued.)

### A Bit of Kansas History.

It is difficult for boys and girls of this generation, living out their safe and peaceful lives in happiness and plenty, to realize the danger, the privation, and constant excitement of the early days, when their fathers and mothers were conquering the wilderness.

An incident in the history of Scandia, a little town in northwestern Kansas, was recently told the writer.

Scandia was settled by Scandinavians, who called their new home New Scandnavia, which afterward was contracted to the shorter Scandia.

The situation of the town was unique. At the foot of a bluff was a fertile plain, cleft by a wide ravine and bounded on the side opposite the bluff by the Republican River.

When the settlers came in they chose this ravine for the principal and, in fact, only street of their town, making their dug outs in its sides. The situation was ideal. The bluff served as a fine vantage ground to watch for the approach of their enemies, the Indians; for one standing upon its top could overlook the entire valley in all directions. The wide, rolling plain served as pasture for the cattle and horses, and the ravine, as before stated, was their principal street, ready laid out for them.

They had been keeping a watchman on the bluff most of the time to give warning if any signs of Indians should appear, for they had heard that their stealthy foes were prowling near; but one day having seen nothing of them for several days, in a feeling of false security, the men called their watchman home, and all went off some distance for provisions, leaving the women in their little dug-out homes, while two boys stayed in the plain with the cattle.

But scarcely had they gone, when the Indians appeared. A signal, which had been decided upon beforehand, was instantly given, and the men turned back, arriving just in time to see a sad and thrilling thing. The savage red men had ridden off with one of the boys, leaving the lifeless body of the other, whom they had scalped, lying upon the ground, a ghastly souvenir of their call. Think of the horror of the helpless women in the valley below, watching the destruction of their boys, not knowing what fearful fate might lie in wait for them!

It lends a brighter tint to the story to learn that the men pursued the wild men and recovered the boy whom they had stolen.

The little town has since moved up from its position in the ravine, and doubtless some of the people are living there now who remember the terrors of their pioneer days, and who could tell us stories of adventure, of hardship, of courage and of final victory, that would thrill us with their heroism.

### QUESTION BOX.

Cecil Rhodes.—Was Cecil Rhodes an Englishman? What part did he have in the Boer war.

H. S.  
He was an Englishman, an ardent admirer of the Americans, and a believer in the reunion of the English-speaking race. In his will, as perhaps you know, he directed that his fortune of \$10,000,000 be expended in scholarships to Oxford University, England, the will providing that scholarships go to every State and Territory of the United States, and to every English-speaking colony in the world.

As to his part in the South African war—by many it is claimed that he was the instigator of the war, the persecutor of the Boers. At any rate, he was the representative of the commercial and mining interests of the English, and therefore opposed to the Boer's occupation and possession of the Transvaal, wherein are the great Kimberley diamond mines.

In County Mayo, Ireland, a wooden boat believed to be nearly 2,000 years old was recently dug up by some laborers. The boat, beautifully carved from the trunk of a tree, is of oak, forty-six feet long, and in a perfect state of preservation. So hard is the wood that the hatchets of the men scarcely left an impression. Provision will be made to receive the relic in the Dublin Museum.—Scientific American.

"It's the 'well done' we're all a-hopin' to hear at the last day; an' the po' laborer that digs a good ditch 'll have the ez good a chance to hear it ez the man that owns the farm."—Ruth McEmery Stuart.

Men of action are creatures of the moment, but men of thought fashion unborn generations.

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Brilliant, Clean,  
Easily Applied,  
Absolutely  
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LIQUID—  
BETTER YET!  
FIRE PROOF!!

### FOR THE LITTLE ONES

#### The Foolish Frogs.

In a tank at the foot of a hill  
Lived Mr. and Mrs. Frog,  
At the head of a sparkling rill,  
By the side of a queasy bog;  
And they had children ten—  
All Froggies as yellow as gold,  
Who loved to play on the fen,  
But they often were over-bold.

Now it fell out one day,  
As it never had done before,  
When Father Frog was away,  
A stickleback sailed to the door.  
"Oh, Mrs. Frog," said he,  
"Your sister is very ill;  
And much she wishes to see  
You down at the water-mill."

Then Mother Frog showed her grief  
In such tears as you never saw;  
And, having no handkerchief,  
She wiped her eyes with a paw.  
Said she, "Now, Froggies dear,  
You must not go to the fen;  
There is no danger here,  
And I'll soon come back again."

So down the sparkling rill  
She paddled her own canoe;  
But what she saw at the mill  
Is nothing to me or to you.  
Said her Froggies, "Now for some fun—  
Away, and away to the bog!"  
All but her eldest son,  
A sensible little Frog.

He begged them not to walk  
Abroad in the light of the sun;  
But they laughed at his earnest talk,  
And they were nine to one.  
With angry croak and skip,  
He stood in the portico;  
And he would have cracked his whip,  
But he had no whip, you know.

Said he, "I will climb the bank,  
Their dangerous pranks to see;  
And I'll leap into the tank  
If anything frightens me."  
So he sat on a ledge aloft,  
And saw his brothers at play,  
Till a gnat with its curfew soft  
Proclaimed the close of day.

Then a duck, which had lazily swum  
For hours in a reedy pool,  
Seeing the shadows come,  
And feeling the air grow cool,  
With a "Quack, quack, quack!" came  
out;  
She meant, "It is time to sup!"  
So, finding the Froggies about,  
She gobbed them quickly up.

Then the true little Frog on the bank  
Was so overcome with affright  
That he tumbled into the tank,  
And he slept not a wink that night.  
Now all wise Frogs go out  
In the light of the stars and the moon.  
When there are no ducks about  
To hear them croak and croon.

So Mr. and Mrs. Frog,  
By the peeping stars made bold,  
Came back by the queasy bog,  
To their Froggies all yellow as gold.  
They never saw them again;  
Alas, that it should be so!  
They were told not to go to the fen;  
But they did not obey, you know.



—Selected.



## The Poultry Yard.

### An Infant Industry.

The poultry business is yet in its infancy in this country, says C. W. B., in the National Stockman. That may seem a strange assertion to make about an industry that produces \$281,178,035 in eggs and meat in a year, but it is true.

There are comparatively few raisers of live stock who have not done something to improve their product. Many of them have done the wrong thing, but they were looking for something better. They have bred for the purpose of improvement. If you do not believe it go out and look for the old-time penny-royal brindle steer, the razor-back hog, or the naked-bellied still-legged sheep. You will not find many of them—nearly everything shows some trace of improved blood. Take the average and it is so far ahead of the average fifty years ago that comparison is merely a contrast. And the quality will be much better by another half-century.

But what about poultry? Has it been improved in the same way and to the same degree? No. Eighty per cent of the farmers who raise poultry have made little improvement in their stock or their methods of handling it over those of their fathers or grandfathers. They breed no better, they raise no more in proportion to their facilities, they produce no cheaper—that is the majority do not. The poultry business is yet in its infancy from the standpoint of breeding.

The fattening industry is yet an infant one. The great slaughterers who dress cattle, hogs, sheep, and lambs for market, have entered the field of poultry-dressing—and can not get fat chickens enough to run their plants. One of these firms has taken to feeding chickens for its use in order to get the quality. It now kills about 10,000 a day and expects to multiply this number a good many times in the next few years. It is located in the heart of the corn-belt, but can not get fat chickens. The finishing of cattle, hogs, and sheep is a great industry there, where fattening poultry for market is almost unknown. When this is studied and practiced as are other branches of feeding the poultry industry can no longer be called an infant.

The economical and systematic marketing of poultry is another branch of the business that is still in swaddling clothes. The man who sells his inferior cattle alongside the superior product of his neighbor realizes the difference by the proceeds as expressed in his draft. He sees where the other fellow made the money and he did not. It is not so in the poultry business. A chicken is a chicken too often. Exceptional merit does not command its just reward nor the lack of it its just penalty. When poultry is judged better, is graded better, and is paid for according to its merits, there will be a great improvement. The present system of marketing is cumbersome and expensive, and the producer "pays the freight" as usual.

Saying nothing about the egg product—which might be vastly increased by a little better care and more feed—it must be admitted that the American poultry industry is still among the

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or in a hollow  
the ready-built, diamond mesh, woven  
**ELLWOOD STEEL FENCE**  
stretches evenly, fits perfectly, lasts a lifetime. All styles; six heights. Sold everywhere. If your dealer hasn't it, write to  
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infants in development. But it is developing and another census should tell "another story."

### Cost of Feed.

We always keep an account of the feed the hens consume during November, December, January, and February. If we have a fair margin of profit for those four months we conclude that poultry pays. As all feeding-stuff was very high last fall we concluded to adopt the theory, so freely advocated by many, to feed less corn and more nitrogenous food.

We wintered fifty old hens and thirty pullets. The following is the total amount of food consumed during these four months: two hundred and sixty pounds middlings and bran, fifty pounds oil-meal fifty pounds navy beans, 100 pounds animal meal, five and one-half bushels of wheat, eight bushels of corn. The above feed cost \$16, or 20 cents per hen.

In 1897 and 1898 we also fed eighty hens during the above period. They ate sixty pounds oil-meal, 250 pounds bran, fifteen bushels corn, eight bushels oats, one-half bushel wheat. This amount of feed cost them \$8, or 10 cents per hen. In the winter of 1897-98, for every dollar of feed we got \$3.60 of eggs. The present winter, for every dollar's worth of feed we received \$1.40 of eggs.

Comparing the two amounts of feed for the two periods we observe that last winter we fed only half as much corn as usual. Since corn was very high we concluded to feed more of richer articles—wheat, meat-meal, and beans. This rich food did not produce as many eggs per hen as we received five and six years ago when we fed more corn. The eggs we received the present winter were larger than common. Also, since the snow is gone and the hens are outdoors and receive less feed the eggs are beginning to get considerably smaller. The hens were very healthy during the past winter. Only one became suddenly sick and died. Never had we a flock of hens that had such a ravenous appetite. They actually began to eat scalded clover leaves. They eagerly ate soft cabbage, leaving nothing but the solid stalk.

Some may surmise that the hens are in poor condition because they are so hungry and did not produce the number of eggs as formerly. They are heavy and fat. The real cause no doubt is because they had no free access to ear-corn. Let a hen have the privilege to pick off a grain of corn now and then, and she will be contented and not consume nearly as much other feed as she will if corn is only given her in the evening. If the feed had been the same price as five years ago last winter's ration would have cost \$2 more than the ration five years ago.

The comparison seems to indicate that it is not practical economy to feed too much nitrogenous food. Poor policy to feed protein to produce fat and heat. Corn at 75 cents per bushel has its place in economical feeding. Perhaps it would have been economy for us to have fed less wheat and bought some oats at 50 cents per bushel. There is no doubt that many a flock of hens was kept at a loss last winter. The high price of eggs saved us.—A. Shirer, in National Stockman and Farmer.

The men who are riding St. Joe lists in Kansas are the best class of people in the State and the best crop of corn ever raised in the State should attest alike to the value of these fine corn-growing lands, the men who own and farm them, and the implements made use of in their farming operations. The "Famous" St. Joe lister leads every thing in its line. See the St. Joe Plow Company's advertisement, and write for finely illustrated catalogue.

We publish herewith a cut of Mr. J. R. Watkins, the founder of the great J. R. Watkins Medicine Company, of Winona, Minn. This institution, whose advertisement is found in another column, began business about thirty-five years ago, and is still under the management of its founder, who is also the discoverer and compounding of all the remedies which this company manufacture. The group of remedies which this company makes has become as familiar as household words in many parts of the country. One of the many ways which this company has adopted to meet the demands of its patrons is that of placing regularly equipped wagons upon the road under the charge of bonded representatives of the Watkins company. These wagons call upon the farming popu-

lation with the medicines and extracts, and have each a regular route with regular customers. Where the wagons do not travel the patrons are supplied direct from the laboratory. This company now claims to be the largest and best equipped house of the kind in the world, and it has just issued a combined home doctor and cook book, which is mailed free to all readers



of the Kansas Farmer, and is a book that is well worth keeping. Write for a copy. Mention this paper and write to The J. R. Watkins Medical Company, 28 Liberty St., Winona, Minn.

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## Miscellany.

### Wheat-production in Kansas.

FROM "KANSAS WHEAT-GROWING," SECRETARY F. D. COBURN'S MARCH QUARTERLY REPORT OF THE KANSAS BOARD OF AGRICULTURE.

Forty-one years ago the Kansas area sown to wheat of all kinds, winter and spring, hard, medium, and soft, white, and otherwise, was less than 10,000 acres. For ten years ending with 1901, the average has been 4,436,435 acres, and the yield per year, counting the good with the bad, was more than 49,450,000 bushels, while in the year 1901 there were harvested 5,248,547 acres of winter wheat alone, yielding grain grading as high as any preceding crop grown. The largest area previously sown to winter wheat was 4,909,972 acres, from which the crop of 1893 was harvested, and the State's largest product was 90,045,514 bushels, in the year 1901.

The following table shows the acres, product, and value of Kansas winter and spring wheat for the last five years:

Years.	Acres.	Bushels.	Value.
1897....	3,444,364	51,026,604	\$34,385,304.69
1898....	4,624,731	60,790,661	32,937,042.28
1899....	4,988,952	43,687,013	22,406,410.00
1900....	4,378,533	77,339,091	41,974,145.00
1901....	5,316,482	90,333,095	50,610,506.75

That Minnesota is a great wheat State all the world concedes, and, according to the Year-book of the United States Department of Agriculture, Minnesota had, in 1900, a considerably larger acreage in wheat than Kansas; but the year-book gives on the same page the Kansas yield as greater by more than 60 per cent, and its value greater by 40 per cent.

As it becomes more widely and better known, Kansas wheat is in constantly increasing demand, and her breadstuff output successfully competes with the best from all other places. While wheat may be grown in every county, about 79 per cent, or 71,406,076 bushels, of the tremendous output of 1901 was grown in thirty counties, namely, in order of their rank in production, Sumner leading, with 6,819,266 bushels: Barton, Rice, McPherson, Reno, Stafford, Sedgwick, Harper, Saline, Ellsworth, Pratt, Russell, Mitchell, Ottawa, Dickinson, Osborne, Kingman, Harvey, Ellis, Cowley, Lincoln, Marion, Montgomery, Pawnee, Rush, Cloud, Rooks, Smith, Marshall, and Clay, none yielding less than one million bushels. Their total 1901 area in wheat was 3,862,375 acres, or 72.65 per cent of the State's entire wheat-field. Thus it will be seen that in the chief wheat-growing region of Kansas the increase in sowing has been phenomenal.

Spring wheat is a diminishing and not prominent item in Kansas agriculture, and its growth is given little or no attention outside a few northern or extreme northwestern counties, bordering Nebraska. The area sown to this crop in the last decade has averaged but about 157,000 acres annually, and the annual yield has been about 982,000 bushels. Winter-wheat farmers have an antipathy to the growing of spring wheat in their territory, as they claim that it affords a breeding and nursery ground for chinch-bugs, which later spread and do much injury to other crops.

It is believed that fully 40 per cent of Kansas' wheat is made into flour within her own borders, while probably another 35 or 40 per cent is marketed at Kansas City, Kans., and Kansas City, Mo.

