KANSAS FARMER

For the improvement

of the Farm and Home

Volume So Number 10

TOPEKA, KANSAS, MARCH 8, 1913.

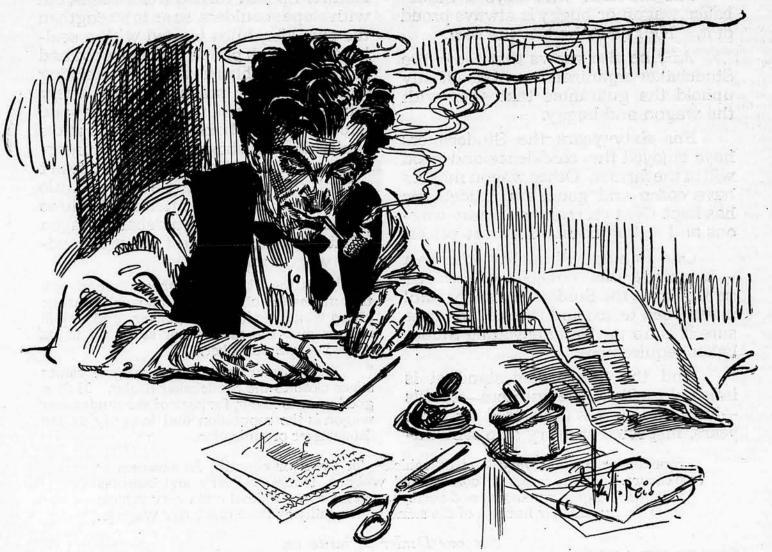
Established 1863. \$1 a Year

VERY man thinks his lot the hardest.

When he leaves college to begin his education the country editor is filled with ideas for man's betterment, charged with reforming zeal and overflowing with enthusiasm for the purification of politics. He calls attention to neighborhood conditions, suggests improvement and is shunned by nice people. He pounces upon the first wrong that shows its ugly head and subscriptions stop. He tries to sweeten the fetor of politics and loses all chance at the county printing.

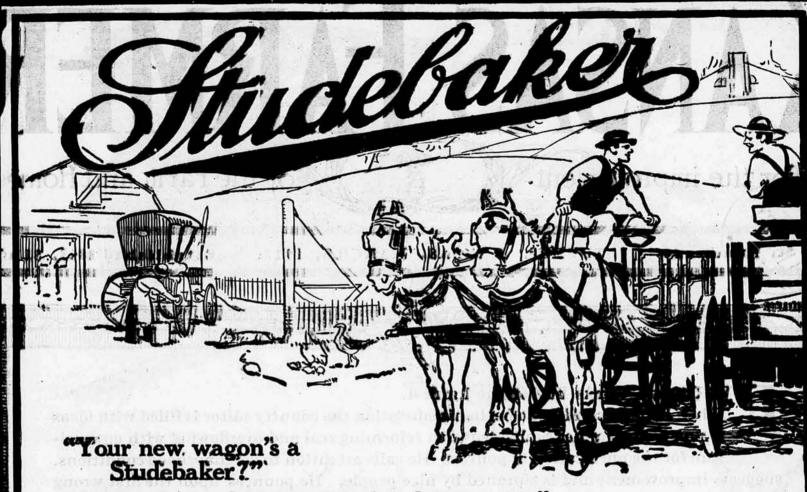
He soon learns that men do not trouble to change conditions. Conditions change the man. The head is squeezed to fit the hat and he acquires the charming art of touching up truth. Youth accepts positions instead of getting jobs; ancient maidens entertain and "a delightful time was had", while a henhouse fire is a holocaust.

But he does his work in the world and we give a mead of praise to the busy, brainy, bustling body whose only hope of reward is in getting the postoffice. -I. D. G.



Sharing all our Joys and Sorrows, Boosting our Business and Working With Tireless Energy for Others, the Country Editor is the Most Important Factor in his Community

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"Sure! I beught a Studebaker buggy, too."

"Well, there's no better made. I'm driving a Studebaker myself."

Confidence — the feeling that back of the mechanical excellence of the wagon and the buggy is the Studebaker name and reputation made this conversation possible.

For the man who buys a Studebaker wagon or buggy is always proud of it. He knows he has the best:

And he also knows that the entire Studebaker organization will steadfastly uphold the guarantee that goes with the wagon and buggy.

For sixty years the Studebakers have enjoyed the confidence and good will of the farmer. Other wagon makers have come and gone, but Studebaker has kept right on making honest wagons and selling them att honest prices.

One standard of quality—the hest—has made this possible. At wagon nevertleaves the Studebaker shops until it has been tested and retested to make sure it is up to this undeviating Studes baker requirement.

And the Studebaker standard is inflexible: Take the one item—wheels—hubs and spokes are stored for three years, inspected at every stap of manu-

facture. Spokes turned from billets, cut with slope shoulders, so as to strengthen the shoulder, hubs treated with a sealing fluid which penetrates the wood and gives it a stubbonn weather-resisting quality. These made one for every wheel not kept in stock sizes and forced on. High boxing made, so spokes can bride conthe boxing made, so spokes can bride conthe boxing spokes countersunk on fellow fines so the load doesn't nest on the endloss as the load doesn't nest on the endloss so the load doesn't nest on the endloss single spoke. Little details have made the Studebaker wagon what it is the strong est, most dependable wagon made.

It is the absence off these little details that makes the cheap wagon possible, but the cheap wagon isn'tt a Studebaker, and it will neither give the service nor stand up to its work like a Studebaker.

The farmer wite knows wagon values sticks close to the Studebaker dealer. He's a good man to know, for back of the Studebaker wagon is the reputation and integrity of the Studebaker organization.

Studebaker makes every kind of vehicle—for town or country, for business or pleasure. Farm wagons, contractors' wagons, trucks, delivery and business wagons, buggies, runabouts and surreys, and for every animal and every vehicle there's a Studebaker harness of the same high quality as the Studebaker wagons.

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KANSAS FARMER

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OUR GUARANTEE

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



STATE FAIR SITUATION.

"An act authorizing the State Board of Agriculture to hold an annual state fair at Hutchinson, Kan., providing for the management and control thereof, and authorizing certain counties to participate therein." This is the title of the bill passed by the House and Sen-ate which last week gave this great commonwealth a state fair located at Hutchinson. Under that title no appropriation could be made, and was, according to Attorney General Dawson, the only title that could be used without conflicting with the constitution.

KANSAS FARMER has received many letters asking in what shape this leaves the business of the Kansas State Fair Association which gives an annual exposition at Topeka, asking also what lintchinson has gained and how the trick was turned, and to throw some frick was turned, and to throw some light on a situation apparently not well understood, this article is written. Had the people of Kansas and the local press of the state given vent to their feelings before the bill passed, as they have since, the story might have had a different ending—although the Hutchinson supporters had the organization in the committees, the support of the speaker of the House, and votes enough by systematic trading, to act without regard to the protests and feelings of the people and local press. It is the belief around the state house that when the miscellaneous appropriations are made, a piece laneous appropriations are made, a piece of money will be quietly slipped to the of money will be quietly supped to the fair treasury to enable the preparations for the next fair to go along. If you have any feeling that an appropriation should not be made it would be well to drop your representative a line. Unless an appropriation is made to actually build a fair, we fail to see wherein the state has gained anything. We see wherein the Hutchinson management has gained much, because in case of a rainy week or other condition which would cut the gate receipts, the State of Kansas is obligated for the indebtedness.

But a name is not everything—and the ir business is no exception. The title State Fair—will not pull big crowds.
Good treatment, a good time, something to see, is necessary to bring the visitors and money at the gate. Good treatment, good shipping facilities, good housing and the company of the premiums are the prompt payment of premiums are the things which attract exhibitors. No fair can be successful without a well balanced ombination of these essentials. This is a tip to the State Board of Agriculture in the management of its fair—and the tip does not cost a cent. Kansas will have something to learn in the fair business—her experience will cost money, too. The grounds the state has taken over do not have a single building adapted to comfortable or satisfactory housing of continuous states and the state has taken over do not have a single building adapted to comfortable or satisfactory housing of continuous states and the states are states as the states are exhibits—without any consideration for permanency or credit to the commonwealth. Every building on these grounds must be replaced by a substantial struc-ture if exhibits are to be accommodated. To shape grounds and erect buildings requires money, and the money will not be made from the fair—therefore it will require subsidizing. So the people of kansas must not be fooled into believing that they have even a beginning for desirable fair grounds or that such can be had without liberal appropriations for buildings and other improvements.

The members of the present legisla-ture who put over this piece of "useful and well timed legislation" seem to think that their action will cost the state nothing, inasmuch as they accepted a gift and agreed to give nothing. It must be plain from the above that first of all a state fair plant must be constructed—then the minute the fair opens its gates the state assumes \$40,000 to \$60,-000 of obligations—represented by premiums and operating expenses. A rainy week or other adversity will put Kansas up against a deficit in its fair experi-This is the financial side of any state fair situation and is mentioned only to substantiate an opinion ven-tured in these columns a few weeks ago,

viz., that Kansas should not go into the state fair business until the state was ready to spend a half million dollars during a five-year period to equip and maintain a state fair. The taking over of the Topeka grounds would have made possible the building of a fair at half this amount, because the ground is shaded, sodded and parked, and has \$100,000 worth of brick and concrete buildings erected on a state fair scale. buildings erected on a state fair scale, and a patronage bordering well on state fair proportions.

In spite of Topeka's advantages in so far as grounds and buildings are concerned, together with advantages of railroad facilities, accessibility to the largest number of people of the state, the state capital, with dozens upon dozens of attractions, a population of 60,000 within walking distance of the main entrance, Topeka's merits were not even considered by those who had their heads set on Hutchinson. No argument of reason, logic, figures, etc., was of avail. set on Hutchinson. No argument of reason, logic, figures, etc., was of avail. Then you say, "How was it put over?" Put over—why, bless your soul—because our system of doing such things is not one that represents the people. To the wind with the people! That was the spirit in the state fair business. A mass meeting in two counties passed resolumeeting in two counties passed resolu-tions favorable to Topeka, but failed to budge its representative who was voting for Hutchinson. Telegrams and petitions from other counties failed to influence the representatives appealed to. Sen-ators from northeast and southeast Kansas whose constituents can make the sas whose constituents can make the trip to Topeka in a few hours, voted that they should go to Hutchinson—a whole day's ride or longer—to attend their state fair. You can see why senators and representatives in territory naturally tributary to Hutchinson should vote for their town, but you can't see why eastern, southeastern and northeastern Kansas representatives and senators should vote as they did. Well, the reason for this kind of voting was because of a trading deal, commonly known cause of a trading deal, commonly known as a "pork barrel."

That you may be posted and better prepared to understand what is to appear later in these columns, here is the way the members of each house voted

on this state fair business: The House, for Hutchinson: — Armstrong of Cherokee, Barrett, Bay, Blaisdell, Boyd, Brewster, Daily, Davis of Edwards, Davis of Gray, Dawley, Dod-deridge, Doerr, Drew, Focht, Foster, Freederidge, Doerr, Drew, Focht, Foster, Freeland, Gibson of Cowley, Gillum, Gilman, Gordon, Graber, Hangen, Hanna, Harned, Helton, Hendricks, Herr, Hines, Houston, Houtz, Jewett, Keene, Kincaid, Lane, Lauback, Lyon, McCollum, McDannald, McGregor, Miller of Cherokee, Milton, Mulroy, Nichols, Noble, O'Connor, Ostlind, Ossweiler, Perryman, Phillips, Reitzel, Riddle, Robson, Ross, Satterthwaite, Schlicher, Scott, Smischney, Spiker, Stevens, Thorpe, Timken, Wacker, Walker, Williams, Wilson of Crawford, Wilson of Greeley, Zutavern, Speaker Brown—68.

Against—Armstrong of Cloud, Ash-

Speaker Brown—68.

Against—Armstrong of Cloud, Ashcroft, Atkinson, Bailey, Bentley, Blakeley, Bunger, Burtis, Carnahan, Chase,
Coop, Crippen, Cummings, Dowling, Fallas, Frey, Hamm, Holbrook, Kerschen,
Kyser, Laing, Lumpkin, Mahurin, Mitchell, Moorhead, Moyer, Orr, Ragle, Sharpless, Stone of Shawnee, Stone of Sherman, Sutor, Tanner, Tilley, Todd, Tromble, Tulloss, Turner, Tyson, Uplinger,

han, Sutor, Tanner, Tiney, Todd, Troinble, Tulloss, Turner, Tyson, Uplinger, Voiland, Woodbury—43.

The Senate, for Hutchinson:—Carey, Carney, Davis, Denton, Howe, Huffman, Joseph, Kinkel, Lambertson, Mahin, Malene, Millon, Nivon, Overfield, Pauley Joseph, Kinkel, Lambertson, Marin, Marin, Marin, Marin, Miton, Nixon, Overfield, Pauley, Porter, Price of Clark, Price of Greenwood, Shouse, Simpson, Waggener, Sutton, Williams, Trout, Wilson of Jeffer-

Against—Bowman, Gray, Hinds, King, Klein, Logan, McMillan, Meek, Nighs-wonger, Paulen, Stavely, Stillings, Troutman, Wolf, and Wilson of Washington.

Pick out your senator and representa-tive and see if he stood for the best interest of your county.

The editor of Kansas Farmer and writer of this is president of the Kansas State Fair Association, chartered under the laws of Kansas, and which has the last three years expended \$100,000 in the highest class of permanent buildings on beautiful grounds within a ten minutes' walk of 25,000 of Topeka's 60,000 people. You say we are hissed in our people. You say we are biased in our view. We are not—read KANSAS FARMER of February 8 for detailed proof. It is our contention that the people of Kansas do not yet feel the need of a state fair—principally because they do not want to be taxed to support such fair, and next because Kansas already has true fair. has two fairs as good as it is possible to put on under community stock com-pany management. We contend that Kansas should not engage in the state fair business unless she will spend the money to build a state fair commen-surate with the importance of Kansas' agricultural and live stock interests and making a favorable showing with sur-rounding state fairs. This may not be the right attitude for the president of the Topeka institution to assume. If not, we can't help it. We make our not, we can't help it. We make our living from KANSAS FARMER, and our first obligation is to the thousands of our readers throughout the state. We know something of the feelings of the farmers of Kansas, and we know there was no sentiment in favor of establishing a fair and none in favor of adding to the present burden of towards. to the present burden of taxation. The people of Kansas have some pride, too. They prefer not to have a fair to which the name of the state is affixed unless it be a state fair in fact. The annual exposition of the Kansas State Fair Association will be held. The Association will continue to serve the people fully as well and better if possible than in the past. It has made a wonderful record and we see no reason why that record should not be continued.

STANDARDIZED CHOLERA SERUM.

If the present legislature shall have adjourned without taking action on the matter of inspecting and standardizing various remedies used in animal husbandry and especially the hog cholera serum, there will be a good many people in Kansas who will feel that a necessary action has been either registed or server. action has been either neglected or over-looked. With 10 factories in Kansas City and one in Wichita turning out commercial serum for the treatment of hog cholera, and with only one Agricultural College manufacturing such serum, it would seem that there should be some provision made in law for standardizing these serums of different makes so that the farmer who finds it necessary to have his hogs treated should have some assurance that he is getting the proper serum and that it has a proper composition and efficiency. Next to the control and inspection of medicines which are intended for human use there is nothing so important to the interests of Kansas as the control and inspection of remedies intended for use with our domestic animals. The state of Kansas has by far its largest investment in her agriculture and the most important part of this investment in live stock. It is only economy to take care of this investment and this cannot be done if the vestment and this canno state is made the prey of unscrupulous manufacturers or practitioners who are not held responsible for the quality of their product. It is not believed that any of the factories mentioned are guilty of intentional fraud in any way, but it is believed that there may be variations in a product which is manufactured in a number of different places and perhaps under different formulae and that this different and about the prevented variation could and should be prevented by a standardization of the products which can only be accomplished under process of law.

Farmers all over Kansas are urged to test their seed corn March 17, not that that day is any better than March 16 or 18, but because the Kansas Agricultural College has set aside that time as "Corn Testing Day."

HALF WAY APPROPRIATION.

One of the best things that any legislature could do is to prevent extravagance in the appropriation and use of public money and in doing this it is necessary that extreme care should be exercised in discriminating between experience. travagance and real economy. The present legislature has announced its determination to cut down the running exmination to cut down the running ex-penses of the machinery of state in every possible way consistent with ef-ficiency. This pledge has been given over and over again and it is believed that a majority of the members, if in-deed not all of them, are honestly trying to redeem it.

There are places, however, where it is evident that a full knowledge of the facts in all their bearing had not been obtained before action was taken. It is understood that there has been authorized two farm experiment stations for western Kansas, but that no adequate ap-propriation has been made for their maintenance. One of these stations is to be located in Kearney County where the citizens will donate 160 acres of land and improve it to the value of \$7,500, while the state grants an appropriation of \$10,000.

While the enterprising citizens of Kearney County are to be commended for their zeal in seeking for the advancement of the agriculture of their community, the location of a new experiment munity, the location of a new experiment station so close to the one already es-tablished at Garden City, is the subject of criticism as to a state-wide policy. The meagre appropriation of \$10,000 for the maintenance of this station is an example of the poor economy which arises from reduced appropriations. Very little can be done in breaking in a new station, erecting the necessary buildings, purchasing equipments and employing capable men who will get results, on \$5,000 a year.

Another instance in point is found in the Agricultural College appropriation bill where an appropriation of \$25,000 was asked for the Animal Husbandry Department. It is understood that \$10,-000 has been allowed, although the bill has not reached its final passage at the time of this writing. The College asked for \$25,000 for this purpose because it needed that amount. The estimates were made by the state architect who had been furnished with full information as to the needs of the department. The granting of only \$10,000 for this purpose is absolutely worse than nothing, as the object cannot be accomplished for which the money was asked and the reduced amount will compel the abandonment of the plan now in hand or a return of this appropriation to the state treasurer entire and the waiting of two years longer until another legislature can assemble. It is no saving of money to reduce appropriations that are absolutely needed for economical and effective work in such an institution.

. . Things look good for the appointment or President Waters of Kansas Agricul-tural College for Secretary of the Federal Department of Agriculture. This is in-dicated by the statements of leading dicated by the statements of leading Kansas Democrats who have recently talked with President Wilson. The Washington press entertains the same opinion. The Washington Post says that "several Democratic leaders in Congress known to enjoy the confidence of President-elect Wilson, declared recently that they were confident President Waters was foremost in the president-elect's consideration for the post of Secretary consideration for the post of Secretary of Agriculture. Department of Agriculture officials here regard him as one of the leading agricultural scientists of the middle west. Those leaders who know of his candidacy consider his selection as practically settled."

Cattle men from all over the country are camping on the Rio Grande waiting for a cessation of hostilities, when a big cattle rush is expected.

GENERAL FARM INQUIRIES

Something For Every Farm-Overflow Items From Other Departments

HILE the sile has been used to some extent for over half a century, the past ten years have probably seen more siles built than the forty years preceding.

The grawing sentiment in force of the grawing sentiment in force of the sentiment in the sentiment

The growing sentiment in favor of the silo is due to the great improvement of the machinery used in filling the silo and the urgent demand for cheaper and better feed. Many who are still skeptical in regard to the value of the silo, ask why the silo was so much talked of twenty five or thirty years age and then twenty-five or thirty years ago and then practically unheard of until recent years. If you will take into consideration that less than twenty years ago we were still cutting corn by hand and the silage cutter was still in its infancy, and will compare past conditions with the present—with the corn binder which cuts and ties the corn in neat bundles which it deposits in solid rows across the field factor than a man cares to walk also the deposits in solid rows across the lieu faster than a man cares to walk, also the powerful silage cutters which cut the silage into one-half inch lengths and shoot it into the top of the silo at the rate of fifteen tons per hour—the answer to the question of why the silo is in such favor at the present time, becomes at once apparent.

comes at once apparent.

But, to get to the subject assigned—
Why the Cement Silo?—for the same reason that the Dutchman bought the large shoes, to get the most for the money, but unlike the Dutchman, to take money, but unlike the Dutchman, to take out the extra part in wearing qualities rather than size. The cement silo will not dry out and fall down, will not rot, has no hoops to get loose. The silo stands empty during the worst season of the year for wooden vessels of any kind, and it also happens to be the season when the farmer has the least time to look after such things. If the cement silo keeps the silage as well as the wooden silo, takes care of itself when empty, and will last forever or as large a portion will last forever or as large a portion thereof as concerns us, what better do

we need?

we need?
Silage, besides being the cheapest feed we know, is as nearly in the form in which nature hands it to the cattle as can be provided out of the growing season. In feeding dry fodder, taking into account what blows away when it is too dry, what the cattle refuse to eat when it is too wet, and the part of the plant they will not eat at all, it is safe to say they do not eat more than one-third of the plant on an average. While third of the plant on an average. While the part of the plant which they do not eat in dry fodder and which they do eat in silage, is not so rich in feeding value as the rest of the plant, yet the entire plant is served in so much better form that it more than balances the differ-

Corn and Kafir are the two plants most extensively used for silage. While it is generally conceded that corn makes somewhat better silage than Kafir, yet Kafir has many points in its favor. Kafir is a surer crop than corn. When the dry weather comes, Kafir will roll up its leaves and then with the first rain it revives and will make a fair crop, when corn is past redemption. Kafir, unless it is literally burned by drouth and hot it is literally burned by drouth and not winds, stays green until frost. While there is a proper time when it is best to put Kafir into the silo, yet it isn't always possible to get everything done at the proper time and Kafir assures us more days of grace than any other plant. I find one fault with Kafir in that some of the seed passes through the cattle, especially when they are fed all they will especially when they are led all they will eat, but we also have a remedy for this fault, in the presence of the pig in the feed lot. I think Kafir has enough points in its favor to give it first place as a silage crop, especially in parts of the country not most favorable for corn.

More silas mean more cattle, more

More silos mean more cattle; more title mean more manure; more manure means better crops; better crops are what we have been longing for, so let us build more silos.

After all has been summed up, the sil-After all has been summed up, the sliage and not the silo, is the great idea to impress upon people's minds. With land at the price it has reached in Kansas, and still soaring, silage spells the difference between success and failure in stock raising.—W. L. MUESER, Anson, Kan., before Farmers' Institute.

Measuring Silage.

E. B. M., Osage City, Kan., writes: "I am about to sell my silage. I have a 16x30 silo. The silage to be sold is 20 feet deep. How can I arrive at the number of tons I have?"

A 16x32 silo is proceeded as a 200 to 16x32 silo is proceeded.

A 16x32 silo is regarded as a 120-ton silo. The twenty feet of silage still remaining in the silo cannot be regarded

as two-thirds of the original quantity for the reason that the weight of a cubic foot of silage increases as the bottom is approached. In other words, the nearer the bottom of the silo, the heavier the silage and the fewer cubic feet required to make a ton of silage. The weight of silage also depends upon the amount of grain in the silage. For the above reasons it is apparent that it will be difficult to arrive even at a close estimate of the tonnage remaining in the silo, or even at the weight of a cubic foot.

It is considered, however, that the average weight of a cubic foot of silage in a 30-foot silo is 40 pounds; the weight at the top being around 20 pounds, and at the bottom around 60 pounds per cubic foot. The chances are that the average foot. The chances are that the average weight of the silage remaining in your silo would be near 40 pounds. Using this weight as a basis, you may figure as follows: Square the diameter which is 16x16 or 256; multiply this by 20—which is the depth of silage—and you have 5120; divide this by seven-eighths, which will give you 4480; multiply this

Spanish peanuts are grown almost entirely for forage. This variety has a small upright vine producing numerous pods near the tap root. It can be planted closer than other varieties. It yields heavily per acre, is an especially desirable variety to grow for hogs, the hogs doing their own harvesting. The peanut is sometimes attacked by leaf spot which may be checked by Bordeaux mixture.

may be checked by Bordeaux mixture.
Write seedsmen who are advertisers in
KANSAS FARMER, for the variety you

Arkansas Valley Overflow Lands.
Subscriber L. E. C., Derby, Kansas,
writes to know to what the overflow
lands of the Arkansas Valley can be profitably planted.

There is no man better posted on the uses to which these lands may be put than J. Moncrief, of Winfield. He says the overflow bottom districts that are unsuitable for alfalfa growing and general farming, could be utilized in growing timber products. Should we have 2000 acres of Catalpa Speciosa timber,

with a heavy coat will be dull, out of condition, and seldom or never dry or clean. Clipping removes the tendency to sweat, and there is no comparison as besweat, and there is no comparison as between a long, wet coat and a short, dry one. When the long coat is warmed up and the horse is being worked regularly, it is next to impossible to thoroughly dry the coat, and this causes the animal to lose flesh in addition to making him a prey to a multitude of ills. Big companies which require hundreds of horses in carrying on this business, have experimented and found that where their horses were clipped, coughs and pneumohorses were clipped, coughs and pneumo-nia have been practically eliminated.

Rolling Winter Wheat.

Subscriber, W. S., Tonganoxie, Kan, asks if it is advisable to roll winter wheat in eastern Kansas, and if so, whether or not it should be rolled more

than once.

The object of rolling winter wheat is first to conserve the moisture, and second, to pack the ground which has heaved and become loose as a result of winter freezing and thawing. To roll in order to pack the ground for the latter reason is also to accomplish the first named object. If you will read the article on page 15 of the February 15 of Kansas Farmer, you will get a detailed statement of the advantage of rolling wheat. If you do not have a copy of this issue and will drop us a line, it will be mailed.

it will be mailed.

The rolling, of course, should be done as soon as the frost is out of the ground as soon as the frost is out of the ground and the field is dry enough to roll. The flat or smooth surface roller should not be used. There are two implements thoroughly well adapted for this purpose; one is the Western Land Roller made at Hastings, Neb., and advertised in Kansas Farmer, and the other is the ordinary sub-surface necker. The latordinary sub-surface packer. The latter, however, is not so well adapted to the rolling of wheat as is the former. Either of these implements has the effect of leaving the field in ridges and the surface in a granular condition, either er of which conditions has the effect of

preventing damage by blowing.

If, after rolling, heavy rain should follow and the field become packed, it would pay to roll again, particularly so if the field is sandy. Usually the rolling of wheat can and should be done before

other spring work begins.

Profitable Catalpa Plantation.

C. W. Delker, St. John, Kan., writes: "Eight years ago I planted five acres of sandy, sub-irrigated land to catalpa trees. At the time the trees were set out the land was not worth more than \$30 per acre. The trees were set four feet apart each way. The following statement sets forth the actual returns from this catalpa grove.

434 Corner posts, 8 feet long, at 50 cents\$ 200 Extra posts, 6 ft. 8 inches, at 25 cents 9690 No. 1's 6 ft. 8 inches, at 12 50.00

.1162.80

Total returns for 5 acres of

Openings Not Often Considered.

J. F., Jefferson, Okla., a former Kansan, writes that in all parts of Kansas and Oklahoma there are good openings for the growing of all kinds of seeds for the wholesale seed houses. "Growing watermelon seeds is quite an extensive and profitable business here in Jefferson. The growing of all kinds of farm and garden seeds can be made a profitable and pleasant vocation.

Size of Furrow Openers.

A. M. A., Jayton, Texas, asks what size of disk furrow openers he should us for a two-row planter. Twelve inch disks will give him good service for either bottom or upland. The furrow opener bottom or upland. The furrow opener is a valuable attachment for the corn planter.

Calf Scour Remedy. Subscriber A. C. K., Topeka, gives the remedy for white scours in calves: Three drops carbolic acid, five drops campher in a quart of warm milk. Repeat in 10 hours if first does does not have effect.

Kafir and Milo Areas



UMBER 1 in the above map shows the area where dwarf mile has DUMBER 1 in the above map shows the area where dwarf mile has been grown successfully from home-grown or northern-grown seed. Southern-grown seed usually fails in this section. Dwarf white and amber sorghum make good for forage in area No. 1 and in favorable years produce good seed. Kafir, owing to the short seasons and cool weather, produces poor seed but fair forage.

In area No. 2 black-hulled white Kafir makes good forage, but seldom a profitable seed crop. Dwarf white and amber sorghum do well in this area.

Dwarf mile is at home in areas Nos. 2 and 3. Home-grown seed and northern-grown seed produce better in No. 2 area than does southern-grown seed. Home-grown seed does better in area No. 3 than introduced seed, but northern or southern-grown seed can be planted with success.

Kafir does well in areas Nos. 2, 3, 4 and 5. Black-hulled white is the favorite variety. In areas 2 and 5 it is most profitably grown for forage, but Kafir cannot compete with dwarf mile in area 2 or 3 for seed production nor does Kafir produce seed profitably in area 5.

tion, nor does Kafir produce seed profitably in area 5.

Black-hulled white Kafir does well in area 4. It can be profitably grown for grain and for silage. The sweet sorghums can be grown profitably for forage in area 5. The sweet sorghums do well for grain or for forage in area No. 4, while dwarf milo cannot compete with Kafir or with sweet sorghums in area No. 4. Northern-grown seed of any of the sorghums should be planted in the

north one-third of the state, extending from east to west. Home-grown seed should be used in every area whereven obtainable. Southern-grown seed makes good in the south one-third of the state extending from east

This is reprinted from Kansas Farmer of June 1, 1912. This data, with that regarding Kafir contained in last week's issue, is important to all Kansas farmers who would be most certain of a forage and grain feed supply.

by 40—the weight of a cubic foot of silage—which will give you 179,200 pounds; divide by 2000, or the number of pounds in a ton, and you will have about 89 tons remaining in the silo.

Regarding Peanuts. Answering H. F., Burlington, Kan.: Peanuts will grow with a reasonable degree of success anywhere that corn matures. Various varieties mature in from 120 to 150 days. A sandy loam soil best suits the peanut. On heavy soils the pods cannot push their way into the ground to mature. The field in which peanuts are planted, should be plowed roally the seed had well sulveyinged and early, the seed bed well pulverized and

Planting may be done about the time or immediately following corn planting. The seed is planted either in hills or drills and the distances apart depend upon the variety grown and the richness of the soil. Generally the rows are 24 to 26 inches apart each way and two seeds 36 inches apart each way, and two seeds planted at each intersection. The Virginia bunch or the Tennessee white or Tennessee red are those most usually grown in this section, for seed.

that could be used for manufacturing of all kinds of wood products, such as but-ter moulds, paddles, base ball bats, sin-gle trees, etc., it would support a general factory somewhere in the valley, and the cut would be sufficient to keep it

going.