### COST OF GROWING WHEAT IN KANSAS.

A consensus of the detailed statement of 120 representative Kansas winter-wheat growers, representing fifty-six different counties, as to the cost to produce and put in the bin or car an acre-crop of wheat, yielding twenty bushels, is, itemized, as shown below:

Average cost of plowing (or disking).....	\$ 0.96
Harrowing.....	.28
Seed and seeding.....	.92
Cost of harvesting and stacking (or shocking).....	1.36
Threshing and putting in bin or car.....	1.60
Wear, tear, and interest on tools.....	.29
Rental of land, or interest on its value.....	1.90

Total cost per acre, or twenty bushels.....\$ 7.31

Averages of other items, gathered from those furnishing the 120 most carefully made reports quoted, are as follows:

Average number of years of these 120 reporters has raised winter wheat in Kansas.....	19
Average number of acres raised by them annually during these years.....	527
Average quantity of seed sown per acre (pecks).....	4.4
Average yield per acre (bushels).....	18.5
Average value of wheat land per acre.....	\$24.18
Average value per acre of wheat for pasturage.....	1.15
Average value of straw per acre.....	.81

A digest of the same items of information, taken from the interviews with

eighty growers, in the thirty counties constituting what is known as the "wheat belt," which produced 79 per cent of the ninety-million-bushel crop harvested in 1901, gives averages thus:

Average cost of plowing (or disking).....	\$ 1.00
Harrowing.....	.28
Seed and seeding.....	.95
Cost of harvesting and stacking (or shocking).....	1.48
Threshing and putting in bin or car.....	1.61
Wear, tear, and interest on tools.....	.27
Rental of land, or interest on its value.....	2.06

Total cost per acre, or twenty bushels.....\$ 7.65

Other averages derived from reports of the thirty wheat-belt counties are as follows:

Average number of years each of the eighty reporters has raised winter wheat in Kansas.....	21
Average number of acres raised by them annually during each of these years.....	613
Average quantity of seed sown per acre (pecks).....	4.4
Average yield per acre (bushels).....	18.5
Average value of wheat land per acre.....	\$25.29
Average value per acre of wheat for pasturage.....	1.07
Average value of straw per acre.....	.80

From the total cost per acre, as shown in both the foregoing computations, there can rightly be deducted the value of the pasturage and straw, which amount to considerable sums, and frequently to more than one-third the cost of producing the crop.

### THE HARD WHEATS OF KANSAS.


Kansas is virtually the only portion of America producing the famous hard red wheat in considerable quantities, in which, as in many other things, the State is unique. The seed was first experimented with in some of the central counties nearly thirty years ago, being brought by Mennonite immigrants from southern Russia, near the Black Sea, who apparently understood much better than Americans its hardy productiveness and real value. For years following its introduction it was disparaged by American millers and grain-buyers, who claimed that its flinty character made it so difficult to grind as to materially lessen its market value. The farmers, however, persevered in sowing it and the production steadily increased, although they were compelled to accept in the markets from 10 to 15 cents per bushel below what buyers and millers were willing to pay for the softer and much better known varieties yielding considerably fewer bushels per acre. They persistently argued that it was more profitable to raise a wheat that would reliably yield them, one year with another, from eighteen to forty bushels per acre, even though selling for but 70 cents per bushel, than to raise a crop selling for 80 or 85 cents per bushel and yielding perhaps only twelve to fifteen bushels. This, in the course of a few years, compelled millers to devise ways and means for more successfully and economically converting this hard wheat into flour, and there were brought into use devices and processes for softening the grain by steaming and moistening before grinding. These are now in general use, and are considered indispensable wherever the hard wheats are flourished.

The best of this wheat is perhaps most largely grown in the central third of the State, from east to west, and in altitudes ranging from about 1,250 feet in Marion and Sumner Counties, to 2,100 feet in Edwards, an average close to or slightly below 1,600 feet. The four largest wheat-producing counties, Sumner, Barton, Rice, and McPherson, have an altitude for each, respectively, averaging about 1,250, 1,900, 1,700, and 1,450 feet. These wheats do not retain their peculiar characteristics so well when grown in the extreme eastern or southeastern counties, showing a tendency to assume more the qualities of the soft sorts; it is claimed by many intelligent observers that this is true, but to a much less extent, elsewhere, wherever they are grown in Kansas. This fact has for some time suggested the desirability of procuring fresh seed, from time to time, from its original home in Russia, and in the year 1901, through the concerted efforts of the Kansas grain and milling interests, an importation of 15,000 bushels of choice seed was distributed at cost in time for the fall sowing. Farmers are rapidly learning that profit comes from sowing the best obtainable, and that sowing the same wheat continuously on the same ground is not always satisfactory. A change of seed, such as from one county to another, or even from one neighborhood to another, and from northern localities to those more southern, is excellent, and preferably the latter, rather than from south to north.

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### No Kafir-corn or Sorghum.

EDITOR KANSAS FARMER:—I fear I am treading on dangerous ground, as I have the Experiment Station, Secretary Coburn, and many farmers for opponents on the opinions I expect to express. I wish to give more my opinion than to contradict any one else's opinions, which probably are reached in the same manner as my own. At the time the impetus for this article was given I was attending an institute picnic in August of the past summer, when the drouth was fully on, in which I met Professors Cottrell and Cowgill, and the answers given to questions of how to guard against such a shortage of feed another year was "Plant drouth-resisting crops." The answer as to what are drouth-resisting crops was, "alfalfa, soy-beans, Kafir-corn, and sorghum."

I offered to take the gentlemen a quarter of a mile and show them that sorghum would have to be cut out of that list. A field of forty acres of sorghum had barely a living stalk on it and none of the dead ones more than two feet high, while corn-fields adjoining were green and would yield from ten to fifteen bushels of corn per acre. Then on Kafir-corn I stated my experience of that season. Having read all bulletins on the subject obtainable and hardly believing statements by neighbors, who never in the best years raised more than twenty to twenty-five bushels per acre, I rented thirty acres of fair upland at \$1 per acre. At the end of the season I had \$30 to pay and I had not enough Kafir-corn plants living to swear by. The fact is, if I would have carefully gathered the crop I question if it would have made a load of feed. Now I had fifty acres of corn, and my latest planting made fodder, while the earliest planting made some few small nubbins. Again, I had twelve acres of millet and sorghum mixed, half and half, and there was nothing left a few weeks after coming up and I had planted a strip of soy-beans, thirty steps wide, between the feed and the wheat-field. I planted this field in alfalfa September 15, and now have a good stand of alfalfa, which the chinch-bugs did not and will not kill.

In 1900, I had a plenty of sorghum, and I thought I had certainly struck THE crop for producing plenty of feed, so when the pastures got a little short in July and August I thought now I would keep those fifteen cows up to

their full milk, but alas, the more sorghum the steadier the decline in milk, so I thought the cured stuff would be the thing. It had been sowed broadcast and bound with a wheat binder, and certainly was about as fine feed as I had ever seen. I could give a cow one, two, or three bundles and she would fill up, but I am afraid I would have gotten very little milk if I had not fed alfalfa, bran, and corn. It is a rule with me that what will not cause a cow to give milk will not cause growth in another animal. The fact is, I was badly disappointed in the seemingly small amount of nutrition to be found in my feed.

In 1899, I had some sorghum in rows listed the same as corn, and got a very large amount of coarse fodder, which the cattle would but half eat after the heads were cut off. I disked the field and put it in wheat with a disk press drill; and of all crops of wheat! Four bushels to the acre! Then my religion was highly taxed in cutting it as it was so spindly and thin. The fields adjoining made twenty bushels per acre.

Can we afford to plant a crop after the experience above mentioned? I can not. Why should we fool with either Kafir-corn or sorghum when we can raise alfalfa on the same ground and have our ground improved instead of poisoned, and get a feed worth five times as much. Though it may not yield as many tons in some seasons it will surely outyield them year in and year out.

The assessor in his list of questions, asked me how many acres of Kafir-corn and sorghum I would put out this coming season. I told him none. He asked me why almost all of the farmers would not plant any. I told him because their experience probably coincided with mine.

As to the chinch-bug I think it is like the poor mentioned in the Scriptures. "We have them always with us." (Especially in dry seasons.)

Hoping that I have expressed the opinion of many a fellow farmer, I will close by saying, give me alfalfa, corn, wheat, and oats, but no Kafir-corn or sorghum in mine, please.

F. W. MUENCH.

Gypsum, Saline County.

When writing advertisers mention Kansas Farmer.



## WEEKLY WEATHER CROP BULLETIN.

Weekly weather crop bulletin for the Kansas Weather Service, for the week ending April 15, 1902, prepared by T. B. Jennings, Station Director.

## GENERAL CONDITIONS.

A fine week for farm work, but much too cool for crop growth, the temperature averaging from 2 to 7 degrees below normal. Light showers have fallen across the State from the southwestern counties to the northeastern, though they generally amounted to but a trace. Better rains occurred in the southeastern and northwestern counties.

## RESULTS.

## EASTERN DIVISION.

The ground is in very good condition but the subsoil is dry. Wheat continued in good condition in the southern and central counties, except that the fly is reported in early sown wheat in Geary, and that some of it is being plowed up therefor in the northern counties wheat is not in as good condition as it is farther south. Oats are mostly sown and generally up, and with one exception are doing well. Corn is being planted in all parts of the division, though but little was planted in Crawford, Cherokee, or Labette this week, ground too wet; it is coming up in the southern and central counties. Pasture-grass has not made much growth this week, but in the south it is supporting the stock. Flax-sowing is nearly finished, and the flax is coming up. Forest- and shade-trees are backward, but fruit-trees are doing well; peaches, apricots, and plums are blooming in the southern and some of the central counties. Early cherries and strawberries are beginning to bloom. Alfalfa is looking well.

Allen County.—Wheat, oats, and rye doing well; flax coming up; trees leafing out; corn being planted.

Anderson.—Good week for farm work; nights too cold for vegetation; flax-seeding completed; some corn planted; earliest corn coming up; pastures backward; ground in good condition.

Atchison.—A cool, dry week; neither grass nor small grain making much growth; wheat in need of rain; trees budding slowly; pastures backward; a splendid time to prepare corn ground, and that work is progressing rapidly.

Bourbon.—Good growing week for all crops, every kind doing well; flax, oats,

general; ground in good condition; alfalfa starting nicely, but fall seeding seems to be killed; wild-grass pastures start slowly; many cattle turned out, but grazing poor.

Jackson.—Ground dry; wheat making little or no growth; oats coming up slowly; nights very cool.

Jefferson.—A cool, dry week, with some frosty nights; vegetation coming forward slowly; some corn planted; peach buds winter-killed; early apple-trees nearly ready to bloom.

Johnson.—Good week for farm work; corn-planting progressing; flax nearly all sown; wells and springs low, and subsoil dry; grass starting very slowly; peach buds mostly killed.

Labette.—Wheat, oats, and rye looking well; peaches in bloom and promise a fair crop; cherries also full; considerable rain this week, and ground too wet for corn-planting and general farm work.

Marshall.—A cool, dry week; rain would do much good; oats all up, except very late sowing, are a good stand, and look well; grass coming slowly; some corn being planted.

Miami.—A remarkably cold week; fine wheat weather, and wheat doing nicely; oats all sown; corn being rapidly planted.

Morris.—A cool, dry week, with some frost and ice; grass and all vegetation retarded in growth; no corn planted yet.

Osage.—Peach- and apricot-trees in bloom; no planting yet, except garden truck, which is doing well.

Riley.—Cold and dry, with frost nearly every night; almost no growth in vegetation.

Shawnee.—Wheat prospect fine; oats coming up well; corn-planting not begun; grass starting; cattle in fine condition.

Wilson.—Oats and wheat in good condition; corn practically all planted; garden stuff coming up well; stock generally in good condition.

Woodson.—Good week for farm work; planting of corn general; considerable flax being sown; feed scarce; grass has started to grow.

Wyandotte.—Weather favorable for tree-planting and plowing for corn; no rain during the week, but ground is sufficiently moist to insure growth.

## MIDDLE DIVISION.

Wheat is doing well in some of the southern and northwestern counties; in many of the counties it has made but little if any growth, while in a few it has been injured more or less. Wheat that was sown last fall for winter pasturage

Rainfall for Week Ending April 12, 1902.



SCALE IN INCHES.

Less than 1/4. 1/4 to 1. 1 to 2. 2 to 3. Over 3. T, trace.

and wheat doing well; ground could not be in better condition for all kinds of seeding; plums and peaches beginning to blossom, with good prospects for fair crop; 20 per cent of corn planted.

Brown.—Weather too cool for wheat and grass; wheat doing well, and pastures not making much growth; rain needed; preparation of ground for corn-planting well advanced; oats-sowing completed, some up, showing good stand.

Chase.—Wheat improved some during past week; alfalfa looks fine; prairie-grass starting slowly; corn-planting commenced; flax and alfalfa seeding in progress; very little oats sown; cherries and apricots in bloom; rain needed; stock in good condition.

Chautauqua.—Conditions fairly good, but temperature too low for best results; a good shower on the 9th; wheat and oats doing well; corn planted; gardens growing slowly; early fruit in blossom, with prospects for full crop; most of cattle on pasture; growth of grass slow.

Cherokee.—Cool week, favorable to wheat, oats, and grass, but unfavorable to planted corn; too wet for general farm work.

Coffey.—A cool, dry week, favorable for farm work; oats and flax making good growth; some early corn coming up; wheat continues in excellent condition; ground in good condition to a depth of eighteen inches, but subsoil is dry. Early plums and strawberries in bloom.

Crawford.—Two heavy rains during the week; spring work retarded by wet ground; but little corn planted yet; oats doing well, a good stand; wheat in excellent condition; peaches and plums blooming abundantly; many cattle on grass, and doing well.

Doniphan.—Winter wheat doing well, but needs rain; plums budding; peach buds killed farm work progressing rapidly; weather excellent for clearing off stalks.

Douglas.—Wheat looks well, considering the cold weather; other crops, such as flax and oats, being planted; good week for planting.

Elk.—A good week for work; corn-planting about half finished; some corn coming up; week too cool for rapid growth of vegetation.

Franklin.—A good week for farm work, and farmers have sown much flax and planted some corn; growth retarded by cool weather; subsoil dry.

Geary.—Cool weather, unfavorable for growth of spring crops; fly in early-sown wheat, and some being plowed up for corn, oats, even stand; corn-planting will be general from the 15th to the 20th.

Greenwood.—Week favorable for farm work, and plowing and planting of corn

is now being plowed up for spring crops. Oats are up or coming up, and generally doing quite well. Corn-planting is progressing in all parts of the division, except that in the north part of Russell the ground is too dry. Barley is coming up in many counties; it is fine in Edwards, and promising in Kingman. Grass is starting nicely in Phillips, growing well in Harvey, and green in Edwards, but is backward in all parts. Peaches are blooming in the south, but the buds were mostly winter-killed in the north. Plums are blooming in the south, nearly in bloom in the north. Pears are blooming in Cowley and cherries in Kingman. Stock is doing well.

Barton.—Wheat not improving; alfalfa seeding begun; oats and barley coming up; grass growing slowly; trees leafing; peach buds killed; rain is needed.

Clay.—Considerable wind, and only a trace of rain; wheat needs rain; growth of oats slow; some corn being planted.

Cloud.—Wheat in critical condition; vegetation made slow growth during week; plum and cherry blossoms nearly open.

Cowley.—Cool, damp week; wheat, oats, and alfalfa growing rapidly; corn acreage half planted; prairie-grass growing slowly; apricots injured by frost; peaches, pears, and plums unusually full of blossoms.

Edwards.—Fine growing weather; prospects for wheat good; oats and barley in good condition; pastures getting green; stock doing well.

Ellsworth.—But little advancement made in wheat; barley and oats being drilled into some wheat ground; grass starting; but needs rain; oats look fine; ground works easily; corn-planting commenced; cattle wintered well.

Harper.—Wheat not advancing; oats doing well; little corn planted yet.

Harvey.—This week has not improved wheat; rain needed; corn about all planted; oats medium; grass growing well.