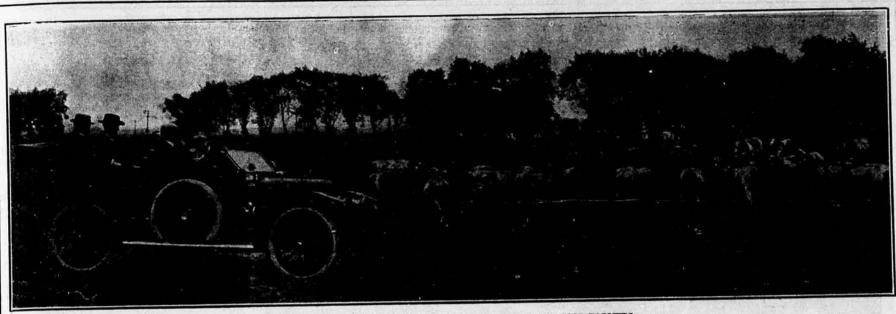
Also the orchard industry has been almost totally neglected in this section, largely on account of failure to adopt scientific methods of pruning, and later following this up by proper cultivation. There is much room for large commercial orchards in this section of fruit par-ticularly adapted to this climate, such as Keiffer Pear, Cherry, Plum and commercial Peaches, also Apple Culture along the Arkansas river.

Advantages of Clipping. H. S., Axline, Kan., asks what advantages are to be had from clipping work horses and mules in the spring of the

A clipped horse will not only do a greater amount of work on the same amount of food than a horse with his natural coat will do, but he will also be fresh and full of vigor, while the horse

PRESENT CATTLE SITUATION

Present Scarcity and High Prices Due to Policy of Small Farm Owners



GOOD LIVE STOCK MAKES GOOD FARMS, GOOD HOMES AND GOOD FARMERS.

WITHOUT multiplying statistics, let it suffice to say that the gradually depleted stocks of American cattle have discontinued our exportation of cattle, have about doubled the price of the beef animal to our consumers, and even threatens an extensive importation of beef from the great plains

of South America. The policy of the small farm holder is responsible for this. In grain and meat production the small general purpose farm feeds the consuming world from the surplus. Under our present economic condition, as that surplus is reduced or increased, the price of cereal and meat foods must in a general way rise and fall. Adhering then to time honored economic principles, the future of our American cattle industry lies with the small farmer. The individual holding the key to the situation and at the same time being so much the greature of circumstance. time being so much the creature of circumstances, stands as a vascillating, uncertain business proposition. His guess on the market controls his plans for production. There are some well de-fined reasons for this individual's te-

The cost of production has little control over market quotations. The cattle producer is always stared in the face by the losing market bogie when the feeder puts his cattle on feed in the fall. The price of corn may rise over the entire producing area, but an unfavorable fat cattle market may develop and ruth-lessly wipe out his margin of profit and even draw on his accumulated resources. The cattle breeder on the farm has still more trouble, for he is still further from the market. I venture that until very recent years three-fourths of the cattle leaving the small farm were sold at an actual tess cill appears against the small farm were sold at an actual tess cill appears against the small farm were sold at an actual tess cill appears against the small statement of the actual loss, all expenses considered. How often we have witnessed, in the fall of the year at the usual farm auction, a calf bringing \$16 and \$18 and the mother of that calf selling in the same ring for only \$22 to \$25, although the cow may be in full breeding condition. We are all familiar with the local buyer for the the market. The butcher, on riding into your herd, wants the nice heifers, to be sure. He is out for beef at the lowest possible price, and he usually gets it for less than it is worth. A country rider for the general market has "been in" with cattle often enough to judge with considerable accuracy what individuals of that very variable class of farm cattle country and the country with the country with the country with the country was accuracy what individuals of that very variable class of farm cattle country was accurately country with the country was accurately country with the country was accurately considerable country with the country was accurately considerable country was accurately considerable country with the country was accurately considerable country was accountry with the country was accountry with the country rider for the general market has "been in" with cattle of the country rider for the general market has "been in" with cattle of the country rider for the general market has "been in" with cattle of the country rider for the general market has "been in" with cattle of the country rider for the general market has "been in" with cattle of the country rider for the country rider for the general market has "been in" with cattle of the country what individuals with the country was accurately was accurate tle called "she stuff" will bring on the market, and in matching his bickerings against the indifferently posted owner of the cattle, secures the flower of the young breeding herd at an unprofitable figure to the owner, and saps the cattle industry at its fountain head. The small breeder tries feeding a few steers, a few cows, or a few heifers, but not having enough together to allow sufficient grading to suit market demands, is handicapped thereby when his product is ready for market. The feeder is convinced that he should sell his corn on the local market, or put it to some more remunerative use. The small breeder sees a quick and sure return from vealing the calf, from selling the steer at a year old, or off the cow at pasture in the fall, from disposing of the heifer because she

wanted, or of the aged breeding cow

because she is not wanted.

By HON. WALTER J. BURTIS, Fredonia, Kansas

This much discussed individual, the mall farmer, is a business man in his own way. Although according to the rules of bankruptcy courts, he never "busts up," he may "peter out," and he knows it. While he is not interested in an approved trial balance of the business office he realizes that he must alness office, he realizes that he must always make a trial to have a balance. Is it strange, then, that he so readily falls into the way of getting on the market by the shortest route his judgment approves? The small farmer is one of the best losers in the business world. His life has been a battle to make both ends meet and secure advantages for his family. His experience is a law unto himself. Adverse conditions, however, will finally make him a pessimist—a condition he is slow to shake off.

The small farmer has so largely given up raising and fitting steers and breeding cattle because he becomes discourang cattle because he becomes discouraged in meeting market conditions. He has been slow to engage generally in dairying, because of the special problems ever present in this industry. The aged cow so freely discounted in the farm sale ring in the fall—the biggest eater on the farm and a more country when she the farm and a mere canner when she reaches the market—easily lost favor in the financial plan of the farm. The much sought for heifer is sold to supply the city local market, where heifer meat is popular with steer meat, although it is discounted a cent a pound at the farm. For these reasons many have concluded to quit cattle, and when their range brother was compelled to quit our cattle surplus disappeared, creating one of our great agricultural problems of the day—the production of more cattle on our

But our failures are of interest to us only so far as they may point a way to success. Our great free American ranges have practically disappeared forever. Range cattle have been bred up and fed up with an allowance of winter feed until they come to our markets in full competition with our native farm cattle; and in many classifications outdo us, sending our stuff to the speculators' pens as tailings. While range competi-tion of the past has done much to dis-courage the small farmer from producing cattle, low priced range cattle un-doubtedly are a thing of the past, Range cattle and farm cattle of our domain are to meet on an equal footing in our mar-kets of the future. Every acre of land that will warrant general agricultural operations is being rapidly adapted to the production of live stock, grain and other food stuffs for the support of our ever increasing number of consumers.

Our live stock problem is to convince the farmer that it is to his interest to raise more cattle.

Here we can draw at least one lesson from the range. Our brother, the rangeman, has given us an object lesson in the use of good sires. He has used his money, lavishly perhaps, but wisely we must admit, until the long-horned, longnosed, cat-hammed, sunfish-bodied steer of the romantic west is as much a rarity on our markets as the buffalo. The scrub bull has been swatted editorially and from the agricultural platform until

the statement has become a memory gem, and never was a truer sermon preached from an agricultural text.

Perhaps one must live in the middle west to fully appreciate conditions that have made possible this misapplication of nature's law—the use of the scrub of nature's law—the use of the scrub sire. In an early day many sires brought west were unfit for duty. They had been found wanting, and were bargained to the traveling speculators, who in turn peddled them through the rapidly developing live stock communities of the west; doing untold injury to live stock interests by sowing seeds of distrust in the mind of the farmer doing business on a small scale. Close on the heels of this pioneer came the hothouse sire—a triple product from the imagination, the triple product from the imagination, the money of the fortune spender, and the immutable laws of nature. It must be admitted that thousands of sires have been sold throughout live stock communities that failed in their purpose, for no other reason than that of poor feed and poor care. However, it is true that sires must be sent to the small farmer that have been reared on such feed and in such environment as will fit them to proper adaption to farm con-ditions. Improper fitting has created

much feeling against the product of the sale ring. This must be removed. Would it not be possible for our pow-erful and forehanded cattle registry board to establish and enforce a standard of prolificacy that would actually be an instrument of protection when issued by said board to the purchaser of an animal? Might it not do more to convince the purchaser that he is getting what he wants and needs than the usual sale ring guarantee and a breeding certifi-cate? Would it not be possible for our registry boards to set standards of feeding and environments, varying to be sure with climatic conditions, that the pur-chaser of breeding animals might know, from official authority, how the animal in question was reared as well as bred? Pure blood, coming from an ancestry admitted to record because of outstanding individuality and known virility, is the nucleus of a revived cattle industry. There is much respect for pure blood in our country communities. It is a clear cut business proposition, however, to the farmer. He wants to be shown before

Our reviving cattle industry has enlisted a most important ally in the alfalfa plant. That portion of our corn territory not being blessed with tame grasses for winter pasture has found alfalfa indispensable in conditioning and fitting cattle. In the past stock cattle fitting cattle. In the past stock cattle have been wintered largely on the frosted native meadows and stubble fields, brush lots, stalk fields, prairie hay and the various fodders; all of which feeds are highly carbonaceous, constipating in effect and generally unsatisfactory in results, producing a staring coat of un-thrift, a fickle, wasteful appetite, and a net loss of flesh for the winter season. The use of alfalfa hay and alfalfa pasture in the fall has worked wonders in improving these conditions. The grazing period is prolonged, the animal system receives the effect of succulent feed at a

time when it is sorely needed. The ration has been nearly balanced. Ten pounds of alfalfa hay per day, per head, if commenced at the end of green grazing, before inclement weather sets in, will produce gains with a two-year-old stocker or the 900-pound cow, if supported with reasonable auxiliary feed and good care. This is a considerable increase to the cost of wintering, but prices are more remunerative than a few prices are more remunerative than a few years ago. This hay is figured at \$10 per ton, which is more money than most alfalfa hay fed to stock cattle is worth at the farm. For fattening cattle, alfalfa hay is well nigh indispensable in

small farm operations.

In districts where alfalfa does not do well, cow pea hay is being used. Our fall institutes, just closed, brought out much reliable testimony concerning results with this important land improver and stock conditioner.

and stock conditioner.

We are waking up to the use of the silo for cattle in western communities. Twelve pounds of silage per day, per head, with stock cattle, when supported with ordinary feed, is found sufficient to secure winter gains, and much more satisfactory gains the following grass season over cattle "roughed" in the usual manner. These improved feeding conditions are encouraging to an enlargeconditions are encouraging to an enlarg-

ing cattle industry.
We need more explicit market reports on the characteristics of individuals actually sold and the prices they bring. In our country anything with flesh is a canner in the farm cow dicker. The requirements of the numerous fat cattle classes of the market are little understood by the farm bargainer. In the large class of cattle known as stockers, the usual market report is of small use to the unsophisticated observer looking for precise information. The farmer who is being urged by the entire consuming world to raise more beef will be forti-fied in doing so by a market sheet pub-lished regularly in his interests.

The small farmer is compelled to get back into cattle in self defense. The problem of maintaining soil fertility must receive attention. Nature has ordained that animal and plant wastes, mingled with the mineral crust of the earth's surface, shall constitute the soil of agriculture, and nature is immutable in her laws. If it is natural for animals and plants to inhabit the face of the earth, man, their colleague, is a foolish being to thwart this great provision of

Each farm should keep enough cattle to feed up the forage crops of the place and field wastes. I believe the time must come when our farms will be called upon to such a capacity that the production of cattle on the small farms will be

The too common market glut that works such dire results to cattle interests is a specialized form of the old problem of agricultural organization. Co-operation among farmers has made little actual headway. In this age of organization the cattle man comes to the market without the advantages of co-operation. He wishes every one well. He is an optimist by nature. He can take a losing market without batting an eye. He can sell for less than he buys (Continued on page 13.)

BEST METHODS FOR WEST

Listing, Good Seed and Good Cultivation Wins in Western Kansas



FIFTEEN THOUSAND BUSHELS OF CORN GROWN BY WILFRED CARPENTER ON THE W. G. WILSON FARM FOUR MILES SOUTHEAST OF GARFIELD, KANSAS.

THIS CORN WAS GROWN ON 520 ACRES AND WAS PLANTED ON WHEAT GROUND AFTER THE WHEAT HAD BLOWN OUT DURING THE SPRING OF 1912.

Y FIRST crop in Sheridan county was produced in 1895. The crops of 1895-6-7 and 8, however, were grown by the long distance method and while on the whole they made satisfactory rent on the land, I will not include them, but will take into consideration only the crops grown under my personal supervision, which began with the crop of 1899. Including that crop, I have now produced 14 listed crops in 14 consecutive years

In these years I have tried several varieties of corn; red, white and black chaffed white kafir, early and black Amber, Folger, Coleman, Red or Evergreen, Club Head, and Collier's cane or sweet sorghum; standard and dwarf Milo; Jerusalem corn; brown durra; Soudan durra; Chinese Kowliangs; Shallee; cow peas and soy beans. I have also used various methods and implements, as deep and shallow, early and late listing, fall listing, disking before listing, knife or sled weed cutters, disk weeder with and without shovels, ordinary four and eight shovel cultivators, harrowing between cultivations, and five-tooth cultivator for crops too tall for ordinary corn plow. I have used both eastern and home-grown seed.

GOOD FEED CROPS EVERY YEAR.

All these different crops and methods have not been equally satisfactory or successful, but in each and every year—and this includes the season of 1911—1 have succeeded in growing good feed crops. Crops that marketed by way of good live stock would pay going wages for all labor performed and a high rate of interest on the value of the land—this without a silo and with a good silo I am confident the net profit would have been fully twice as much, some seasons even more than that.

I have found that not infrequently very favorable results are shown in a test plat—results that theoretically one should be able to duplicate in the field crop—but that when it comes to actual field work the methods to be followed are simply impossible. All the crops I have mentioned with the exception of the Chinese Kowliangs, which were grown in test plat, have been grown under field conditions and on a field scale.

The cost of producing such crops will vary from season to season owing to going wages and the cultivation required. At the prices for team work current the last two or three years, the average cost of crop is \$2 per acre ready to harvest, or \$3 per acre in shock for fodder or loaded on wagon for silage.

The lowest cost I have had was \$1 per

The lowest cost I have had was \$1 per acre ready to harvest, and \$1.50 per acre in the shock, all work—both men and teams—being hired, and though it was a very dry season a good crop was pro-

The highest cost has been \$2.50 per acre ready to cut and \$3.25 per acre in the shock, all work of my own teams being charged for at current rates.

being charged for at current rates.

Hard and fast rules cannot be laid down for the growing of such crops.

Each season and crop will bring its own problems; at the same time there are

By M. G. BLACKMAN. Hoxie, Kansas

some general principles and important items that should always be remembered, the first being good seed.

the first being good seed.

USE VIGOROUS ACCLIMATED SEED.

It goes without saying that a crop cannot be produced from seed that will not grow, but it should be more than that; it should make a good vigorous growth and for this reason seed should be secured, if possible, that is well acclimated, home grown or grown under conditions similar to ours. Rainfall, latitude and longitude are not the only things to be considered in this connection. The matter of altitude with many plants is important. This is especially true with corn and the surghums. With increased elevation always comes cooler nights and both corn and sorghums not acclimated to these cool nights will mature but very slowly if at all.

Varieties should be selected that have

Varieties should be selected that have not only been proven to be drouth-resistant or hardy, but that are known to be adapted to the particular locality in which they are to be planted and suitable for the purpose required.

If cane is to be grown chiefly for the seed, I have found Early Amber far the best with Club Head a good second. These will both produce good fodder also. Coleman's, Collier's and Evergreen cane, if fodder is the main crop desired, will be found entirely satisfactory.

found entirely satisfactory.

Eastern or low altitude kafir matures seed here with but little certainty but produces splendid fodder, while the home grown Red or Early White furnishes just as good fodder and usually a fair seed crop besides.

For sure grain yield nothing as yet.

For sure grain yield nothing as yet equals acclimated Dwarf Milo. Cut at the right time the fodder is relished by all kinds of stock, but it will not produce as much fodder as either the Kafirs or sweet sorghums.

Soudan Durra is a new importation

and is claimed to be earlier and more drouth-resistant than milo. Last year's planting of about June 25 was showing some ripe heads on August 20 and produced a good growth of fodder which was relished by sheep, but cattle and horses did not eat it so well.

I have found fall listing of decided value some seasons, while in others the advantage was not so marked. Disking in the early spring before listing is good all the time.

Listing should be done at the right time, not too late and not too early. The seed is better in the sack until the ground is warm enough to make it grow; for corn some seasons this may mean April 20 and others not before May 10, with kafir and Milo following close after.

It should be remembered that a poor job of listing lasts all summer—in fact I am inclined to think it may reach over into the next season.

The furrows should not be too far apart—five to the rod is just about right. At this width the middle will be well cultivated. The lister should be run as deep as it can be without throwing too much dirt over into the next furrow—always deep enough to entirely cover the ridge with fresh dirt. I have yet to see a good crop from shallow list-

WHAT CONSTITUTES GOOD STAND.

A poor stand cannot make a good crop. Now a poor stand may be either too few plants, too many plants, or not evenly distributed.

A dozen stalks in one foot of furrow and no more for eleven feet averages one stalk to the foot, but is a far different thing from one stalk in each foot of furrow. The first would be a very poor stand and result in a practical crop failure, while the second, if the crop were kafir, would be what I consider a perfect stand and would probably make a crop of cured fodder of 3½ tons per acre or a silage crop of seven or eight and possibly 10 tons to the acre.

A stalk of cane or Milo in each six inches of furrow and carrying one ounce of seed—only a small head—would amount to about 30 bushels of seed per acre, grown and harvested at a cost of ten cents per bushel without any allowance at all for the forage. In cultivating the especial aim should be to save the moisture and not get the surface too fine and dusty.

GRANULAR SOIL MULCH BEST.

GRANULAR SOIL MULCH BEST.

The much talked of "dust mulch" is a harmful delusion in the west if the words are taken literally, and that is just what many people do. A loose, granular soil mulch we must have to save the moisture, but a dust mulch if it does not all blow away, will, with the first good rain, all run together and make a cement or plaster coat of the top inch or two of the dust, preventing any moisture getting down to the subsoil and in a

few hours this plaster coat will commence to crack and crust and in a very few days time the crop may suffer for want of moisture more than if there had been no shower at all. On the other hand, I have seen deeply plowed ground that was left rough and granular take a 3-inch downpour and on examination three weeks afterward found no cracks at all and a crust not exceeding 3-16 of an inch in thickness. The road was open and the water went straight to the sub-

It should also be borne in mind that a crop of weeds requires both plant food and moisture. When growing with other crops the weeds will take waat they require first.

Any field that produces a good crop of weeds any season, with proper care would have produced a good crop of any of the sorghums or probably a good crop of corn as well. However, with the cultivation necessary to maintain proper soil condition the weeds will give but little trouble.

The two-row disk weeders with a shovel following each disk, are good implements provided a good job of listing has been done, but without the shovels the ground is left in about the worst possible condition.

the ground is left in about the worst possible condition.

The filling of the lister furrow should be done when the ground is wet if possible. In no case is it best to fill it when the soil is very hot and dry. Banking six or eight inches of hot, dusty soil around a corn plant is particularly bad. Keep the ground cultivated without filling the ditch rather than fill when too hot and dry.

hot and dry.

I have not found the much heralded "hot winds" and lack of rainfall the chief obstacles, but my greatest difficulty has been in getting the work done at the time and in the manner I wished it done

it done.

Perhaps the matter of most importance in the whole thing and which I have so fully demonstrated is the fact that the conditions necessary to a profitable crop are so fully under man's control.

Removing Snow From Roads.

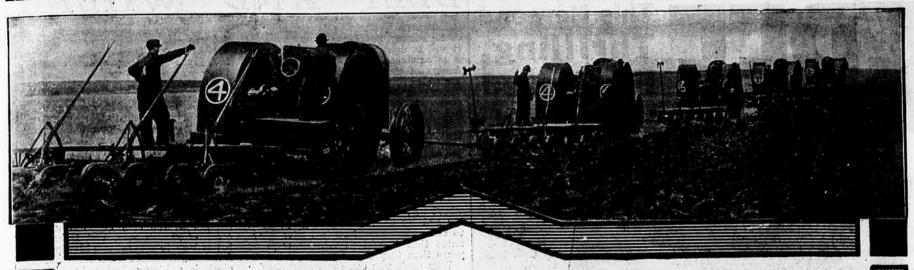
Many roads through various parts of Kansas have been kept in perfect condition this fall and winter by the removal of the snow before it begins to melt. We have in mind one stretch of fifteen or sixteen miles of dirt road in Shawnee county. Each two miles of this road is looked after by a farmer who does the work at a stipulated contract price per mile. He does the dragging to smooth the road and likewise removes the snow. The drag used for smoothing is a King drag and the same drag is used for removing the snow except that the hitch is so made as to give the drag a greater slope to the outside of the road. Two trips clear the road of three or four inches of snow. A trip one way on each side of the road does the work. This road is at this writing in as fine condition as any pavement in the city. Roads from which the snow has not been removed are more or less muddy and

If the experience acquired in producing fourteen consecutive crops stands for anything, it shows conclusively that a listed crop properly handled in Sheridan County is not a gamble, but is as certain to be profitable as any crop grown in the \$100 to \$200 per acre section of the country.

Whenever the people of western Kansas realize the importance of

Whenever the people of western Kansas realize the importance of listed crops and live stock, wheat growing will become a matter of secondary importance and we will see—not a boom, but permanent good times. Then indeed the "desert shall rejoice and blossom as the rose," and present land values will appear as they are, absurdly low.—M. G. Black-





hy the BIG FOUR is Sold On Approval

Frank Woods, Bowbells, N. D., plowed an equivalent of 3335 acres of stubble plowing, and had a threshing run of 35½ days.

Murle Perry, Frankport, S. D., has broken 500 acres, plowed 1500, disced 3200 and harvested 1000 acres.

WORKMANSHIP—Has Made Possible Our One Aim-To Build a Farm Tractor So Good That It Could Be SOLD ON APPROVAL

Lyman & Gould, Arnaud, Man., broke 2000 acres, plowed 300 and disced 2000. This with the light traction work that they have done amounted to an equivalent of 3450 acres of stubble plowing for their two engines.

Here are a few 1912 Records that we are proud of. They represent the most remarkable work ever performed by a farm tractor. Actual records like these sell BIG FOURS.

The selection of a farm tractor demands careful consideration. The investment involved suggests the wisdom of taking plenty of time for investigation and comparisons.

Investigate the BIG FOUR and you will find these prominent points of superiority-and many others.

Four Cylinders—Continuous, steady, enormous power. The BIG FOUR is the first four-Cylinder tractor. Requires less fuel per developed horse power than one and two-cylinder engines.

Frame-Simple in design, of great strength — it has withstood the test of time. Guaranteed for 5 years.

Large Drive Wheels

-96 inches in diameter. They hold up the BIG FOUR on soft ground where other engines are helpless. Power is applied to rim of drive wheels—less waste. Patented features make the BIG FOUR Drive Wheels different from and better than others.

Light Weight—Simplicity of design, few working parts, steel construction, make the BIG FOUR lighter—yet stronger—than other tractors of equal power. Requires less power to move the engine, leaving more power for the load.

Perfect Cooling System-Absolutely necessary for perfect work on hot summer days.

Nels. Olsga'rd, Walcott, N. D., plowed 2000 acres and threshed 40 days with a 36 x 60 Separator.

Geo. Oldis, Sentinel Butte, N. D. with a Big Four Engine, plowed 1600 acres, broke 160, harvested 900 and threshed 12 days.

Transmission and Differential -Simple, strong, practical. The hardened cut steel bevel gears are guaran-

teed for five years.

Big Four

together.

Self-Steering Device—The FOUR "30" self-steering device easily adds \$1000 to the engine's worth, yet does not cost you one cent extra. In breaking or plowing it automatically guides the engine in a course absolutely parallel with the last furrow turned, so that one man can operate both engine and plow.

Farm Tractor

is strictly up-to-date. It has more recent improvements than all other tractors put

Fuel Consumption—The BIG F O U R

uses kerosene or gasoline with un-

equalled efficiency and economy and delivers more power to the drawbar per gallon of fuel than other tractors. The BIG FOUR is fully guaranteed for one year against defect in material and workmanship.

time, grief and money in the end. Thousands of BIG FOUR owners will tell you the same thing.

But you do not have to take our word for it or theirs. The BIG FOUR is

Sold Absolutely On Approval

It was the *first* tractor sold this way. It is the *only* way to buy a tractor. We will send it to *your* farm at our risk. You will be the judge. It must make good.

Every BIG FOUR now in use has been sold on approval! Only manufacturers who know what they are putting out can afford to do this.

REDUCES COSTS INCREASES PROFITS

The BIG FOUR "30" makes your work easier, reduces its cost and increases your profits. It plows at a cost of 30 to 50 cents an

You can work the BIG FOUR 24 hours a day whenever necessary to take advantage of weather or crop conditions. It needs no rest. Always ready when most needed—the most important feature of all.

Write For FREE Catalog—TODAY

Don't wait. Even if you don't intend to buy a tractor this year write us today anyway. Take time NOW to investigate and post yourself. You ought to know why and how other farmers are making more money with the BIG FOUR than they ever did with horses or other negines. Bron us a postal with horses or other engines. Drop us a postal card—but do it TODAY. Please address

Emerson-Brantingham Implement Company

If you will bear in mind the above facts in deciding your choice of tractor you cannot go wrong. It will save you

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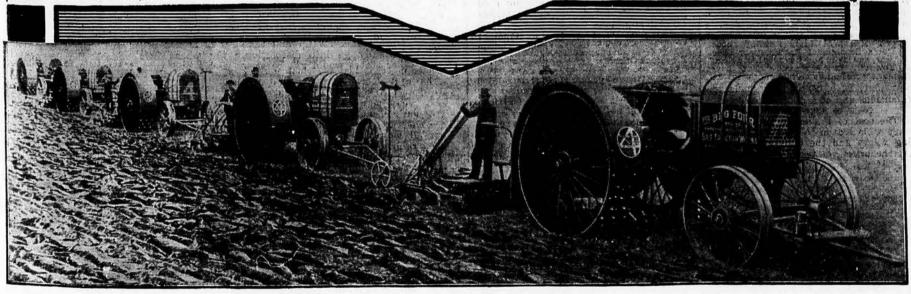
Rockford, Illinois

Plows, Harrows, Pulverizers, Spreaders, Drills, Listers, Planters, Cultivators, Stalk Cutters, Mowers, Hay Tools, Baling Presses, Corn Shellers, Gas Engines, Farm Tractors, Steam Traction Engines, Thresh-ing Machines, Clover Hullers, Road Rollers, Saw Mills, Wagons and Vehicles.

Kruckeberg Bros., Moccasin, Mont., broke 300 acres, plowed 500, disced and drilled 3200 and harvested with a 16-foot combine, 1200 acres.

R. E. Shepard & Co., Billings, Mont., have broken 2200 acres and plowed 800.

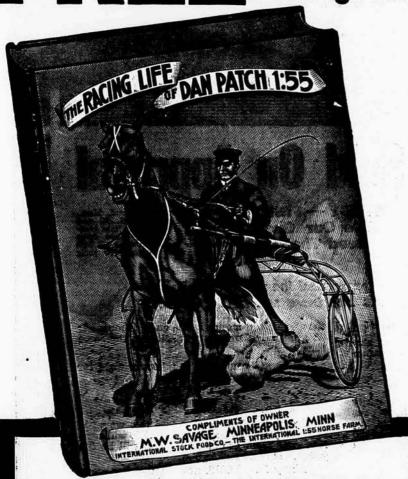
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School of Gas Tractioneering. Fifth term opens March 10, at Minneapolis. Write Big Four Tractor Works, Minneapolis, for particulars.

HIIII

This New and Thrilling, Illustrated 132-Page Book.



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Contains 165 Fine Engravings. Also a Complete, Accurate
History and Thrilling Description of the Racing Life of

DAN PATCH

The Large, Eight by Eleven, Front Cover of "The Racing Life of Dan Patch" is a Beautiful, 14 Colors Reproduction of M. W. Savage, driving Dan Patch at a Two minute clip. Above Engraving shows the Cover Page in one color and when Reproduced in 14 Colors it makes a picture of Great Artistic Merit, as it is Entirely Free of Advertising. This Painting is the Finest and Most Life Like "Speed" Painting ever made of the World Famous Champion of all Champions, Dan Patch 1:55, the Fastest and Most Popular Harness Horse in all the World's History, over Two Million People having written for Dan's Picture. This is the Only Painting ever made of M. W. Savage driving Dan Patch 1:55 and it was made from an actual photograph. It is as Natural and True to Life as if you actually saw Dan in one of his Terrific Bursts of speed.

Bursts of speed.

You Will Enjoy Reading the Thrilling Accounts of his Wonderful Racing Contests, during a long term of years. They were written by an eye witness and one of the most Vivid Writers of Horse Racing, whose descriptions are almost as interesting and Thrilling as if you saw the actual racing. You cannot read this book without being filled with Pleasurable Excitement as you picture in your mind the True Greatness of Dan Patch 1:55 as he Repeatedly Won Great Racing Events. You Will Enjoy Reading about Dan's Thrilling Finishes before the Cheering Multitudes of Enthusiastic Horse Lovers. You Will Enjoy Reading about Dan's Sensational Racing, year after year, and about how he never lost a race. You Will Enjoy Reading about how plans were laid by drivers of other great race horses to beat him and how Dan always brought the very highest class race horses, and their drivers, to defeat.

You Will Enjoy Reading about the Greatest Race Horse in the World's History, You Will Enjoy Reading about his Wenderful Speed Exhibitions, after he developed such Tremendous Speed that horses would not start against him in races. As a noted horse writer wrote at that time, "It was always Dan first and the competing field of horses nowhere."

the competing field of horses nowhere."
You Will Enjoy Reading about how Dan kept on Extreme Speed Edge for Over 10 Years in all kinds of weather and over all kinds of tracks, a Great World Record in itself, no other horse having ever, even approached it. You Will Enjoy Reading about Dan's retiring to My International 1:55 Horse Farm, Strong, Vigorous and in Good Condition and still retaining his Sensational Speed and where he is proving to be one of the World's Greatest Sires of Extreme Speed and is the Leading 2:10 Sire of the World,

for his age. You Will Enjoy Reading about the Thousands of People who visit My "International 1:55 Horse Farm" every year to see Dan Patch 1:55, the Mighty Hero and Harness Horse King. You Will Enjoy Reading about Dazzle Patch, — Dan's Sensational Son, that paced a half-mile in 59 seconds, a Quarter in 27% Seconds, a 1:51 Clip, and an eighth in 13 Seconds, a 1:52 Clip, and an eighth in 13 Seconds, a 1:54 Clip, when only 28 months old. This Book gives all of Dan's Official Racing by heats and the Names and Places of Finishing of all Competing Horses in each race. It shows his Wonderful Speed Development, from year to year, down to the time he was retired, It is the Finest and Most Expensive Book of the kind, Ever Published for Free Distribution.

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"The Racing Life of Dan Patch, 1:55"—is the Book that Millions of Farmers and Stockowners and Horsemen have been waiting for as a Library Official Reference Book of the Fastest Harness Horse, the World has ever seen and the Most Beloved Harness Horse of all time. If you Admire or Love a World Famous Champion Stallion that has been the Leader in Great Events in making Harness Horse History, then you should send for one of These Books at once Before the free offer is withdrawn. It will probably cost me \$150,000 Cash to furnish These Books Free, but you are Perfectly Welcome to one while they last. MAILED FREE—PROVIDING you are a Farmer, Live Stock Owner or Horseman Over 21 Years old, but You Must State—FREST—In what paper did you read this Free Book Offer?

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I want 35 Names for 35 young Dan Patch Colts and have an offer of \$10 Cash for each name we select from any list. If You Write Me for the "Racing Life of Dan Patch," I will also Mail You Free my \$350 Cash Offer for Colt Names. You do not have to buy any goods or send me any money. I Also Have Colts and Stallions For Sale On Long Time Without Interest.

BEEF AND WHEAT

You urge us farmers to resume beef cattle raising, but I doubt very much if it will be done as long as the beef trust is in existence. You and the good professors of the Agricultural College kept urging us farmers to plow our ground for wheat and pack and harrow the plowed ground and prepare a fine seed bed. We followed your advice in the fall of 1911 and the consequence was that many thousands of acres of wheat were destroyed by the winds causing the dirt to drift. Last fall we put our wheat in according to the manner we thought best and there has been no disastrous drifting in the wheat fields.

I don't believe that the farmers of the

I don't believe that the farmers of the wheat belt will resume beef cattle raising and let their wheat fields go back to sod unless they have a better guarantee that it will pay for a term of years than they now have.

Why don't you come out squarely for a constitutional convention and push it vigorously? We want a new constitution framed in such a manner that the state of Kansas as a commonwealth can

have been much more valuable if the sod had never been broken.

We urge live stock production because it will pay, and pay better than anything else. With the present nationwide shortage of meat producing animals and with our rapidly increasing population which must be fed, cattle and hogs are bound to be profitable for years to come. At least until production catches up with consumption, and that will take years. You cannot grow a crop of been cattle in one year or in two years, if you consider the breeding end of the business as well as the market end.

We urge live stock production because of its influence on the land as well as on the farmer himself. With plenty of manure in the soil, bigger wheat and other crops are sure, and there is no better way to prevent soil blowing. The farmer who raises and cares for live stock is a bigger, better, broader man than is he who consigns himself to the routine of a single crop.

But our correspondent is wrong about the teachings of Kansas Farmer and



The Free Seed Farce

PERHAPS no greater opportunity to enact reform measures has ever come to any administration than that which is enjoyed by the government officials now in office. This opportunity is great because the need is great. It has been well understood among high-class business men for a great many years that the methods in the several departments of government are in many cases inadequate and in others entirely obsolete. Change is demanded by the advance of our civilization which requires up-to-date methods for an up-to-date people. Conditions are such

vance of our civilization which requires up-to-date methods for an up-to-date people. Conditions are such that economy in governmental administration is demanded by the people, who will not be satisfied until they get it.

When a group of business men offered to take over the post office department at a time when it was showing a deficiency in millions of dollars each year and run this department, paying the federal government-\$20,000,000 per year for the privilege and assuming all expenses necessary to handling the mails, they believed they would make their independent fortunes out of it. The agitation which resulted has placed this department on a much more economic basis so that it was able to show a surplus instead of a deficit at the end of the next twelve months.

Changes are needed in the Agricultural Department, and one of the most important of these is the abolition of the expensive, useless, and insulting distribution of free seed. People do not want these seeds, and it is an insult to their integrity that their votes can be influenced by a package of seeds, as is hinted at when these seeds are distributed by the congressman. And yet this farce continues, in spite of the recommendation of the Secretary of Agriculture, who has, year after year, showed its expensive features and recommended its abandonment.

Both the opportunity and the need are here, and the present administration can act without being hampered in any way. Since the above was written the Senate declined to make the usual appro-

Since the above was written the Senate declined to make the usual appropriation for seed distribution, but during its last hours reconsidered and the appropriation has again been made.

legally engage in any business which is monopolized by trusts. I believe that the state of Kansas can successfully buck any trust, if the trust cannot get at us through the higher courts, and a new constitution, properly framed, would prevent this kind of a trick.

If the state of Kansas could establish and maintain slaughter houses at a num-

and maintain slaughter houses at a number of the larger business centers, then the beef trust would sit up and take notice and finally go into dissolution, because other states would not be slow in following our example. Then the farmers would again turn to raising beef cattle without any further urging.

cattle without any further urging.

If we had such a new constitution, then the state of Kansas could also sink deep wells in the western half of the state in search of water, gas or petroleum, and if such were found it would boost Kansas more than all the commercial clubs could do. We are just as much in need of a new constitution as the people of Ohio were, and we would have had one by this time but for the fact that every effort in that direction has been thwarted by interested parties who fear the initiative and referendum, which would surely be included in its provisions.—A. J. WENKENHEIMER, Bel-

pre, Kan.
Our correspondent is correct about our stand on the beef cattle question. We do urge the wheat farmers to raise cattle, either dairy or beef, and we do believe that there are thousands of acres now in Kansas wheat fields which would

the professors, so far as we know about the latter. We have never urged that wheat land be treated in the way suggested by our correspondent. Wheat requires a firm seed bed, and if the light soil is turned underneath and the soil is then compacted with a subsurface packer, and left rough for the catching of the winter snows and the rains, there will be little of blowing of the soil

little of blowing of the soil.

It is not urged that the farmers of the wheat belt should abandon their fields and turn them back to sod, as wheat is a very necessary article of human food and commerce. Someone must raise wheat. It is urged that wheat should be raised in rotation, and that some care must be given to the land if we expect to raise wheat or any other crops very long. Instead of raising wheat after wheat, year after year, it is urged that the wheat belt farmers should rest their land by growing Kafir, milo, alfalfa, cow peas, soy beans or whatever else will grow that can be fed to live stock, and get the soil back into a condition where it will produce more than it now does when sown to wheat and enable the farmer to drive his crops to market instead of hauling them.

The conditions are such now as to mark an epoch in the agriculture of this country. There is no possible danger of an immediate overproduction of meat producing animals, and just as long as this condition exists there will be a strong market demand for every hoof the farmers of this state can raise.



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The Spreader with the Beater on the Axle



Takeany manure spreader you have ever seen, remove all the clutches and chains, all the countershafts and stub axles, do away with all adjustments and mount the beater on the rear axle.

and mount the beater on the rear axie.

Rebuild the spreader so that the top of the box is only as high as your hips. Make it stronger. Remove some two hundred trouble-giving parts and throw them away. You will have some sort of an idea of what the John Board of t the John Deere Spreader, the Spreader with the Beater on the Axle, is like.

The Beater on the Axle



The beater and all its driving parts are mounted on the rear axle. This construction is patented. You cannot get it

on any other spreader made.

Power to drive the beater is taken from the rear axle through a planet-ary transmission (like that on automobiles). It is positive, runs in oil, and does not get out of order.

Few Working Parts

The John Deere Spreader is so simple that there are no adjustments. It has some two hundred

less parts than the simplest spreader heretofore made.

There are no clutches to throw it into gear. The lever at the driver's right is moved back until the Out of G

Out of Gear finger, or dog, engages a large stop at the rear of the machine. All the chains and adjustments have been done away with.

Only "Hip-High"



Because the beater is mounted on therearaxle, it is only "hip-high" to the top of the box Eachforkful

Basy to Load of manure is put just where it is needed. You can

always see into the spreader. Roller bearings, few working parts, the center of the load comparatively near the horses, and the weight dis-tributed over four wheels, make the John Deere Spreader light draft.

Spreader Book Free—Tells about manure, when and how to use it, how to store it, and a description of the John Deere Spreader. Ask for this book as Package No. Y. 13

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Better Corn and More of It

By F. M. RIEBEL, Arabela, Mo.

E SHOULD raise more corn and better corn. But that doesn't signify that we should plant more acres to get it, but rather that we should cut down the acreage and by bet-ter seed and better culture increase our acre yield. We are growing all the corn we should grow at present selling prices. Corn is already as low as it can be profitably grown. We should grow corn to

I believe in crop rotation and live tock. We should raise more clover so we could grow more stock to get more manure to fertilize our corn ground so we could raise more corn. Clover seed is the cheapest manure on earth and we never raise as much of it as we should.
Of course the past two years were hard
on new clover because it has been so
dry and stands have been hard to get.
But we must not get discouraged; we
must keep trying for that is the way to
win. Keep everlastingly at it and do not
get discouraged. get discouraged.

It is nearly corn planting time again and we must face the problem of how to raise a fine, large crop. About the first thing to look after is the seed, for withthing to look after is the seed, for with-out good, strong seed we cannot expect to raise a large crop of corn. We want every hill occupied. We do not want to cultivate 50 acres to get 40 acres of corn. But that is what the most farmers are doing. They fail to get a stand be-cause they do not test the seed. It

We prefer to plant our corn rather shallow as the soil is usually warmer near the surface and we get a better stand by so doing. If the corn is planted deep and we get a hard, cold rain, it would rot the seed, making it necessary

main.

We are going to plant the twenty ears with which we won first prize at the Missouri State Corn Show, in a breeding plot—ear to row. We have followed this practice several years with very good results, We always plant our show corn as we believe "like produces like," and if we want to raise show corn we must plant show corn. The best seed we must plant show corn. The best seed ear is the best show ear, and the best show ear is the best seed ear. This is what we are all after; we want the best

to replant. We do not want to lose our best seed as we are very particular about our seed corn. We want to plant the very choicest ears. After the corn comes up so we can see the rows, we start the cultivator and we plow as close as we can the first time and we cross the corn as soon as possible. We then have it in good shape, for corn that has been plowed both ways can stand a lot of plowed both ways can stand a lot of grief without any material damage. We like to cultivate every week or ten days if the weather permits, until it gets too large to plow. We plow as long as we can get over it with a riding cultivator. If any weeds should escape we go over it with the hoe and cut out what few remain

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OOD seed is essential to the best yields of all farm

Obtain the best seed from crop grown on your own farm or in the vicinity.

Select seed from small grains on the basis of size and weight.

A good fanning mill properly used is the most practical way to select good seed.

Tests and experience have proven that heavy, plump seed will increase and improve crop yields.

Treat seed to prevent plant disease.

Make a germination test of seed to prevent planting seed that will not grow.

would surprise the average farmer if he would cross his corn field and count the missing hills in a quarter of a mile. It would open his eyes to the necessity of exercising more care in the selection of his seed, and in the method of planting

and cultivating his fields.

The next step is to look after the ground. It should be an old clover sod that is the best for corn. But the most of the corn will be planted in oat stub-ble or on stalk ground. If it is oat stub-ble it should have been fall plowed—if not, it should be plowed as early as possible in the spring as it will give the ground time to settle and would have a tendency to make the soil hold more moisture. Also, the weed seed would have time to sprout and a good disking would kill the crop of small weeds. I would kill the crop of small weeds. I think this a great help in producing a crop of corn. If we have stalk ground to plant, the first thing to do is to break the stalks some cold, frosty morning—this gets them down. Then the next step would be to disk the ground. This will cut up the stalks so they will not be in the way in cultivating the crop. It would also make the ground plow about one horse lighter and besides this, would put a layer of fine soil in the bottom of the furrow so all the planted ground could be pulverized. could be pulverized.

ould never plow deeper than we can pulverize the soil, for if we do, it will prevent the soil mixture from coming up through the soil. We hardly ever have enough rain to make a crop, during the growing season, but we must put the soil in condition so we can draw on the moisture that has been stored in the soil during the fall and winter by the

snow and rain. We like to plow our corn ground early, also as deep as we can pulverize the soil. We then let it lie until the ground gets warm. Then we disk and harrow until we have a fine, firm seed bed. We never give it a lick and a promise, for in this way a promise is all that it usually would get. But we should do everything that we think would help to insure a crop. We want to get the soil in the very best mechanical condition so the young plants will grow strong and vigcorn, because it will make us more money, and that is what we are all working for.

But that isn't all. Money alone will not do us much good, unless we spend it so as to get the most good out of it. And the way to get the most out of it is to spend it for things that will make the old farm a better and nicer place to live.

Just got two letters complaining that some dairy cattle advertised in Kansas FARMER had been sold before the writers could get to them. This is mentioned to show something of the enormous demand which now exists for dairy stock as well as to show that Kansas Farmer can and does sell them through its advertis-ing columns. We need 10,000 pure-bred bulls in KANSAS FARMER territory right

· But then, we need some more pure-bred beef bulls as well. That it pays to use them is shown by the fact that the best cattle received at the Missouri River markets today come from the ranges and not from the farms. The ranch and range pre-eminence in good cattle over farms of the corn belt is a great commentary on the present situa-tion, but it is one which furnishes a striking illustration of what has been accomplished by the use of good bulls.

The other day four carloads of 10year-old range steers appeared on the yards at Omaha and everybody flocked around to see them. They bore the famous old Dorr-Clark VVV brand so familiar up and down the eastern border of Wyoming from Deadwood to the Pumpkinseed 30 years ago when the cattle business meant something more than it does today. That outfit never knew how many cattle it had. They never got them all rounded up out of the hills and bad lands and last year they happened to find several carloads of these old steers. They got them corralled and fed them until they were fit to go to mark They were so old they would not take on good flesh from the range grass and had to be fed on layer cake to make them plump up.

Vitalized Rubber calls a halt on "Short Mileage" on country and city roads



You and all other motorists who drive over country roads have demanded a tire tough and flint-like enough to fight the ruts and rough places—elastic enough to absorb shocks, built in such a way as to prevent rim troubles and breaking above the bead—and here it is.



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A tire made of pure rubber only would fail to give the necessary mileage because it would not be tough enough to withstand road usage. And a tire containing too little pure rubber would not have the necessary staying qualities.

Our chemists have discovered how to toughen pure rubber by a scientific process. The result is additional mileage for you. The pure rubber we use comes direct from the trees of the tropics—it is fresh and contains all the vitality of youth—it is elastic and easy riding. Then we toughen this pure rubber so as to give it the necessary vitalizing, wearing, more mileage quality.

This scientific process has been vainly sought after for years by tire makers. After 15 years of successful tire making we have solved the problem—and you enjoy the benefit of our really wonderful discovery—in "Diamond" Vitalized Rubber Tires.

Add to this the Diamond proven principles of proper construction—nothing inferior in rubber, fabric or workmanship—and you have as perfect a tire as money can buy.

Here is a combination of easy riding and more mileage advantages you can't get in any other tire today—Vitalized Rubber, Perfect 3-Point Rim Contact, No-Pinch Safety Flap, for inner tube protection, and if you wish, the now famous Safety (Squeegee) Tread—made to fit all types of rims.

So this time specify Diamond Vitalized Rubber Tires—you can get them to fit your rims at any of the

25,000 Diamond Dealers always at your Service

A Perfect 3-Point Rim Contact Tire at last

Diamond 3-Point Contact Tires hold with a vise-like grip absolutely preventing the tire from breaking above the rim, insuring no rim skid—no rim trouble at all.

Our engineers have mastered the principles of Rim Contact construction, and you can get the Diamond (No-Clinch) Tire, with a perfect 3-Point Rim Contact—an important advantage that has been heretofore overlooked.

No-Pinch Safety Flap absolutely protects the inner tube

The No-Pinch Safety Flap that comes in every Diamond (No-Clinch) Tire will reduce your inner tube bills—because it forms a substantial wall separation between the inner tube and the rim, making it impossible for the inner tube to be pinched or cut under the rim, or injured by rim rust.

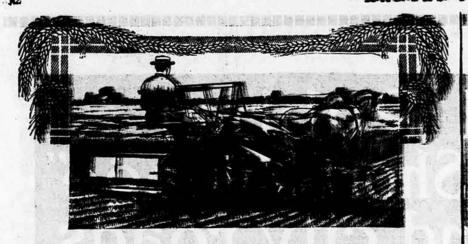
This No-Pinch Safety Flap is made of the best grade of fabric, and is finished with a "Feather Edge" as a further protection against inner tube cutting.

There is no rubber in this flap to adhere or vulcanize, so that the inner tube can be quickly and easily removed at all times—another big Diamond advantage.

Diamond Vitalized Rubber Tires for Automobiles, Motorcycles and Bicycles

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

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HE time to investigate harvesting and haying machines the time to know which binder or machines—the time to know which before, not after, you have given your order. The success or failure of your whole massen's work, from the plowing of the ground to the ripening of the grain, depends upon the quality and efficiency of the machines you take into the harvest field. Therefore, the selection of the harvesting machines: that you will use is the most important decision you make: Settle that first — now — before the busy days of the season are one. Get cattlegues, from your local dealers, or of the season are on. Get catalogues from your local dealers, or send to us for them, and study carefully the harvesting and having; machines and tools made and sold under these names:

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Bear immind when you come to pay down your money that these machines have harvested the grain, and cut and cared for the hay from fields in every part of the world, and some of its unitary been in use in the United States for more than seventy years. The efficiency gained through this long period of field work under practically every conceivable condition adds nothing to the cost of the machines. In fact, it is because of this long experience that you can buy these time-tried and field tested machines at the lowest market prices for reliable harvesting and having machines and tools.

prices for reliable harvesting and having machines and tools.

Another important point to bear in mind when considering the purchase of a harvesting or having machine is the facility with which you can obtain requir parts if they should be needed. Deliages at harvest time are too expensive to take any chance with them. You can secure practically any part of and H C harvesting or having machine within a few hours of the time that an accident occurs, and when you get the part to the binder it will fit in the place of the broken one. the broken one:

To get the best work out of a binder it is imperative that the twine used be strong and smooth, strong enough not to break under the strain of tying the bundle and smooth enough to true freely from the care to the knotter. Twing that will do this is seld by L.H.C. dealers under the trade names, Champion, Deering, McCormidi, Milwankee, Osborne, Plano, and International. There are four grades of each brand; namely, Manila, Pure Manila, Sisal, and Standard.

Your neighbors know I H C machines and binder twine. They will tell you what their experience with them has been. The LHC local dealer can furnish you with catalogues and full information, and will explain fully all the good points of the machines he handles.

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The Wonderful Papec"

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MENTION KANSAS FARMER WHEN YOU

VE STOCK



The Percheron on the Farm, A KANSAS FAMEER reader of Shaw-nee Countys, Kam, who forget to sign his mame, contributes the following:

Horses on the American farms are altially increasing in number and val-s as indicated by report of Jam II, 1918: Recent report on conditions shows a total of 20,507,000 with 20,277,000 two pears ago. The census enumeration of the showed that three years ago there were 19383,113 horses, making allowance for a decrease of about 435,000 old horses and a gain of about 615,000 foals have about 19,653,000 horses for 1926. This shows a gair of 5 per cent. in the three years period: The increase in horses from 1900 to 1910 was almost

in horses from 1900 to 1910 was almost per cent. The increase, however, is not keeping pace with the increased demand for them as indicated by the rise in value from \$105.08 in 1910 to \$110.77 in 1913; a gain of \$5771.

"The profit on a good Percheron mare that would probably cost from \$300 to \$460 in 10 years, mated with a good sire, the colts being filles at an average of \$100 apiece, would be \$3100 a If, however, a man is not able to buy a regisever, a man is not able to buy a regis-tered mare, take his inferior mares and mate them with a good sire and mote the difference in the market value. We hear of the motor truck taking the place of the Percheron horse. The only reason we have motor trucks today is because we have failed to raise enough of the right kind of draft horses. Ask any man that supports a motor truck today and that supports a motor truck today and see what he will say. The motor trucks cost their owners six times what a good draft team would cost him and would cost himself to keep it up. The time has come for us to plow deeper, farm better and consequently we must have bigger and better horses and the only and cheapest way for the farmer to get them is to raise them, and to raise the best ones you must use a good

Against Free Beef!

There seems to be a determination on the part of the politicians and packers to admit to this country, free of duty, all live stock and other commodities such as the farmers raise. And then they urge the farmer to raise more meat. I am a stock raiser, and I have had to sell fat cows for 2 cents a pound and good steers of high grade beef blood for 3 cents a pound. I have shipped cows to Kansas Gity when extremely fat, and a few old cows that raised calves and were so old and poor that they were weak, and all sold for canners. Some cows that were so fat they would make extra good beef sold for the same price; 2 cents a pound, as canners.

Just now cattle raising will pay, and there will soon be more cattle if free trade does not spoil our business. The city people have to depend upon the farmer for a market for the products of their labor, and the farmers depend on the city for a return for their labor. their labor; and the farmers depend on the city for a return for their labor. We go hand in hand and need each other, but we need more of the consumer's dot lar and they need more of ours. The middlemen get too much out of both the city laborer and the farmer. The rail-roads, the dealers, the rich manufacturers, all gouge us both coming and going. There is too much profit in the milling There is too much profit in the milling business. Our wheat here is about 60 cents a bushel, while flour is \$1.30 per sack of 48 pounds—more than double the cost of a bushel of wheat. The poorest part of the wheat brings the former. What than the wheat brings the farmer. What we need is government flour mills and government railroads. I am not a Socialist, but we must liave more fair play or there will be unrest until something

I just noted that potatoes are selling f. o. b. Yakima, Wash., for \$4 per ton, and the same potatoes are retailing in Seattle, Wash, for \$10 per ton—a jump of ter times the selling price on the farm The nicest kind of apples are rotting on the ground because the middle-man wanted so much out of them that the owner of the orchards could not handle them without a loss, while people in other places needed and were hungry for them. Yes, we need the railroads and direct trade with the consumer.

The law makers want to provide experts to show us how to produce more and at our expense, while we are taxed

almost to death new. We are supporting too many drones. Now I would like to lies from other farmers and stock raisers through Kassas Farmers, the great paper that we all should be interested in Iras J. Witherens, Jaques, Cheyenne County, Kansası

The Stalling Law,
If saw in Kanasas Rames that you think there is another piece of good work done by the lagislature in amending the state stallion law. I want to ask you ever own and stand right here, did you ever own and stand a stallion for public service? If you ever have, you certainly would not approve of a stallion law like the one that exists now. What good does this law the like and its good to the stallion and its good to the think lion and its owners; and seems to think stallions are gold mines to their owners when we have to pay a veterinary \$4 each year for combining our liveses, and it does not benefit anyone in particular. It does not prohibit a stallion from standing, but only exposes him to the public. It a horse has a little defect, what would be the difference whether it what would be the difference whether it was the liorse or the mare that transmits? You never said a world about the mare. A man can go ahead willbut having his mare examined, and if she has disease whatever that is all right. I don't think there should be a law to compel one man to do something and let another go. For my part I think this law is an imposition on the stallion owner and should be repealed. Is a law of this kind constitutional where both sides are not equally bound? I believe in pure bred stocks and would not use a grade. We may have a few men who impose on people, but on the other hand the stallion may has a lard road to have I don't think there should be a law to impose on people, but on the other hand the stallion may has a hard road to have to guarantee colts to stand and suck. That is, you have to wait one year to see if you are going to get anything out of your service. If colts come, all right. About one-fourth pay, and the balance run on six months to one year, and some leave and never pay at all. Lots of bills cost as much to collect as they are worth. I feel that this law is not fair, and should not exist. I both stand and sell stallions, but such laws will drive lots of the small dealers out of business and of the small dealers out of business and that will give the big fellows a chance to gull the people. Again, horses that they used to sell for \$3,000 to \$4,000 are now selling for from \$500 to \$2,000. Bet's give everyone a chance: I have lived in Kansas since 1873 and have seen this country develop from a wild prairie to a good state of cultivation, and believe in the best, but want everyone on an equality.—C. F. Cooper, Nickerson,

Seiling Cattle.

I have 40 acres in eastern Kansas, of which 32 are in alfalfa and the remainder in bluegrass pasture with an excellent spring in it. I am considering the plan of buying young steers in the spring and running them in the pasture, feed-ing them the green alfalfa directly from the field as it is cut. This could be done by cutting down as small load every two or three days, hauling it into the pasture and allowing the cattle to eat it directly from the wagon. This would simplify the lation of handling and eliminate the risk in curing the hay. It should like your opinion on the feasibility of the plane. Can it probably be made more plan. Can it probably be made more prifitable than cutting and curing the hay for the market? If not, why? What kind of cattle would be the most suitable for the purpose? What number could probably be fed on the 32 acres? Kindly give any suggestions concerning the plan.

-O. T., Lawrence, Kam. The process of cutting and feeding al-falfa as suggested is called soiling and is quite frequently used in dairy herds. It is thought to be a somewhat trouble-some method for use with beef herds. although we do not see why, under the

circumstances stated, it would not be very profitable for such use. We think it would be much more think it would be much more We think it would be much more profitable to feed this alfalfa on the ground to either dairy or beef cattle than to market the hay. Affalfa is a gross feeder and takes up the strength of the land rapidly. While it is true that it leaves behind a store of airgathered nitrogen, it is also true that it consumes other elements of plant food from the soil, and any soil which is lacking in any essential element of plant

food is a poor soil.

At present prices the profit on cattle would come in two ways—from the cattle themselves and from the enrichment tle themselves and from the enrichment of the soil, and if you are not equipped for handling dairy cattle the profit would be a satisfactory one with beef cattle. The number of either would depend upon the alfalfa. In soiling one has to guard against the encroachments of crab grass and foxtail, as the alfalfa which is cut under the soiling method in the latter part of the season will suffer more or less from intense heat. This gives opportunity for these grasses to gives opportunity for these grasses to get a hold. With good alfalfa, such as grows on Kansas River bottom land or strong second bottom, a cow to the acre can be kept throughout the year.

THE PRESENT CATTLE SITUATION. (Continued from page 5.)

part of the time. He can live on dreams of a rising market some of the time, but his financial balance must be on the right side most of the time or his credit will be destroyed and he is a business wanderer in the land of plenty. Market writers tell us that the recent slump, resulting in a dollar and a half loss to fat steer prices, was wholly unnecessary, and it was. But there is a reason for and it was. But there is a reason for this not satisfied by market pleasantries. The cattle man who takes eightcent feeders to his pens in the fall puts his money into a game of chance. He knows in a general way how many others have done the same. The nearer his cattle are ripe, the more he is at the mercy of the market. When to ship is a problem he solves from his experiences. a problem he solves from his experiences. Thousands of others are in the same game. Is it strange that too many reach the market on the same day, where just such breaks are expected and planned

Relief must come from the cattlt rais-Relief must come from the cattle rais-at remunerative prices. The leak is be-tween the feed lot and the dining room. No one yet comes forward with a system for regulating the stream of cattle into the market, as has been done for regulating the stream of cattle products away from the market. Untold homage from the cattle industry awaits the apos-tle of a new faith that can replace the out-of-date law of supply and demand with a plan of co-operative selling that will meet present economic conditions. We hear some advocate legislative ac-

we hear some advocate legislative action forbidding the sale of heifer calves until they have attained a certain age. We might as well decree that people shall not eat beef from animals under a stated age. Such laws, hedging about agricul-tural production, will become so unpop-ular as to seriously curtail production. We need, rather, standards of prolificacy; official market standards, accurately classifying individual characteristics of market cattle and regulation of

the volume of movement to the market.

The cattle industry can look forward with hope. Agricultural improvement propaganda is spreading irresistibly over the land and is resulting in improved agricultural conditions. As cattle men we should be boosters of this movement. As a matter of business we should see that our influence is placed in support of our agricultural experiment and demonstration stations and industrial schools that are doing so much to bring about better rural conditions.

The Percheron Specials.

The Percheron Specials.

The Percheron Society of America will give special prizes in 46 fairs and expositions in the United States and eight in Canada this fall. These premiums in cash, cups, medals, etc., aggregate about \$17,000 in value, and most of them are offered for American-bred animals. The Percheron Society is the only draft association which has made such a nation-wide campaign for the benefit of its breed. Hundreds of new breeders have breed. Hundreds of new breeders have been added to the roll since this policy was adopted, and these have come from among the farmers and others who were able to see the impressive exhibits made at these shows. The State Fair at Topeka is included in the list.

The Great Hog States.

The last census showed that the state of Missouri marketed 4,425,425 hogs and slaughtered 949,318 on the farms, accounting thus for a total of 5,374,742 head as the year's product. The state of Inwa shipped to market 5,524,519 hogs and slaughtered at home 507,167 head, together making a total of 6,031,686 head. The state of Illinois marketed 3,745,309 hogs and slaughtered 762,545 at home making the Illinois total 4,507. at home, making the Illinois total 4,507,.

These three states together raised, slaughtered and sold a total of 15,914,283 hogs in one year.

The next three states in hog raising

bring up their combined total to 9,988,-

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The horse is the backbone and sinew of every farm—the call for horseflesh and muscle is continu

This everyday utilization of tissue and muscle must be constantly repaired and can only be repaired by digested food. But as the horse has the smallest stomach of any barnyard animal of its size and its feed much more highly concentrated, it is necessary to invigorate and tone up the horse's digestive organs to make sure of his getting the good out of his dinner.

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420 head—Indiana with 3,677,128; Kansas with 3,235,490; and Ohio with 3,085,702.

These six states raise one-half of the marketable hogs in the United States, the total for the country being 52,878,675 head of hogs marketed and slaughtered.

These figures would probably have to be changed considerably to represent present conditions, but the relative numbers for the different states would probable remains the contract of the con ably remain the same.

Silage As Stallion Feed.

Among the thousands of silo owners in the United States it is safe to say that a great majority are using silage as a part ration for their horses. Many farm-ers in the east who have had silos for ers in the east who have had shos for twenty-five or thirty years report most favorably on the use of this great feed Especially do they recommend silage for growing colts and mares with colts; and for horses during the winter months, when they work short hours.

It is self evident that horses doing

heavy work need a condensed ration, especially when they have a short time for feeding. For this reason large rations of silage to work horses are not recommended. As silage is a watery feed, bulky in nature and succulent like grass, it should be given as grass.

it should be given as grass. The horse importing firm of Watson, Woods Bros. & Kelley have for the past year been feeding to their fine imported draft stallions a ration of corn silage. They feed from six to twelve pounds per head per day, and have emptied one silo and are starting the second. Mr. Burkett, the foreman, has been caring for imported horses for over twenty years, and reports he has never fed a bunch of horses with better results. He has noted in particular the good gains and fine condition of the animals receiving silage. The horses have been entirely free from ailments of any kind, their coats are sleek and there is a freshness and finish to the animals which is better than he has ever seen. Many of these horses are extremely valuable, but the members of the firm count they are running no risk, provided they feed good silage, and certainly the cost of the ration is greatly

Co-operation among states is just as important, in very many cases, as it is among communities and individuals. There are many cases in which great good cannot be accomplished because of the lack of uniform laws among the states. The evils of divorce, which threaten our very civilization, and large questions of sanitation are among these. Control and prevention of tuberculosis, Control and prevention of tuberculosis, of hog cholera and other diseases, both human and animal, are only possible by co-operative effort, and here the states should co-operate with the general government and with each other. Co-operation, and not competition, is not only the life of modern business, but it is the the life of modern business, but it is the basis of safety as well.