Jewell.—Oats up and doing well; wheat and rye needing rain; grass starting; some corn planted; alfalfa making slow start on account of dry subsoil.

Kingman.—Wheat growing nicely; corn-planting in progress; oats about all in, prospect promising. Fruit in good condition; cherry-trees beginning to bloom; grass needs warmer weather.

Lincoln.—Wheat not improving; oats up; rain needed; week cool and frosty.

McPherson.—Wheat needs rain; oats coming up nicely; grass starting slowly; trees budding; heavy frost on 10th killed early garden plants; corn-planting in progress.

Phillips.—All crops look promising; wheat growing and looking fine; alfalfa looks

## \$500 per Ton for Butter-fat

Butter-fat now is worth 25 cents per pound, or \$500 per ton, at the skimming station. Skim-milk is worth at least half the price of corn or oats per pound. So skim-milk is worth 50 cents per hundred. Its value varies with the price of grain, as follows:

When corn is worth 15c per bushel, skim-milk is worth 12½c per 100 lbs.  
When corn is worth 30c per bushel, skim-milk is worth 25c per 100 lbs.  
When corn is worth 60c per bushel, skim-milk is worth 50c per 100 lbs.

One pound of butter-fat is worth nineteen pounds of corn, or sixteen pounds of oats. Now, if corn is good enough to put fat on a steer, why is it not good enough to put fat on a calf? If oats will give muscle and bone to a growing steer, why will they not do the same for a calf? Can you afford to raise calves on butter-fat worth \$500 per ton when corn can be fed to them at a cost of only \$20 per ton?

An ordinary cow will produce 220 pounds of butter-fat and 4,000 pounds of skim-milk in a year. This butter-fat for the last year would average 18 cents per pound; and

220 pounds of butter-fat, at 18 cents per pound, is ..... \$39.60  
4,000 pounds of skim-milk, at 50 cents per hundred, is ..... 20.00  
\$59.60

If the calf follows its mother, it puts just that much money inside its hide, on the basis of the present price of grain, in addition to what it eats in other ways. Is the calf worth it?

In feeding the calves butter-fat you lock your money up for TWO YEARS; in selling the butter-fat you get your money every THIRTY DAYS.

Calves fed on skim-milk, with corn or oats to follow, will have better bones, better muscles, better stomachs; will be better feeders and better able to take care of themselves.

The Continental Creamery Company pays for butter-fat two and one-half cents below New York highest quotations for butter, less the actual operating expense of the skimming station. This price is permanent the year round. You can't afford to let your calves run with the cows. Make arrangements to get a Continental milk check each month the rest of the year. It is the safest, surest and swiftest proposition going.

## THE CONTINENTAL CREAMERY COMPANY.

well; potatoes all planted; early gardens up; grass starting nicely; peaches badly injured. Corn-planting will commence next week.

Pratt.—Appearance of growing grain improved; some frost, but no damage; corn-planting well advanced.

Renov.—Wheat growing well; oats all up; corn-listing progressing rapidly; ground in good condition, though wheat and oats would be benefited by a good rain; plum-trees in bloom; apple leaves unfolding, showing plenty of flower buds; early grass growing nicely.

Republic.—A cool, dry week, with strong winds; wheat needing rain; growth retarded by cool, dry weather.

Russell.—Wheat on plowed ground badly killed; much sown to oats or will be planted to corn or other spring crops. Wheat sown in corn-stalk and on newly broken sod will make a fair crop, if the remainder of the month is favorable. Grass starting slowly.

Saline.—Dry, cool week; heavy frost morning of the 11th; wheat doing well, but in need of rain; corn-planting will begin next week.

Sedgwick.—Wheat growing well, killed in spots; some wheat plowed up, leaving acreage below last year's; oats coming up; not much corn planted so far; grass is starting; peaches not yet in full bloom.

Smith.—Wheat in fair condition; corn-planting commenced; early gardens look well; grass starting; rain needed, subsoil very dry; oats up; potatoes planted; peaches killed; other fruit all right.

Stafford.—All growing crops doing nicely; rain needed.

Sumner.—Peaches and plums in bloom; corn-planting in progress; early-sown oats up; some oats being sown; pastures backward; large quantity of alfalfa-seed sown this spring.

## WESTERN DIVISION.

Wheat is improving, in some counties rapidly, in others slowly, the latter condition owing to the cold nights. Rye, oats, and barley are doing well. Grass is starting nicely in the central and northern counties while cattle are on pasture in the extreme south. Peaches, apricots, and wild plums are in bloom in the central and southern counties. Alfalfa is green in the south and starting in the central and northern counties. Corn-planting has begun in the northern counties. Cattle are doing well.

Decatur.—Winter wheat and rye in good condition; oats and barley in prime condition; prairie-grass starting; alfalfa making good growth.

Finney.—Ground in fine condition; alfalfa fields quite green; spring crops coming up in good condition; range-grass getting green.

Ford.—Wheat improving rapidly; heavy frost on the 7th, 9th, 10th, and 11th.

Greeley.—Grass starting nicely; some rain falling.

Haskell.—Ground in excellent condition; early-sown wheat looking well, late-sown backward; rye never looked finer; prairie-grass starting.

Kearney.—Moist foggy weather, but not much rain.

Lane.—Crops in good condition; white frost on the 10th.

Morton.—Peach-trees in full bloom; cattle living on new grass and weeds, hay and fodder all used up; warm weather needed.

Ness.—A couple of light rains this week, improving crop conditions; heavy frost and thin ice night of the 10th, but no noticeable damage done; wild plums, apricots, and early peaches in bloom; alfalfa starting; barley seeding finished; potatoes nearly all planted, and garden-making in progress; early gardens up and doing nicely;

too cold for grass; stock doing well, calf crop large.

Norton.—Cool week; vegetation making little growth; wheat improved by light rain; alfalfa starting; a large acreage of alfalfa is being sown; worms doing some damage to alfalfa.

Thomas.—Wheat making slow growth; spring sowing all done, but ground too dry for germination; grass starting slowly.

Wallace.—Dry and windy; wheat not improved; barley and alfalfa looking well; range-grass getting green.

## A Good Carriage Offer.



THE modern way of doing business by selling direct from the factory to the consumer has evidently come to stay. Its economy is so great that no one who has once discovered how much can be

saved by such direct dealing would be willing to go back to the old-fashioned way of buying, in which profits much be paid to two or more middlemen. But the new business method more than ever requires confidence in the fairness and strict honesty of the business firm and a reputation above any suspicion of unfair dealing.

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## In the Dairy.

Conducted by D. H. Otis, Professor of Dairy Husbandry, Kansas Experiment Station, Manhattan, Kansas, to whom all correspondence with this department should be addressed.

### How the Dairy Herd is Fed at the Kansas Agricultural College.

The Kansas Agricultural College and Experiment Station is trying to perform a double mission in feeding milch cows; first, to carry on experiments to ascertain facts and figures that will be of benefit to the dairy farmers of the State. This kind of experimenting is sometimes expensive. For instance, last summer scores of inquiries reached us in regard to what to feed. In many places wheat and wheat straw were the only feeds available. To intelligently answer these questions a part of the dairy herd was taken from a sorghum pasture, where the cows were being fed successfully and economically, and drafted into an experiment to ascertain the possibilities of maintaining the milk flow on wheat straw, ground wheat, and cottonseed-meal. Isolating these cows from the rest of the herd and keeping accurate records of feed consumed was not as profitable as leaving them on sorghum pastures, but the results obtained before the winter season set in and published in bulletin form for the benefit of the dairy farmers more than justified the extra expense to the station. Again numerous inquiries ask for the best breed of dairy and dual purpose cows. The department of dairy husbandry at the college is milking every pure-bred cow that freshens on the college grounds in order to ascertain the possibilities of the different breeds in milk-production. Several cows are being milked at a loss in order to complete the experiment.

Second, the Agricultural College is endeavoring to develop common, grades, and pure-bred cows to the highest notch of economical production, and it is along this line that this article deals especially. To accomplish this purpose it is necessary that the cows be supplied with those feeds that will enable them to produce the largest amount of milk and butter-fat at the least possible cost for feed consumed. This calls for a knowledge of the relative value and cost of different feeds. The following table has been used by the Agricultural College as a guide in the selection of feeding-stuffs.

#### COMPARATIVE VALUE OF FEEDS.

Value per 100 pounds, when corn is worth 10 cents per 100 pounds.

Feed.	Total Protein Nutri- ents.	Nutri- ents.
Cents.	Cents.	Cents.
Concentrates:		
Barley .....	10	11
Broom-corn-seed .....	8	9
Corn .....	10	10
Corn-and-cob-meal .....	7	8
Cow-peas .....	15	23
Cottonseed hulls .....	2	3-10
Cottonseed-meal .....	28	47
Flaxseed .....	18	26
Chicago gluten-meal .....	21	40
Kafir-corn-seed .....	9	10
Linseed-meal .....	22	37
Millet-seed .....	9	11
Oats .....	12	12
Rye .....	11	12
Sorghum-seed .....	8	9
Soy-bean-meal .....	23	38
Wheat .....	11	13
Wheat bran .....	10	16
Wheat middlings .....	12	16
Wheat shorts .....	11	15
Milk:		
Whole milk .....	3	4
Skim-milk .....	2	5

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Other agents will try and draw comparisons between their new machines and our old ones, but don't let them. Have a trial of a "Tubular" Dairy Separator, they are double the money's worth. Free book "Business Dairying" and catalogue No. 165. Sharple's Co., P. M. Sharple's, Chicago, Ills. West Chester, Pa.



Whey .....	8-10	1
Buttermilk .....	3	5
Value per ton, if alfalfa were valued at \$1 per ton.		
Feed.	Total Protein Nutri- ents.	Nutri- ents.
Cents.	Cents.	Cents.
Dry Roughage:		
Alfalfa .....	100	100
Corn-fodder .....	32	19
Cow-peas .....	97	102
Fodder-corn .....	40	24
Millet .....	64	42
Oat hay .....	59	41
Oat straw .....	53	15
Orchard-grass .....	60	45
Prairie hay .....	51	33
Red clover .....	70	64
Sorghum .....	43	23
Soy-beans .....	98	102
Mixed hay .....	67	56
Timothy .....	47	27
Wheat straw .....	25	8
Green Roughage:		
Alfalfa .....	34	37
Corn silage .....	13	12
Fodder-corn .....	14	9
Pasture-grasses .....	23	24
Sorghum-fodder .....	12	6
Soy-bean .....	28	30
Roots and Tubers:		
Mangels .....	10	9
Sugar-beets .....	14	10
Turnips .....	11	8

The roughness in this table is figured on the basis of alfalfa hay selling at \$1 per ton for ease of calculation. When alfalfa is worth \$6 per ton the other rough feeds are worth six times the amount indicated in the chart. When alfalfa sells for \$8 then the other feeds are worth eight times as much, and so on. The same principle applies to the grains with corn at 10 cents per hundred pounds as the basis. In years of abundant crops we usually have plenty of feeds that furnish carbohydrates and fats, but are short of protein feeds. In this case we can tell what is the cheapest feed to purchase by consulting the second column headed, "Protein Nutrients."

#### FEEDING ROUGHNESS.

Usually we give all the rough feed the cows will eat, although with a good quality of alfalfa hay the cows will sometimes overeat even on roughness. In comparison, alfalfa hay is selling in Manhattan at \$10 per ton. This would make the relative feeding-value of the other rough feed worth ten times the amount indicated in the chart. In comparison, red clover hay would be worth \$7 per ton, prairie hay \$5.10 per ton, corn fodder \$3.20 per ton, millet \$6.40 per ton, and sorghum hay \$4.30 per ton, all of which are selling above their feeding-value compared with alfalfa. Alfalfa and prairie hay, for instance, are commanding the same price on the Manhattan market. It is evident, then, that as far as dairy cows are concerned, alfalfa is the more economical hay. During the month of January the college herd received an average of about thirty pounds of alfalfa hay daily per head. While this supply of hay is large, it has been the means of reducing the amount of grain necessary to keep up the milk-flow. The college had a little Kafir-corn fodder on hand and from time to time a little of this was fed to add variety to the ration. While the weather was warm the hay was fed in the yard both day and night, but whenever the weather was cold or stormy the hay was fed in the barn.

#### FEEDING GRAIN.

The comparative value of the different grain feeds are also given in the above table. Since alfalfa hay is rich in protein we look not for concentrated protein grains like oil-meal or cottonseed-meal to feed with it, but for grains that contain a large percentage of carbohydrates, as corn, Kafir-corn, sorghum-seed, oats, wheat, and wheat bran. Of this list wheat bran is the cheaper per one hundred pounds during the fall and winter of 1901-02, and although it contains more protein than the cow needs in connection with alfalfa, yet it is the most economical grain that we can buy. Unlike roughness the amount of grain fed is varied with the individuality of the cow. Some of our cows are receiving eight pounds per day, while others are receiving none. The aim is to give to each cow just what grain she will handle at a profit for total feed (hay and grain) consumed. To determine the point we have found a daily milk-record indispensable:

#### MILK RECORD FOR THE MONTH OF ..... 1902.

Cows.	1st.	2d.	3d.	30th.	31st.	Total.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	
Miss Ita.....	a. m. 3.7	9.8	10.2	9.5	8.8	561.1
	p. m. 9.3	7.9	8.5	6.0	7.3	
Countess Vesta....	a. m. 10.8	10.0	11.2	11.1	11.5	658.3
	p. m. 11.6	8.3	11.9	8.6	5.9	
Juno.....	a. m. 9.0	10.1	8.5	8.8	8.4	507.7
	p. m. 7.7	7.5	8.1	5.2	6.6	

By knowing the test and watching the milk-record carefully, we can very soon tell what effect an increase or decrease in the feed may have upon any individual cow, and we may vary the feed accordingly. The experience of the Kansas Agricultural College shows that one

cow will produce butter-fat at 10 and 11 cents per pound for feed consumed, and another by her side will charge 24 cents per pound. Without a milk record much costly feed will be wasted on cows that will not make adequate returns for it.

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The faculty of Cedar Hill Agricultural College are now fully in line with the years' work. Below are their plans: They will raise: twelve acres rape, 6 for hogs and young stock pasture, 6 for soiling; 10 acres Canada peas and oats for soiling and hay; 10 acres millet for soiling and hay; 6 acres sweet corn, 3 early and 3 late, for soiling and hay; 10 acres sorghum, for ensilage, soiling, and fodder; 50 acres corn, 25 special ensilage, 25 ensilage and fodder. For recreation they will milk forty to forty-



five Jerseys, sell 20 per cent of the cream at 60 cents per gallon, and the milk at 12.5 cents per gallon.

We have plenty of ensilage to run until blue-grass pasture is ready to use. We have had a very profitable winter's trade and the yield has been above the average. Our last week's receipts for thirty-eight cows was \$87.50. The total feed cost for the same period, \$21.28. I am answering many letters from Kansas dairy and stockmen these days regarding silos, ensilage, soil crops, etc., and am pleased to do it. EUCLID N. COBB.

#### Variations in Yield, Butter-fat, and Solids Not Fat.

The following table shows the variations in the quantity and quality of milk obtained from seven of the cows sent to the college by dairymen in different parts of the State. The record begins with the first milking after arrival at the college. Duplicate tests were made for nearly every milking.