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Subscriber F. C. M., Olathe, Kan., asks: "Please give me the average weight of Holsteins. How old should heifers of that breed be when they drop their first

The Holsteins are the largest of the stinctive dairy breeds. The mature distinctive dairy breeds. The mature cows will range in weight from 1,000 to 1,500 pounds. It is our judgment that the average weight of mature Holstein the average weight of mature Holstein cows in good milking condition will not be less than 1,200 pounds. Were we breeding Holsteins it would be our object to breed large animals. As a rule, more work can be expected from a large animal than from a smaller animal. This is not an invariable rule, as your experience will in all probability have already taught you. Holstein bulls at maturity range from 1,500 to 2,000 pounds. We have seen bulls of this breed weigh 2,200 pounds in good breedbreed weigh 2,200 pounds in good breeding condition. We think we have heard of Holstein bulls weighing 2,400 pounds. The frame of the Holstein cows and bulls is not much behind that of the Short-

We would breed heifers to calve at 18 to 20 months. We would so handle the heifer as to make her just as large as we could at the time of freshening. The heifer calf should be kept growing every minute from birth until calving. When fresh, the method of feeding and handling should be such as will permit her to continue to grow to maturity.

We have numerous times in these columns remarked that the heifer calf could be ruined as a milk cow, while a calf. This, by improper feeding resulting in stunting, producing an animal under size, and in dwarfing the internal machinery which is later expected to produce large quantities of milk. The heifer should not be fed a fattening ration. She should have abundance of hay that the digestive organs may be developed and made capable of handling large quantities of roughage. That roughage should furnish ample supply of protein which is supplied by alfalfa hay, clover hay, cow peas, fed with silage, which will cause rapid and large bone and muscle devel-opment. So fed, the heifer will be thrifty and well grown. The most favorable conditions of growth will permit the freshening of the heifer one to two months earlier than above stated. We believe she should be started in the milkmaking business as early as is possible, depending, of course, upon the size and condition and prospects for her at breeding time.

Subscriber H. T. A., Olmitz, Kan., asks what can be expected in the way of beef from the dairy breeds, particularly the Holstein. This subscriber in all probability has a disposition to keep only such animal as will grow for him a calf which will sell at a profit at 12 to 14 which will sell at a profit at 12 to 14 months of age. This is the feeling of at least seven of every ten men who consider building up a herd of milk cows. Farmers generally—those not engaging in dairying as a specialty—are justified in asking this question, too. Generally speaking, in Kansas we have not yet reached the point where we can overlook the value of the calf when sold as beef or for feeding purposes and later to be sold for beef. This is so because on a large percentage of farms dairying will large percentage of farms dairying will for many years to come be only a side issue and also because on many other farms the establishing of a dairy herd will be the result of a grading up pro-cess during which time the cows will not be as highly profitable as in later years. It is that time between the beginning of the grading up process and the time when the herd will reach profitable dairy production that the general farmer thinks about. During this time he does not want his income cut to the income from milk alone.

There is ample proof, supplied by experiment and farm practice, showing that the calves of the dairy breeds grow rapidly, take on flesh easily, fatten quickly and sell as beef at good prices and at a profit, even though they do not top the beef markets. It is not reasonable to expect that a calf bred along dairy lines should be as efficient a beef producer as one bred along beef lines. However, dairy breeding is not such as denies to the animal thriftiness and

rapid gains and the production of good meat.

It is our contention that there are hundreds of steer and heifer calves of dairy breeding produced annually in Kansas which will make more and better beef and produce that beef just as cheaply as thousands of other steer and heifer calves which do not have a drop of dairy blood in their veins and which of dairy blood in their veins and which do not have much beef blood in their veins, but which are regarded as of beef breeding. We know, too, that there are hundreds of calves of the first class named which sell for as much money as those of the second class named. There are many farmers in Kansas who have fooled themselves into believing that they are producing beef and who in fact are not producing beef, and the calves from which farms are not of more su-perior feeding or beef-making quality than are the calves of dairy breeding. In comparing the selling price and net profits from calves of dairy breeding with calves of beef breeding, we must differentiate between calves of so-called beef breeding and those which are accbeef breeding and those which are actually of beef breeding, being high grades or pure-bred animals of beef breeds. Comparing the feeding quality and the profitable returns from dairy-bred steers and heifers with those of so-called beef breeding and which we may designate as "scrubs," there is such a small difference that the difference may not be taken into account and farmers who are growing the "scrub" need have no fear of their income halve account and farmers. growing the "scrub" need have no fear of their income being seriously affected when they change to dairy breeding and have well grown, thrifty calves of dairy breeding to sell. The danger, however, lies in the fact that the man who has "scrub," or calves of so-called beef breeding, will have "scrub" dairy-bred stock—stock poorly raised. The steer or heifer calf of dairy breeding, well reared, is not at a disadvantage compared with the steer or heifer calf of "scrub" beef breeding indifferently reared. One important cross overlooked in growing calves—either dairy-breed or in growing calves—either dairy-bred or beef-bred—is that of the silo, alfalfa stock and kafir or corn crib.

The feeding quality of the dairy-bred animal is accounted for largely through the fact that such animal has a quiet disposition and so grows rapidly and makes large gains—and in the case of the Holstein, Ayrshire or Guernsey, attains good size. The Holstein steer or heifer calf does not mature as quickly as those of some of the smaller breeds. Also as they approach maturity they frequently loose smoothness, although up to the age of about 18 months they grow and fatten readily and are of good quality. It is true that much of the discrimination against Holsteins when sold for breeding purposes—as is true of all dairy breeds—is largely grounded upon prejudice. The success with which the farmer may sell dairy-bred animals for feeders or as beef will depend upon how well he grows the animals and upon how good a salesman he may be. grower of grade dairy-bred calves can well afford to feed and fatten his surplus from his own grains on his own farm, and sell these animals, fat, either to the local butcher or for shipment. By finishing such surplus stock the feeder realizes the whole profits and the well fattened animal will sell to better advantage than the feeder still to be fat-tened, and there is less of the prejudice to be overcome.

On our father's farm, when we first had black and white steer calves to sell and still had a majority of red calves in our herd, the feeder who had been accustomed to buying our surplus stock drove as sharp a bargain as he could. His offer, for instance, would be \$4.50 per hundred for the red calves, and \$3.50 or less per hundred for the black and white calves. There was no difference in the quality of the two so far as outward appearance were concerned. Usuward appearances were concerned. Usually the black and white calves were larger, having a larger bone, but not so fat. Under these conditions, so long as the herd was mixed it was necessary for us to make the best deal possible. But each succeeding year the percentage of black and white calves became larger and as this percentage increased we were





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each succeeding year enabled to make a better deal at selling time. Finally, when the farm was stocked exclusively with black and white cattle, the dealer knew that when he set foot onto the farm he could buy only black and white feeders. Then he came to himself and year after year we sold our grade Hol-stein calves for as much money per hundred pounds as our neighbors re-reaved for their red calves. It was not unusual for us to obtain a higher price per hundred for our well grown thrifty black and white cattle than some of our neighbors received for their poorly grown red calves. When Holsteins came into the country in large numbers the preju-dice grew less and farmers were able to sell Holsteins to their satisfaction. The buyers in question were the Smith brothers at Woodbine. To know just where they were getting off in the purchase of black and white cattle, they fed these black and white cattle, they fed these cattle separately from those of beef breeding, and these gentlemen have repeatedly told me that the white and black steers and heifers put their gains on so rapidly and economically that in spite of selling on the markets at a slightly lower price per hundred they had made more money feeding Holstein grade stuff than they made feeding the common run of red cattle bought at that time through the eastern half of Dickinson County. son County.

Silage As Horse Feed.

It is not entirely clear to prospective silo purchasers that silage is an excellent ration for horses, economic in char-acter and wholesome in use. By using good judgment the horse feeder will make no error and will be better off financially. The Pennsylvania station gives the results of horse feeding test where silage was compared with hay and other forage.

"The horses fed silage as a portion of their ration consumed less grain, made their gains at a lesser cost per pound, were sleeker and better finished than those fed on rations not containing sil-

age." In this test they noted that silage In this test they noted that silage could be fed in amounts varying from five to twenty pounds per day. They recommended silage free from mould and made from corn fairly well matured. They also advised against feeding horses large quantities of silage, especially after coming in from heavy work when they are in a heated condition.

The Michigan Experiment Station has been feeding horses for many years on silage and favors its use, especially for horses not at heavy work. In a test made some years ago with seven teams of work horses, one horse of each team

of work horses, one horse of each team was fed hay and grain, while the other received small amounts of hay and grain with about fifteen pounds of corn silage. These teams were doing moderate work. The experiment lasted twelve weeks and the following results were noted:

The silage fed horses showed an average gain of five pounds per head. Besides the increase in body weight the driver noted that the silage fed horses worked fully as well and did not appear the heavy setter than those not receive to be any softer than those not receiving silage. The silage fed horses showed a better finish and sleeker coats.

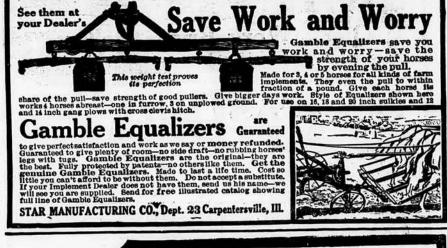
Straight from Shoulder for Silo.

At the Valley Falls farmers' institute J. N. Groner read a paper on the silo and the profits of feeding silage. The silage cost about \$2.10 a ton and was worth more than three times the cost. worth more than three times the cost. Ben Schneider of Nortonville endorsed everything that Mr. Groner said about the silo and silage and said it was the best thing on earth. Fed on silage and some skim milk a July 28 calf of his weighed 580 pounds the other day. His have milked instead of having the women boys milked instead of having the women folks do it, and they liked to milk when the feed was in the handy silo or mow, instead of in the snowy wet shock in the field. A. H. Jurgens of Rock Creek spoke in favor of the silo and its benefits, and economy. Ben Schneider offered to pay the cost of a silo if any farmer was not satisfied with its benefits at the end of two years' trial. Frank Gragg is the president of this institute and he made things move on this as well as former occasions.

And then there is room for a few sheep on many a farm. If you are near a city you can develop a nice trade in hothouse lambs, and it is worth while.

An exchange tells of talking with a farmer whose buggy then contained condensed milk, oleomargarine, eggs, canned peas, corn and beans, cucumber pickles, ham, sauer kraut and sausage, which he was taking home from the grocery. When asked about his business he said, "farming does not pay." When asked why he found it necessary to buy these things he said, "for my folks to eat."







HIGH GRADE SEED CORN and SEEDS ASK FOR QUOTATIONS GEO. T. FIELDING & SONS, MANHATTAN, KAN.

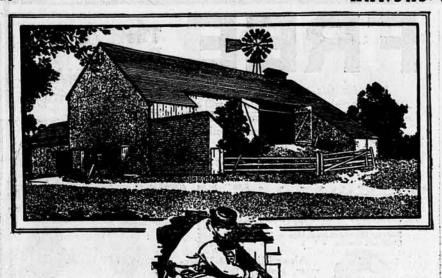
SICK HOGS

Cured and disease prevented with Snoddy's Powder. Clears hogs of worms. Makes hogs thrifty. Will send man and treat sick hogson insurance. Treatment is simple. Any one can use it. \$5 casecures 40 hogs. Book and test reports free. Agents wanted. DR. D. C. \$60000 CO., Dept. K. F., Nashville. Tenn. Dept. K. F., Nashville, Tenn.

Hopper & Son, Manhattan, Kansas **Builders** of

Concrete Silos

Write for list of silos we have built.



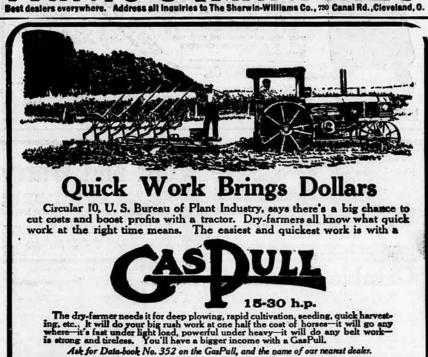
Now is the time to paint your roofs—and the paint for the job is Sherwin-Williams Roof and Bridge Paint

All through the year in every kind of weather a roof needs the protection of a good, durable paint as much as in winter.

Sherwin-Williams' Roof and Bridge Paint is made for the painting of barns, metal and tin roofs, bridges, iron work and unplaned lumber. It covers well, works freely under the brush—and lasts. It is sold by dealers everywhere. Ask for color cards. This paint is but one of the many Sherwin-Williams Paints and Varnishes for protecting and beautify-ing your buildings and other property. Write for our booklet,

> "Paints and Varnishes for the Farm" You will find it well worth your reading. It is free.

SHERWIN-WILLIAMS PAINTS & VARNISHES





Three Years With Cow Peas

By A. REEVES, Conway Springa, Kansas

ERE are a few facts and figures that I have gathered during three years' experience with cowpeas, which I believe will be of interest and value to anyone interested in better farming.

I got my start with peas by picking the pods off of the ground for half of the seed. The peas had been planted with a lister and cultivated. They were har-vested with a mower and rake, and half of the pods were cut into two parts.

There were six bushels per acre of

Total	receipts												•	.\$17.50
Total	expenses			•	•	•	•	•	•	•	•	•	•	10.25
												-0		

Net returns\$ 7.25 The above does not include the benefit to the land.

I believe you will agree that this is a profitable crop when you consider that other crops such as Kafir which at 30 bushels per acre only return a clear profit of about \$2.00 per acre, 20 bushels of corn pays an equal amount and 12 bushels of wheat hardly as much. All



MRS. NELS FERGUSON, MANKATO, KAN., SAYS THIS LITTLE GASOLINE ENGINE IS A GREAT LABOR-SAVER. IT PUMPS THE WATER FOR STOCK AND HOUSE, AND, BESIDES, WATERS THE LAWN AND GARDEN. IT OPERATES THE WASHING MACHINE, TOO. IT IS A FULLER & JOHNSON PUMPING RIG.

peas on the ground and five bushels per acre in the hay. I learned that year that peas are a drouth resistant crop and that they should not be planted with a lister unless the crop can be pastured with hogs or other stock.

The next year we planted six acres. The land was double disced twice during the spring and plowed eight to 10 inches deep about June 1. The peas were planted June 12 with a wheat drill with every second hole closed, and at the rate of two pecks per acre. They made a poor stand but in spite of this they yielded 7½ bushels of peas, 1,500 pounds hay and at least three bushels per acre were left on the ground to be picked up by the hogs. Corn on all sides of this field only made eight or nine bushels per acre, and the year before even less. That is how corn and peas compare in dry seasons.

Last year I planted 46 acres of peas on land that had been in Kafir the year before. The crop was handled the same as the preceding year except that three pecks of seed were planted on all except nine acres, which was seeded at the rate of one bushel per acre. The average yield was seven and one-third bushels per acre, 1,500 pounds of hay and three or four bushels per acre on the ground to be picked up by the hogs. The thicker seeding yielded more of a better quality of hay and about the same amount of seed. Grasshoppers did a great deal of damage to this field by cutting off blossoms and leaves.

Now what is a crop like that worth for feed? There is as much digestible protein in a bushel of ground peas as in a bushel of corn, Kafir and oats combined. A bushel of those grains at present market prices will cost \$1.15: Therefore for stelly requiring a large amount. fore for stock requiring a large amount of protein such as milk cows, young live for other stock, peas are worth at least \$1.00 per bushel. For horses pea hay is much superior to alfalfa, and for cattle, silage and pea hay form a balanced ra-

Here is an itemized account of expense and receipts for this crop, based on its value as feed:

EXPENSES. Interest on land \$60 per acre, at Plowing. 1.00 Harvesting. 2.00

Total expense\$10.25 RECEIPTS. 7 bushels peas, at \$1 per bushel..\$ 7.00 1,500 lbs. hay at \$10 per ton...... 7.50 3 bushels peas picked up by hogs... 3.00

of these figures are based on average south-central Kansas upland conditions.

Peas are the ideal crop to follow Kafir, and Kafir following a crop of peas will yield 10 bushels more per acre and ripen two weeks earlier than where not rotated with peas.—A. REEVES, Conway Springs, Kan. Springs, Kan.

A Few Do's and Don'ts.

Breed your sows so that the pics will come about 75 to 100 at a time. This will enable you to finish in car lots and yau can then ship direct to market and will not have to sell to the speculator. You need the speculator's profit your-

Feed protein foods while the sow is carrying her young, and when she far-rows she will have milk instead of milk fever, and won't eat her pigs. It is the craving for protein that cultivates the habit of eating pigs and chickens. Be kind to the sows at all times, so when they pig they will be glad to have you around instead of wanting to fight you.

Give the farrowing sow plenty of cool water and feed her no grain for at least 24 hours.

Floor all farrowing houses and pens so that the sows won't root a hole to lay in and crush her young. This will also prevent water filling up holes to drown little pigs.

Remember, cement for flooring is almost as cheen as wood is conion leaved.

most as cheap as wood, is easier cleaned, lasts longer, and looks better, and won't

lasts longer, and looks breed germs.

Feed hogs about the same time each day and always call them to feed so that you will get them accustomed to coming up at the sound of your voice. Never call them up unnecessarily, and when you need them for any other purpose than feeding, give them a few grains anyway. Nothing like having

grains anyway. Nothing like having your hogs well trained.

Have a gunny sack soaked with crude oil hanging over the hole made for the little pigs in the farrowing pen to run through, just high enough to rub their backs as they run through. This will be sufficient to keep them disinfected from lice, etc. Not too much oil on the sack—just enough to slightly grease them.

Keep one wallowing place and keep the surface covered with crude oil, and the hogs will keep themselves free from

lice.

When pigs are eight weeks old, give them about five doses of santonin (five grains to the dose) for worms, and some glauber salts with the last dose will help some. Feed it in the slop.

If you intend litter-marking the pigs,

do it at two days old. Among other remedies for pig-eating

Shallow Men Believe in Luck---Deep Men Believe in Cause and Effect



THE CAUSE-

The Spalding Deep Tilling Machine is built especially for deep and thorough tilling of the soil. It is guaranteed to do the work exactly as represented in our catalog.

We told the editor of Kansas Farmer that

we wanted to advertise the Spalding Deep Tilling Machine to his readers and asked him how we could get the readers to take the most interest in the machine. "Why, that's easy," he said, "tell them what they want to know. Tell them what the Deep Tiller is doing for other farmers right here in the territory this paper covers. Show them what the machine has accomplished in the

way of increased yields of such crops as our readers grow. If you can show them results worth while, they will sit right down and write to you."

Very well-we will do that. We print here extracts from a number of letters from farmers in this territory who have been using the Spalding Machine, tilling their soil 12 to 16 inches and harvesting the result of their labor in the shape of increased crops and enhanced land values. What the Deep Tiller has done for these and others it will do for you.

Tell us which crops you raise and what kind of soil you have and we will give you helpful information from our Experience File, including letters from farmers with conditions practically identical with yours.

THE EFFECT-

Caney, Kan., January 15, 1918.

I bought one of your Deep Tilling Machines the past fall and have plowed about 80 acres with it. I expect to put a crop in the coming spring and will report to you the result. However, in my opinion, it is the greatest plow I have ever seen, and I am greatly pleased with the work it has done.

I am lending it to a few of my neighbors that they might try it on five or ten acres each.

Fredrick, Okla., December 9, 1911.

I never saw a plow do better work or put the ground in finer shape.

The crops placed upon land plowed with your machine are 50 per cent better than those planted right beside them. In fact a man can stand off one hundred yards and see the difference in the plants.

We have had an exceedingly dry year and all the crops were very badly burned by hot winds, yet the crops planted upon lands which were worked with your machine always looked fresh and green.

A man can now go into my alfalfa field and readily see the good effects of the work with your plow. In fact he can tell the exact line (by the different looks in the alfalfa) where the work with your plow begins and the other left off.

The plant on the deep tilling plowing

off.

The plant on the deep tilling plowing is greener, larger and brighter, and looks like it might be a year older, yet both fields are only a little over one year of age, but anybody can tell the place of the deep plowing.

P. MOUNTS.

Elsie, Neb., March 20, 1912.

Expect to keep my two Spaldings at work continually this spring and to be able to report later the exact results. My experience so far as it has gone has been very encouraging. Their work speaks for itself. Whenever deep plowing is needed, they solve the problem with a minimum of power needed, and no other machine that I have seen will mix in the same way the soil from top to bottom of furrow. A most important point in many soils.

Lawson, Mo., November 8, 1912. I recommend the Spalding Deep Tilling

Machine to my neighbors and farmer friends. I bought your machine late in April. I plowed about ten acres on an average of 12 inches deep, contrary to advice, of several 'friends and relatives. I had good corn raisers on adjoining fields, one in the north and one in the east across the fence, on practically the same land for production. One of these neighbors listed his corn—the other broke his ground as deep as he could plow with an ordinary walking plow.

We had a very dry season all through. Now for results:

My 'corn never seemed to want for moisture at any time and when the other fields were suffering for rain my corn had rich dark color and was not affected by drouth. The stalk is larger, the ears are larger, better filled and superior in every respect.

I call it a success and have asked several that looked the field over—they all agree with me that my corn is the best they have seen in the neighborhood.

CLEM L SMITH.

Alliance, Neb., August 12, 1912.

* * * Finally the ground got so hard that we could not use the walking plow, so we hitched onto the deep tiller and plowed 15 acres more. We planted about 25 acres of potatoes on the ground plowed by both plows and planted about two acres of corn on the mouldboard plowering. My neighbors say I will have 75 bushels of corn to the acre, and I think they are right about it. There has never been over 35 bushels raised here in this country. There is no corn in this country that looks anywhere near as good as mine.

Now the two acres that were planted on the mouldboard plowing the same day as the other is about half as good a stand, on account of the cut worms not being plowed under deep enough to get them out of the way. Besides the corn is considerably behind the other in growth.

The trouble in this country, in the spring there is a poor stand on account

growth.

The trouble in this country, in the spring there is a poor stand on account of the cut worms. The potatoes at present are far better on the deep tilled ground than the other. Of course it is too soon to make an estimate of them, as they were planted late.

J. P. BARGER.

Virgil, Kan., October 23, 1912. I put the Deep Tiller together all alone and then I hitched three horses on just

to try and see what it would do in as tough and hard and dry gumbo as any. It would jump out and the rear wheel would swing to the left, so I went back and put the weights on the rear wheel, and I tell you it stayed in the ground. I am sure it will stand the racket and hold its own, because it hasn't rained here for several months to do any good and then the ground is awful dry. I am going to have some of my neighbors come and see it work, and especially one that said he didn't believe it would plow as deep as 16 inches in gumbo land.

JAY E. GRIBLIN.

Deep Tilling in Cherokee County.
The first of June I secured the use of a Spalding Deep Tilling Machine and prepared three acres out of eight, stirred the ground from 10 to 16 inches in depth. It mixed and puverized the soil better than could be done with a spade. The remainder of the eight acres I plowed with a two-bottom gang as good and deep as possible. I used the same team on both and planted the whole lot to corn. A few days after the corn came up we had a very hard rain which stood on the ground plowed with a gang in several places for days. The deep tilled had none on it and it cultivates much easier. Can tell to the furrow by the way the grass and weeds start up. I burled the weeds and grass seed so deep that they have not gotten up yet. Now it is very dry. I have found that there is much more moisture in the deep tilled ground. If it keeps dry will soon begin to see a difference in the growth.

I am so well impressed with the deep tilling machine that I am now offering to buy and furnish all my renters with them free of cost, if they will use them.

Selbert, Colo., November 12, 1912.

J. C. NALOR.

I plowed about 25 acres with the Spalding Machine before freezing up. I plowed from 12 to 16 inches deep, using four horses, two weighing about 1,800 pounds each and two about 1,400 pounds each. They did the work very easily, after getting everything regulated. The machine did excellent work preparing the ground in almost good enough condition, with but little work for a harrow.

The machine can't be beat for putting the ground in shape and making a fine seed bed, one that will hold the moisture in this dry farming country to perfection. The land that I used the machine on was

very hard. The sod had only been broken about 3 inches deep, two years.

The land was planted in corn and I am getting 50 bushels of corn per acre, while in the same field where the land was shallow plowed it is only making 25 or 30 bushels. I think 50 bushels of corn in dry Colorado is pretty good. I want to get all my land under cultivation plowed with the tilling machine as soon as possible, and I am sure of good results when I do.

J. C. PICKETT.

Martin City, Mo., January 18, 1913.

I have plowed 150 acres in the Little Blue bottoms in Jackson County, Missouri, since the beginning of corn husking, and I am plowing 14 to 18 inches deep and turning stalks under so completely and well that you would hardly know that it is a corn field. In fact, this plow is doing the swellest job of plowing that I have ever seem. I bought a farm in this Little Blue bottoms, consisting of 283 acres, 200 acres of which was as level as a floor and 100 acres of this farm is shown on the U. S. Survey map as being Wabash clay—(in plain words, the stickiest gumbo ever). This 100 acres had never been plowed since Columbus discovered America, and was entirely covered with swamp willows. (I mean covered, too.) I took this Spalding Machine and \$5,000 worth of the biggest mules I could buy, put five head on this plow at a time, working 5-hour shifts, put them into this 100 acres and the work this plow did was the wonder to know and see. It put this wilderness into a seed bed, the best you ever saw. I planted this in corn and husked from 80 to 90 bushels per acre and am now finishing plowing this field for the second time. I have completely reclaimed this land and it is worth to cultivate \$200 per acre any place in the U. S. and I feel that no other plow could do this work and I know that I am \$10,000 better of for having known of this machine and having bought it. I cansider this machine the most wonderful and valuable plece of farm machinery in existence and its invention will do more for future farming than all the agricultural colleges in the United States. I am now figuring on buying a tract of 680 acres of ground that can be made to raise large crops with this plow applied, which otherwise will remain wild blue stem, for reason of expense in putting into condition.

J. H. WALLACE.

Spalding Deep Tilling Machine

Address SPALDING DEPT. 70 GALE MFG. CO., Albion, Mich.

For more facts and information in regard to

sows, remember that thin slices of salt pork fed one at a time until the sow has had enough is an almost infallible

Always keep plenty of a mixture of wood ashes and salt where the hogs can help themselves.

If pigs have thumps, keep them moving around. Hard exercise is as good as anything for them.

Don't oil or disinfect sows at farrowing time. It is apt to make them slink in their litters.

When fattening for market, do it quickly; push all the feed down the hogs that they'll stand for. It's the short-time finishing that makes money.



When the hogs fail to gain at least a pound a day, it's time to say good-bye to them.

In using crude oil for lice, use a spray, as putting too much on it is apt to blister the skin. Use spray about three times, one week apart, and the lice will

Don't get scared of cholera. The U.

S. Government has discovered a serum that eradicates it. It has been thor-

that eradicates it. It has been thoroughly tried and proved successful.

When farrowing sows have trouble in bringing pigs, make a strong linseed gruel by boiling seed for 20 minutes. Strain through a cheese cloth. Use a vaginal syringe and pump the sow as full as she will take. This will assist her in delivering the pigs. The gruel should be as warm as your hand.—P. H. PAGETT, Breeder of Duroc Jerseys and Secretary Mitchell County Fair, Beloit, Kan.

Live Possibilities for Kansas.

No country can stand still; its either progressing or going backward. The New England states have gone backward years and years. Now some of them are awakening and trying to regain what they have lost, and progress in addition.

This country is so young and new that we have always progressed, but we

that we have always progressed, but we have about reached the time, and the price of land when we must adopt more progressive methods, or else go backward, as the land of this county now is not paying sufficient income to justify the

price at which it is held. Price at which it is held.

Possibilities are great here—we are doubling the population and using more intense methods of preparation of the soil, so as to put it in proper condition, whereby the plant food might be available for arons planted on it, and by follows: able for crops planted on it, and by fol-lowing more intense methods of culti-vation, I believe the yield could be doubled, and assurance of crops thrib-

Again many of our planters are too much in a rush, and are not observing

the possibilities of increased profits by the possibilities of increased profits by planting new crops that might be found adaptable to this soil and climate. As an example, recently I stepped into a grocery store, and found that they were selling parsnips which were shipped in here from Michigan, a crop which can be grown in Kansas to perfection, and at the price these parsnips were being sold at would yield more than \$100 per acre here in this soil.

Fertilization has been neglected. It is not necessarily a cost to fertilize land, but by a changing of crops much can be done. The growing of cow peas here, especially of the newer varieties, could be indulged in very profitably—as for example, the Winfield Nursery Company grew this year fifteen bushels of this seed on one again of ground. In addition seed on one acre of ground. In addition to a good profit per acre, this would fer-tilize the ground and put it in a good condition for other crops.

Every line of crops that we are now growing could be almost doubled by giving scientific consideration to the planting, harvesting and care of it, selection of seed, etc.

Too little attention is given here to Too little attention is given here to the growing of live stock. Nearly every farmer could feed up his waste straw and waste fodder, and it would support a greater number of live stock, or especially could this be increased by building a silo, to save the crops which usually go to waste in the fall of the year by drying up and blowing away.

Better methods, more life and vim, more study of our local requirements, more co-operation in exchanging ideas with each other will bring to light new

possibilities.—J. MONCRIEF, Winfield, Kansas.

My Mulefoot Hogs.

My Mulefoot Hogs.

I have only had my Mulefoot hogs about six weeks now, and they are doing fine. You asked me for my reasons for selecting this breed. Well, one reason is that I believe they are more healthy hogs than other breeds, and from what I see and can learn they are better hustlers. Of course I have not learned much about them yet, but if they do well I intend to make it my business to raise them for breeding purposes. I am glad to say that I am well pleased with them so far. I know of several farmers hereabouts who have lost their hogs by cholabouts who have lost their hogs by cholera, and the Mulefoots are not so apt to get cholera, which I consider a might. These hogs which I now have are the first Mulefoots I ever saw.—Henry Myers, Bendena, Kan.

Don't let all of the pure-bred sales go by without getting some bred sows or gilts. Sales of all breeds are being held and you can take your choice, but stay by one breed until you make a success or failure. Don't mix breeds. If you are afraid of the cholera, clean up first, then disinfect, and then inoculate with serum. Stay by the hogs.

It seems that the Department of Agriculture, in its world-wide search for varieties, has discovered an alfalfa which produces rhizomes. A rhizome is an underground stem, like that of Bermuda grass and quack grass, by which the plant is able to reproduce itself without seeds. If this is true it is enormously important. mously important.

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out pri ful we of

Who Can Make the Best Car for You?