Name of cow.	Days after arrival.	Hours on road.	Butter-fat, per cent.		Solids not fat, per cent.		Yield of milk, pounds.		When Normal.
			a. m.	p. m.	a. m.	p. m.	a. m.	p. m.	
Clover Leaf.....	1	22	6.0	3.6	8.05	8.62	13.2	11.6	8th milking.
	2		3.1	2.8	8.52	8.66	14.9	12.3	
	3		3.5	3.6	8.95	8.47	15.3	10.6	
	4			5.4		6.67		11.2	
Daisy Bell.....	1	12	13.25	7.4	10.21	8.55	1.4	3.1	7th milking.
	2		5.1	4.6	7.94	7.59	6.4	6.5	
	3		4.8	4.4	8.33	8.73	6.4	6.4	
	4			4.7		8.91		13.9	
Rose of Industry.....	1	60	8.2	5.2	8.64	8.41	9.4	11.3	8th milking.
	2		6.6	5.7	8.57	8.51	12.8	12.2	
	3		4.7	5.5	9.06	7.51	12.8	12.2	
	4		6.2	7.6	8.99	8.79	9.8	5.0	
May Queen.....	1	12	5.5	5.7	8.99	11.01	8.4	8.4	9th milking.
	2		5.8	6.3	9.16	8.86	9.5	8.6	
	3		5.6	5.4	8.62	8.95	9.4	8.3	
	4		3.6	7.0	9.47	8.42	12.4	9.8	
Cowslip.....	1	12	5.5	5.1	8.99	8.39	12.8	11.0	7th milking.
	2		4.9	5.1	8.88	8.34	12.9	11.9	
	3		2.5	4.3	7.55	8.73	21.0	15.0	
	4		2.8	3.7	8.45	6.53	19.4	20.1	
Rose of Cunningham..	1	12	2.7	3.2	8.16	7.64	19.7	18.5	8th milking.
	2		3.2	3.2	8.20	7.52	20.3	17.0	
	3		1.2	3.0	7.99	8.22	11.8	9.0	
	4		7.5	5.8	8.42	7.78	13.5	10.9	
Molly.....	1		5.0	3.2	9.00	8.14	12.2	11.3	9th milking.
	2		3.1	3.8	9.58	8.76	13.8	12.2	
	3								
	4								

Clover Leaf, on the second day, decreased 2.4 per cent butter-fat, from morning to evening milking increased 57 per cent solids not fat, and 5.1 pounds in quantity of milk. The milk yield of the second milking increased 5.1 pounds over the first milking, which is in marked contrast to the records of the

other cows which decreased in milk for the same period.

Daisy Bell presents the greatest contrast in a rise of 7.85 per cent butter-fat and 3.54 per cent solids not fat, followed by a "bearish" movement of 5.85 per cent and 1.66 per cent respectively. The quantity for the same period falling from 11.2 pounds to 1.4 pounds—a drop of 9.8 pounds.

Rose of Industry added to her milk 3.5 per cent butter-fat, coupled with a decrease of 27 per cent in solids not fat and 4.5 pounds in quantity.

Cowslip begins her college career with 3.6 per cent butter-fat test, which rises to 7 per cent at second milking, with a decrease in solids not fat of 1.05 per cent and in quantity of 2.6 pounds.

Rose of Cunningham at second milking increased her butter-fat and solids not fat by 1.8 per cent and 1.18 per cent respectively, coupled with a six pound drop in quantity.

Molly started with the lowest butter-

fat test on the list, 1.2 per cent; but within twenty-four hours her appreciation of change of environment manifested itself in a rise of 6.3 per cent in butter-fat, 23 per cent in solids not fat, and 1.7 pounds in the milk pail.

H. R. BLAIR,  
J. O. FRENCH.

#### Senate Passes Anti-oleo Bill.

Press dispatches tell us that the United States Senate passed the anti-oleo bill April 3, the vote standing thirty-nine for and thirty-one against the bill. It was amended to include the taxing of process-butter 10 cents per pound. The amendment to the bill will necessitate its returning to the House for final adoption.

#### Vaccination in Blackleg.

While there is no known cure for blackleg, there is a reasonably certain preventive, as cattlemen are finding to their satisfaction and profit. The preventive is vaccination. There is no longer any doubt as to its efficacy. The principle involved is as firmly established as that which underlies the vaccination of the human subject for the prevention of smallpox.

There are two methods of vaccination in vogue. The older of these is well understood by stockmen. It consists of the injection into the animal (by aid of a veterinary hypodermic syringe) of a solution of blackleg vaccine powder and water. The needle of the syringe is thrust beneath the skin, being pushed well under, and the necessary amount of fluid injected. Inoculations may be on the side of the neck in front of the shoulder, immediately in the rear of the shoulder, or near the tip of the tail.

The later method is by use of Blacklegoids, which are blackleg vaccine pills. Each pill contains vaccine sufficient for one inoculation. Accuracy of dosage and ease of administration are the chief advantages of vaccination with Blacklegoids. An important saving of time is also effected when a considerable number of cattle are to be vaccinated.

The method of vaccination with Blacklegoids is simplicity itself. The operator inserts a single Blacklegoid in the needle of the injector, selects the place of inoculation (preferably in the side of the animal's neck), and, with a single thrust, plunges the needle through the skin, pressing the plunger well down with the thumb and holding it down while withdrawing the injector. The pill is thus forced out and lodged in the tissues.

The operation need not consume one minute. Indeed, in November last a herd of 113 animals on the Marshall Field ranch near Stanton, Neb., was vaccinated with Blacklegoids in exactly thirty-five minutes. This represents an average of three vaccinations a minute, and is believed to be record time for such a performance.

Blacklegoids would seem to represent the perfection of blackleg vaccine, and in their evolution science has performed a work of inestimable value to the cattle-raisers of the country. The difficulties of filtering, measuring, and mixing incident to older methods are dispensed with, and the work of the operator is limited to keeping clean the injector, loading and discharging it. Blacklegoids may be obtained through any retail druggist.

Messrs. Parke, Davis & Co., the well-known manufacturing chemists and biologists of Detroit, Mich., have recently issued an eight-page folder describing in detail the cause, symptoms and nature of blackleg, which we are informed they will be pleased to send to any stock-raiser, postpaid, upon request. In it are explained fully both their Blacklegoids, which they particularly recommend for the reasons

suggested, and their "Blackleg Vaccine Improved," which they continue to market and which for several years has been the blackleg vaccine most in demand in the various stock-raising regions of the country. Every cattleman should send for a copy of this folder.

#### Just What Represented.

Hastings-on-Hudson, N. Y., Jan. 13, 1902.  
Dr. B. J. Kendall Co., Enosburg Falls, Vt.  
Dear Sirs: "I have used your medicines on my horses for over two years and find them just as they are represented to be. Would like to have you send me your 'Treatise on the Horse and His Diseases.'"  
Very truly yours,  
L. J. FELLMEYER, 22 Main St.

Cook Bros., of Swifton, Ark., report that they have found Zeneoleum a specific for the nodular disease which is so prevalent among sheep at this season of the year. The sheep affected by this peculiar disease have a tendency to lie down flat, stretch out, get up and stretch out again, and then repeat the whole operation. They die in two or three days. A teaspoonful of Zeneoleum, in three times the quantity of milk, is given as a drench and repeated in twenty-four hours. Regulate the size of the dose by the size of the sheep. Two doses are generally sufficient. This is found to be a very effective and cheap treatment and should be remembered by every stock-owner who can also use this valuable remedy as a preventive of disease. Their advertisement appeared in the Kansas Farmer last week.

Pedersen of Clarinda, Iowa, has established a mail-order trade on watches, clocks, jewelry, etc. See the advertisement.

To make cows pay, use Sharples Cream Separators. Book "Business Dairying" and Catalogue \$27 free. West Chester, Pa.



The Easiest to Operate, the Closest Skimmer, Simplest and most Durable, is the  
**KNEELAND OMEGA Cream Separator.**  
We want you to know how good it is before you buy any other kind. Send for our free book, "Good Butter and How to Make It."  
The Kneeland Omega Creamery Co., 24 Concord Street, Lansing, Mich.

## Soft Harness

You can make your harness as soft as a glove and as tough as wire by using **EUREKA Harness Oil**. You can lengthen its life—make it last twice as long as it ordinarily would.

## EUREKA Harness Oil

makes a poor looking harness like new. Made of pure, heavy bodied oil, especially prepared to withstand the weather.

Sold everywhere in cans—all sizes.

Made by **STANDARD OIL CO.**

## Notice to Dairymen

If you are thinking of buying a Cream Separator, write us for catalogue and information. We manufacture the best machine on the market.

### DAVIS CREAM SEPARATOR CO.

88-90-92 W. Jackson St., CHICAGO, ILL.

When writing advertisers please mention Kansas Farmer.

## LOCOMOTOR ATAXIA

### How a New Jersey Man Freed Himself from this Affliction.

The busy little village of Branchville, N. J., has been the scene of a modern miracle. Charles F. Struble, a well-known farmer of that town, was cured of locomotor ataxia and rheumatism. To a correspondent of the New York Press he said:

"I was troubled with rheumatism, on and off, for twenty years and tried all kinds of treatment. I took sulphur baths and was treated with a galvanic battery. I also tried many doctors, none of whom did me any permanent good. I tried all kinds of liniments but without avail.

"All this time I was growing worse and in 1891 the doctor who was treating me said my case had developed into locomotor ataxia. He gave me no encouragement and after attending me for a while he told me my ailment was incurable.

"I suffered horribly. The cords of my limbs were drawn tight as the strings on a drum and I had such cramps that the pain nearly drove me wild. My feet were cold all the time and even with a hot water bag and heated bricks I could not get any relief.

"Finally I heard of Dr. Williams' Pink Pills for Pale People and I began taking them on February 5, 1893. In three days' time I found that the cords in my legs began to 'let up,' my feet began to get warm, and I began to eat and sleep well and in one month I had gained six pounds. The numbness in my limbs gradually wore away and I became a new man. I can walk and work now, and nine boxes of Dr. Williams' Pink Pills for Pale People did it. In the eight years which have passed I have had no return of my trouble."

Mr. Struble took the one unfailing remedy and was readily cured. Dr. Williams' Pink Pills for Pale People will not only effect a cure in cases similar to the one above but are an unfailing specific for all diseases arising from shattered nerves or impure or impoverished blood.

Dr. Williams' Pink Pills for Pale People are sold at fifty cents a box or six boxes for two dollars and fifty cents, and may be had of all druggists, or direct by mail, postpaid, from Dr. Williams Medicine Co., Schenectady, N. Y.

## THE U. S. CREAM SEPARATOR

**HOLDS WORLD'S RECORD**

**FIFTY CONSECUTIVE RUNS**

At the Pan-American Model Dairy

**AVERAGE TEST OF SKIM MILK .0138**

No other Separator has ever been able to approach this record

Send for Free Pamphlets

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Write to

## Blue Valley

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Get Me and Do Your Own Shipping.

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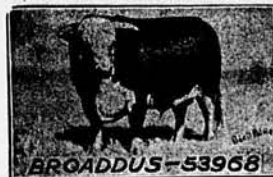




# Third Annual Sale

of the

# San Rafael Herefords



**COLIN CAMERON, Lohlel, Arizona, will sell at Public Auction, in the Fine Stock Pavilion, Kansas City, Missouri, on**

**WEDNESDAY AND THURSDAY, MAY 7 AND 8, 1902.**

**90 HEAD OF REGISTERED HEREFORDS. 78 Cows--Nearly all of them in calf or with calves at foot. 12 Bulls--Strong, lusty fellows ready for immediate use.**



**A selected draft from an old established herd of 1,000 head.**

The San Rafael Herefords are Arizona range bred, raised on native grasses in fenced pastures, are in perfect health, have strong constitutions, and are in every way a desirable and profitable kind of cattle to handle. Bulls strong in the best blood of the breed have been used in this herd for 20 years. The opportunity is unequalled for breeders, and especially for beginners, to secure strictly well-bred cattle at their own prices.

For Catalogues address..... **C. R. THOMAS, 225 West 12th Street, KANSAS CITY, MISSOURI.**



## LIVE STOCK AUCTIONEERS.

**CAREY M. JONES,**  
Live Stock Auctioneer,  
Davenport, Iowa. Have an extended acquaintance among stock breeders. Terms reasonable. Write before claiming date. Office, Hotel Downs.

**R. E. EDMONSON,** late of Lexington, Ky., and R. Tattersall's (of Chicago, limited), now located at 208 Sheldley Building, Kansas City, Mo., offers his services as Live Stock Auctioneer. All the Herd and Stud Books. Wire before fixing dates.



**R. L. Harriman,**  
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**SALES made everywhere.** Thoroughly posted and up-to-date on breeding quality and values. Have a large acquaintance among and am selling for the best breeders in the country. Terms low. Write for dates.



**Life Burger**  
WELLINGTON, KANS.

**LIVE STOCK AUCTIONEER.**

Fine Stock Sales a Specialty. Am booked for the best coming sales. I want your next sale. Write or telegraph your dates.



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**Col. J. N. HARSHBERGER**

Lawrence, Kans. Special attention given to selling all kinds of pedigree stock; also large sales of graded stock. Terms reasonable. Correspondence solicited. Men from Kansas Farmer.

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**Sales Made Anywhere.** Have been and am now booked for the best sales of high-class stock held in America. Thoroughly posted on pedigrees and individual merit. Large acquaintance among the leading stock breeders of America. Terms reasonable. Write me before claiming your date.

**Skunk!** SHIP THEIR  
FURS, HIDES, PELTS, WOOL, ETC.  
To McMillan Fur & Wool Co.  
Minneapolis, Minn.  
WRITE FOR CIRCULARS

**Furs! • Furs!**  
SHIP YOUR SKUNK

and other raw furs to me. A trial shipment will convince you that you can get better prices for them here than by shipping elsewhere. Prompt returns and full value guaranteed. Write for tags and prices on Furs, Hides, Wool, Tallow, and Pelts.  
**W. W. CADWALLADER, Nebraska City, Neb.**

When writing advertisers please mention Kansas Farmer.

## LUMP JAW.

A positive and thorough cure easily accomplished. Latest scientific treatment, inexpensive and harmless. **NO CURE, NO PAY.** Our method fully explained on receipt of postal.  
Chas. E. Bartlett, Columbus, Kans.



## LUMP JAW

Easily and thoroughly cured. New, common-sense method, not expensive. No cure, no pay. **FREE.** A practical illustrated treatise on the absolute cure of Lump Jaw, free if you ask for Pamphlet No. 240. Fleming Bros., Chemists, Union Stock Yards, Chicago, Ill.

## GAS RELEASING BIT

FOR PREVENTING BOAT IN DAIRY COWS AND

other stock while feeding on alfalfa & clover. Every farmer will save money by using this bit. Can be used early and late and in mid-season when other pastures are short and barren. This bit is strongly made and durable. A complete success. By mail to any address. Reliable Agents Wanted.  
Wilburn Bush, Mfr., 712 N. Market St., Wichita, Kas.

**SECURITY COLIC CURE**  
CURES  
Any kind of Colic in ten minutes. Money refunded if it ever fails. Our Stock Food is the best, and is the cheapest to feed. Ask local dealer or write us for pamphlet.  
**SECURITY STOCK FOOD CO., Minneapolis, Minn.**

**NOXEM**  
PREVENTS HORNS  
Perfect, Practical, Powerful Paste  
Enough for 25 calves, per tube 50 cts.  
By mail 55 cts. **AGENTS WANTED.**  
E. S. NICHOLS 123 E. Bldg., So. Omaha, Neb.

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**WE PAY FOR FARMERS' NAMES**

For fifty names and addresses of good, reading farmers, we will mail anyone sending them, a splendid Art Work in six colors, 11x15 inches. Price \$1.00. Made from a photograph taken on the spot. A squad of United States soldiers "On Picket Duty in the Philippine Islands."