The Case "40" is made by the J. I. Case T. M. Company, Inc., at Racine, Wisconsin. You know what this company stands for. For 70 years it has given thousands of customers the finest machinery in its line. These same customers are buying Case Motor Cars. The Case Reputation is at stake in these cars, just as it is in all Case machinery. We can and do make the best "40" that runs. Note the reasons:

We Know American Roads

For 70 years we have made head charges. These costs are added to the price of other cars and are costs that the buyers pay. machinery to travel country roads in every section of the American Continent. No concern knows so well what these roads demand. No other car that we know is equally fortified against all Amer-ican road conditions.

How We Can Afford These Values

When we started making motor cars we didn't create a new business. We had 10,000 dealers and 65 branch houses before a car was made. We saved that selling expense.

We are capitalized at \$40,000, We saved the salaries of officers, sales and advertising departments, rent and other over-

We Put Them Into the Car

We put all these savings into the car. You pay nothing extra for them. We are able to give them. You might as well have

We could save on our motors by using cheaper materials. We could use cheaper clutches, drive shafts, axles, wheels, and save in other essential points. We could cut our assembling cost in two, and this is one of our largest costs.

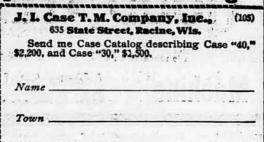
Case extra values amount in each car to several hundred dol-



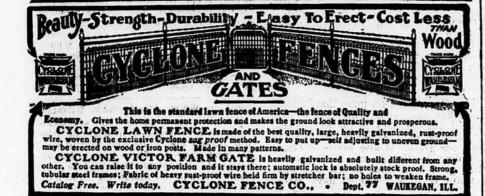
Mail the Coupon—Have the Catalog

now, while you think of it. Don't buy a car until you know what the Case has done. Note the equipment that comes with each car. Observe its style and finish.

J. I. Case T. M. Company, Inc. Racine, Wis-e Cars are sold thro 11,000 Dealers and 65 Branch Houses



Factory Branches at Des Moines, Ia.; St. Louis and Kansas City, Mo.; Lincoln, Neb.; Denver, Colo.; Oklahoma City, Okla.





HE FARM



The seeding and planting of spring crops will be upon us almost before it is realized. There is every indication of an early spring. Just so soon as the present snowfall has disappeared and the ground is dry enough to work, prepara-tions for spring planting should begin. It must be kept in mind that we are entering the planting season with a short-age of moisture. The moisture content of our fields is considerably below normal. This condition prevails throughout the state. This, however, is not necessarily a condition for discouragement. The chances are that we will from this time on have through the growing season such moisture as is necessary to produce satisfactory yields if we take good care of what we get. It is apparent, therefore, that upon us devolves the employment of such methods of tillage and cultivation as will best conserve the moisture now present in the fields, and furthermore conserve such precipitation as we may have later and during the growing season. It is claimed—and we believe the statement to be correct in a general way—that only during three or four years since the establishing of weather bureau service in Kansas have the records shown a rain and snowfall the records shown a rain and snowfall which would fail to produce average crops. All other years the precipitation has been of such amount as would produce average crops had the best use been made thereof. Our evaporation is tremendous. Much greater than it need be if we would do as well as we know.

It necessarily devolves upon the farm er, in so far as it is possible, to at all times have his fields in such condition as will permit the ground to take up water falling as rain or produced from the melting snows. Ground which is hard and which has a crust on the surface—the usual condition following the harvesting of crops in the fall of the year—will not take up moisture to the fullest extent possible and in a degree protect the succeeding necessary to year's crop from a shortage of water. For this reason land should be plowed or disked in the fall of the year, leaving the surface loose and mellow for the absorption of water and reducing to a absorption of water and reducing to a minimum the possibility of water running off. Every man who plows in the fall of the year plows for this purpose, and fall plowing is generally recognized as good farm practice.

There are sections in which there is fear of damage to the fields by fall plowing because of the danger from blowing during the fall, winter and spring. Sure protection for fall plowed fields in such sections has not yet been fields in such sections has not yet been devised. However, it is certain that the use of the subsurface packer, Blade harrow or Western Land roller used immediately following the plow will so pack the field that the chances for blowing will be reduced to a minimum. The effect of the use of such implements is quite different from the effect of the drag harrow. The latter pulverizes the surface, making the field a prey to winds. The above named implements pack the surface well, leave the surface granular, and the dangers of blowing are reduced to a minimum. In sections where reduced to a minimum. In sections where fall plowing is permissible it should be done so far as possible, principally for the purpose of aiding the soft in taking up the moisture and further that the most favorable seed bed may be premost favorable seed bed may be pre-pared for spring crops. It requires extra labor to prepare the seed bed in the case of spring plowing, especially so if the spring be dry. Rarely is it possible to prepare as good seed bed for oats, corn, Kafir, cane, millet, alfalfa or clover by spring plowing as if the plowing had been done in the fall. We realize, of course, that under the prevailing conditions of that under the prevailing conditions of farm management in Kansas it is not possible to in the fall of the year plow all those fields which must be seeded in

Ground which has not been fall plowed fround which has not been ran phower should be cultivated just as soon as the frost is out and the ground is dry enough. If plowing is to be done, plow early. Early plowing for spring crops is fully as advantageous as early fall or summer plowing for wheat. If the field is not to be plowed it should be thoris not to be plowed it should be thor-

oughly disked—double disked. Early disking is good practice for the entire area for spring crops and should be done area for spring crops and should be done just so soon as the disk can be gotten on to the ground. It will pay to disk ahead of the plow. This will have the effect of conserving moisture while the field is waiting for the plow, will put the ground in condition to take up such moisture as falls, and the pulverized surface thrown into the furrow bottom will he a halp toward good seed hed. Folbe a help toward good seed bed. Follow the plow with one or the other of the implements above named. This is the implements above named. This is especially necessary if the spring be dry. In seasons when rainfall is abundant the rain and the natural settling will make a firm seed bed. It is the business of the farmer as well as that of the man in any other line, to guard against the adversities of the future. The farmer must guard against dry weather and future adverse conditions to a greater extent possibly than any other man. The success of the crop depends upon the moisture in the soil at planting time, the proper preparation of the seed bed at planting time, and the proper cultivation, depending upon the rainfall during the growing season. Were we assured of an abundance of rain, farming would be quite a different business than it is. To quite a different business than it is. To make more certain the production of crops on the off season is the one big thing to consider in farming.

Good seed is essential. The good results of superior seed will be most marked under adverse soil and climatic marked under adverse soil and climatic conditions. The oats sown should be thoroughly cleaned; first, to remove the weed seed and the trash, and second, to remove the small and chaffy kernels which will not grow thriftily, if at all, and which have more or less of a bad effect upon proper seeding by the drill. We think of all crops the worst abused in Kansas is the oat crop. Seed taken direct from the feeding bin is not suitable seed. It should be cleaned. The use of a good fanning mill is necessary. use of a good fanning mill is necessary, not only for oats, but for cleaning all other small grain seed. The oat seed, too, should be treated for loose smut, which is the common species of smut and which generally prevails throughout Kansas. Treatment for smut will involve some little trouble and labor, but the results will warrant both. The work can be done during the slack time of the winter, but so to do would result in more labor than if done just before the seed is used. After treatment the seed should be dried. If the treatment is given during freezing weather the seed may be damaged by freezing unless it is thoroughly dried. When the treatment is given at seeding time the trouble of thoroughly drying is unnecessary.

Soak seed oats for two hours in a solution of formalin containing 1 pound of formalin to 50 gallons of water. Care should be exercised that all the grain is thoroughly wetted by the solution. The oats may be put in coarse sacks. The common burlap or bran sack is good. Dip these into a barrel containing the solution. Spread the oats so treated on a thoroughly clean floor or canvas which is not infected by smut. Be sure the seed oats are not later infected. Be sure that the drill is free from smut, also that the bags in which the oats are taken to the field are not smut infected. There are other remedies for smut. The above is fully as simple and as effective as any other known treatment.

Generally speaking, in Kansas we not sow enough oats per acre. It is our judgment that seeding should vary from two to three bushels per acre. better lands the larger amount should be sown, while on the poorer lands the smaller amount. Less seed will be required too, if the oats are drilled than if they are sown broadcast. The oat crop ranks second in the number of bushels ranks second in the number of bushess and third in acreage, of the grains grown in the United States. However, the crop in Kansas does not so rank. The oat crop is valuable—especially so from the feeder's standpoint. The oat is regarded as one of the hardiest cultivated cercals. We do not so regard it in Kansas and we believe that the reason the oat crop is believe that the reason the oat crop is not appreciated as it should be, is largely due to our oat seeding methods. Oats

for grain and oats for hay are without a superior for young stock. Let us have more oats. We can as well as not.

The value of the Kafir crop throughout Kansas is each year depreciating, principally because of the reasons so fully set forth in KANSAS FARMER of last fully set forth in KANSAS FARMER of last week, and incidentally because of a loss of at least 10 per cent. each year on account of smut. Kafir seed can be successfully treated for smut. Place the seed in loose burlap bag and hang the bag for two hours in a barrel containing 50 gallons of solution made by two pints of formaldehyde added to 49 gallons and three quarts of water. It will be noted that this is nearly the same solution as suggested for oats, but the two printed formulas differ just as we have repeated them and we recommend that the forformulas differ just as we have repeated them and we recommend that the formulas be used just as directed. The same care in drying and in preventing the infection of the treated kafir from smut, should be exercised as in the case of oats, stated above. Grain smut in cane can be prevented by the same treatment as is recommended for kafir. as is recommended for kafir.

For the first time reported in the history of kafir growing in Kansas, growers were seriously affected last spring by ants eating the seed. The complaint was so generally serious that the Department of Entomology of the Kansas Agricultof Entomology of the Agricultural College investigated infested fields. The result was the discovery of preventive meaning the serious serious control of the serious For the first time reported in the hissult was the discovery of preventive mea-sures which are valuable and well worth while. The dipping of the seed in a solution of crude carbolic acid just before planting, will protect the seed from ants. It will pay kafir growers in the affected sections of last year to so treat their seed. The seed should be soaked long enough to allow a coating of acid on each grain. It was found that this method protected more than 90 per cent. of the grains. It was found, too, that the ants ceased working when the seeds germinated, so that the protective measures must save the seeds from the ants between planting and time of germination.

At the outset we intended to say more At the outset we intended to say more about necessity for thoroughly cleaning and obtaining good seed and the thorough cleaning of the same for all crops to be sown this spring. It would seem, however, that the advantages of good seed were so thoroughly well understood as to make comment in detail unnecessary. Aside from the necessity of good seed, is that of preparing the ground properly that of preparing the ground properly for the seed. Three things must be taken into consideration in connection with the preparation of the seed bed. These factors are moisture, heat and air. Every farmer knows that seed will not germinate while it is dry, consequently the necessity for so preparing the seed bed that it has in it the moisture necessary to germinate the seed and support the plant for a reasonable time until rain falls. Also, all seeds require a favorable degree of heat before they will germinate and the presence of air in the soil is and the presence of air in the soil is necessary in order to supply the necessary oxygen. The heat cannot be had until it is supplied by the sun and it rarely pays to begin seeding until the ground becomes warm or until conditions favorable for the warming of the ground, prevail. The air for the young plant must also exist in the seed bed and it can exist only when the seed bed has been so worked that the air may find its way through the soil to the plant. its way through the soil to the plant.

New Plan Proposed in Nebraska.

C. E. H., Sabetha, Kan., asks what we know about the state of Nebraska financing farmers in the purchase of silos.

Dennis Cronin, a representative, has introduced into the Nebraska legislature now in session, a bill which provides for a fund of \$30,000 to be loaned to farmers at 4 per cent. interest in amounts not exceeding \$500. The money secured on such loans to be used in building silos and equipping the same. The loans are to be secured by first real estate mort-

gage.
Representative Cronin points out the necessity of promoting the stock interest of the state and shows that the most important thing necessary to that end is the lower cost of stock and stock pro-ducts. In this he believes the silo allimportant. He says, furthermore, that Nebraska has loaned three million dollars to other states and he thinks that this money should be kept at home and invested in a way that will result in profit to Nebraska people and to the state as

White vs. Black Hulled White Kafir.

The season of 1911, I grew ten acres of the white-hulled white Kafir. It matured thoroughly and from general observations and comparisons with fields of the black-hulled white, showed up the more favorably of the two varieties. The

No-Rim-Cut Tires 10% Oversize

One Million Sold Another Million in a Single Year

One year ago-in our 13th year-we announced that one million Goodyear tires had then gone into use.

This month we touch the two million mark, and it's only one year later.

It took 12 years to bring motor car owners to use a million of these

It took only one year for those million tires to sell a million others.

Mark What Those Tires Told

A million tires, within 12 months, sold a million others. That breaks all the records of Tiredom.

Don't you think you should know how they did it?

This is How

Men found that rim-cutting, with old-type tires, ruined 23 per cent of their tires.

They found that Goodyear No-Rim-Cut tires ended this loss en-

Men also found that the 10 per cent oversize added 25 per cent to the average tire mileage.

Hundreds of thousands of men

learned this, then told the facts to

The resulting demand now compels an output of 6,000 tires daily.

Are They Wrong?

You who still use other tires must infer that these men are wrong.

But these are days of odometers. Men are keeping track of tire mileage.

Mileage figures only sold those million tires—the mileage figures on the previous million tires.

those figures, are seven times larger than two years ago.

Find Them Out

For your own sake, test No-Rim-Cut tires. They save the average user almost half one's tire bills.

Think how that cuts tire bills. Think how it saves annoyance.

These tires now outsell every other tire in the world. Find out why they do it.

Write for the Goodyear Tire Book-14th-year edition. It tells all And Goodyear sales, because of known ways to economize on tires.



(100D) YEAR

No-Rim-Cut Tires With or Without Non-Skid Treads

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO es and Agencies in 103 Principal Cities More Service Stations Than Any Other Tire We Make All Kinds of Rubber Tires, Tire Accessories and Repair Outfits Main Canadian Office, Toronto, Ont.—Canadian Factory, Bowmanville, Ont.

season of 1912, I grew fifty acres of the white hulled and ten acres of the black-hulled; that I might get a reasonably accurate comparison of the two vari-

The ground was all spring plowed, harrowed, and top planted with a disc grain drill, in rows proper width for cultivation of the crop. The time of planting and conditions under which the two varieties grew were identically the same for each. From observations of the two varieties. I have concluded.

the two varieties, I have concluded: That the white-hulled is the more resistant to both dry weather and chinch

bugs.
That the white-hulled headed, seeded and matured about three weeks earlier than the black-hulled.

That the white-hulled did not grow as large and woody a stalk, and yet an equal amount of foliage, as the black-That the white-hulled yielded 13

times as much threshed grain per acre as the black-hulled.

That the grain of the white-hulled was fully matured ten days before our

early frost. That the grain of the white-hulled is more readily eaten by stock than the black-hulled.—SCHUYLER NICHOLS, Herington, Kan.

More About Feterita.

I have had experience with only one crop of Feterita and I was highly

pleased. Last spring I planted Feterita, Red Milo, and Black Hulled White Kafir, oul pure morror pool ratixe uo dore to the yield of grain:

Feterita, threshed and cleaned, 80 bushels to the acre; Milo, 60 bushels; and Kafir, 53 bushels. Each variety was planted with a lister and cultivated two times.

Feterita will sucker more than Milo or Kafir but each stalk will make a good head if not too thick in the row. Occa-sional hills made as many as 25 heads from one grain. It also varies in height according to the season it is planted. Mine grew from four to six feet high. Feterita is from 15 to 20 days earlier than Milo, the forage is much better for stock than Milo, and looks as if it would make extra good silage. The fodder is much heavier than Milo. Feterita will mature from 25 to 35 days earlier than

I also had some Feterita and Kafir on this land. The Kafir was not worth threshing while the Feterita made 16 bushels to the acre. Feterita grains are white and softer than either Kafir or Milo; it has the same feeding value.

Feterita is recommended for hog pasture. It is claimed that it shatters more than either Kafir or Milo, too, but I do not think so. If you let it stay in the fields late it will fall down as will Milo or Kafir. Feterita grows straight, which

makes it more easily harvested than Milo. It appears to be a better drouth resister than Milo. If it proves a better drouth resister than Milo it is the stuff we are looking for.

I do not mean to exaggerate. I have given you my experience with the crop and can prove all I have given you. I have no seed for sale.—W. A. TAYLOR, Lone Wolf, Okla.

Depth to Which Alfalfa Adds Nitrates.

When we speak of soil and soil problems we are supposed usually to take into account about the first foot or less. or most crops it suffices to falfa adds nitrates to the soil, since most crops feed only on about the first foot. For deep rooted crops this will not hold true. From analyses made by the Idaho Experiment Station of several alfalfa tracts it was found that the first foot of soil was much richer in nitrates, but to a depth of six feet much poorer, on an average. In other words alfalfa land is usually rich in nitrates in the first foot and poor in nitrates below the first foot, while land in other crops may be just the reverse. The deep roots of the alfalfa plant penetrate far into the soil in search of food while the nitrogen bacteria accompanying the plant are working in the top soil. In this way the nitrates are more concentrated in the top soil for the use of succeeding crops, although the total content of nitrates may be far less.

Fruit Growers' Insurance Proper Orchard Spraying Will In-

crease Previous Yields 600 Per Cent NE measure that occupied the at-

tention of the Kansas legislature this session would thrust the state into the insurance business. Advancing this movement one point, a University of Kansas professor is urging the members of a great class of Kansas citizens, the fruit growers, to carry their own insurance.

S. J. Hunter, professor of entomology, wants the orchardists of the state them-selves to guarantee their own crops and themselves to assure Kansas that the fruit yield of 1913 will not only equal the best record of any previous year, but will top it from 300 to 600 per

And here is the free policy that Professor Hunter is distributing over the state. Three words covers the system that will make six apples grow where one grew before—"Spray the trees."

"The fruit grower's best insurance lies in spraying," declares Professor Hunter.
"No investment of time, labor or money will bring so great raturns. Where this

will bring so great returns. Where this treatment is used, 95 per cent of the fruit will be perfect, while if the trees are not sprayed little more than 15 per cent will prove sound.

"Not only does spraying make the fruit sound, but it also increases the actual yield of the tree from one-third to one-half. That is, if one part of the orchard is unsprayed and produces 600 bushels of apples, 14 per cent or 84 bushels would be perfect and the rest would have to be sold as imperfect or culls. If the other part is intelligently sprayed, it will yield 900 bushels, of which 95 per cent or 855 bushels will be perfect, sound fruit.

"Spraying is cumulative insurance, be-cause each year spraying makes the work of the succeeding year more effective,

fruit crop from 300 to 600 per cent.

Professor Hunter points out that practically every orchard in the state suffers more or less from codling moth and curculio so that spraying insurance might be adopted by all Kansas fruit growers. The following spray calendars prepared by H. B. Hungerford include full spraying directions for the orchards during the year. during the year:

SPRAY CALENDAR FOR APPLE ORCHARD.
Winter Spray.—Use winter strength of
lime-sulphur or kerosene emulsion to kill scale insects.

Cluster Cup Spray.—When the bud clusters begin to open, spray with Bordeaux mixture, using 3 pounds copper sulphate, 5 pounds lime, and 50 gallons water, adding 2 pounds lead arsenate to every 50 gallons spray if canker worms or bud moths are proport. This is the

or bud moths are present. This is the important spray against scab.

Spray as Blossoms Fall and Before Blossom End of Young Apple Closes.—
Use Bordeaux 3-5-50, adding 2 pounds lead arsenate; or use summer strength lime-sulphur, adding 2 pounds lead arsenate to every 50 gallons. senate to every 50 gallons.

This is an important spray against codling moth and should be used by all apple growers. It also aids in the control of curculio, canker worms, scab, etc., and is the most important and essential spray of the season. This spray should be directed so as to fill the calyx cups blossom ends of the young apples—with the poison, that the first meal of the young apple worm may be its last one. The "driven spray nozzle" is recom-

mended for use in applying this spray.

Ten Days After Blossoms Fall.—Spray with lime-sulphur, adding 2 pounds lead arsenate to every 50 gallons. This is to kill the feeding curculio and the late codling worms, and scab and black rot

"Good, Plain, Coat Off, Sleeves Rolled ut."

I have at one time or another been a subscriber to at least a dozen different farm papers, but when it comes to good, plain coat off, sleeves rolled up, every day proposition, Kansas Farmer beats them all.—WILLARD BELKNAP, Nara Visa, New Mexico.



It takes Trinidad Lake asphalt to make roofing lastingly

waterproof

protection and service only till their "compositions" disin-

tegrate and let them leak. The roofing for real endurance is

THE TRINIDAD-LAKE-ASPHALT Ready Roofing

Many substitutes are manufactured products whose oils of value

Genasco-made of Trinidad Lake asphalt-has the natural oils preserved in it "for life"; and the life defends it

against years of rain, sun, wind, hail, snow, heat, cold,

Get Genasco Roofing of your dealer. Smooth or mineral surface, Guaranteed. Genasco smooth surface roofing has the Kant-leak Kleet, that waterproofs seams without cement, and prevents nail-leaks. Write us for samples and the Good Roof Guide Book, free.

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have been extracted for other purposes, leaving a hard black

pitch—a lifeless mass that gives roofing but little resistance.

It soon cracks, breaks, and leaks.

fire, alkalis, and acids.

Roofings made of various compositions give

A lifetime guarantee of absolute satisfaction or money back from your dealer. 'The Recollection of Quality Remains

Long After the Price is Forgotten." Trade Mark Registered. If not at your dealer's, write us.

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You run no risk to patronize persons or firms whose advertisements appear in KANSAS FARMER.

and increases the vigor and productivity of the trees. The fruit grower who consistently treats his trees in this way is building up a healthy, sturdy orchard and steadily adding to the cash value of his property.

"The cost of spraying should not run

over 25 cents a tree, or at the most \$10 an acre. But it would be impossible to find an investment that would bring in a 600 per cent dividend as surely as this.'

To apply methods worked out for treating affected trees, the University has leased a 10-acre orchard 15 to 18 years old. Under direction of H. B. Hungerford, instructor in entomology, the area was divided up into districts and plans were made to treat some of these blocks by spraying and to let others progress in the normal way. The orchard was afflicted with blotch, bitter rot and coddling moth. Certain average trees in the unsprayed orchard and in the sprayed part were tagged while in bloom and counts made of all drops throughout the season, together with the tabulated reports of the ailment of each drop. A history was obtained in this way of each apple while growing and 81,457 were counted and tagged.

Missouri Pippins, Ben Davis and Gano, three of the hardest apples in Kansas to keep from fungus diseases, were sprayed with Bordeaux mixture and arsenate of lead three times, beginning as the petals fell and finishing with the late blooms. Each tree received six gallons, leaving it dripping. Other sections of the orchard were sprayed but a first and a second time.

The results of the test showed that the trees poorly sprayed developed blotches, while those bathed thoroughly were sound throughout. The codling moth was found in from 19 to 50 per cent of the unsprayed fruit picked, while but 1 to 11 per cent of the treated fruit was wormy.

Fourteen per cent of the unsprayed yield at the close of the season was sound and marketable in comparison with the 95 per cent salable product of the sprayed trees, a result which bulwarks Professor Hunter's statement that spraying would increase the Kansas

as well. Use Bordeaux on varieties susceptible to blotch. A nozzle throwing a fine mist should be used this time, as

with all sprays save (C).

Twenty-five Days After Blossoms Fall.

Apply Bordeau 3-5-50, adding 2 pounds lead arsenate. This is to control blotch and is used on varieties susceptible to blotch. It also aids in codling and curculio control.

About Last of June.—Use Bordeaux 3-5-50 for blotch and bitter rot.

SPRAY CALENDAR FOR PEACHES AND PLUMS Winter Spray. - Use winter strength lime-sulphur or kerosene emulsion to kill scale insects.

As Buds Are Opening.-Use spray of Bordeaux mixture, adding 2 pounds of lead arsenate for every 50 gallons of spray. This is to kill leaf curl and bud

When Calyx Drops, Blossoms Fall, Leaving Fruit Naked.—Spray with lime-sulphur, summer strength, or Bordeaux 2-3-50, to control curculio, scab, rot, leaf curl, etc. (For curculio add lead arse-nate 2 pounds for every 50 cellocal

nate, 2 pounds for every 50 gallons.)
Ten Days After Bloom Falls.—Use lime-sulphur, summer strength, adding 2 pounds lead arsenate to every 50 gal-lons of spray. This spray is to control curculio, scab and rot.

WHAT SPRAYS TO USE. The following insects are controlled by lead arsenate

sprays containing lead arsenate: Tent caterpillars, leaf crumplers, bud moths, bag worms, case bearers, curculios, codling moth, pear slug, and other leaf feeders. Paris green, I pound to 100 gallons of water, or I pound added to 100 gallons of Bordeaux spray, may be used.

The following insects are controlled by kerosene emulsion: Apple aphis, peach aphis, woolly aphis, plum and cherry aphis, pear psylla, and peach-twig borer. The eggs of aphis—black, shiny bodies on twigs and limbs—and the peach-twig borer may be destroyed by winter spray of kerosene emulsion, made as in the directions, using, however, 12 gallons of

of kerosene emulsion, made as in the directions, using, however, 12 gallons of soft water instead of 30 gallons.

The following may also be noted: The Bordeaux and the lime-sulphur are mainly for fungus diseases. The Bordeaux is a dry-season spray; the lime-sulphur is more to be relied upon than the Bordeaux in wet seasons. Spraying the Bordeaux in wet seasons. Spraying

Hard soap, half pound; kerosene, 2 gallons; soft water, 30 gallons. Shave the soap into one gallon of the water and dissolve by boiling. Remove from the fire and add the kerosene; mix thoroughly and then add the rest of the oughly and then add the rest of the water.

There is also a commercial brand known as Scaleside, which has been used by the department with success.

LIME-SULPHUR, This can be produced in concentrated form and diluted, or it may be made as follows: Quicklime, 20 pounds; sulphur, 15 pounds; water to make 50 gallons. Place over an open fire a large kettle, one that will hold 25 or 30 gallons. Into one that will hold 25 or 30 gallons. Into this put eight or ten gallons of water. When the water is slightly warm, put in the lime and let slake, adding water now and then to keep from sputtering. While the lime is slaking, take the sul-While the lime is slaking, take the sulphur and stir in enough water to make it somewhat pasty. When the lime has broken up into a pasty mass add the sulphur and boil and stir constantly for three-quarters of an hour or until the mixture has become a dark red color. While boiling add water as needed to mixture has become a dark red color. While boiling add water as needed to keep from sputtering. As soon as you have this dark red mass, take it from the fire and strain through a fine strainer, then add enough water to make 50 gallons. The wash is now ready for use in the spray pump. It should be made the same day that it is used, for the wash loses its strength if allowed to stand over night. stand over night. SUMMER STRENGTH.

To make the summer strength wash, dilute the winter strength to one-fourth of its strength; that is, add three gallons of water to each gallon of the strong solution.

HOW TO MAKE SPRAYS Bordeaux Mixture, Winter Strength.—
Copper sulphate (bluestone), 5 pounds;
quicklime, 5 pounds; water, 40 gallons.
Summer Strength.—Use only 3 pounds
of the bluestone. To dissolve the copper

Summer Strength.—Use only 3 pounds of the bluestone. To dissolve the copper sulphate, suspend it in a gunny sack near the top of a barrel of water. In making this mixture it is a great advantage to dissolve large quantities, thus forming a stock solution; for instance, 100 pounds of copper sulphate dissolved in 50 gallons of water would form a solution containing 2 pounds copper sulphate for each gallon used.

To make a stock solution of lime, take a given weight of unslaked lime, place in a trough or box and slake slowly, using the least amount of water possible. In this way the best quality of slaked lime is obtained. After the lime is slaked, add enough water to make a putty-like mass, then cover with water to keep out the air. In this condition it may be used as needed. Since the original mass was weighed the desired portion may readily be estimated accurately enough to determine the amount of paste to be used in any given amount of Borenough to determine the amount of paste to be used in any given amount of Bordeaux mixture. For instance, if 50 pounds of lime were used, the mass after slaking in the box could be marked off into ten equal squares and each square would contain five pounds.

HOW TO MIX THE LIME AND BLUESTONE BOLUTIONS.

Now that the lime and bluestone are ready, the next step is to combine them.
To prepare 50 gallons of the Bordeaux, take 2½ gallons for the winter strength, or 1½ gallons for the summer, of the stock that contains 2 pounds of copper sulphate to each gallon. Place this in a sulphate to each gallon. Place this in a barrel and add 25 gallons of water. Take one of the squares of lime and add 25 gallons of squares of squares of lime and add 25 gallons of squares gallons of water to it in a separate vessel. Pass the lime water through a cheesecloth to remove particles that would afterwards interfere with the spray pump. Now you have the two solutions, the bluestone and half of the water and the lime and the other half water and the lime and the other half of the water. Pour the two solutions together, stir well, and the mixture is ready to be used in the spray pump. It is very essential that the Bordeaux mix ture be made this way each time before applied, for it quickly loses its strength.

Lead Arsenate (to be used with either the lime subbar and lime subbar and the lime subbar and the lime subbar and the lime

the lime-sulphur, summer strength, or the Bordeaux mixture).—To make the arsenate mixtures, add four pounds of lead arsenate to 100 gallons of either of the above mixtures. Dissolve arsenate in water before mixing with the other

The Farm Flower Garden.

If you have not already done so, cut back the hybrid perpetual roses at once. Cut out all old growths and cut back two-thirds of the new growth. Old stalks from your herbaceous plants, such as peonies and hardy phlox, should be removed, and any shrubbery you think needs trimming should be attended to

Do not trim your spireas or you will

Two Horses o the Work

Roller Bearings roll around the axie instead of wearing them out like the ordinary frictional sliding bearing and do away with one-third the usual friction. Our improved hardened steel bushing takes away practically all wear on the bearing and box. Don't think of buying a new wagon until you have seen the

Peter Schuttler Roller Bearing Wagon The Greatest Improvement in Wagon Construction in 50 Years

Saves horses because it pulls easier; saves time because you can go faster; saves repair bills because the whole wagon stands up better. Roller Bearings need oiling only about once a month and never get hot or tight on the wheel. They are the crowning feature of the old reliable Peter Schuttler "The One Best" wagon that has lead all others for quality since 1843.

Read What U. S. Government Tests Show Official tests made by Government road experts on common axles in competition with Roller Bearing axles on the same roads report the following:

To Start Load Common Axle - - - 850 lbs. pull Roller Bearing Axle - - 400 lbs. pull To Haul Load Common Axle - - - 260 lbs. pull Roller Bearing Axle - 100 lbs. pull

You Can Make the Same Kind of a Saving in Hauling Your Own Loads PETER SCHUTTLER CO. 2612 W. 22nd Street, Chicago TheWorld's Groutest Wapon Pactory., Est. 244.

cut your bloom short, as they bloom on last year's new wood. What trimming they receive should be given just after they bloom. Old undesirable canes may

Altheas may be trimmed as freely as you like, as they bloom on the new wood

you like, as they bloom on the new wood produced the same year.

I cannot speak of the New Hydrangea Arborescens from personal knowledge, as I have never grown it, but it is highly recommended by authorities who are thoroughly reliable. It comes into bloom just after the snowball, which it resembles in form of flower, and it continues in form of flower, and it continues

to bloom over a long period.

The giant compact oval clusters of the old Hydrangea Paniculata are still popular. Cut the canes back from half to two-thirds now and the blooms will be

The California Privet is considered the best ornamental hedge plant grown. It can be trimmed into any desired form or size and is practically evergreen, only losing its leaves in very severe winters. It is hardy still somewhat north of here.

If I were to choose an evergreen for planting in a yard or for a hedge, I would use the Chinese Arborvitea in most cases. It is a fine compact grower, hardy, and will admit of reasonable trimming. The new Rosedale Arborvites is very pretty, but it is apt to kill out somewhat in spots like the Irish Juniper. The Chinese Arborvitea is a rapid

A friend told me of a hedge which he considered the prettiest thing he ever saw. It was made of Altheas planted closely and cut flat across the top and down the sides. He said the hedge was three feet across, almost level, and a mass of bloom up both sides and on top.

It is now March 1, and spring days are beginning to call us out into the garden, and there is plenty there to do, yet we must remember that frosty days and nights are still to be expected, and not plant bulbs or plants that will be injured or seriously checked in their growth until settled warm weather. Nothing is gained by planting too early, for those planted at the proper season will usually more than overtake the earlier planting. Some plants grow right along in chilly weather and gain strength by doing so, and these should be planted as early as possible.—L. H. Cobb, Dunavent, Kan vant, Kan.

The Kansas City market reports show some good trades in live stock. D. M. Wade of Maple Hill marketer two carloads of feeder steers for which he received \$82.95 per head. As these steers cost him \$20 per head, he got pretty good pay for his feed.

The Missouri College of Agriculture requires that each young man shall have at least six months of practical experience on the farm before graduating, and the farmers think they can furnish this experience during the summer vacations.



In these three words lies the key to the success of the "Flour City" Tractors. The result of fourteen years' specialization continually concentrating on improvements of mechanical design, has made the "Flour City" what it is today.

The 1913 "Flour City" surpasses all previous models in mechanical efficiency. It embodies all the desirable features that enter into the construction of a successful farm tractor. Its development has been guided by the requirements outlined by the progressive farmer, along the most conservative lines. Its reputation is of the character that comes through actual work in the field. It stands for QUALITY, EFFICIENCY and SERVICE. Built in three sizes—20, 30 and 40 h. p. Look up the records of the "Flour City" before placing an order.

Kinnard-Haines Co., 846 44th Ave. No., Minneapolis, Minn.

AVE YOUR

Farrowing Season is Here



PRONGS TONGS



THONGS :



They are made from specially tempered spring wire, all nickel plated and sanitary. You cannot injure the mother and need not injure the young. Thousands have been sold on a guaranty and not one returned.

SAFE - SURE - SANITARY

Endorsed by Instructors in Veterinary Surgery of State Universities, and State Veterinarians wherever their attention has been called to it as the best thing in its line.

Its line.

REGULAR PRICE \$1.00.

You may not need one of these instruments more than once or twice in a season but when you do need it you need it MIGHTY BAD. It may mean the saving of a valuable sow and her litter of pigs. What would that be worth? Can you afford to take chances when you can get one of these reliable instruments free?
Size opened, 26 inches long. Closed, 11 inches. Weight, 4 ounces. Simplest instrument of the kind ever made. Any one can use it intelligently.

WE ONLY HAVE A FEW

But while they last we will send one FREE by Parcels Post, to any old or we subscriber to KANSAS FARMER sending us one dollar for a year's new renewal subscription to KANSAS FARMER, and fifteen cents extra for post-ge. Do not wait until your sows begin to farrow. Send your order today.

KANSAS FARMER, Topeka, Kan.

It Pays to Clip The Stewart Clipping Machine

MAKE MORE WOOL MONEY

Stewart No. 9 Ball Bearing

Shearing Machine
Shearing Machine
This is, without question, the most perfect hand operated shearing machine ever devised. Has ball bearings in every part where friction or wear-cours. Has a ball-bearing shearing head of the latest improved Stewart pattern.

Complete, including 4 combs

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Big Crops of Fruit Made Certain!

Is your orchard paying? Is every tree a profit-maker? Listen! Government reports show that over 50 per cent of the trees in our bearing orchard are barren—just loafers. And do you know that in many good orchards is per cent of the trees are producing the bulk of the crop! Why don't the other 85 per cent work! Something is vitally wrong. Is there a remedy!

There is. A big new idea is solving the problem, Authorities say it will "revolutionise fruit-growing." The Monerief system makes every tree a worker—no drones. Assures big crops of fawless fruit every favorable year. Makes trees true to mame. No guess work about it. You don't have to wait five or ten years to discover perhaps that your Jonathan are Ben Davis or your Elberta ripens in June. A plain common-sense system that Guarantees every fruit-grower the success he deserves. Endorsed by Government experts, leading fruit-papers and fruit-growers everywhere.

A FRUIT-TREE INSURANCE POLICY

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You don't have to take any risk, We do that. Absolute satisfaction or money back is our policy. But that isn't ail. The Monoriet Way removes all risk of the tree proving untrue to same. Why! Our book to list that. But here is a guarantee that really protects you. Just like insurance. Nothing like it over offered to fruit-growers. We agree to refund in each five times the purchase price of every Pedigreed tree that proves untrue to name.

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YOU will read and forget many books, but here is one that you will keep. Tells things about fruit-growing you won't find in other books. Tells how to start your new orchard right, how to make every tree a profit maker. Gives full in formation about the wonderfulnew money - maker, Hottes Elberta peach, and many other valuable fruits that everyone should have. Illustrated with beautiful engravings and colored plates. You will find here the most advanced ideas in fruit-growing, information that may save you many dollars. Send for your copy today before you forget it.

J. MONCRIEF, President,
Winfield NURSERY CO, 200 Central Ava., Winfield, Kanz.

BIG FREE BOOK ON

A gold mine of information

We have just published a wonderful new book entitled "Clover, the Great \$Cash Money Crog\$." It tells you how to get a sure "catch" first planting; how to keep clover in the rotation; about clover as a soil enricher; how to handle the crop for hay and seed production; how to grow clover that makes richer feed—that produces more beef and milk. It explains the cause of clover failures; how to avoid winter killing; how to prevent ground heaving; how to guard against the loss from heat and drought; all about the causes of "clover sickness" and how to deal with it. Hundreds of other questions, covering sixteen clover varieties, are fully answered. Ordinarily this book sells for 35c, but for a short time we will mail a copy free, or until a certain number have been distributed. Write at once.

\$ALLOWAY BROS.-BOWMAN CO.. BOX 368 K WATERLOO, IA. BALLOWAY BROS.-BOWMAN CO.. BOX 368 K WATERLOO, IA.

FARM AUTO

For the Farm Auto Owner Inquiries and Suggestions Solicited

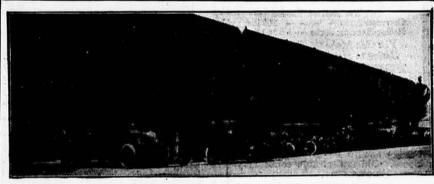
Radiator Caps Work Loose. Radiator caps often have an unhappy knack of working loose, and it is no uncommon occurrence to see the front of the radiator around the filler covered with unsightly red rust. This is due to the velocity of the water circulation sometimes exceeding the capacity of the radiator or the steam that is generated by a temporary boiling of the water. If a gasket is made of red fiber, say 1-16 inch thick, and placed under the filter cap the latter will not shake loose, and, at the same time, the gasket will prevent leakage of water past the cap prevent leakage of water past the cap. It may happen that the overflow pipe has had a blow and blocked the passage.

Inner Tubes in Envelopes. Several of the tire companies are now supplying inner tubes nicely done up in envelopes. This is more for the pro-tection of the tube than for appearance or advertising, and the covering should not be removed until it is desired to use the tube. In the tool box, where state of affairs seems bound to continue until it results in a change of motive

Indications point to the gradual substitution of kerosene and then probably the baser oils. Dozens of inventors are this minute at work perfecting kerosene using carburetors and other contrivances which may be substituted on gasoline using automobiles and which will permit the use of kerosene. It is reasonably certain in our judgment that with ably certain, in our judgment, that within the next 12 to 18 months inventive genius will have made it possible to convert gasoline cars into kerosene burn-ing vehicles.

Renovating Auto Tops.

A rusty top detracts much from the appearance of the automobile. More than this, a neglected top will soon leak. Leather, rubber or enameled tops, after being thoroughly cleaned, may be restored by the application of dressings and renovators. These may be bought prepared and ready for use or may be



EL DORADO, KANSAS, STREET SCENE WHEN THE AUTOMOBILE COMES TO TOWN.

spare tubes are usually carried, it protects the rubber from sharp tools or oily boxes, both of which wreck havoc with tires. The best plan is to carry the tube in some place where there is no danger from either oil or tools. Never put a tube in loose with a number of tools, for a few miles will serve to put the sharp points through the rubber in a half a dozen places.

Good Care Prolongs Life.

"As the secret of long life in man lies in good food and proper care, so with a high-quality, reliable car. Give it the best of gasoline, oil and grease combined with careful driving and reasonable protection against the elements and against the extremes of heat and cold, barring the extremes of heat and cold, barring tires, a car of known honesty and reliability of construction should last a farmer from six to ten years," says Mr. Olds, president of the Reo Motor Car Company. "It is gratifying to me that hundreds of the cars which I built in 1905, and prior thereto, are still doing yoeman service today. That is due to two things, namely: Good construction and good care on the part of the owner and driver."

Muffler May Cause Loss of Power.
Occasionally a mysterious loss of power may be accounted for by the dirty condition of the muffler. When too much oil is used, the deposit of oil and carbon will stick to the inside of the muffler, choking up the passages, so that the motor may become burdened with considerable back pressure.

Although it is necessary to remove the muffler for a thorough cleaning, it is quite possible to effect a satisfactory temporary cleaning of the badly obstrucall over lightly with a hammer or mallet. The result will be that much sooty accumulation will be knocked off and blown out through the muffler. This is from the Overland instruction book, which by the way is a valuable book for any automobile owner to have handy under the car cushion in case of trouble.

Kerosene Fuel of Future.

The fuel question is one of importance to the motorist. It is plain that this should be so from the fact that the production of gasoline is increasing at the rate of about 5 per cent per year, while the production of automobiles and motor trucks—the users of which, by the way, are by no means the only users of gasoline as fuel—is increasing at a rate exceeding 30 per cent per year. Gasoline is soaring in price due to the above conditions, and this undesirable

mixed by the user. For rubber tops, one part liquid asphaltum and three parts part liquid asphaltum and three parts refined castor oil will give good service. These are placed in a closed vessel and mixed. If the fluid be too light, drop black may be added with turpentine to cut the mixture to the desired consistency. The oil will soften the rubber and neutralize the action of the other ingredient which is liable to become brittle. If the enamel be worn off, use one pint liquid asphaltum, one quart one pint liquid asphaltum, one quart outside finishing varnish, one pint boiled linseed oil, one-half pint castor oil, one ounce beeswax, one pint coach Japan, and three-fourths pound Ivory drop black. Mix in a closed vessel and add enough turpentine to cause the mixture to brush out well. These dressings should be applied thinly and worked out smoothly and uniformly.

Several Farm Uses for Automobile.

We recently read a report of several enthusiastic farm owners of Reo automobiles who said he used his automobile power for blowing hay over 100 feet up into a hay mow whereby one man now easily did more than what three men and two horses formerly did. This he did by jacking up the rear axle and harnessing the motor to one of his old discarded blowers. We can realize the joy and satisfaction which came to this man as a result of saving much time, labor and money with the power plant of his mo-tor car while utilizing a discarded farm

implement.
Another farmer wrote that he marked all of his wheat and corn with his car by the aid of a trailer. What is even of greater importance he says he has happily solved the problem of how to keep his boys and girls contented on the farm. Under such conditions they would never swap the farm for the shop while their city cousins trudged back and forth from their work, either afoot or as a straphanger, while working for a scant living salary.

Another farmer who puts his car to many practical uses besides running business errands with it. When the ground is dry and hard he hitches his automobile to a disc plow and cultivates his large orchard in six hours which formerly required from 12 to 18 hours with three horses. He also harnesses his motor power to his corn-sheller and thresher and when the soil is in proper condition he plows, cultivates and sows grain with his car, keeping a horse or two in reserve for emergency only. It is really surprising how many uses a car may be put to on a farm with the exercise of a little mechanical ingenuity.

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difference in quality between Devoe & Raynolds Co.'s Pure Paris Green and a good deal of the paris green offered you.

Use "Devoe" and take no chances on the poorer articles.

You'll find Devoe Arsenate of Lead and Devoe Lime and Sulphur Solution two of the best sprays for fruit trees that are made.

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Three leading varieties of the best corn grown: Reid's Yellow Dent, Shenandoah Yellow, and Boone County White. Surest to grow and best to yleid. All corn carefully picked, tipped and graded. Price, \$2.00 per bushel. Timothy seed of new crop and of good quality, price \$2.50 per bushel; 25 cents extra for good sacks.

A. C. HANSEN, Willis, Kan.

Seed Corn Reld's Yellow Dent, Boone County White

Strictly pure bred, grown on our own farms from extra choice seed. Quality, good as the best. We won first in Capper Corn Contest for best single ear in state and first for best 20 ears at Missouri State Corn Show, 1912. Guaranteed to please you. Send for samples and prices. and prices. F. M. RIEBEL & SON, ARBELA, MISSOURI

SEED CORN

Plant the best. I have Boone County White, Hildreth's and Reid's Yellow Dent. Carefully selected, thoroughly tested, and graded. Write for prices and samples. I sell only my own growing. Money back if not satisfactory upon receipt of shipment. M. T. KELSEY, NORTHWOOD FARM, 106 Arter Ave., Topeka, Kan.

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For the farmer and breeder for sale at this office. Send for catalog. Address

KANSAS FARMER, TOPEKA, KAN.

Takes possession of a fertile quarter section in

Southwest Kansas

There's not much vacant land left in Kansas. The five southwestern counties have remained unsettled and undeveloped because of inadequate transportation. The Santa Fe is building new lines to serve this territory, and thousands of farms next season will be put to creating wealth. This is your opportunity to get a good Kansas farm cheap. The terms are advantageous, the results certain.

If you had taken a Kansas farm ten years ago and developed it with intelligence and vigor, you, too, would now be lending money to Wall Street, as other Kansas farmers are doing. You, too, would have a piano in your parlor and an automobile in your barn.

The next best thing is not to lose this opportunity of securing a quarter section of this splendid wheat land.

Besides wheat, oats and barley, you can get good profits out of speltz, milo-maize and kaffir-corn fed to your own stock. Hogs thrive on milo and kaffir, and disease is unknown. Western Kansas farmcrs find peanuts a splendid hog feed, easily grown and easily fed. Broom corn brings fancy prices, and potatoes, garden truck, fruit and alfalfa will all do well for you.

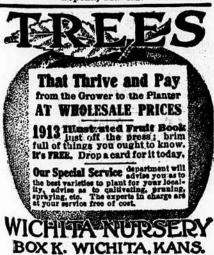
There are some flowing artesian wells in this territory, and everywhere that wells have been put down water comes to within thirty to sixty feet of the surface. Irrigation by pumping will doubtless be commonly practiced, and the tremendously increased yields will pay big dividends on the small investment required for gasoline or oil driven pumps.

The climate is pleasant and healthful. Your boys and girls will find good schools. Churches, social clubs and farmers' institutes are being organized. Rural telephones and free delivery are coming in. In every way development is rapid, and only a few years will give you every advantage that older communities

You can secure a quarter section (160 acres) for only \$200 down. The price is \$10 to \$15 an acre. The terms are astonishingly liberal. Only one-eighth down and one-eighth each year after the second year, with interest at only 6 per cent. You see you have two full seasons before a second payment on the principal is required.

For further information write for illustrated descriptive folder containing map and full details.

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4.50 and up per thousand. Hill's fine, hardy urnery-grown evergreens never disappoint. Frotest crops—increase value of land—make house and barn warmer—save fuel—save feed. Free Evergreen Book illustrated in colors tells how and lists for the color of t

Truck Cheaper Than Horse.

Chief I. T. Kirby of the Marshalltown, Iowa, fire department has submitted to the cost and efficiency of a hose and chemical wagon with the horse-drawn vehicle which it replaced.

Cost of maintaining team eight months, including feed, shoeing, harness and veterinary service, \$331.35.

Cost of maintaining automobile eight months, including gas, oil, presto light and repairs, \$25.17.

Cost of maintaining automobile per

month, \$2.09. Cost of maintaining team per fire,

Cost of maintaining automobile per

fire, 36 cents.

Balance in favor of automobile per

fire, \$4.44.

Balance in favor of automobile per month, \$39.33. Balance in favor of automobile per

year, \$471.96. The cost per fire for the upkeep of the motor-driven truck was 36 cents. The cost of upkeep of the automobile per month was less than the average cost for maintenance of a team per single

Road Rights of Motor Cars.

The Kansas Supreme Court has laid down the rights of the motor car on Kansas roads. John Arrington, a farmer in Kingman county, lost a horse in a collision with a motor car and brought suit to recover its value against A. M. Horner, owner of the car. It was shown that Horner used extraordinary precautions to avoid a collision. The lower court returned a verdict for Horner and the supreme court affirmed it. Here is the opinion of Justice Burch:

The driver of a motor car shall, when meeting or passing persons driving or riding domestic animals, exercise the care and caution to prevent injury and insure safety which a reasonably pru-dent person would exercise, taking into consideration all the elements of the situation, including the appearance and attributes of his peculiar kind of vehicle.

A corresponding duty rests upon a person riding or driving domestic animals

when approached by a motor car to take cognizance of the conditions and to exercise the care and caution which a reasonably prudent person would display in their presence.

It is the duty of a driver on the public highway, whether of a motor car or of domestic animals, to look ahead and see whatever there may be in the line of his vision which should affect his driving, and if the driver of a team knows that a motor car is approaching from the rear, to act with reasonable prudence in the light of such knowledge.

A Four Years' Test.

The person interested in automobiles, and that is practically every person these days, has little idea of the severe tests to which the automobile manufacturer has placed his machine before he ventured to offer it to the public. To illustrate this point the facts in the case of the Hudson will prove interesting. A Hudson "37" was given a 20,000 mile test, which consumed approximately nine months. During this test the car was driven at train speeds by a racing driver, whose services were secured for the purpose, and he endeavored to smash the car, if that were possible. He went up into the Alleghany Mountains and through them from Pittsburg to Philadelphia by the worst known roads-the passes against which motorists are warned, unless they are expert drivers and their cars are built for roughest usage. The car conquered the mud of Illinois, the sand of Michigan, the sticky gumbo of Missouri and Iowa and the entire test covered the worst road conditions of 10 states, the Alleghany Mountains and southern Canada. When the long trip was finished, it was equivalent to 40,000 miles of the average farmers' driving or equal to four years' use in his hands

This gives a good idea of the durability of an automobile and the one example is sufficient to show that the automobile of today is not a toy—that it will endure the hardships incidental to the worst difficult travel. This Hudson had 43 horse power on brake test, was electric lighted and started and so much dependence was placed in the electric starter that no crank was taken on the

This would indicate that the manufacturers had accomplished the results sought when they engaged the services of 48 motor engineers who built the car. These men had a hand in building over 200,000 automobiles of 97 well-known makes. They are the picked engineers from England, Germany, France, Italy, America, Austria, Belgium and Hungary.

Tour Through Automobile Plant.

Manufacturers of automobiles have advertised in a variety of ways to make their advertising interesting and in-structive. The Studebaker Corporation structive. The Studebaker Corporation has, we think, struck an entirely new note in automobile advertising. In its note in automobile advertising. In its series of one page advertisements regularly appearing in Kansas Farmer it is virtually taking the prospective purchaser through their mammoth plant and acquainting him with each step in the manufacture of the Studebaker automobile

First the reader is led through the laboratories where each shipment of steel is exactly analyzed to determine its absolute conformity to Studebaker stan-dards. From here he is guided through dards. From here he is guided through every intermediate stage; through the forge shop, the foundry, the steel stamping mill, the heat treating plant and finally to the shipping platform where the Studebaker automobile is boxed and ready for shipment to any part of the

These articles are illuminating in more than a strictly Studebaker sense for they define to the farmer, in a simple, understandable way the meanings of the several technical terms used so generously in automobile literature. The effect of heat treating steel is carefully ex-plained and the process is visualized. The utility of chronium, nickel, carbon and other materials for the hardening and toughening of steel is graphically elucidated. Drop forging, the process by which steel is fashioned into intricate there's by huge automatic harmers of shapes by huge, automatic hammers of thousands of pounds, is made so clear so that farmer can imagine himself standing beside one of these enormous forges, watching its herculean hammers shape the toughest steel as a baker moulds bread.

The Studebaker Corporation has taken the reader entirely into its confidence, not neglecting to explain a single phase of automobile manufacture. Even a casual perusal of these articles cannot fail to impress him with the mechanical magnitude of the great Studebaker or-ganization which builds its cars entire in its own plant and builds them so well that he who buys one has as much faith in Studebaker automobile quality as he has in the quality that has made Studebaker farm vehicles famous wherever a wagon wheel turns.

Kafir for Hogs.

Comparative yields of corn and kafir at the Kansas Experiment Station for a period of seven years, gives corn an average of 39 and kafir 55 bushels per acre. Allowing 10 pounds of gain for each bushel of grain produced, we would have 390 pounds of pork for the corn and 550 for the kafir. Deducting the usual 10 per cent from the feeding value of kafir leaves 495 pounds, or an annual advantage for the kafir of 105 pounds per acre. I would have you note that these results were obtained where the average rainfall is 31 inches. Also that it is farther north where the distribution of the rainfall is more regular and where conditions are naturally more favorable to corn than they are in the southwest. I believe it but fair to have you also note that the 10 per cent difference in feed value of the two crops when fed alone almost entirely disappears when kafir is fed in a proper combination with other feeds. An example covering this point is found in a feeding test in Kansas where shotes fed on dry kafir made a gain of 44 pounds in 50 days. When fed four-fifths kafir meal and one-fifth cottonseed meal they made a gain of 86 pounds in 50 days. It might be of value, in this connection, to note that in the experiment comparing the results of kafir alone and the results after adding the alfalfa hay, that the alfalfa hay made an increase in gain of more than 800 pounds per ton for the hay consumed. Cut this gain to 200 pounds and you still have a remarkably high price for your hay. Being guided by the results in the very report I have just read, on my farm in the spring of 1907 we weighed 20 shotes, averaging a little les than 100 pounds, into the feed lot, and weighed them again in 90 days. 20 head made an average gain of 130 pounds. They were fed ground kafir and one-fifth cottonseed meal and had the run of a wheat pasture where the grazing was good. About the danger of feeding cottonseed meal to hogs as a part of the ration, I can only say that I have fed it for six years and have never lost a hog in the feed lot.—George BISHOP, Weatherford, Okla.

Reader 33 Years.

O. P. Updegraff, one of Shawnee county's best farmers, writes: "I have been a reader of the much improved KANSAS FARMER for 33 years and 6 months."

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KILLS LICE AND MITES

DISINFECTS the Hen House, Bro Incubator. CURES Roup, Scaley Leg. Canker, Cholera. PREVENTS White Diarrhose Endorsed by 50 Experiment Stations

Every person interested in the causes and symptoms of all poultry diseases should read CHICKEN CHAT-Free if you sak for it. It names diseases, and suggests methods for ouring them, and offers ideas for preventing contagion and infection.

The most eminent poultry authorities in the world have contributed their stories to this book. An interesting report is made by the Ontario Government poultry capert, Professor Graham, in regard to his successful handling of incubators, and the prevention of white diarrhoes in his hatches.

Ask the Draggist or Poultry Supply Man As dealers 8 os., 25 ots; Quart, 50 ots; Gal., \$1.50 Postpaid 8 os., 25 ots; Quart, 65 ots; Gal., \$1.50

IMZENNER DISINFECTANT CO. 361 Lafayette Ave., Detreit, Mich.

BARGAINS IN USED GARS

We have a number of used cars which have been traded in on new ones, and offer a few unusual bargains, including a Chalmers "30" Touring Car fully equipped for \$700 Chalmers (1912) "36" Touring Car with \$200 worth of extra \$1,200 equipment....

Also a Cadillae "30" at \$700, and a number of others. All of these cars are guaranteed to be in perfect condition, and we are quoting these low prices to encourage quick sales before the busy spring season. Come and see these cars, or write us.

Chalmers Motor Company of Missouri 1830-32 Grand Ave., Kansas City, Mo.



For twenty-seven years I've been selling "Seeds and Plants that grow." I've been selling them direct—at rock bottom prices—no agents commissions attached. My catalog has always been my only salesman. (My Free 1818 Markey and Seed Book is now ready. Send for it. It's the result of 27 years experience. Liets all kind of trees and plants, farm, garden and flower seeds. Quotes lowest prices, no garden and flower seeds. Quotes lowest prices, no each! Cherry lee sech! Pinm 15c each! Cherry 16c each! Pinm 15c each! Cherry 16c each Standard. I pay freight on \$10.00 tree orders. Send for catalog, see my prices. A portal brings is.

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Planting Table For Vegetables

By I. D. GRAHAM

MOST farmers want a garden and most farmers plant one, but they frequently fail of best results because they plant it all at once or fail to care for it.

Vegetables are a vitally important element of human food and their value is immensely increased by having them always fresh—a thing the city man can't

The accompanying table provides enough vegetables for about 20 people, The and proportionate amounts can be planted according to the size of the family.

The table is designed for any person, whether he have any garden experience or not. Follow the table and you will always have fresh vegetables.

For early plantings select the highest and best drained part of the garden, and it is well to have the permanent and winter crops near together, as this aids in cultivation. Parsley, parsnip, cabbage, cauliflower, salsify, carrots, winter beets, winter radishes, winter onions and late

beans, potatoes and celery may be placed in one part of the garden.

The other crops should be divided into two plots so that when the early crops are taken off of one the other will come into use and the first can be replanted.

It is well to have a seed bed in some

corner where such vegetables as must be transplanted may be started. It is also wise to have a hot bed or cold frame for

Permanent crops, like asparagus and rhubarb, are not named, as they are started from roots. Melons should have a special soil of sand and manure placed in a large hole before planting. Do not in a large hole before planting. Do not use barnyard manure on potatoes, as they will have scab. Use fertilizers for potatoes and plenty of barnyard manure for everything else.

The varieties here named are such as

I have raised in my own garden and are adapted to this climate, but no attempt has been made to name all that would do well in Kansas.

No garden is complete without a spray pump of some kind.



"The Making of Steel" a complete account, simply and clearly presented, with many illustrations. This subject never before presented in so concise a manner. Every farmer and his boy should read this. Seat free on request.

FRANK BAACKES, Vice-Pres. and Gen. Sales Agent American Steel & Wire Company Chicago, New York, Cleveland, Pittsburgh, Denvers U. S. Steel Products Co., San Francisco.



That's what Wisdom and Taylor of Bowling Green, Mo., write. They bought two wooden door frame siles several years ago. Since then they bought two Champion steel door frame siles and consider them worth \$100 more than any others. That's more proof of our claims that the Champion is the best. Don't Make the Same Mistake-Investigate

Don't be satisfied with any kind of silo. Get the best. That means the Champion, the kind that's on thousands of farms, the silo with interlocking steel door frame, maleable lugs, combination latch and adder, steel anchors and inside hoops. Write for Full Particulars

Find out all about the Champion. One proof vill convince you that the Champion is the cest, also biggest profit mater.

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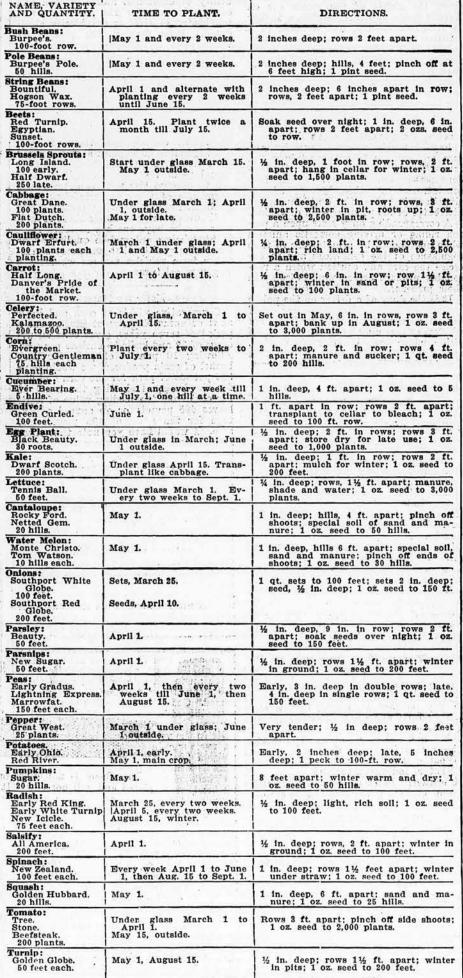
Cream Separators, 350 pounds capacity, \$25.90 Larger sizes just as cheap, Perpetual guarantee. No money in advance, Shipped on 60 days free trial. Closest akimmers in the world. It interested WRITE TODAY for our free special cream separator catalog and see for yourself. JOHNM.SMYTHMDSECO. Medicon St. Chicago

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St. Joseph, Mo.



The GRANGE

DIRECTORY OF THE KANSAS STATE

W. H. Black, deputy for Jackson County, has sent for organization blanks and all material necessary for starting new Granges. Let the good work go on.

Let us hear from all the subordinate Granges and workers, so we can make the Grange Department in Kansas Farmer interesting and beneficial by exchanging ideas and plans.

The State and National Journals of Proceedings for 1912 are now ready for distribution, but owing to the loss of part of the subordinate Grange reports at the printer's, the roster will be delayed a little longer.

The State Secretary is in receipt of a year book of Oak Grange, and also a

Doing." "Home Sanitation." "Keeping Up a Rented Farm." "What the Grange Has Done for Me." "Advantages of a Country Boy and Girl." "Influence of a Church in a Country Community." Amusements for the Young." "Woman's Work in the Grange." "What Besides Dollars and Cents Should Be Counted in Your Year's Profits?" One evening is devoted to music, one to schools, one to devoted to music, one to schools, one to men, and several to women.

Highland Park Program.

March 11—Poultry Methods and Housing, by O. L. Aley. Discussion.

March 25—Open meeting. Music, reading, and an address by Hon. Robert

Oak Grange Program.

March 12, 8 P. M.—Music. Lecture.