**K. D. THOMPSON PUB. CO., St. Louis, Mo.**

**RIDER AGENTS WANTED**  
to ride and exhibit sample bicycle.  
**1902 MODELS, \$9 to \$15**  
1900 and 1901 Models, high grade, \$7 to \$11  
**500 Second-hand Bicycles**  
all makes and models, good as new \$3 to \$8. Great Factory Clearing Sale.  
We **SHIP ON APPROVAL** and 10 DAYS TRIAL without a cent in advance. Earn a Bicycle distributing catalogs. Write at once for net prices and special offers.  
**MEAD CYCLO CO., CHICAGO, ILL.**

## O. F. MENNINGER M. D., Consulting Physician.

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Specialties: Chronic, and Obsolete Diseases  
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## A Dairying Proposition

does not go badly with that of raising No. 1 Hard Wheat. Both are satisfactory in the Great Agricultural districts of Manitoba, Assinibola, Alberta & Saskatchewan.

## Mixed Farming is an Assured Success.

Every condition is favorable. Schools, Churches, Railways, Climate meet every requirement. By letters from settlers we find one man who, after a few years' residence, came to Western Canada with \$75, is now worth \$10,000; another who brought \$1,000 is now worth \$50,000, another who came with barely enough money to buy a team is now worth \$20,000, and so on.

These lands are the most valuable on the continent. Railroad and other lands at low figures adjoin the Homestead Lands. For fuller information, maps, pamphlets, etc., address F. Pedley, Superintendent of Immigration, Ottawa, Canada, or the Canadian Government Agent

**J. S. CRAWFORD,**  
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## Only \$45 California and Back

First class round trip, open to everybody, \$45.00, from Topeka to Los Angeles and San Francisco; the Santa Fe.

Corresponding rates from all points east.

Account National Convention, Federation of Women's Clubs. On sale April 22 to 27.

Tickets good for return until June 25.

Only line under one management all the way from Chicago to California.

Only line for both Grand Canyon of Arizona and Yosemite.

Only line to California with Harvey meal service.

Write for descriptive literature, free.

Address, **T. L. KING, Agt., Topeka.**

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## Women's Club Special

Through Train to Los Angeles

## Union Pacific, Official Route

Selected because it is the best route. Only \$45 for the round trip. Only \$5.00 Pullman double berth. Only Pullman dining car line. Our special starts April 24. Stops going at Denver, Salt Lake, San Francisco, where special receptions will be held. Grand organ recital Mormon tabernacle. Only official train in Kansas. Board of managers on this train. Why not go on official train. The opportunity of a lifetime. Maximum comfort. Minimum cost. Through without change. Special Excursion manager in charge. Every attention to your comfort. Send in orders for berths. Stand together for Kansas special. We want you to join us. Send for full particulars. Address any Union Pacific agent or Mrs. C. C. Goddard, state secretary for Grand Federation, 811 Middle St., Leavenworth, Kans.

## A Good Route to Try



It traverses a territory rich in undeveloped resources; a territory containing unlimited possibilities for agriculture, horticulture, stock raising, mining and manufacturing. And last, but not least, it is

## The Scenic Route for Tourists.

The Frisco System now offers the traveling public excellent service and fast time—

Between St. Louis and Kansas City and points in Missouri, Kansas, Arkansas, Oklahoma, Indian Territory, Texas and the Southwest.

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Full information as to route and rates cheerfully furnished upon application to any representative of the Company, or to

**Passenger Traffic Department, Commercial Building, Saint Louis.**







## Brain Markets.

Conducted by James Butler, Secretary of the Farmers' Co-operative Grain and Live Stock Association.

"The human race is divided into two classes,—those who go ahead and do something, and those who sit still and say, why wasn't it done the other way."—Oliver W. Holmes.

The Mouth-piece of the Kansas Grain Dealers' Association Howls.

In the Southwestern Grain Journal, the mouth-piece of the Kansas Grain Dealers' Association, in discussing demagogues and agitators. The grain dealers are fearful lest some advantage be taken of the farmers. They will not be able to deceive the intelligent farmers. Their purpose is to create suspicion and destroy the farmers' movement. They are howling to protect the 5-cent margin extorted from the grain-growers by the grain dealers. We clip the following so our cooperative friends may read what they say:

"But with the advent of this new business idea of cooperation, a new industry was created for the demagogue, and a new source of income established for the agitator or drone, who exists on the toll of others. Both characters had an eye to the 'main chance,' with visions of honor and riches beyond measure in the future rising before them. 'Kansas, known as the land of freaks,' promptly produced a sample of each of these characters.

"The demagogue straightway wrote a bill and had it enacted into law, making all cooperative associations, except those of agricultural and labor organizations, outlaws.

"The agitator, with less brains but more gall, immediately shed crocodile tears for the down trodden agriculturists because a few grain dealers organized to compel railroads and wholesale grain dealers to treat them justly in the matter of weights and rates, for as individuals they were powerless to enforce their rights.

"Regardless of the fact that this agitator is not a farmer—not even constructively—has no interest in the cause of the farmer either direct or implied, excepting to exploit them, his lamentation and tears could not be stopped.

Under the plea of redressing their wrongs by organizing them into a Farmer's Cooperative Association, he succeeded in misleading some honest farmers to oppose a number of honorable business men organized for their own defense. In other words, this agitator, or alleged 'farmers' friend (?)', who knows as little about farming as he does about the rings surrounding the planet Saturn, began, from his office in Topeka, a system of farming the farmers.

"This agitator, like a huge drone, issues appeals from his hive strongly favoring centralization, with the drone the center figure and eating all the honey. "On account of the industry of the working bees, this drone is sleek and fat without worry for the morrow."

It is well to note that the Southwestern Grain Dealer emanates from the same building in which E. J. Smiley, secretary of the Grain Dealers' Association, is located.

Suspicion is the most contagious and fatal malady that farmers' organizations have to contend with.

The way to convince people that a certain thing can be done is to take right hold yourself and do it.

It is the man who can do things who gets to the front. The man who can not is to be pitied, for he is a failure.

When a man's greatest resource and ability consists in fault-finding, he is not fit to conduct any kind of business.

Let it be well understood that the first essential step for farmers is to become thoroughly organized. Many of the objects they wish to obtain can not be secured without a strong organization.

To establish and maintain cooperative selling of grain and live stock will not meet with the opposition encountered in ordinary lines of mercantile business. The shipping and sale of live stock and grain is not a difficult or intricate business. Both lines are plain and easily conducted.

The Northwestern Agriculturist, of Minneapolis, Minn., contained the following pertinent paragraph in its last issue: "That is a sensible move of farmers of southern Minnesota and northern Iowa in combining to form an association for the handling of their grain. Farmers' elevators can be operated successfully and at a great saving to the

## GOOD BYE.

This closes our season's advertising in Kansas. Our orders have been much more than we had even hoped. We have endeavored to please our customers and believe they appreciate our efforts. As a parting we make these cut prices. It will pay you to send in your orders at once; they will not be offered again.

## MILLET SEED.

Our first car of Red German or Siberian Millet went off with a rush. This we have now costs us 10 cents more per bushel, and we have raised the price 10 cents. This millet is earlier, stands drouth better, has more blades on the stem, and makes from one-third to one-half more hay than the regular German Millet. The hay is softer when cured, greener in color, and is preferred by stock to other hay or millet. Every farmer who has tried this millet has very high praises for it. It yields from 30 to 50 bushels seed per acre. Price per bushel (3-bushel grain bags extra at 16 cents each)..... **\$1.20**

## GOOD BYE.

Prices.	Per bu.
Cane seed.....	\$1.60
Kaffir-corn.....	1.35
German millet.....	1.55
Common millet.....	1.50
Fancy blue grass..	1.25
Choice red clover..	6.00
	Per lb.
Teosinte.....	.80
Pencilaria.....	.80
Dwf. Essex Rape	
16 lbs. for.....	1.00
All sacked on board cars. Prices good only till April 24.	

## GRISWOLD SEED CO.,

Postoffice Box A. LINCOLN, NEBRASKA.

grain-raisers. It is reported that during the last two months fourteen or fifteen new farmers' elevators have opened for business, and it is all attributed to the National Grain Growers' Association which met at Fargo last December."

Just think of the power in the hands of the farmers if they would only use it. If they would all put into a pool 10 cents for each acre of growing wheat in Kansas this year, it would enable them to build two terminal elevators and over three hundred country elevators. They would save enough the first year to get their money back.

### THE MARKETS.

#### Last Week's Market Review.

Topeka, Kans., April 14, 1902. During the last week prices of grain have undergone a radical change for the better, and especially is the position of wheat getting stronger. Receipts of wheat are falling off everywhere—winter and spring wheat alike. Total primary receipts of wheat last week were only 1,447 cars against 2,121 cars a week ago and 2,267 cars two weeks ago, while exports of wheat were 3,842,000 bushels last week and foreign prices readily followed our advance of the week. Exports of wheat and flour in the forty-one weeks since July 1, 1901, amounted to 203,623,000 bushels, compared with 190,781,000 bushels in the corresponding time a year ago, and 161,255,000 bushels two years ago. Stocks of wheat in Europe are less everywhere than they were a year ago, and were it not for the fact that our newspapers, crop-lars and Government statisticians, have heralded to the world the immensity of our large wheat crop—on paper—the true condition would have been apparent long ago and wheat would be selling very much higher. Fact is, the truth is gradually dawning upon the public, that the crop was not only largely overestimated, but also that many millions of bushels have been fed to animals of which no account has been taken. Speculators have for four months or more past sold future options on wheat, expecting farmers to fall over one another delivering large quantities of wheat, but the wheat does not come—farmers refusing to sell—or what is more probable, they have not got it to sell, and go the result is that "cash wheat" everywhere is selling for from 1 to 4 cents over the price of May wheat. The question now is, Will this wheat, that speculators have been expecting the farmers to send to market for the last four or five months, come forward now so as to apply on May and July options? If not, the advance that has just started and that we have predicted for some time, may be much higher than the early January price of wheat, especially if present weather conditions continue. It is beyond question that more rains are needed for wheat than usual, on account of the dry condition of the subsoil. In a large part of the winter wheat counties of Kansas grows worse instead of better, and Nebraska is also crying for rain. Complaints of dry weather come also from Illinois and Iowa, while with a few exceptions every county in Oklahoma is very dry and wheat not doing well.

The price for actual wheat everywhere is very firm, notwithstanding millers are complaining of the dullness of trade in flour. But flour trade is always dull after a long and protracted break in wheat prices. Let wheat begin to rally and every merchant will begin to lay in a stock of flour. The visible supply decreased 1,779,000 bushels last week, and with the opening of navigation will soon be at minimum, especially if primary receipts continue to decline.

There was a good healthy, old-fashioned "boom" in corn last week, with an advance of over 6 cents per bushel in Kansas City and 2 to 3 cents per bushel in Chicago. Nearly the entire visible supply of corn is held in Chicago elevators and with little export demand at present prices, is liable to remain there some time, because the East is not buying much corn at present. But not so with St. Louis and Kansas City. Feeders and consumers have taken the big stock of corn of over a million of bushels, that was congesting Kansas City markets of a month ago, until only about one hundred car-loads remain and all of it sold to go out. With the ele-

vators of Iowa and Nebraska depleted and farmers busy in the fields it will be difficult to foretell how much higher corn will go in Kansas City and other southwestern points. Exports of corn last week were only 158,000 bushels compared with 2,624,000 bushels for the corresponding week in 1901 and total exports of corn since July 1, 1901, have been only 25,350,000 bushels. The visible supply decreased 958,000 bushels last week and is now 7,550,000 bushels.

Markets closed to-day at the following quotations:  
Chicago.—No. 2 Kansas hard wheat, 74c; No. 2 corn, 60 to 61c; No. 2 oats, 43c.  
Kansas City.—No. 2 red wheat, 80c; No. 2 hard wheat, 71½c; No. 2 corn, 66 to 66½c; No. 2 white corn, 67 to 68c; No. 2 oats, 45½c.  
Topeka.—No. 2 hard wheat about 73c, demand active. F. W. FRASIER.

#### Kansas City Live Stock Market.

Kansas City, April 14, 1902. Another week of record-breaking cattle and hog prices featured the local market. Last week's top was over-reached, on Friday, when C. H. Butler, of Frankfort, Kans., marketed a bunch of strictly fancy Polled Angus heaves at \$7.15, the best price of the year at this market and the highest since 1882. Paucity of supplies continued during the past week, which accounted for the strength in prices. Feeders, contrary to fat cattle, showed a decline of 25c the latter part of the week, mostly on thin and cheaper grades of cattle. All good butcher and dressed-beef cattle sold well during the week. Fat bulls exhibited a great deal of strength throughout the entire six days. Straight heifers sold around \$6.50 and continued in prime favor with the killers. The decline that was had in feeding cattle was somewhat of a disappointment to many dealers, who buoyed themselves up with two strong hopes—the high values of fat stock and the approach of grass.

In the face of lighter hog receipts at all of the principal hog markets of the country, swine kept pace with cattle and recorded an advance for the week. The rise amounted to about 25c at this market. The local supply was 29,300 head, against 64,500 a year ago. Packers were keenly aware of the situation and were strong buyers all week. Top hogs started in at \$7 on Monday and by Friday had brought \$7.25. Dealers are of the opinion that hogs will sell yet higher and took the advance as a matter of fact. From now on, the market will depend upon receipts as regards advancing or receding prices. The let-up of supplies at the Eastern centers would seem to be a strong point in favor of the bulls.

Sheep displayed considerable strength the early part of the week, but lost the advance, and closed 10 to 15c lower. The loss was entirely upon lambs, as the scarcity of mutton offerings was so great that buyers were compelled to give strong prices. A bunch of the Kansas lambs, strictly prime as regards breeding and flesh, sold this week for \$7, the best price of the year for grown lambs. Spring lambs sold for \$10 as the top, but it is doubtful if the demand will justify that price in the near future. Very few Kansas sheep are arriving at present.

Horses and mules were in liberal supply and the market was generally satisfactory as regards the movement. Prices of mules showed weakness, however, all grades selling off \$5 to \$7.50 from the high point reached two or three weeks ago. Mules sold here during the week at \$200 around, right from first hands. This is a record-breaking value. The special spring sale of horses was held during the week. A little under 300 head changed hands. Many Kansas and Missouri buyers were in attendance and secured fine animals. J. H. Jarvis, of Holton, Kans., paid the top price, \$625, for a black pacing stallion. Coach horses sold up to \$600, a Chicago buyer securing a team at that price. Speed horses sold better than high acting animals.

The commission men and the stock yards company were at outs this week over a new order issued by the latter providing for a written letter being furnished them before they would deliver cattle to buyers. The commission men are up in arms

against this ruling and the exchange passed a motion inflicting a fine of \$500 upon any of its members who issued an open order for the delivery of cattle. The yards company did not withdraw its new rule and thereupon the exchange issued a formal notice to the patrons of its members advising them to keep away from the market until the friction was removed. On Monday of this week it was expected that receipts would be the lightest in years owing to this request, but to the surprise of all they were fully up to the normal, if not a little in excess. If they continue this way, the commission men will undoubtedly be compelled to give in to the yards company, as their most potent force will have proved to be of no avail.

H. A. POWELL.

#### Elgin Butter Market.

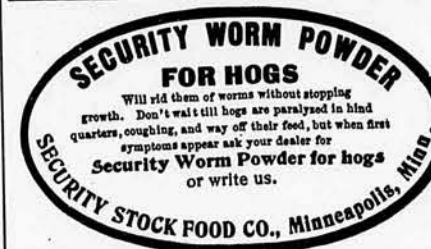
Elgin, Ill., April 15, 1902. The quotation committee announces butter 30c.