Music by Emery Brobst.

March 19—Music, Mrs. Baxter. Home March 19—Music, Mrs. Baxter. Home Sanitation, Mrs. Blodgett. Keeping Up a Rented Farm, Frank Baxter. Paper, Mrs. Lytle. Table committee, Mrs. and Mr. Will Engler, Mrs. and Mr. O. B.

March 26, 8 P. M.—Music, Dorothy Simms. Lecture, to be provided.

Write to Your Paper.
Surely there is not a patron anywhere in Kansas that is not anxious to read and hear what other Granges round about are doing. What good are all the Granges in this state if they are only



OAK GRANGE NO. 665, ESTABLISHED IN 1873.—OWNS ONE ACRE OF GBOVE SEVEN MILES SOUTHWEST OF TOPEKA .- FARMERS' INSTI-TUTES HAVE BEEN HELD IN THIS BUILDING FOR THIRTY YEARS.

program of the annual session of the Berryton Farmers' Institute, for which he is grateful.

The Berryton Farmers' Institute was held at Berryton hall, February 20 and 21, 1913. Following are some of the subjects discussed: Selection of Fruits and Grains for Grange Fair; Conservation of Rural Health; The Advantage of a Market House in Topeka to the Producers of Shawnee County; The Farmer—Past, Present and Future; Co-operation Among the Farmers, from the City Man's Standpoint: Schools: Silage and Man's Standpoint; Schools; Silage and Silo; The Newspapers and the People; Single Tax; Co-operation and Home

The State Secretary has received inquiries about the Patrons' Fire and Tornado Association, and judging from the nado Association, and judging from the trend of the inquiries a great many policy holders never read their policies. I wish every policy holder would read pages 34, 35 and 36 in the Journal of Proceedings and then attend his or her Grange at least 12 times during 1913, and under the head, "Good of the Order," ask some question or make a motion that will cause a discussion among the ask some question or make a motion that will cause a discussion among the members, and at the end of the year you will be surprised at the good you have received. The State Secretary will endeavor to place two copies of the Journal with the small Granges, and more with the larger ones, so if any Grange fails to receive its copies please positive the secretary—A. E. WEDD. notify the secretary.—A. E. WEDD.

Oak Grange No. 665 in Shawnee County was organized in 1873 and has a membership of 181. They built their own hall in 1884 and hold their meetings twice a month, part of the time at 2 P. M. and part of the time at 8 P. M. They have table committees, so of course have something to eat. Besides the regular Grange work and music, dialogues and readings, the following subjects are to be discussed during the year: "Fattening a Carload of Cattle." "Do it for Home, Sweet Home.'" "Duties of the Young Generation to the State." "Good Literature for Farmer's Library." "Evening with Lincoln." "What the Legislature is-

concerned about themselves? Where is concerned about themselves? Where is the spirit of co-operation? Brother, will you kindly lend us a hand? Take this matter up with your Grange at your next regular meeting and discuss it un-der head of "Good of the Order," and ask your Grange to select a live corre-spondent and whenever any of your members have anything new and edu-cational to read or regite or any new members have anything new and educational to read or recite or any new plans to promote the growth and welfare of the order, have your correspondent send in a copy to KANSAS FARMER for publication so that the other Granges might be benefited thereby. Just think what a large amount of good would come to all patrons if they could read some of the papers, essays, and pracsome to all patrons if they could read some of the papers, essays, and practical plans in making improvements, producing, marketing, etc. It would be of untold good to all. Let us place our light where others can see it.—E. LEU-ENBERGER, Secretary Highland Park Grange No. 1507, Topeka, Kan.

Grange Women's Work Committee March Program.

Opening song. Foll call: Funny short stories. Every member be prepared to name county officers and state officers and principal duties of each.

Chairman call on members at random. Recitation, humorous preferred. What is direct taxation?

What is indirect taxation? Question: Resolved, that the present system of listing property for taxation is just. Affirmative and negative. Winning leader keeps loving cup till next debate.-A. B. H.

Observations.

Always sow your seed before you be-

gin to sharpen your sickle.

It takes three to successfully run a farm: the farmer, the farmer's wife, and the hen.

If the Golden Rule were harnessed and set to work for humanity, it would do more good than all the creeds in Chris-

tendom. There is a victory in sight for the man who will work toward one point to the exclusion of all others.—A. B. H.

Stop Guessing Weights

It's too costly. The profitable business-like policy is to weigh all you buy and sell on an accurate, reliable

Fairbanks Scale

High prices for crops and live stock make scales of greater value to you than ever before. A scale should easily pay for itself in a year, then what you save the rest of its life is clear gain.

You Should Buy a BECAUSE It is easily kept in adjustment. It will last a lifetime.

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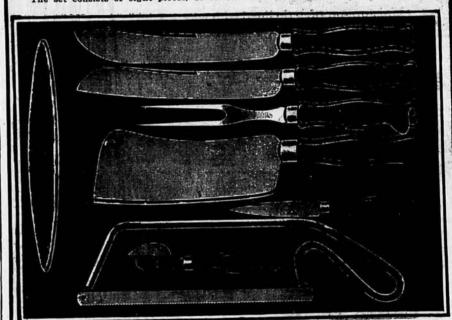
IS YOUR VALUABLE ANIMAL INSURED AGAINST DEATH FROM DISEASE OR ACCIDENT?

NORTHWESTERN LIVE STOCK INSURANCE COMPANY.

DES MOINES, IOWA

WHAT THE PARCEL POST WILL DO FOR YOU

THE PARCEL POST, which went into effect January 1, 1913, enables us to give our subscribers the benefit of some larger and better premiums than we have heretofore been able to use. We have just purchased from the manufacturers a large order of the Excelsior Kitchen Sets, illustrated herewith. The set consists of eight pieces, as follows:



Eight-inch Carving Knife. Eight-inch Bread and Cake Knife

Meat Fork

1 Meat Sav

1 Paring Knife
1 Can Opener
1 Aluminum Sharpening Stone

Every article in this set is fully guaranteed to us by the manufacturers and we will make good any defective piece. They are made of the finest quality crucible steel, carefully tempered, ground and polished. The handles are hard wood, rubberoid finish, with nickel plated ferrules. Each set packed in a neat pasteboard box.

HERE IS OUR OFFER: We will send this complete outfit by parcel post, prepaid, to any reader of KANSAS FARMER sending us three new yearly subscriptions to KANSAS FARMER at the regular subscription price of \$1.00 each; or we will send it to any present subscriber sending \$1.00 for another year's subscription and 75 cents to partly cover cost of set and shipment. ADDRESS ALL ORDERS TO

Subscription Department, Kansas Farmer, Topeka, Kan.

se A

KANSAS FARMER SAFETY RAZOR

> Price complete 65c. With 12 Extra Blades \$1

This Razor is not silver or gold plated. It IS heavily nickle plated and will not rust. It will not clog up, as many safety razors do. It is made for every day use. No delicate parts to get out of order.

Guaranteed unconditionally to shave as good as any razor made, none excepted at any price.

neat box. An embossed, plush lined, leather case does not improve

Packed in a neat box. An embossed, plush lined, leather case does not improve the cutting edge of a razor.

Sent free to any subscriber, new or old, sending \$1.00 for a year's subscription and 15 cents extra for shipping. If extra blades are desired, add 10 cents for each three or 35 cents for one dozen.

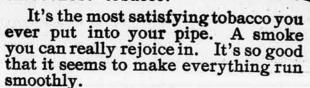
Throw away your old razor and enjoy a clean, easy shave, and no chance of cutting your face. Address,

KANSAS FARMER, Topeka, Kan.

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Happy as a King

Contentment is better than riches. they say, and one way to be contented is to smoke Velvet—the smoothest tobacco.



TOBACCO

You want the best tobacco-something you can get real pleasure from
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Get a tin of Velvet today and you'll never again be without it-for no other tobacco can take its place.

Moisture-proof, a tin lined with wax paper keeps Velvet always in prime condition.



WHY INCUBATOR CHICKS DIE

of 7 to 10 of their friends that use incubators. This book can save you \$100 this summer. It describes white diarrhoed or bowel trouble, the cause, and tells the cure. RAISALL REMEDY COMPANY, BLACKWELL, OKLA.

Buys 165 Egg National Incubator And Brooder



\$9.00 Incubator & \$4. Brooder for \$10. FREIGHT PREPAID
High, roomy nursery,
Automatic heat regulator,
Hot water heating system,
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Automatic heat regulator,
Reliable non-breakable lamp,
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Order direct from this advertisement. We guarantee satisfaction or you get
all your money back quick. Brand new Poultry Book free.

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all your money back quick. Brand new Poultry Book free. Order Now.

NATIONAL INCUBATOR COMPANY, 1340 19th St., Racine,



When writing our advertisers say you saw the advertisement in Kansas Farmer. That insures to you the full benefit of the publishers' guarantee. See top of editorial page.

OULTRY

An inquiry comes for Toulouse Geese eggs. Are there no breeders of geese that wish to sell eggs through the advertising columns of Kansas Farmer?

Why not raise more geese on the farm? They are hardy and healthy, free from diseases incident to chickens. They can live by foraging on grass, so that their feed costs but little. There is always a good market for them, for there is no finer eating than a nice, young

If eggs are intended for hatching purposes they should be gathered several times a day during a cold spell, or they are apt to get so chilled as to be unfit for incubating purposes.

A warm mash of boiled potatoes, beets or turnips, mixed with corn meal and a few beef scraps, will be appreciated by the fowls on a cold morning. It will certainly help to keep up the egg supply.

A mistake often made by persons that hatch chicks in an incubator, is in having the brooder too cold. The heat in an incubator is 103 degrees and when chicks are removed to the brooder the heat is only 60 to 70 degrees. This is much too low, and is often the cause of richest heavel the removed to the brooder the heat is only 60 to 70 degrees. wicen too low, and is often the cause of violent bowel trouble, which with the re-sults of the chilling will generally cause them to die. The heat in the brooder should be 90 degrees for the first day or two, then gradually have it lower as the chicks get older and stronger.

A change of feed to young and old stock is very desirous at times and in order to intelligently know which kind to feed it is well to know the qualities of some of less used poultry feed. Pea meal will be found very nutritious, rice very easily digester, linseed meal cathartic, potato starch digestible, barley nutritious but laxative, corn fattening and oatmeal more nutritious than either wheat or barley.

There are many methods of feeding, some of them are good and many bad. The main thing is to have a well-balanced ration and to feed in right quantities. tities. Have plenty of exercise for the birds, fresh water and full hoppers, of grit, shell and charcoal. The idea that grit, shell and charcoal. The idea that there is but one possible method of feeding is wrong. There are many methods of feeding that are excellent and are successful. However, if you find that the method you are using is not giving the results you wish find some other the results you wish, find some other way and try it out. Give the new meth-od a thorough trial before condemning it. A good system of feeding is a valuable thing, and the man or woman who is getting good results with their present method of feeding should keep right on without trying something radically dif-

A subscriber already reports the loss of quite a number of young chicks by diarrhoea, and asks for a remedy. There is more efficacy in preventive precau-tions than in remedies after the disease has appeared. The subscriber does not say whether it is white diarrhoea, but we presume it is, as that is what kills the chicks in great numbers. Scientific experts claim it is caused by bacteria and has been found in the ovaries of the hen and in the yolk of the eggs. The bac-teria may also be derived from the litter in the nest and also from soil con-tamination by affected fowls. The best remedy or preventive is thorough cleanliness and disinfection. Disinfect the eggs before placing in the incubator, also the incubators and brooders that are used. Diarrhoea in young chicks often comes from acute indigestion on account of being fed too young. Nature has provided that a portion of the yolk of the egg should be inclosed in the abdomen, which furnishes the young chick with food, by absorption, for from two to four days. At this period of their lives they must have rest and warmth but no food. Thousands of chicks are killed every year by the overindulgence of their owners. Chicks that have been dissected were found to have their craws partially filled with food and a fair quantity of un-absorbed yolk in their abdomens. All the conditions gave evidence that they had died of acute indigestion. Therefore

give no feed whatever to newly hatched chicks for at least forty-eight hours. chicks for at least forty-eight hours. Another good preventive is to have the floor of the brooder covered with fresh earth, so that the chicks may exercise thereon as if they were on the ground out of doors. Feed them in vessels or trays so that the food may not be contaminated with filth. Even the sand, and charged that you give them grit and charcoal that you give them, should be in hoppers so as to be free from dirt.

Fertility of Eggs.

How long before eggs will be fertile after mating chickens? Also how long after separating roosters from hens will eggs be fertile? Will you kindly answer these questions as soon as possible.— J. H. ALBERS.

Answer—1st. From three to ten days. 2nd. Till the ninth or tenth day. To be more definite on these questions, would state that experiments were made in Canada to determine how long eggs would remain fertile after the male had been removed from his mates. Ten hens were separated from the male. The eggs laid each day were placed in an incu-bator and tested. Of the eggs laid the first four days after the male was taken away 70 per cent. were fertile; of those laid the fifth day 60 per cent.; the seventh 49 per cent.; the eighth, 12 per cent.; the ninth 2 per cent.; the tenth none. A test was made with six hens to determine here seen the certain the service of the s determine how soon the eggs became fertile after the males were placed with them. On the third day 30 per cent. were fertile; on the fourth 42 per cent.; on the fifth 50 per cent.; on the sixth 60 per cent.; on the sixth 60 per cent.; on the sixth 60 per cent.; on the ninth 70 per cent., and on the tenth 74 per cent. As rarely more than 75 per cent. of the eggs produced under average conditions are fertile, this goes to show that mating a hen ten days before the eggs are needed

for hatching is sufficient.

Some poultrymen believe that the whole clutch of eggs is affected. Mr. Henry Hales says: "From many experiments which I have seen reported, and from my own experience, it seems that if a hen is with the male at the right time, a whole clutch of eggs is impregnated, for the eggs will show the effects of a certain bird from two to three weeks. of a certain bird from two to three weeks after separation, so that before that time it would not be safe to calculate on the eggs from a new sire." Poultry experts are practically unanimous in their opin-ion that a previous sire has no contam-inating influence on the dam after being removed for three weeks.

Campines.

An inquirer wishes us to describe the characteristics of the Campines, and asks if the boom on them is liable to continue. There are two varieties of Campines, Silver and Golden, though in speaking of Campines the Silvers are generally the ones spoken of. They are a Belgian breed of fowls, the hens weighing about 44 pounds and laying a large a Belgian breed of fowls, the hens weighing about 4½ pounds and laying a large white egg. The hen has a penciled gray body, with a white hackle, and is a very showy bird. The Campines are an old breed and used to be in the Standard of Perfection about 15 years ago, and then were dropped out for some unknown reason. Mr. Theo. Sternberg of Ellsworth had some imported birds about that time, and thought them the coming breed, but people did not seem to ing breed, but people did not seem to take hold of them. Whether the present boom will continue or not we could not say. It all depends upon the men and the amount of money that is behind them. There is no doubt of their being a meritorious breed of fowls, for they are extraordinary layers of large white eggs. The present show Campines are different in color from the older breed, and are said to be an improvement or the original Belgian breed produced English fanciers. Some experts think that the Silver Penciled Hamburgs have been used to improve the color marking of the Campines. The Brackel is an other Belgian breed of fowls noted for its great egg laying qualities, and about a third larger than the Campines. A Belgian poultry expert claims that the Campines are a modified Brackel. Any how both breeds have been famous in Belgium since the time of Charles V. several hundred years ago. The people who make money on these new breeds If you read this little "ad" and are not convinced of the quality I am offering at my low price—send me your name on a postal for my an agisty order right now. The U.S. Government is a customer of mine, along with nearly 20,000 others. The Belle City has won Six World's Championships, or people running their kirst incubator—and it won with 100 per cent hatches. Here are the facts about Jim Rohan's Six-Time

World's Champion **Belle City Incubators** 140-Egg Size Only &

"Tycos" thermometer, egg tester, high legs. My
Belle City Brooder
140-CHICK

Portfolio "Hatching Fac-low to make money out if in a hurry you can ord this advertisement. I gu e everything as represent stund money. Address i onally, Jim Rohan, Pres. Belle City Incubator Company Box 18 Racine, Wis.



Don't wait a moment. Even one hour's time is valuable if you act quickly. Little chicks have little vitality and do not last long if seized by this disease. Be sure to have Kellerstrass'

Remedy on hand so that you can immediately stop the trouble and save your chicks. If not sold by your dealer send direct to us for 25c, 50c, or 31.00 sizes. Cholera, Roup and other diseases that kill can be prevented and curved by the "Kellerstrass Method of Treating Poultry Diseases."

FREE BOOK-telling all about the Relierstrass EVAy, if you sond your dealer's name.

ROYAL MANUFACTURING & IMPORTING CO., 708 Royal Building, Kansas City, Mo.

Eggs From Full Blood Stock **Eggs** 26 White or Brown Leghorn Eggs. 1.60
18 Barred or White Plymouth Rock Eggs 1.00
18 Silver or White Plymouth Rock Eggs 1.00
18 Silver or White Wyandotte Eggs 1.00
18 White Orpington Eggs 1.60
18 Rhode Island Red Eggs 1.00
18 Black Minorca Eggs 1.00
10 White Pekin Duck Eggs 1.00
10 Indian Runner Duck Eggs 1.00
10 Indian Runner Duck Eggs 1.00
10 Leghorn Eggs, \$4. 100 White Orpington, \$12. Others \$5
per 100. Egg extra for 2 sittings or less by Parcel Post, otherwise by Express. Book orders early; will send when wanted
Remit by Postal, or Express Order, on St. Louis.
W. F. CHAMBERLAIN, (The Perfect Chick Feed Man)
Dept. 20, KIRKWOOD, St. Louis County, Mo.



INCUBATORS We now have incu-\$4.00 bators for less than delivered at your door. Beats anything you ever heard of. I don't care how big an ad you may read in this paper about incubators. The Poultry Leader will outhatch any other. Give me to show you. Write for catalog

show you. and low prices.
EMIL OCHSNER, Box 15, Sutton, Neb.

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

PARCEL POST EGG BOX CO., 700 West Eleventh St., Kansas City, Mo.

55 BREEDS Chickens, Ducks, Gesse, Turkeys, Dicks, Send 4c for large Poultry book Incubator Catalog and Price List.

H.M. HINIKER, Box 57 Mankato, Minn.

Farmers Sons Wanted with knowledge of farm stock and fair education to work in an office; \$80 a month with advancement, steady employment, must be honest and reliable. Branch offices of the association are being established in each state. Apply at once, giving full particulars. The Veterinary Science Association, Dept. 22, London, Canada.

are the ones who have them when the boom starts. There is no doubt that those who have lots of Campines on hand just now will make big money out of them, but whether the popularity of the breed will continue no one can say, for many meritorious breeds have had but short careers, while others, not near so good, have held the boards for a long time.

Oklahoma Poultry and Hog Special.

I have just finished a four weeks trip over Oklahoma with the demonstration train of the Agricultural and Mechanical College, Stillwater, Okla.; two weeks over the Santa Fe and two weeks over the Frisco lines. There were 28 towns on the Santa Fe and 25 on the Frisco where stops were made.

on the Santa Fe and 25 on the Frisco where stops were made.

Lectures were given on poultry by Prof. Bittenbender of the A. & M. College, and on farm crops, silos and hog diseases by members of the faculty.

Local poultry shows were held at 21 towns, and over 3,500 birds were shown. I was employed to officize as judge at these shows, and it was certainly a pleasure to meet so many enthusiastic pleasure to meet so many enthusiastic people and to see how they had worked to make a success of these shows. Of course they were all gotten up in a hurry, on short notice and under all kinds of conditions, but they showed en-thusiasm and the desire to find out wherein they were not up to the stand-ard with their various breeds.

At every show we were asked all

manner of questions and we endeavored to answer in a way that would put them on the road to better poultry and more

Very much good will result from this train, and many hundreds of people will take a greater interest in poultry than

Probably 60,000 people in Oklahoma heard these lectures, viewed the exhib-its and attended the local poultry shows.

It was indeed an awakening along these lines and the result will be that next winter more shows will be held in Oklahoma than has ever been held before. It has also stirred up the people in a way that will cause them to raise more and better poultry along commercial lines, for they see the need of it and they have had their attention called directly to this fact because of the greater benefits derived from it.

The poultry and hog special was in-deed an educator for the people of Oklahoma and a grand success

It will also be an object lesson to some of her sister states, who are probably under the impression that the millions of dollars received by the farmer and small lot breeder from poultry does not amount to much.

What would have been the condition of the farmers of Kansas and Oklahoma the past three years, with their short grain crop, had it not been for the in-come from Mother Hen?—John C. Sny-DEB, Topeka, Kan.

To Prevent White Diarrhoea.

To Prevent White Diarrhoea.

Dear Sir: I was losing my young chicks last year by the dozen, when I noticed Walker's Walko Remedy recommended by a lady. I sent (M. O.) for two 50-cent packages to the Walker Remedy Co., E12 Lamoni, Iowa, and can say that it not only cured all the sick ones, but checked and stopped the disease, White Diarrhoea; and I had fine luck with my later hatchings—raised practically all of them.—Mrs. C. C. Jones, Blackwater, Mo.—(Adv.)

Boys' and Girls' Club for 1913.

Business men, educators, parents—in fact persons in every walk in life—have begun to see as a great statesman remarked a few weeks ago, that boys and girls are getting more good out of the contests and clubs in agriculture and home economics, than most young mend are greatly good out of college. and women are getting out of college. When it comes to getting a really practical education, it is hard to find a single form of work that will teach as much

business, as much science, as much love of outdoor life, as the growing of something like corn, potatoes, or what-not.

In order to keep the boys and girls interested in their work during the season, the Extension Division will publish "Boys' and Girls' Contest and Club Losf-"Boys' and Girls' Contest and Club Leaf-let," which will be sent free to anyone who enrolls in contest or club work, and sends his or her name to the college. This leaflet will be published monthly and will contain suggestions and instruc-tions in the various forms of contests and club articles. It will be practical as nearly as may be and also inspira-

tional. A pamphlet—"Boys' and Girls' Contests and Clubs for 1913," is just off the press and will be sent free upon request. Address Extension Division, Agricultural College, Manhattan.

"Baby beef" is bringing Ozark farmers \$50 per head profit in one year



for stock raising, it is the unusual success and big profits which farmers there are making with baby beef. Good stock, after one year's feed, is bringing them \$50 per head profit!

Here is the plan that the Ozark farmer is following to get such profits. He buys up good grade calves at \$15 to \$20 a head (providing he dosn't raise them himself). Then, instead of letting them "mosey along" until the second year with just enough rations to keep them in good trim, he starts feeding them for quick flesh gains right away. The calves are put on flesh-producing field grasses until after corn is harvested; then the shocks, with a little extra now and then, keep them going until January. That leaves only three months of winter feeding (for pasture is green again by April 1st).

By that time the beef will weigh around a thousand to twelve hundred pounds easily, and will top the market at \$8 a thousand or more. The feeding, on account of the short winter and other advantages in the Ozarks, doesn't cost more than \$25 per head, all told—that's a clean profit of around \$50 from every bely beef. baby beef.

It's a mighty profitable business, and Ozark farmers are not slow to take it up.

Baby beef is just one way of making money in the Ozarks. It is just one example going to show why all kinds of stock raising is so profitable in the

FRISCO

Ozarks. Hogs, for example, bring Ozark farmers around 5 cents a pound profit, because they cost so little to produce per pound—only 2½ cents, or less. Sheep make \$12 per ewe easily, and Ozark dairymen are getting \$8 to \$10 per cow per month, regularly. per cow per month, regularly.

The reasons for these profits are easy to understand. The Ozarks have very mild, short winters—good pasture from April 1st to January 1st—only three months of winter feeding. Right there is a mighty big cut in costs.

The soils of the Ozarks will grow practically every variety of grass, and forage crops—alfalfa, peanuts, cowpeas, com—all the quick-fattening products.

The Ozarks have an unlimited supply of pure water, splendid drainage and a healthful climate that keeps stock sickness down to the minimum.

The Ozarks are right at the doors of St. Louis, Kansas City and Memphis—big markets offering the very highest quota-tions for all kinds of stock and farm

But all these advantages mean more when it is realized that good land be bought now in the Ozarks at \$12 to \$15 per acre. It's a proposition that deserves any man's serious thought and investigation right now!

A free book for you!

It's not the kind you can pick up anywhere. Double sized pages, 75 actual photo pictures of farms—some in full color. Written by a man who knows farming. Takes up the Ozark sections, county by county, and describes the farming conditions there. Also tells actual experiences of Ozark farmers. I haven't

many copies of this book on hand; please drop me a postal to-day for your free copy.



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BRAD'S BIT O' VERSE.

Cut It Short.

The man that's busted, down and out, hard pressed by gloom fiends fierce and stout, is scarcely in the proper mood for tough, unseasoned mental food. Don't go to him with maxims wise and modulated tones that rise and fall according to the rule of prize crytisps set the to the rule of prize orations at the school. Don't preach to him three solid hours of Adam's fall or Babel's towers; don't prove to him your speaking gift— what that chap needs is just a lift. The peroration is a thing that makes the people whoop and sing; it is a daisy and a chime when spoken at the proper time. But when a chap is down and out, he doesn't care to sing and shout; he wants a sandwich and a roost—what he most needs is just a boost. The discourse is a noble theme, a thing of beauty, and a dream; it's something that is good to hear when given in its proper sphere. But when a chap is in the ditch, the why and wherefore of the which don't seem to carry much appeal—what he most needs is just a meal.

Hanging the clothes on the line neatly and smoothly saves much time ironing.

A very little bit of butter is often an improvement to cake frostings, especially chocolate or caramel.

Kerosene will soften boots and shoes that have hardened from being wet, and makes them as pliable as new.

If the stove pipe seems choked, try burning a few small pieces of zinc in the coals. Usually this will dispel the soot.

Each housewife must work out her own salvation, but there is one little word that will fit each case—system.

Always remove the fat which settles on the top of cold soups; if allowed to remain the soup will turn sour more quickly than it would otherwise.

Southern cooks sometimes add a tea-spoonful of Orleans molasses to the fry-ing bacon. It makes the meat more delicate.

When obliged to go out against a sharp, piercing wind, tie a silk handker-chief over the face.

When a man becomes engaged or is married the first thing we think about is whether he can support a wife. Rarely do we wonder whether the bride has ability to spend the man's income wisely. Yet investigations are beginning to show that more families are poor because the wife is untrained to housekeeping and wasteful of the income than because the husband does not earn enough. Of forty divorce cases recently investigated, where the wives applied for divorce on account of the husband's desertion, it was found that in twenty-two cases the husbands left their firesides because the wives made a mess of homes and incomes. Eighteen of these wives claimed that they had not been properly supported when, as a matter of fact, the probation officers of the court found that their incomes were amply sufficient. More incomes were amply sufficient. More and more the unpleasant fact of woman's incompetence as a wise spender of the home income is coming to the surface, particularly through the newly estab-lished Courts of Domestic Relations. It is high time that, coupled with our wonout the b der about the bridegroom's income, we were beginning to ask of the young bride what she knows about the wise spending of that income. For that is going to be the question of the future and we are headed straight for it.

Care of Patent Leather Shoes.

Here is a tip one shoemaker gave for

the care of patent leather shoes:
"If men and women before wearing their shoes would rub them all over with a little leaf lard or vaseline, put on a soft chamois or piece of flannel and rub to a high polish we shoemakers would have to endure less reviling because of shoes going bad on the first wearing.

"Care must be taken not to use too much of the grease, and above all not to let it stand on the leather unabsorbed, or dust will accumulate in it, which will be worse than the cracks.

"Another thing about patent leathers is that they must always be kept in a warm, dry place. Many women do not know this, and often let their shoes stand around in the room on cold or rainy nights. Dampness will ruin any patent leather and one should always guard

against it.

"Always avoid wearing these leathers for the first time on cold days, as cracking is inevitable."—Chicago Inter Ocean.

The Wonderful Bee.

Maurice Maeterlinck, the eminent Belgian student and author, writing on comb honey, says that it is an article "to which we can add nothing, from which we can take nothing, an article that unites in equal perfection the science of the chemist, the geometrician, the ar-chitect and the engineer. Its master-piece, the hexagonal cell, touches abso-lute perfections a perfection that all the lute perfection, a perfection that all the genuises in the world, were they to meet in conclave, could in no way enhance; no living creature, not even man, has achieved, in the center of his sphere, what the bee has achieved in her own; and were some one from another world to descend and ask of the earth the most perfect creation we need but offer the humble comb of honey."

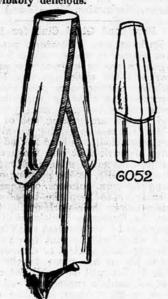
Health Notes.

We all know that an overheated, stuffy room where a number of people are gathered, is likely to give us what we call a cold. The lungs are obliged to work harder to get a sufficient supply of oxygen, the blood is not purified properly and the impure air loaded with disease germs finds, an easier lodgement in the tissues; especially is this the case upon going suddenly into a cold atmosphere, the body is called upon to adjust itself rapidly to the changed conditions, the microbic poison enters the congested lung tissue, and there is not the power of resistance as in normal circumstances.

—The Farmer's Wife,

Corn Ovsters.

Place a pint of corn (canned or fresh) on the stove, and allow it to simmer for twenty minutes. If too dry, add a little water. Then season with one teaspoonful of salt, one teaspoonful of butter, one-eighth teaspoonful of pepper, and two tablespoonfuls of milk. Allow it to become cool, and then stir in two wellbeaten eggs and about a cupful of cracker crumbs. The crackers must be fresh and crisp. Dry them in the oven, if necessary, before rolling them. Put a tablespoonful of bacon grease in the frying pan, and when it has become smoking hot, drop in the corn batter by spoonfuls. When a delicate brown, turn over, and brown the other side. These "overers" should be served as soon as "oysters" should be served as soon as cooked. The use of cracker crumbs seems to add to the oyster flavor, and frying them in bacon drippings makes them indescribably delicious.



No. 6052—Ladies' Panier Skirt. This model represents a pleasing skirt made in the latest fashion with panier. It may be used for separate wear or as part of a complete costume, and may be carried out in serge, voile, messaline or other fabric that drapes nicely. The pattern, No. 6052, is cut in sizes 22 to 30 inches waist measure. Medium size will require for panier and skirt, 2% yards of 54-inch goods, and for skirt, 1% yards of 36-inch lining. Price of pattern, 10 cents.

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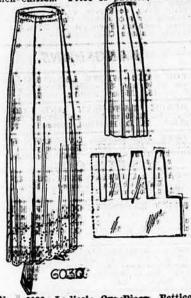
When the drinking water is not above suspicionadd a few drops of lemon jace to discomage typhoid grams.