#### The Center of Population.

Of course, everyone in this country has heard or perhaps read something about the center of population of the United States. Elsewhere in this issue will be found an illustration showing the stake which marks this celebrated spot, which is on the farm of Mr. Henry Marr,



four miles east and two miles south of Columbus, Ind. Mr. Marr, whose portrait is presented herewith, has bought a new McCormick World-Center binder for 1902. It was eminently proper for this center-of-population man to purchase a world-center binder—and it is also proper for every other man who needs a binder to follow the example of this celebrated Mr. Marr and purchase an O. K. binder.



**\$7 DAILY** selling Easy Pump Governors. They make the hardest working pump work easy. Windmills turn in the lightest wind. Fits all pumps. Exclusive territory. No talk. Merit sells it. Chicago Pump Governor & Machine Co., 154 Lake St., Chicago, Ill.

**PILES** NO MONEY TILL CURED. 25 YEARS ESTABLISHED. We send FREE and postpaid a 200 page treatise on Piles, Fistula and Diseases of the Rectum; also 100 page illus. treatise on Diseases of Women. Of the thousands cured by our mild method, none paid a cent till cured—we furnish their names on application. **DRS. THORNTON & MINOR, 1007 Oak St., Kansas City, Mo.**



## Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time will be inserted in this column, without display for 10 cents per line of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it.

**SPECIAL.**—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with order. Stamps taken.

### CATTLE.

TWO full-blood Polled Angus bulls, without pedigree, can be bought very cheap at Conrad Kruger's ranch. Address Hays, Kans.

FOR SALE—80 head of high-grade Polled Angus heifers, 2 years old, with 25 head of calves by their sides, and 35 more due to calves soon. Also 5 Hereford bulls for sale. Never used in a herd, they are in fine fix, at a bargain for cow men. O. L. Thieser, Chapman, Kans.

RED SHORTHORN BULLS for sale; cheap. Geo. Manville, Dearborn, Mo.

FOR SALE—32 3-year-old Galloway cows, all with calf or calves at side; one 2-year-old bull, Sir Peter 17603; cows are not registered. Price, \$50 for cows, \$125 for bull. John W. Harris, Cuba, Kans.

FOR SALE—One registered, 3-year-old Red Polled bull, deep dark red, weight 1,500; not fat, good individual, best of breeding. Price, \$125. Charles Morrison, Phillipsburg, Kans.

FOR SALE—Three choice, registered Galloway bulls, 10 and 11 months old; also several heifers, 18 and 20 months old. All gentle and good individuals. James Morrison, Milo, Vernon Co., Mo.

FOR SALE—Registered Hereford bulls, 12 to 15 months old, good ones; our own breeding. Will sell; Worth the money. H. B. Clark, Geneseo, Kans.

FOR SALE—Three pure Cruickshank-Shorthorn bulls. Call on or address H. W. McAfee, Topeka, Kans.

FOR SALE—Three registered Hereford bulls; also a few high-grades. Inspection of foundation stock invited. A. Johnson, Clearwater, Sedgwick Co., Kans.

SHORTHORN CATTLE SALE—I will offer at public sale, 1½ miles south of Marysville, at 2 o'clock p. m., on Tuesday, October 15, 17 registered Shorthorns, 19 high grade Shorthorns, and 3 thoroughbred Jerseys. Lewis Scott, Marysville, Kans.

### HORSES AND MULES.

FOR SALE OR TRADE—Missouri-bred jack at a price that will sell him. Also 7 high-grade Shorthorn bulls. C. L. Saylor, Pauline, Kans.

FOR SALE—Black Percheron stallion Monthaber 13162 (24057), 12 years old, weight 1,800 pounds; an extra breeder; price \$400. Address G. W. Southwick, Riley, Kans.

FOR SALE—Four big black jacks. Address J. P. Wilson, Wellsville, Mo.

PROSPECT FARM—CLYDESDALE STALLIONS, SHORTHORN CATTLE AND POLAND CHINA HOGS. Write for prices of finest animals in Kansas H. W. McAfee, Topeka, Kansas.

### SHEEP.

FOR SALE—Plain Merino ewes, 150 head; Merino rams, 45 head; at low figures for quick sale. L. O. Walbridge, Russell, Kans.

### SWINE.

FOR SALE—Yearling Duroc-Jersey male \$22.50, October pig \$9.50; recorded and crated f. o. b. M. H. Alberty, Cherokee, Kans.

FOR SALE—Five choice pedigree Poland-China gilts, bred. John Ziller, Hiawatha, Kans.

A. B. DILLE & SON, Edgerton, Kans., have some extra fine young Poland-China gilts for sale at reasonable prices, bred to Perfection 2d 2771, whose sire, the Great Perfection 2d 466, sold for \$2,500.

FOR SALE—Large English Berkshire boars, over 200 pounds each. E. C. Stratton, Pavillion, Kans.

### FARMS AND RANCHES.

**FREE** 200 printed farm and ranch descriptions in central Kansas; one mile to town, best soil, running water, natural timber. Address J. C. Brown, Burdette, Kans.

FOR SALE—640 acres, grain and stock farm, in central Kansas; one mile to town, best soil, running water, natural timber. Address J. C. Brown, Burdette, Kans.

160 Acres, 7-room house, timber, bottom land, well located. Buckeye Agency, Agrícola, Kans.

FOR corn, alfalfa, and wheat land, ranches and farms, write to Charvoz & Co., Emporia, Kans.

**SUBURBAN HOME FOR SALE**—Forty acres Kaw Valley land, adjoining city, 1½ miles from Postoffice, 2 miles from State University, 8 o'clock mail delivery, city school privileges. Blue grass lawn and pastures, abundant shade—elms, pines, cedars; young orchard, small fruits, brick barn, brick house—excellent condition—14 rooms, 2 bath rooms, large verandas, furnace heat, private gas plant, telephone. Price \$8,000. Address "The Meadows," R. K. No. 5, Lawrence, Kans.

**SOME BARGAINS** in farms and ranches. Correspondence solicited. J. M. Patten and Co., Dighton, Kans.

### AGENTS.

WANTED—A good, active man with horse and wagon, to represent us in each county. Will bear investigation. Imperial Stock Food Co., 902 Jackson St., Omaha, Neb.

### POULTRY.

EGGS—From high-scoring Rose Combed White Leghorns, \$1 per 15. Mrs. John Hill, Vinland, Kans.

LIGHT BRAHMAS EXCLUSIVELY—Eggs \$1 per 15, \$2.50 per 45. Mrs. B. W. Gowdy, Garnett, Kans. R. R. No. 2.

EGGS—Sixty-five cents per setting, from pure, farm-raised Silver Laced Wyandottes. Mrs. M. A. Hall, Winfield, Kans., R. R. 7.

When writing advertisers please mention Kansas Farmer.

### SEEDS AND PLANTS.

FOR SALE—Improved Early Orange sorghum-seed, \$1.50 per bushel. M. S. Miller, Florence, Kans.

CANE AND KAFIR-CORN SEED—Choice re-cleaned; quantities to suit. V. S. Jones, Syracuse, Kas.

SOY-BEANS—Early Yellow soy-beans for sale at \$2.50 per bushel; bags free. John B. Harmon, Valley Falls, Kans.

FOLGER'S EARLY CANE-SEED—A high-grade variety, rich in sugar; also Early Amber, f. o. b. sacked \$1.40 per bushel. A. H. Knox, Hymers, Kans.

FOR SALE—White Black Chaff Kafir-corn for sale in car-load lots or less. Send for samples and price. S. J. Cleland, Route 4, Emporia, Kans.

SORGHUM-SEED, \$3, and White Kafir-corn, \$2 per 100 pounds, on cars, sacked; both of extra quality. E. C. Stratton, Pavillion, Kans.

CONCORD GRAPE VINES—Good, thrifty stock, \$1 per 100. Houghton gooseberry plants at the same price. J. C. Banta, Topeka, Kans.

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SEED SWEET POTATOES FOR SALE—All leading kinds; also plants in their season. Enquire of N. H. Pixley, Wamego, Kans.

SIBERIAN MILLET, the new forage millet, 100 lbs., sacked, \$2.50; seed-corn, several varieties, per bushel, \$1.50; Bromus Inermis, per lb., 18 cents; per 100 lbs., \$18; Dwarf Essex rape, per lb., 8 cents; per 100 lbs., \$7. Write for catalogue. Trumbull & Co., Kansas City, Mo.

WANTED—If you wish to buy or sell corn, oats, hay, cane seed, Kafir-corn, corn chop, or anything in the feed line, correspond with us. Western Grain & Storage Co., Wichita, Kans.

### MISCELLANEOUS.

FOR SALE CHEAP—Pedigreed Scotch Collie pups. W. H. Richards, V. S., Emporia, Kans.

FOR SALE—Pure-bred fox terrier puppies, out of prize-winning stock. They are the farmer's and stockman's friend. R. J. Hill, Hillsboro, Kans.

WOOL WANTED—Will pay highest market price for wool. Sacks for sale. Topeka Woolen Mill Co., Oakland, Kans.

BUSH'S GAS RELEASING BITS have given satisfaction wherever used. See ad. elsewhere in this paper.

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FOR SALE—Two pedigree Scotch Collie pups 7 months old; both females. Address, Hill Top Farm, Parkville, Mo.

FOR SALE—Feed mills and scales. We have 2 No. 1 Blue Valley mills, one 600-pound platform scale, one family scale, and 15 Clover Leaf house scales, which we wish to close out cheap. Call on P. W. Griggs & Co., 208 West Sixth Street, Topeka, Kans.

WOOL WANTED—We have just completed our New Woolen Mill in North Topeka and want at once 200,000 pounds of wool for which we will pay the market price. Write us if you have wool for sale. Western Woolen Mill Co., North Topeka, Kans.

### CHESTER WHITES.

I am offering 80 head of Chester White fall and spring pigs, either sex, at reasonable prices. The best strains of this breed. Will Michael, Selma, Iowa.

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Sick headache, nervous headache, tired headache, neuralgic headache, catarrhal headache, headache from excitement, in fact, headaches of all kinds are quickly and surely cured with

## DR. MILES' Pain Pills.

Also all pains such as backache, neuralgia, sciatica, rheumatic pains, monthly pains, etc.

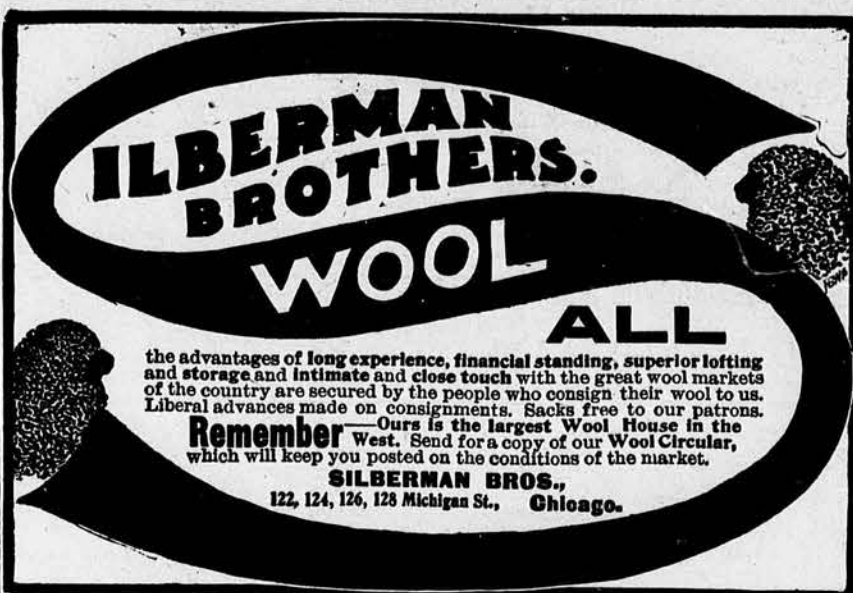
"Dr. Miles' Pain Pills are worth their weight in gold," says Mr. W. D. Kreamer, of Arkansas City, Kan. "They cured my wife of chronic headache when nothing else would."

"Dr. Miles' Pain Pills drive away pain as if by magic. I am never without a supply, and think everyone should keep them handy. One or two pills taken on approach of headache will prevent it every time."

Mrs. JUDGE JOHNSON, Chicago, Ill.

Through their use thousands of people have been enabled to attend social and religious functions, travel, enjoy amusements, etc., with comfort. As a preventive, when taken on the approach of a recurring attack, they are excellent.

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25 Doses, 25 cents,  
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122, 124, 126, 128 Michigan St., Chicago.

## Has More Humps Than the "Campbell."

175  
Have needed them  
this spring,  
already.



(Patent applied for.)

Can be used East or West.  
Can be used at any time.  
Can be used on anything planted in rows.  
Will pack anything planted in rows as well as prepare a good seed-bed.  
It is no experiment.

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PATENTED AND UNPATENTED INVENTIONS  
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J. A. ROSEN, Patent Attorney,  
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**Agents and Dealers**  
wanted to sell Rippley's 4 and 5 Gallon Compressed Air Sprayers, Large Orchard Sprayers, Spraying Solutions and Breeder Supplies.  
We can keep you busy the year around. Large 1902 catalog and terms free for 20 stamp.  
**RIPPLEY HDW. CO.,**  
Box 23, Grafton, Ill.

## The Stray List.

Week Ending April 10.

Franklin County—J. A. Davenport, Clerk.  
COW—Taken up by H. M. Bainer, in Centropolis tp. February 26, 1902, one dark brown or black cow, about 3 years old, crop off left ear; valued at \$10.

Week Ending April 17.

Russell County—J. B. Himes, (Deputy) Clerk.  
HEIFER—Taken up by Gottlieb Swartz, in Big Creek tp., March 7, 1902, one red heifer, 1 year old, white forehead, white on left side; valued at \$15.

Cherokee County—S. W. Swinney, Clerk.  
MARE—Taken up by C. E. Edwards, in Pleasant View tp., (P. O. Opolis), March 31, 1902, one roan mare, about 15 hands high, weight 800 or 900 pounds; valued at \$25.

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**J. G. PEPPARD,**  
1101 to 1117 West 9th St.  
(Near Santa Fe St.)  
KANSAS CITY, MO.

**MILLET CANE  
CLOVERS  
TIMOTHY  
GRASS SEEDS.**

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**MILLET SEED** Clover, Timothy, T. LEE ADAMS,  
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SEED-CORN. KANSAS CITY, MO  
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Ours have stood the test of 50 years.  
Send for price list.  
600 Acres. 13 Greenhouses. Established 1852.  
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**TRUMBULL & CO.**  
1426 ST. LOUIS AVE.,  
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**ALFALFA SEED**

**OUR SPECIALTY.** We are head-  
quarters for this kind of drouth resisting plants, and can  
furnish pure, plump, vigorous seed crop 1901  
in car or one-bushel lots. Also all other  
kinds of field seeds. Write us for prices.

MOBETH & KINNISON, Garden City, Kansas.

**KENTUCKY BLUE GRASS SEED.**

For a beautiful as well as a most profitable pasture sow BLUE GRASS.  
The genuine Kentucky seed is what you want, and from September until June is the proper time to sow. For  
pure seed of our own raising, and full particulars, write MT. AINSY SEED FARM, Paris, Kentucky.

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We keep everything in the line of SEEDS for Farm, Field, and Garden—Fresh, Pure, and True.  
Alfalfa and Grass Seeds our specialty. Champion Beardless Barley and Russian Speltz—two  
Grand Novelties for dry soils. Bromus Inermis—the new drouth-proof grass. Limited  
quantity of Macaroni wheat for those who wish to try it. Send for descriptive circular and  
elegant new catalogue for 1902, and learn all about them. Free to all.

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CATTLE KING, medium ear-  
ly, from 60 to 100 bus. per acre,  
is one of the best cattle corns  
grown. EARLY REED, light  
cob, matures in 100 days, will  
yield more than any other early variety. MAMMOTH WHITE—We think this va-  
riety the very best for those wanting white corn, medium early, ears from 9 to 14  
in, long, white cob. Our corn is all selected, tipped, shelled, sacked, and f. o. b. cars.  
Price \$1.25 per bushel. Write for samples.

W. W. VANSANT & SONS, Farragut, Iowa.

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Announce to their trade they are offering their....  
BLACK DIAMOND SEED OATS, 100 lbs., \$3; or 500 lbs., \$13. IOWA'S PREMIUM WHITE OATS, 100 lbs.,  
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CHOICE WHITE CORN, \$1.50 per bu.; or 6 bu., \$7.50.

Write for prices of Choice Clover, Timothy, and Millet Seed.

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are selling the best seed from  
corn grown in 1901 in the best  
part of Iowa. All shipments  
true to sample. Write for circular,  
price list, and samples of  
our yellow Excelsior, yellow  
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true to order. Try us.

OATS, CLOVER SEED, AND TIMOTHY.

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We are growers of Field and Farm Seed. Our  
Specialty is Seed Corn. We devote careful  
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suited for all sections of the corn belt. Our seed  
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We can supply you with Seed Oats. Write us for free descriptive catalogue. Send 4 cents in  
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**California \$25.00**

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extremely low rate of \$25.00. Through train daily to Los An-  
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**ALFALFA  
SEED.**

New Crop; thoroughly re-  
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chaff nor waste to pay for.

BUY IT WHERE IT GROWS

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Invest  
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choice Fruit Trees, Shrubs or Vines. Ours will  
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Send a trial order to-day. Due  
bill good for 25c and Cate-  
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**SEED CORN  
FOR SALE.**

YELLOW OR WHITE.

Raised an average of 37½ bushels per  
acre on 80 acres in 1901. Tipped, shelled,  
and sacked f. o. b. cars Parkville, Mo.,  
\$1.25 per bushel. Remittances must be  
in Kansas City exchange or postoffice or-  
der. If samples wanted send 10 cents.  
Address,  
HILL TOP FARM, Parkville, Mo

**BRAND NEW STEEL ROOFING**

Bought at Reed's Sale.  
Sheets either flat, cor-  
rugated or "V" crimped. No  
tools except a hatchet or  
hammer is needed to lay  
the roofing. We furnish  
iron with each order  
enough paint to \$1.75  
cover and nails to lay. Price per square, \$1.75  
A square means 100 square ft. Write for Free Catalogue  
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Wrecking Co., West 35th and Iron Sts., Chicago, Ill.



**Giant Flowering Caladium**

Grandest foliage and flowering plant yet introduced.  
Leaves 3 to 5 feet long by 2 or 2½ feet broad; perfectly  
immense, and make a plant which for tropical luxuriance  
has no equal. Added to this wonderful foliage effect are  
the mammoth lily-like blossoms, 12 to 15 inches long, snow-  
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perpetually all summer in the garden, or all the year  
round in pots. Not only is it the grandest garden or lawn  
plant, but as a pot plant for large windows, verandas,  
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foliage, to say nothing of its magnificent flowers. Thrives  
in any soil or situation, and grows and blooms all the  
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Fine plants, which will soon bloom and reach full per-  
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The securities for this contract are held by the State of Iowa.  
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**Breeders' Directory.****DUROC-JERSEY SWINE.**

**D. TROTT** ABILENE, KANS., famous Duroc-Jerseys and Poland-Chinas

Registered Stock, **DUROC-JERSEYS**, contains breeders of the leading strains.  
**N. B. SAWYER**, - - Cherryvale, Kansas

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**DUROC-JERSEYS.**

100 head for this year's trade; all eligible to record.

**MAPLE AVENUE HERD** **J. U. HOWE**,  
**DUROC-JERSEYS.** Wichita, Kansas.  
 Farm 2 miles west of city on Maple Avenue

**FAIRVIEW HERD DUROC-JERSEYS**  
 Has a few September and October pigs at private sale. Everything not sold May 15 will be held for fall sale.  
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**ROCKDALE HERD OF REGISTERED DUROC-JERSEY SWINE**  
 Stock for sale at all times.  
**J. F. CHANDLER**, - - FRANKFORT, KANSAS.

**DUROC-JERSEY SWINE—REGISTERED.**  
 Bred sows gone. June, July, August, September, October, November, and December pigs for sale reasonable.  
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 Stock of both sexes for sale.

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 A few choice gilts bred, 5 boars ready for service, and 30 gilts ready to breed.  
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 Herd headed by Big Joe 7863. Only male pigs for sale.  
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 BREEDER AND SHIPPER OF  
**POLAND-CHINA HOGS, JERSEY CATTLE,**  
**S. L. WYANDOTTE CHICKENS.** Eggs in season

**POLAND-CHINAS.** Fifteen April and May  
 boars. 1 yearling boar  
 by 1st perfection 2d. Good fall and spring gilts  
 bred to our GREAT HERD BOARS.  
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 Contains up to date and prize-winning individuals. Young stock for sale. Correspondence or inspection solicited.  
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**W. P. WIMMER & SON**, Mound Valley, Kans.,  
 Breeders of

**FASHIONABLE POLAND-CHINA HOGS**  
 Young stock for sale at all times. Prices reasonable.

**Kansas Herd of Poland-Chinas**  
 Has some extra fine gilts bred; also some fall boars.  
 Will sell Sen. I Know, he by Perfect I Know.  
 Address—  
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**VERDIGRIS VALLEY HERD OF POLAND-CHINAS.**  
 For SALE: Six fine gilts bred for April farrow, 16 extra good May and June gilts bred for May and June farrow, to as good a boar as Proud Perfection ever bred. Also a fine lot of fall pigs, some show pigs.  
**E. E. WAIT**, Altoona, Kans.  
 Successor to WAIT & EAST.

**SHADY BROOK STOCK FARM**  
 North Topeka, Kans.  
 Devoted to Breeding High-class

**POLAND-CHINAS**  
 Address all communications to  
**W. CHENEY**, Owner, NORTH TOPEKA, KANSAS

**THOROUGHbred Poland-China Hogs.**

Special price for next 20 days on 10 bred gilts, to farrow in April and May; they weigh from 200 to 275 pounds, and most of them are bred to Black Perfection 2d. The best breeder I ever owned. Also 20 fall pigs, and 4 boars large enough for service. 100 head in herd. Write for anything you want in Poland-China hogs.  
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**SHADY LANE STOCK FARM.**  
**HARRY E. LUNT**, Proprietor, Burden, Cowley Co., Kans  
**Registered Poland-Chinas**

5 Boars and 25 Gilts of late winter farrow, sired by 1st perfection 25513, and Look No Further. Dams of the Black U. S., Wilkes, Corwin, and Tecumseh strains. Pigs low to early buyers.  
 Attention is called to the Public Sale of Poland-Chinas on March 21, 1902, at Winfield, Kans., by S. Y. Thornton, and H. E. Lunt.

**R. S. COOK**, Wichita, Kansas,  
 Breeder of

**POLAND-CHINA SWINE**  
 The prize-winning herd of the Great West. Seven times at the World's Fair. The home of the greatest breeding and prize-winning boars in the West, such as 1st Perfection 25441, Black Joe 25608, World Beater, and 1st Perfection 25441. FOR SALE—An extra choice lot of 1st bred, well-marked pigs by these noted sires and of thirty-five extra-large, richly-bred sows. Inspection or correspondence invited.

**POLAND-CHINA SWINE.****High-Class Poland-China Hogs**

**Jno D. Marshall**, Walton, Harvey Co., Kans  
 Breeds large-sized and growthy hogs with good bone and fine finish and style.

**SENSATION HERD OF Practical Poland-Chinas.**

The blood of Missouri's Black Chief, Knox All Wilkes, Chief Perfection 2d, Black U. S., and Corwin represented by typical individuals. Big boned, large litters, quick maturing. My references are my customers. Call on, or write me. Harry Evans, Pleasanton, Kans.

**SHADY LANE STOCK FARM**

**HARRY E. LUNT**, Proprietor,  
 Burden, Cowley Co., Kans.  
 A few choice bred Poland-China Boars for sale, some choice open gilts and bred sows. B. P. Rock eggs from pens #2 for 15, free range stock #1 for 15, #5 per 100, from high scoring, line bred stock. Satisfaction guaranteed.

**BERKSHIRE SWINE.**

**Ridgeview Farm Herd of LARGE ENGLISH BERKSHIRES**  
 Pigs of fall farrow for sale. No more bred gilts. White Wyandotte eggs, \$1.50 per 15.

**MANWARING BROS.**, Lawrence, Kans

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**B** LUE BLOODED  
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A few fancy young boars ready for service. Orders booked for spring pigs.  
**E. W. Melville**, Eudora, Kansas.

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**D. L. BUTTON**, North Topeka, Kas  
 BREEDER OF  
**IMPROVED CHESTER WHITES**  
 Stock For Sale.  
 Farm is two miles northwest of Reform School.

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**ENGLISH RED POLLED CATTLE**—Pure-bred  
 Young Stock For Sale. Your orders solicited.  
 Address **L. K. HASELTINE**, DORCHESTER, GREEN CO., Mo. Mention this paper when writing.

**MEADOW BROOK SHORTHORNS**—Ten fine  
 young bulls for sale—all red. Red Laird, out of  
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**RED POLLED CATTLE**  
 A herd bull and a few young ones for sale.

**POLLED DURHAMS.**  
 The leading herd west of the Mississippi river. 25 head of both sexes for sale. Foundation stock sold to Kansas and Washington Agricultural Colleges the past year. **A. E. BURLEIGH**, Knox City, Knox Co., Mo.

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 Twenty head of thoroughbred cows, all with calves, this spring. For particulars, write to  
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**MAPLE LEAF HERD OF THOROUGHbred Shorthorn Cattle, and Poland-China Swine.**  
 Farm is 2 miles south of Rock Island depot.  
**JAMES A. WATKINS**,  
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**Registered Herefords.**

**THOS. EVANS**, Breeder,  
 Hartford, Lyon County, Kansas.  
 Special Offerings: Young cows and heifers, and a few bulls for sale.

**ALLENDALE HERD OF Aberdeen-Angus Cattle**

The Oldest and Largest in the United States  
 Splendid recently imported bulls at head of herd Registered animals on hand for sale at reasonable prices at all times. Inspect herd at Allendale, near Iola and La Harpe; address, Thos. J. Anderson, Manager, Iola, Allen Co., Kans., R. R. 2, or—  
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**BULLS, COWS, STEER CALVES**  
**WANTED!**  
 Your order to buy on commission breeding stock or feeding cattle.  
**E. S. Shockey**,  
 LIVE STOCK BROKER.  
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Acclimated young Oregon draft-bred mares and geldings for sale or trade.

**E. H. WHITE**, Estherville, Iowa.  
 IMPORTER AND BREEDER OF  
**GALLOWAY CATTLE**

Herd Foundation Stock  
 A Specialty.  
 A few choice Females and 14 Bulls for sale.  
 Inspection or Correspondence invited.

**CATTLE.****Registered Herefords**

Ten extra good bulls, one year old and over; 8 are sired by Klondike 72001, and 2 by Young Autocrat 101417. Will sell cheap. **ALBERT DILLON**, HOPE, KANS

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FOR SALE: Registered and high-grade Shorthorns of Cruickshank breeding. No better bulls anywhere. Bargains for quick buyers. Address  
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 BREEDER OF REGISTERED  
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 FOR SALE: FOUR YEARLING BULLS.

**Aberdeen-Angus.**

**EVERGREEN STOCK FARM.**

Have 15 registered bulls—7 to 21 months old, sired by Niel of Lakeside 25645; also registered cows and heifers, highly bred. Will sell in lots to suit. Call or address  
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**SCOTCH-TOPPED**

**SHORTHORN CATTLE.**

**FASHIONABLE**

**POLAND-CHINA SWINE.**

REGISTERED BULLS FOR SALE.

**L. A. MEAD**, Carbondale, Kansas.

**FALL RIVER HERD OF ..REGISTERED..****HEREFORD CATTLE.**

Darling's Star 54802 and Howard 87721 at head of herd. Ten head of bulls. A few young bulls for sale. **Wm. McBROWN**, Fall River, Greenwood Co., Kans

**RICE COUNTY STOCK FARM.**

**PURE-BRED**

**SHORTHORN CATTLE AND**

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First-class young stock for sale. Just ready for use on the range.  
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Devoted to the Breeding of

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Lavender's Best No. 151639 in service. Eleven head of bulls and 15 heifers of St. Valentine blood, through St. Valentine 12th, one of his best sons. Also a few young cows for sale at very reasonable prices. Inspection and correspondence invited.

**10,000 BIG STEERS.**

You want Pan Handle stuff. Extra good feeders. You may want a ranch. We have both and at bed-rock prices. Write us for prices on stock or fine farm land. We are the people.  
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Shorthorns headed by Victor of Wildwood, by Golden Victor, he by Baron Victor. Late herd bull Gloster 137952. Polands headed by Glenwood Chief Again. For sale choice young bulls; also females. Prices right. Choice fall boars and gilts cheap. Visitors invited. Correspondence solicited. Address  
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 40 miles south of K. C., on main line of Mo. Pac. R. R.

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**D. P. NORTON'S** Breeder of Pure Bred  
**SHORTHORNS** **SHORTHORN CATTLE**  
 Dunlap, Morris Co., Kans.  
 Herd Bull, Imported British Lion 133692.  
 Young stock for sale.

**Norwood Shorthorns**

**V. R. ELLIS**  
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 Sir Charming 4th at the head of herd. Cruickshank-top crosses on best American families. Young stock for sale.

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 Breeder of REGISTERED  
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 Herd headed by Dandy Dolan 102828  
 full brother to famous Dandy Rex.

**ESKDALE HERD OF**

**ABERDEEN-ANGUS CATTLE**

YOUNG STOCK FOR SALE.  
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**PIPE CREEK HERD REGISTERED**

**Galloway Cattle**  
 of either sex for sale.  
 Address **J. A. DARROW**,  
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**Silver Creek Shorthorns.**

The Scotch bull, Gwendoline's Prince 139913, in service. Also the imported Scotch Missile bull, Aylesbury Duke. 100 head of the best Scotch, Bates, and American families. High-class Duroc-Jersey swine for sale.  
**J. F. STODDER**, Burden, Cowley Co., Kans.

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Young Breeding Stock For Sale  
 Several Bulls Ready for Immediate Service.  
 Also pure-bred Cotswold rams and a car-load of coach-bred native mares, 2 to 5 years old. Write for prices.  
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Bulls in service, Sempstress Valentine 157069, and Mayor 129229. A fine string of young bulls and a few heifers for sale.

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 Post-office, Perry, Kans. Railroad station, Newman, Kans., on Union Pacific R. R., 12 miles east of Topeka

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**PLATTSBURG, MO., BREEDER OF**

**HIGH-CLASS**

**HEREFORDS**

BULLS IN SERVICE: Hesiod 24 40679, March On 6th 96537, Hesiod 85th 116352, Onward 24 118599.

**Scotch Shorthorns**

**FOR SALE**

The Great Missile Bull, Imp. Mariner 135024,  
 BRED by W. S. Marr, Uppermill, sired by Golden Ray (67132), dam Missile 88th by Ventriloquist (44180), also SIX YEARLING BULLS of choicest Scotch breeding.

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**AT LINWOOD, KANS.**

YEARLING Bulls and Heifers for sale, sired by Orpheus 71100, and Ashton Boy 52058, and out of Choice imported, and home-bred cows. Address all correspondence to **GEORGE F. MORGAN**,  
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**MT. PLEASANT HERD OF**

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Herd headed by Acomb Duke 18th 142177. Herd composed of Young Marys, Galatas, and Sanspareils. Thirteen young bulls for sale; also some cows.  
**A. M. ASHCRAFT**, Atchison, Kans. R. F. D. NO. 3.  
 Inquire at Sagg's Livery Barn, Main Street.

**CLOVER BLOSSOM SHORTHORNS**

Herd headed by the Cruickshank bulls

**Imp. Nonpareil Victor 132573**

Sire of the champion calf and junior champion bull of 1900

**Grand Victor 115752**

himself a show bull and sire of prize-winners

**FEMALES** are Scotch, both imported and home-bred, pure Bates, and balance 8 to 6 Scotch-tops.

**Stock For Sale.**

**GEO. BOWWELL**, Nettleton, Caldwell Co., Mo.

On Burlington Railroad.

**FOR SALE.**

Eight head of all red, thick, beefy, SHORTHORN BULLS, from 11 to 18 months old; also 10 head of good cows and heifers—some with calves at foot. These cattle are a choice lot. All Scotch-tops and of my own breeding.

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**CLOVER CLIFF FARM**

**REGISTERED GALLOWAY CATTLE.**

Also German Coach, Saddle, and trotting-bred horses. World's Fair prize Oldenburg Coach stallion Habbo, and the saddle stallion Rosewood, a 16-hand 1,100-pound son of Montrose in service. Visitors always welcome.

Address—**BLACKSHIRE BROTHERS**,  
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**LEAVENWORTH COUNTY JACK FARM**  
Thirty head of Jacks and Jennets for sale.  
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**THIRTY IMPORTED SHIRE, PERCHERON, AND CLYDE STALLIONS,**  
\$1,000; home-bred \$200 to \$800.  
**BILBO & WILSON, CRESTON, IOWA.**

**PERCHERON HORSES, and ABERDEEN-ANGUS CATTLE.**  
**GARRETT HURST, Breeder, ZYDA, SUMNER COUNTY, KANSAS.** Young stock for sale of either sex. All registered.

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**FOR SALE.**  
DIRECT 1889, by Bendago 11807, by Brilliant 1271, dam Fenelo 14118 by Fenelon 2682, by Brilliant 1271. Bendago's dam the famous prize-winner Julia 5976 by La Ferte 5144. Also 6 Young Stallions by Direct.  
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**PHILIP WALKER, Breeder,**  
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25 Mammoth, Warrior, and Spanish Jacks Now For Sale.  
Quality and Breeding Unexcelled.  
Inspection and Correspondence Invited.

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### Registered French Draft Stallion,

Foaled May 1, 1895; sound, and a fine individual. Also the  
**Electioneer Stallion Elek 23758.**  
This horse has size, style, and speed.  
For further information, address  
**S. B. ROHRER,**  
5 and 6 Central Nat'l Bank Bldg., Topeka, Kans.

## Closing-Out Sale of REGISTERED AND HIGH-BRED PERCHERONS.

Owing to my extensive real estate business and other matters requiring my attention, I offer for sale my entire stud of Percheron horses numbering some 180 head. All of the highest type of perfection and as good as money will buy. About 28 head are registered. At the head is the stallion Beconel (88123) 17977. He is a magnificent black, fine style, good action and bone, weighs about 2,200 pounds. Herkless No. 26563 is a black, coming 3 years old, weighing about 1,600. Two black grey studs, coming 2 years old, weighing nearly 1,500 pounds. Eleven brood mares, all in foal to Beconel. Balance are youngsters, all blacks and of extra good quality. Remember this magnificent bunch is only offered on account of my extensive real estate business, which makes it impossible for me to give them the attention I should. They can be seen at my Willowdale Farm by coming to Kingman where buyers will be transported to and from the farm. Any information will be gladly furnished by writing me at Kingman, Kans. Yours respectfully, **FRANK WEINSCHENK.**



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The Finest Selection of Draft Horses in America, chosen by one who is a judge of a horse. I have no representative in Europe buying the culls rejected by the government, but buy them myself from the breeders' farms, in first hands—no rejects. This is why my horses give such universal satisfaction. I am not after number, but quality. My horses must be a credit and honor to the American breeder, and not a disgrace, as some are. My horses took more premiums to the number in 1901 than any other importer—winning first and second prizes in class, and champion over all, wherever shown. I have just established a new branch barn at Emporia, Kans. Trust all interested in good horses will call and see them.

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The Greatest Importing and Breeding Establishment in the World.

## Percherons and French Coaches. 500 Head on Hand.

Nearly 300 stallions purchased in France during the last twelve months, being more than double the number of Percherons bought by any other firm, and more high-class animals than by all others combined.

**AT THE RECENT INTERNATIONAL LIVE STOCK EXPOSITION AT CHICAGO,** the Oaklawn Percherons won every championship, first prize and gold medal award and every second prize in classes.

Notwithstanding the superior quality of our horses, it is a fact that our prices are lower than can be obtained elsewhere in America. Catalogue sent on application.

**DUNHAM, FLETCHER & COLEMAN,**  
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## HORSES AND MULES.

**10 Home-bred Shire and Norman Stallions Cheap**  
**HART BROS., Jamison, Iowa.**

**HENRY AVERY & SON,**  
BREEDERS OF

## Pure Percherons.

The largest herd of Percheron horses in the west and the best bred herd in America. A choice collection of young stallions and mares always on hand. Prices consistent with quality. Address, or come and see at  
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## FOR SALE!

**SIX JACKS and a Registered Black PERCHERON STALLION.**  
**F. W. POOS, Potter, Atchison Co., Kansas**

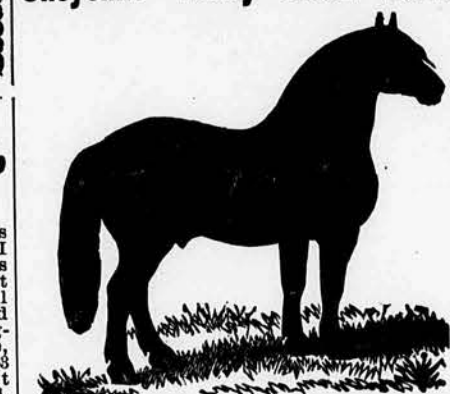
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**H. W. McAFEE, Topeka, Kansas,**  
Breeder of  
**OLYDESDALE HORSES, AND SHORTHORN CATTLE.**

For Sale—25 Clydesdales, including 3 registered stallions of serviceable age, and 13 mares.  
Inspection and correspondence invited.

## Cheyenne Valley Stock Farm.



**F. H. Schrepel, Ellinwood, Kans.,**  
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**PERCHERON HORSES, AND POLAND-CHINA HOGS**

For Sale—Twelve young stallions and a few mares.  
Inspection and correspondence invited.



## PERCHERONS.

**J. W. & J. C. ROBISON, Importers and Breeders,**  
**TOWANDA, BUTLER COUNTY, KANSAS.**

Largest herd in the State. Imported, and American bred stallions and mares for sale at all times. Prices reasonable. Inspection invited.



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**Percheron Horses and Shorthorn Cattle.**

FOR SALE—Percheron Stallions and a few Mares, about 20 head of Shorthorn Females, and a few fine, young Bulls. Also several fine, large Jacks. Pedigrees and breeding of all stock guaranteed.



## WE ARE NOT THE LARGEST IMPORTERS

In the United States, neither have we all ton horses. But we do make five importations each year. Our stables at Lincoln, Neb., and at South Omaha Union Stock Yards are full of first-class Percheron and Shire stallions. If you want a good one for what he is worth, it will pay you to see us. Our horses won sweepstakes in all draft and hackney classes at Nebraska State Fair. Address all correspondence to

**WATSON, WOODS BROS. & CO., Lincoln, Neb.**  
SPECIAL NOTICE: Woods Bros., of Lincoln, Neb., have two cars of Shorthorn and Hereford bulls and cows at a bargain.



## German Coach, Percheron, and Belgium Horses.

**OLTMANNS BROS., Importers and Breeders, WATSEKA, ILLINOIS.**  
**Three Importations in 1901. 100 Stallions For Sale.**

No other firm enjoys such buying facilities; the senior member being a resident of Germany is personally acquainted with the best breeders in France, Germany, and Belgium. We can save you money. Come and see us. We shall exhibit at the International Live Stock Exposition, Chicago, Dec. 1-7, 1901.

## S. A. SPRIGGS, Westphalia, Kansas,

**BREEDER AND DEALER IN**  
**Registered Mammoth, and Imported Spanish Jacks and Jennets;**  
**Also Registered Stallions.**  
All stock guaranteed just as represented. Correspondence solicited.

## SNYDER BROS., Winfield, Kans.,

**Breeders of**  
**POLAND-CHINA SWINE, SHIRE and PERCHERON HORSES, and POLLED DURHAM CATTLE.**

Stallions of both popular Draft breeds for sale; also two jacks.

Attention is called to the Public Sale of Poland-Chinas on March 21, 1902, at Winfield, Kans., by Snyder Bros. and H. E. Lunt.



## The Lincoln Importing Horse Company

### Make Their Last Call

commencing April 1st and continuing 30 days, 20 per cent off on former prices. This includes a lot of elegant Percheron and Shire stallions, ranging from 3 to 5 years old, all dark colors, mostly coal blacks, thoroughly acclimated; over five months since we made our last importation. Write us or come at once and examine our stock. If you find any misrepresentation we will pay all expenses.

Long distance 'phone 575. 33d and Holdrege Sts., Lincoln, Neb.

**A. L. SULLIVAN, Manager.**

## America's Leading Horse Importers

We import not only far the greatest number of stallions from France, but far the best ones.

We import more prize-winning stallions than all others combined at the three greatest shows of France, at Nogent-le-Rotrou, Nantes, and Mortagne.

Our Percherons won every first prize including grand championship over all draft breeds at the great Pan-American Exposition.

Our success at the Iowa State Fair and Ohio Exposition was equally as good.

Our French Coach Stallions did not sustain one defeat at any one of these great shows.

The best horses and just and honorable treatment of customers have given us the lead.

**McLAUGHLIN BROS., COLUMBUS, OHIO.**

BRANCHES: EMMETTSBURG, IOWA; LAWRENCE, KANS.



## DRAFT STALLIONS



## Percherons, Shires, and Clydes

We have a selection that are sure to suit you. As grand a lot of young stallions, of serviceable age as can be found in the country. We do not claim to have every color or kind of a stallion, you or anybody may want, but what we claim you will find true if you pay us a visit. All of our selections are made by a member of our firm, who has been at this line of work the past decade and has absolutely a first choice from the leading breeders of Europe. Our last importation, consisting of the three great breeds, and 62 head in numbers were selected in the early part of February, before any of the shows and to-day are ready for sale. Write us, or come and see us, if you or your community are in need of the best to be found.

**KEISER BROS., Keota, Keokuk County, Iowa**



## CATTLE.

**RED POLLED CATTLE.**

Herd numbers 115 head.  
Geo. Greenmiller & Son, Centropolis, Franklin Co., Kans.

**SHORTHORN BULLS FOR SALE**

The fine, young bulls Ingfield by Baron Ury of Ingfield, out of Udera XI, tracing back to Imp. Lady Liverpool. A bright roan out of Strawberry XV by Orange Bandmaster and another roan out of Rose Louise by Glosters Hero. Both the above sired by Baron Ury of Ingfield 121581. Low down, blocky, growthy young bulls ready for good, hard service. Address  
**DR. H. G. SLAVENS, Neosho Falls, Kans.**

**Vinewood Herd of Registered  
SHORTHORNS**

Armor Bearer and Lavender King cows with American Royal prize-winner Orange Lad 171599 and Lavender Gloster 166056 in service. Advance Guard 149690 for sale, also several young bulls of his and Lavender King's get.  
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Two Scotch bulls in service.  
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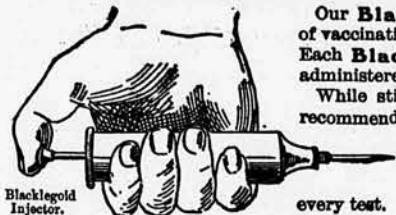
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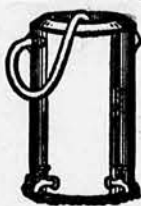
This association is to furnish protection to its members against loss or damage to their growing crops by hail. The officers are under \$50,000 surety bonds to the State of Kansas for the faithful performance of their duties. The Company's headquarters are at Topeka, Kans., and under the management of some of our best citizens. The officers and directors are well-known men of excellent standing.

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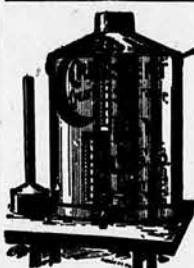
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Imp. Prince Lovely 155860 and Scotland's Charm 127264  
— IN SERVICE —

Young Bulls, Cows, and Heifers for sale at all times.  
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Gallant Knight 1244468 and Imported Tellyclairn in service. A choice lot of serviceable bulls, and a few bred cows for sale. Correspondence and inspection invited.

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TO BE SOLD APRIL 25 AND 26, 1902, AT HOLTON, KANSAS,  
90 COWS AND HEIFERS, AND 20 BULLS,

Comprising cattle from the following well-known families, (topped with the best Scotch and Bates blood): Rose of Sharon, Zella, Belina, Ruby. This is a select draft from my herd and will constitute one of the best offerings of the year 1902. Also breeds registered and high-grade Angora goats.

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YOUNG BULLS FOR SALE

sired by the Cruickshank bulls La-fitte 119915, and Baron Ury 2d 124970, ranging in age from 8 months to 2 years.

Inspection Invited

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Pigs by Anderson's Perfect, Harris' Black U. S. (the champion sweepstakes boar at the Iowa State Fair of 1900), Kemp's Perfection (the highest priced pig by Chief Perfection 3d sold last year). Stock of all ages for sale, including three yearling boars.

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Having sold my farm, I desire to close out my entire herd of Shorthorn cattle, which consists of 1 herd bull and 9 yearling bulls, 9 yearling heifers, 9 three-year-old cows, 5 four-year olds, 5 five-year olds, and 6 aged cows, also including this spring's calf crop; 26 in all. I will sell these cattle at a bargain for cash or on time with good notes. Will also sell in lots to suit purchaser. For further information address, **JAS. C. STONE, Leavenworth, Kans.**

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Consisting of 40 good Cows 3 years old or over, 10 2-year-old Heifers bred, 50 yearling Heifers, and 100 Bulls from 8 months to 3 years old. I will make VERY Low Prices on any of the above cattle. Write me or come and see me before buying.

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**LORD MAYOR 112727, and LAIRD OF LINWOOD 127149**  
HEAD OF THE HERD.

**LORD MAYOR** was by the Baron Victor bull, Baron Lavender 3d, out of Imp. Lady of the Meadow, and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahad out of 11th Linwood Golden Drop. Lord Mayor heifers bred to Laird of Linwood for sale. Also breed Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

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**HEREFORDS.**

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BULLS in service, HESIOD 29th 66804, Imp. RODERICK 80155, MONITOR 53275, EXPAN-SION 93662, FRISCOE 93674, FULTON ALAMO 11th 83731.

25 miles south of Kansas City on Frisco; Ft. Scott & Memphis; and K. C., P. & G. Railroads



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**KANSAS SHORTHORNS**

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