No. 66501 Indice Overbience: A delight-ful overbience is given in this model. The rarment closer at the left side and invery any to-make. It transforms an ordinary plaint from interactive results and inverse and interaction of the side of the si



No. 6051-Misses and Small Women's Dress. This attractive frock is nice for a party dress for the young girl and is just the thing for this time of the year when there are so many social affairs. The frock closes at the backs and the three-gored skirt has a pannier. The garment is delightful carried out in satin and chifton; or it may be made of one material if desired. The lattern No. 6061, is cut in sizes 14: 16 and 8 years. Medium size requires 3% yards of in inch chiffen. Price of pattern, 10 cents.



No. 6039 Ladiet Om Piece Petticoat. This designs gives an attractive petticoat and one especially desirable for embroidery. It has straight lower edge and at the lower part of each seam there is a piat: This petticoat is just the thing for wear under the new style clinging gowns, and if embroidery is no desired, any of the popular petticoat fabrics may be used. The pattern, No. 6036 is cut in sizes 22 to 30 inch bust measure. Medium size requires 2½ yards of 45 inch flouncing. Price of pattern, 10 cents.

Marshmallows Give Flavor.

The housekeeper who has not tested the culinary possibilities of marshmal-lows has little idea of their many uses. For emergencies a tin box of these inexpensive candless is a good asset for the

Should the supply of eggs give out when filling or frosting is wanted for a dark layer cake, marshmallows may be substituted. While the cake is still hot place marshmallows torn in halves between the two layers and also on top of the cake. Replace the cake in the oven for a few moments until there is an even layer of partially marshmallows. layer of partially melted marshmallows over the cake.

Finely chopped nuts, grated sweet choolate or cocanat may be sprinkled over the yielding surface; and camifed cherries, bits or citron or angelica; shreds of almonds or halves of English walnuts are easily embedded in ornamental fash-

For the afternoon tea table the plainest of little cakes topped with marshmallows and placed for a moment in a slow oven are transformed into French confections, says the New York Sin. Spice-cake baked in a thin sheet and out in small rounds of the size of a marsh-mallow is an inexpensive substitute for the small, fancy cakes of the categor. Top each little circle with a half marsh-

Top each little circle with a half marshmallow and partially melts in a slaw
oven. Decorate with a single nut meat,
half a cherry or a cross marking of
chocolate or colored frosting.

If the material for a fruit salad is
scant, cut marshmallows in quarters, using a well-floured pair of seiscers. Equal
parts of grape fruit, English walnuts
and marshmallows mixed with half the
constitute of diced mineaurile makes accord

and marshmallows mixed with hair the quartity of died pineapple make a good salid combination.

Ordinary checolate ice cream is easily transformed into an apparently expensive novelty by adding a plantiful supply of quartered marshmallows when the cream is half frozen. If the checolate is cream is half frozen. If the chocolate is rich and dark these dull white particles make an effective showing and also add

an unusual flavoring.

The same addition may be made to a cold chocolate pudding, the massimal-lows furnishing an attractive bit of coloring, and contributing to a deliciously flavored dessert:

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ORPINGTONS.

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Protecting His Pocketbook

Uncle Sam is a farmer and depends upon his farm for a living. The big appropriations which he makes for his agricultural department are simply investments made on his own farm. Some of these are made for use in experiments from which come a knowledge of what the document of the According except the company of the compan to do or what not to do. A careful ex-periment which has resulted in a finan-cial failure is just as valuable in telling

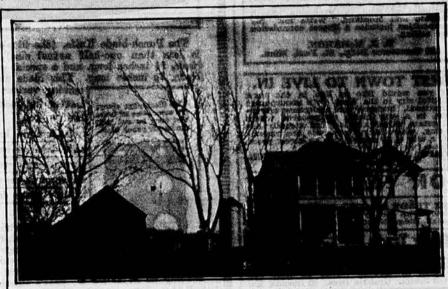
cial failure is just as valuable in telling us what not to do as is a successful one in telling us what to do.

The senate amendment to the agricultural appropriation bill reported last week includes \$200,000 for co-operation with the states in protecting forests against fire along water-sheds of navigable streams, \$50,000 for eradication of hog cholera, \$20,000 for improving breeds of potatoes, \$5,000 for an Arabian expedition in search of hardy alfalfa for

benefits of this act to work under gov-

ernment supervision and it also prevents
the interstate shipment of fraudulent
and worthless serums. It is now up to
the several states to pass laws preventing the manufacture and sale of fake
serums and providing for the inspection
of all that is offered for sale.

Kansas has been the dumping ground
for all sorts of quack remedies and nostrums for both man and beast, and would
have remained so but for the law. The
manufacture and sale of serum is not,
as yet, under control of a specific law,
and nowhere else is one so badly needed.
Manufacturers of serums in other states
can sell their wares in Kansas with but
slight fear of punishment for any atslight fear of punishment for any at-tempted fraud, and such a manufacturer may be honest and with no desire to defraud, and yet be engaged in making



RESIDENCE A. G. NELSON, MEADOW BROOK FARM, CHANUTE, KAN. THIS RESI-DENCE IS MODERN IN EVERY PARTICULAR—HAVING SEWER CONNECTIONS, BATH, HOT AND COLD WATER, AIR PRESSURE WATER SYSTEM, AND LIGHTED BY NATURAL GAS. THE STONE MILK HOUSE IN BACKGROUND HAS CEMENT FLOOR, SEWER CONNECTION, AND WATER SUPPLY BY AIR PRESSURE FROM WIND MILL.

semi-arid regions of the northwest, \$15,-000 for a national institute of agricul-ture to be created by the president, and \$10,000 for participation by the govern-ment in the dry land congress.

The senate bill provides as well for a "division of markets" for the study of marketing conditions in the United States and abroad. Another provision bars the interstate traffic in fraudulent or worthless serums intended to be used in inoculating domestic animals, fine of \$1,000 and one year's imprisonment be-

in inoculating domestic animals, fine of \$1,000 and one year's imprisonment being the penalty for violation.

This appropriation of \$50,000 for the eradication of hog cholera provides for much more than experiment with serums. It secures co-operation among the states by compelling all that participate in the

and selling a product which does not comply with standard requirements, and thus be perpetrating a fraud. Serum which is not prepared under standard requirements may not be efficient for results, while virulent blood necessary for the double treatment may not prove to be virulent, though taken from a cholera hog. Such things might happen and should be protected against just as much as those which are known to be fraudulent.

When the cholera-scared farmer attempts to protect himself in his dire necessity he should not be compelled to fight fakes and frauds, as well as cholera. The disease alone is enough, without the ghouls who prey upon his necessity.

Acid Phosphate Made Best Crop

Acid phosphate, when used alone as a fertilizer, produced the most profitable crop of wheat in a fertilizer test last season. The test, to determine which fertilizers can be most profitably applied to wheat, was conducted by O. A. Rhoads, a farmer near Columbus, Kan. The agronomy department of the Kansas Agricultural College cooperated with Mr. Rhoads in this test. The fertilizers were furnished by the agronomy department, and Mr. Rhoads carried on the experiment according to the directions experiment according to the directions sent out from the college.

The fertilizers used were: barnyard

manure, sulphate of potash, acid phosphate, and pure bone meal. To one plot of wheat no fertilizer was applied, so that this plot could be used as a check.

NET PROFIT, \$5.85.
The plot that was fertilized with acid phosphate alone yielded at the rate of 22 bushels an acre, or a net profit of \$6.85. The plot that was fertilized with sulphate of potash and acid phosphate yielded 24.3 bushels an acre, but produced a profit of only \$6.19. The plot to which barnyard manure was applied yielded 23.3 bushels of wheat an acre, or a net profit of \$6.65. Sulphate of potash, acid phosphate, and sodium nitrate were put on another plot, which yielded 16 bushels an acre, a loss of \$2.95. The check plot produced ten bushels an acre.

In a combination with sulphate of potash, acid phosphate caused a yield of 2.3 bushels an acre more, but the crop was sixty-six cents less profitable.

was previously stated that a combina-tion of fertilizers containing soid phos-phate, sulphate of potash, and sodium nitrate failed to increase the yield as much as did the acid phosphate alone, or the combination of acid phosphate and sulphate of potash. In this case the sodium nitrate probably produced a rank growth of straw, and as a result the wheat did not fill properly.

In the combination of sulphate of potash and acid phosphate, the sulphate of potash did not increase the yield sufficiently to pay for its being used.

TEN TONS TO THE ACRE.

Wheat upon which barnyard manure was applied at the rate of ten tons to the acre produced a profit of \$6.64, which was 21 cents less than that produced by 250 pounds of acid phosphate. The beneficial effect of barnyard manure generally continues for several seasons, so the total profit from the tentons application would be much larger than these of the acid phosphate. than those of the acid phosphate.

The results of this test indicate that prosphorus is lacking in the soil on Mr. Rhoads' farm and that fertilizers containing this element in an available form

can be used with profit.

Several types of soil are represented in Cherokee county, and the fertilizers giving the best results on one type of soil may not be the kinds necessary on another type. For this reason the re-sults obtained on Mr. Rhoads' farm may not apply for all the soils in Cherokee



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RHODE ISLAND REDS.

S. C. BED MALES, \$2; FEMALES, \$1. Excellence combined for size, eggs, color and vigor. O. G. Welch, Ipava, Ill.

DUCKS AND GEESE.

INDIAN BUNNER DUCK EGGS, 26 FOR \$1.00. D. Flesher, Princeton, Kan.

AMERICAN FAWN AND WHITE RUN-ners—Eggs, 12, \$1.25; 40, \$3.25. W. A. Hi-lands, Culver, Kan.

INDIAN BUNNEE DUCK EGGS—ENG-lish strain. Pure white eggs, \$1.50 per 15. Miss Pearl Grandfield, Maize, Kan.

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INDIAN BUNNERS, AMERICAN AND English. Greatest layers. Also Silver Wyan-dottes. Eggs, \$2 for 1t, postpaid. Orders booked now. Mrs. Ed Bergmann, Route 9, Paola, Kansas.

INDIAN RUNNER DUCK EGGS—FAWN and white, both light and dark. Heavy layers of white eggs. \$1.56 for 12 eggs, \$5, \$6 and \$7 per 106. Mrs. Annie E. Kean, Route 1, Carlton, Kan.

INDIAN RUNNER DUCKS, FAWN AND White. White egg strain. Last year made a record as high as 38 eggs in 96 days. Eggs, \$1.00 per 12. Pen selected females mated to second prize drake, Parsons Show, 1912. Eggs, \$1.50 per 12. Lant Bros., Dennis, Kan.

SEVERAL BREEDS.

BREEDER AND JUDGE OF ALL LAND and water fowls. Terms and catalog free. C. W. Brehm, Route 4, Harvard, Neb.

THOROUGHBRED POULTRY — SIXTY arieties. Catalog free. Jordan Poultry arm, Coffeyville, Kan.

BARRED BOOK AND ROSE COMB Brown Leghorn cockerels at \$1.59 each. Geo. J. Klein, Ellinwood, Kan.

48 VARIETIES, POULTRY, PIGEONS, ducks, geese, water fowl. Incubators. Feed and supplies. Catalogue 4 cents. Missouri Squab Co., Dept. C. V., Kirkwood, Mo.

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

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

THOROUGHBRED LANGSHANS, MINOR-cas, Reds, Orpingtons, Leghorns, Rocks, Ducks, etc., reasonable. Stock, eggs. Kan-sas Farms, Virgil, Kan.

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

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

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

SIXTY VARIETIES FANCY GEESE, ducks, turkeys, chickens, pea fowls, guincas, pigeons, pheasants. Stock and eggs cheap-to-page catalog. 2 cents. F. J. Damann, Farmington, Minn.

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

BOOK YOUR ORDERS FOR EGGS OF Barred, Buff, White Rocks, White and Brown Leghorns, Wyandottes, Langehans, Brahmas, Orpingtons, R. I. Reds, Gecre, Ducks, Turkeys and Guineas with the Mon-ree Poultry Yards, Monroe, Iowa. roe Poultry Yards, Monroe,

EGGS—EGGS—FROM THOROUGHBRED Toulouse and Emden Geese; Turkeys; Peltin, Muscovy and Runner Ducks; Houdan, Rhode Island Reds, Wyandottes, Hamburgs, Orpingtons, Games, Plymouth Rocks, Langshans, Cochins; Pearl and White Guincas; Bantams, Hen eggs, 15 for 31.00; by the hundred reasonable. Also rabbits. All kinds of fancy piscons. Say what you wish and get a free circular. D. L. Bruen, Platte Center, Neb.

MINORCAS.

SINGLE COMB BLACK MINORCAS—Stock and eggs for sale. Cockerels, \$1.25 to \$3.00 each. Dan Oberhellmann, Holstein, Mo.

BANTAMS.

BANTAMS, SEBRIGHTS, JAPANES12 Cochins, Games, Rose Combs, Brahm a Stock and eggs. Send 2c stamp for circu-lar. A. A. Fenn, Box 105, Delavan, Wis.

BARGAINS IN

Ozark Farms Timber, fruit and pasture from \$5 to \$100 per acre. If interested write Avery & Stephens, Mansfield, Mo.

KINGMAN 1,120 a. solid body, 350 cult., 500
COUNTY
KANSAS
RANCH
LAND CO., Kingman, Kansas.

183 ACRES.

Two miles from this town. Well improved, 40 acres pasture, rest farm land; 40 acres wheat goes with place. Possession March 1: Will carry back \$10,000. Price, \$16,000. ROY PUGH, Clay Center, Kan.

CROPS WILL PAY FOR IT. 329 acres, all smooth, improved, only \$3,600, with \$400 cash, balance crop payments. Send for details and list of other snaps for cash or easy terms. Buxton Land Co., Utlca, Ness County, Kan.

320 A., 3 ml. from shipping point, 5 ml. from Hamilton; 150 a. of it is fine bottom land; part in alfalfa now; 5 a. timber, about 200 a. in cult., 9-room house, good barns. A fine farm, worth \$16,000.

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A HOME BARGAIN. 80 acres, well improved, 2% miles from town and graded school; good alfalfa land. Price \$6000. Write for list. V. E. Niquette, Salina, Kan.

OUR RED LETTER SPECIAL. Will trade your property. Get into touch with live wires. Guaranteed deal. List to-day. Write for particulars. MID-WEST REALTY EXCHANGE, Riverton, Nebr.

FOR SALE—24-section ranch in rain belt of the Panhandle of Texas. Well watered and fenced, close to high school and rail-road. Plenty of farming land.

J. W. KNORPP, Groom, Texas.

320 ACRES of good farm land in Gray County, Texas, improved, rented this year on shares. Three miles of station. Other land for sale. Write J. W. KNORPP, Groom, Texas.

TWO BARGAINS.

100 acres near Olathe, well improved, fine, \$110.00 per acre.

Fifty-seven acres, improved, best of Kaw bottom land, greatest bargain in the county, AT KANSAS CITY'S DOOR. Write for lists.

T. H. MILLER, Olathe, Kansas.

\$1.75 PER MONTH

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

Drawer B. JOHN W. BAUGHMAN, Plains, Kan.

FINE 160 A. FARM, lime stone soil, good house, barn, etc. Nicely located. Will produce wheat, corn, clover, alfalfa. Part cultivated, balance pasture, meadow. Close to Fredonia, Kan., in oil gas belt. Will take \$40 a. and is worth \$75. Address Owner, Lock Box 807, Fredonia, Kan.

MANITOBA Section 5-5-28, W. 1, no pot-holes nor scrubs. A steam plow proposition. Close to half dozen elevators. \$15. terms. Discount for cash. MRS. CLEVELAND, 53 E. 60th St. North Portland, Ore.

150 THOUSAND ACRES

Black and chocolate loam farm land in Texas. Price, \$7.00 to \$10.00 per acre. Full description and testimonials furnished free. Write me today.

E. M. GIFFEE,
Blossom House, Kansas City, Mo.

3½ miles of paved streets of Ottawa, Kan. Six-room house, barn 40x50, 15 acres hogtight, 15 acres clover, 40 acres fine bluegrass, remainder in cultivation. Price, \$75 per acre. Terms to suit. Don't wait to write, come at once. Owner must sell.

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MAKE MONEY in the Dairy and Poultry business. Come to Mountain Grove, Wright County, Mo. The coming Dairy and Poultry country of the southwest. Good farm land cheap; mild winters, fine water, fine grass, good health. Write for descriptive literature. NEIGHBORS & FRISBEE, Mountain Grove, Missouri.

DICKINSON COUNTY BARGAIN.
97½ Acres fine river bottom land, one mile from Abilene, on main road, well improved; 35 acres alfalfa, 40 acres wheat. Wheat all goes. Not a foot of waste land. For sale at a bargain. Write for particulars and light

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Eighty acres, 4 miles from Osage City, Kan.; 46 acres in cultivation, family orchard, native grass pasture and meadow; 4-room house, good condition; good cellar, stable for five horses, corn crib, hen house, buggy house, good water, close to school, R. F. D. Price for quick sale, \$3,200.

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In good farms, 160 to 640 acres each, with fertile soil, pure water, ideal climate, in a highly developed community. An opportunity of a lifetime to get a good home on a rental basis. Write at once.

Texas Land & Development Company,
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REAL BARGAIN

To make division of property, will sell 400 acres of bottom land in heart of famous Artesian Valley of Meade County. Improved. Fine pump well and flowing well. 200 acres cuts two crops fine prairie hay. Adapted to alfalfa. Write

PAUL R. WALTERS, Fowler, Kansas.

138 ACRES splendid alfalfa, corn and orchard land, 1 mile from Chetopa, Kan., 160 miles south of Kansas City; high bottom; never loses crops from overflow; 25 acres in alfalfa, cuts 4 crops a year; no irrigation necessary; 60 acres in wheat, to be followed by alfalfa fall of 1913; all fenced; no buildings; \$50 per acre; easy payments; other bargains; send for list.

J. B. COOK, Owner, Chetopa, Kan.

Write New Home Land Co., Springfield, Mo., for lists of farm lands.

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

SMALL STOCK FARM
320 Acres in Russell County. Price right.
Good for alfalfa, corn and stock. Owner,
E. W. Voorhis, Russell, Kan.

TWO QUARTER SECTIONS—MUST SELL.
Both have paid better than 10% interest on price now asked through three of the dryest years ever known. We will guarantee you 10% this year, put up the cash in advance. One quarter only 1½ miles from county seat, the other only 3 miles from railroad town. All smooth, rich land, and in the rain belt. Price, \$14,000. \$7,300 cash will handle both farms. Will sell them separate on same terms.

F. L. NEWTON, Clay Center, Kan.

Will make a very attractive proposi-tion to agents. I have a splendid as-sortment of land in Minnesota, North Dakota and Montana. Write me. My proposition includes a liberal commission for salling. for selling.

D. J. McMAHON, 818 Commerce Bldg., St. Paul, Minn.

BEST TOWN TO LIVE IN.

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

EXCHANGE FOR

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

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

EXCHANGES EVERYWHERE. Get our air plan of making trades all over the Juited States. Graham Bros., El Dorado, Ks.

QUEEN ANNE COTTAGE in Kansas City, to, well located, strictly modern, to trade Mo., well located, strictly incuting for small farm. Write
TRIPLETT LAND CO., Garnett, Kansas.

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

EXCHANGE—Will trade my equity in 80 acres, Saline County; 6-room house, barn, well and mill, cistern, chicken house, some fenced hog-tight, 50 acres cultivated, 1½ miles to school, 3½ miles to two towns; mortgage, \$3,500, at 6 per cent. For live stock, hardware, or clear rental.

ED. A. DAVIS, Minneapolis, Kansas.

When writing advertisers, please mention KANSAS FARMER.

Selling of Breeding Stock.

Last season, over 500 poultry breeders found they could sell their surplus stock and eggs for hatching through their advertising in Kansas Farmer, at a better profit, than through other advertising. The reports of these breeders show that KANSAS FARMER is a sales-finding agent that works surely for a small wage.

KANSAS FARMER has a better circula-

tion for the sale of poultry and eggs to Kansas farmers than any paper published. Its total circulation is more largely among the farmers of Kansas, therefore the cost of advertising to these farmers is less than in any other publi-cation. The results had by poultry breeders from their advertising in it tell a conclusive story of low advertis-ing cost and quick sales at good prices. Here are a few reports from advertisers, (similar to hundreds of others) that show the money-saving quality of the sales-power of this paper:

BEST OF ANY.

I had better results from my poultry advertising in KANSAS FARMER than from any of the several papers I used. I am certainly well pleased with it, and will want to advertise in it again later on.—C. E. Torence & Son, El Dorado, Kan. (R. I. Reds and Golden Wyandottes.)

EXCEEDED EXPECTATIONS.

EXCEEDED EXPECTATIONS.

Results from my small poultry advertisement in KANSAS FARMER last season more than exceeded my expectations, and you can depend upon me for future advertisements. You will hear from me in ductime. I look forward to a very profitable season for 1918.—Chas. Hauk, Carthage, Mo. (S. C. Buff Orpingtons.)

BEATS OTHERS FOR BRINGING ORDERS.

I keep close accounts of all my poultry advertising in all of the many papers in which I advertise. KANSAS FARMER for three years has proved to be far ahead of others I have used in bringing in the orders. I sell thousands of baby chicks, besides large numbers of eggs for hatching and hundreds of birds for breeding stock.—Clara Colwell, Smith Center, Kan. (S. C. White Leghorns, Buff Orpingtons and R. C. Rhode Island Reds.)

The poultry advertising in KANSAS FARMER is carried at a special low rate, which, together with other valuable in-

which, together with other valuable information on finding quick and profitable sales, is fully made plain in our free booklet, PROFITABLE POULTRY SELL-ING. Drop a post-card or a letter for one of them to KANSAS FARMER, Topeka,

Special Knife Offers

We illustrate here two of the best and handlest knives for a farmer or stock breeder that we have ever been able to secure.

The blades of both these knives are made of the finest tempered tool steel, finely ground and highly polished. They are brass lined, with German silver bolsters and Stag horn handles. Either would cost from \$1.00 to \$1.25 in any retail store.



Premium Stock Knife.

Illustration about two-thirds actual size.

Three blades, fully warranted.

The Punch-blade Knife, (the illustration of which is less than one-half actual size), has one large blade, 2½ inches long, and a special punch or reamer blade, 2½ inches long. This blade may be used for making various sized holes in

leather for buckles, rivets, belt may be out with eather punch blade. lacings, etc.

Both these knives are guaranteed to us by the manufac turers, and we will replace either of them, without charge if they prove defective in any way.

We will send one of these

knives, prepaid, to anyone sending us one new subscriber to

KANSAS FARMER at the regular subscription price of \$1.00. They will be sent prepaid to any old or new subscriber to KANSAS FARMER sending us \$1.00 for a year's subscription, and 25 cents extra, or either will be sent prepaid to any paid-in-advance subscriber to KANSAS FARMER for only 65 cents. FARMER for only 65 cents.

Address, KANSAS FARMER, Topeka, Kansas \$..........

Hunting Season Is Here



Best quality, high test, hardened blue steel barrel, full choke. Extra heavy reinforced breech with stock and fore end of genuine walnut. Hard rubber butt plate. Patent stop on fore end. Can be taken down same as double barrel gun. The frame is best grade forged steel, fully nickel plated. Has top stop and rebounding hammer, with shell ejector. The gun is fully warranted for the use of smokeless powder shells.

The real live, worth while boy does not live who would not like to own a good shotgun or rifle. We have one for you.

Read the description of these fine guns, and fill in your name and address for one at once.

New Marksmar

Take down, single shot. Has heavy breech designed especially for smokeless powder ammunition. Has a 20-inch new trip-up barrel. Blue frame, patent lever, positive shell extractor. Full oval stock. Shotgun butt with rubber butt plate. Bead front and open rear sights. Weight four pounds. Shoots 22 calibre, all length cartridges.

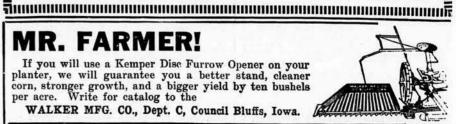
KANSAS FARMER, Topeka, Kan. Send me full particulars. Gentlemen—I want one of your Cross out name of gun not wanted. New Marksman Rifles. My Name.....

Address.....

MR. FARMER!

If you will use a Kemper Disc Furrow Opener on your planter, we will guarantee you a better stand, cleaner corn, stronger growth, and a bigger yield by ten bushels per acre. Write for catalog to the

WALKER MFG. CO., Dept. C, Council Bluffs, Iowa.



MENTION KANSAS FARMER WHEN YOU

Classified Advertising

Advertising "bergain counter." Thousands of people have surplus items or stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 300,000 readers for 4 cents a word for one week; 8 cents a word for twe weeks; 12 cents a word for four weeks. Additional weeks after four weeks, the rate is 3½ cents a word per week. No "ad" taken for less than 50 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

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

HELP WANTED.

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

WANTED — 2,000 RAILWAY MAIL clerks and clerk-carriers for parcel post. Examinations soon. Splendid salaries. Trial examination free. Write Ozment, 44 R, St.

FREE ILLUSTRATED BOOKLET TELLS about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet 8-809. No obligation. Earl Hopkins, Washington, D. C.

MEN AND WOMEN WANTED FOR GOVernment positions. \$90.00 month. Annual vacations. Short hours. Parcel post means thousands or railway mail clerks needed. "Pull" unnecessary. Farmers eligible. Write immediately for free list of positions open. Franklin Institute, Dept. L 86, Rochester, N. Y.

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

SITUATION WANTED.

A GOOD A NO. 1 MAN 85 YEARS OLD wants a good place to work on farm. Don't use tobacco nor liquor and can do all kinds of farm work. Understand care of all kinds of stock and good machine man. Give full particulars and state wages. Edward Rief, Route 1, St. Peter, Minn.

YOUNG MAN

YOUNG MAN, WOULD YOU ACCEPT and wear a fine tailor made suit just for showing it to your friends? Or a Slip-on Raincoat free? Could you use \$5 a day for a little spare time? Perhaps we can offer you a steady job? Write at once and ret beautiful samples, styles and this wonderful offer. Banner Tailoring Company, Dept. 210, Chicago.

CATTLE.

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

FIVE PURE-BRED AYRSHIRE BULL alves for sale. Herman Christensen, Mill-own, Wis.

FOR SALE—ONE GUERNSEY BULL and one bull calf; registered. Write for description and prices. W. E. Evans, Jewell, Kan.

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

REGISTERED. HOLSTEIN - FRIESTAN bull calves for sale. One ready for service. Price, \$65.00. T. M. Ewing, Independence, Kan.

SERVICEABLE HOLSTEIN BULL, BULL calves, registered, for sale. Dams, 8 gallons milk per day. Sire's two nearest dams, 28 pounds butter in 7 days. G. Regier, Whitewater, Kan.

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

AGED REGISTERED HOLSTEIN BULL, for sale.—Can't use longer in my herd. Has blood of best Holstein families and good-breeder. Write for particulars. A. H. Mc-Connell, Cherryvale, Kan.

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

When writing advertisers, please mention HORSES AND MULES.

FOR SALE — EXTRA GOOD YOUNG

SELL OR TRADE IMPORTED SHIRE allion, 7 years old. W. Elledge, Garden

SALE OR TRADE—1.000-POUND BLACK tok; home-bred English Shire stallions, 4 nd 5 years. Wm. Rayl, Hutchinson, Kan. jack; home-and 5 years.

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

FOR SALE—35 HEAD OF WESTERN mares in foal; age 3 to 7 years. O'Loughlin Bros., Lakin, Kan.

FOR SALE—BAY PERCHERON HIGH-grade stallion, coming 2 years old; 1,400 pounds. Will J. Stewart, Route 22, Waka-rusa, Kan.

JACKS FOR SALE—LARGE MAMMOTH black jacks, white points, abundance of bone, size, head and ear; 9 months old to 6 years old; reasonable prices. Guaranteed. S. C. Nunnelley, Route 6, Lexington, Ky.

MULES FOR SALE—37 HEAD OF COMing 3-year-old mules, about half mares; all big-boned and from 14.2 to 16 hands high. A few of them broke to harness. C. W. Higginbotham & Sons, Rossville, Shawnee Co., Kan.

REAL ESTATE.

320-ACRE FREE HOMESTEADS, BEST soil. Write A. P. Knight, Jireh, Wyo.

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

ONLY \$275 BUYS SMALL FARM. SHARE in profit paid until buyer takes possession. Write quickly for views and particulars. Geo. W. Deen, Box 543, Waycross, Ga.

TO TRADE—A GOOD QUARTER SEction of western land for cattle, hogs, or would take good auto for part. A. G. Woelk, Pawnee Rock, Kan.

FOR SALE OR TRADE—320 ACRES OF grass land in Pratt County, Kansas. A large per cent can be broke. Good water. W. E. Carnahan, Randall, Kan.

260 ACRES VALUABLE HOMESTEAD land, eastern Colorado; some improvements. Will trade for live stock. John Anderson, Route 2, Topeka, Kan.

KANSAS DIRT—CHOICE LEVEL 4 SEC., 40 acres broke, \$30.00. Improved 1/2 sec., level, for \$11.00 an acre. Other bargains. C. N. Owen, Alamota, Kan.

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

MISCELLANEOUS.

E. R. BOYNTON HAY CO., KANSAS City, Mo. Receivers and shippers. Try us.

WILL SELL FINE ORGAN, GOOD shape. Address J. C. Moore, 106 E. Fourth St., Topeka, Kan.

ROOFING COMPOSITION, SLATE, TILE, sheet metal, tinwork. Rinner & Warren, Topeka, Kan.

WE PRESS, CLEAN, DYE, MAKE AND repair clothes. Glenwood Cleaners, Topeka, Kan.

H. W. BOMGARDNER, FUNERAL DI-rector, Excellent new chapel. Best atten-tion. Topeka, Kan.

WILL SELL THIRTY STANDS OF BEES or what you pay for empty hives. Come oon. L. H. Wells, Paola, Kan. MAIL PRESCRIPTIONS TO GIBLER'S drug store. Filled correctly, sent parcel post. Topeka.

HEAVEN AND HELL—SWEDENBORG'S great work. 400 pages. 15 cents, postpaid. Pastor Landenberger, Windsor Place, St. Louis, Mo.

SHIP EGGS BY PARCEL POST. WE sell the cartons. Full description by return mail. Ross Bros. Seed House, 317 E. Douglas, Wichitz, Kan.

USEFUL, PRAUTICAL, SENSIBLE poutry journal, 15 months for 25 cents. It's chock full of hen sense and common sense. Address Useful Poutry Journal, Trenton, Mo.

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

PATENTS

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

PATENTS SECURED. SEND MODEL OR sketch for free search. Harry Patton, 323 McGill Bldg., Washington, D. C.

WANTED — WHITE ESKIMO SPITZ pupples under 8 weeks old. Brockway's Kennels, Baldwin, Kan.

TYPEWRITERS

OLIVER VISIBLE TYPEWRITER FOR sale cheap. Perfect condition and does nice writing. Could send on trial. Charley Rickart, Route 5, Rosedale, Kan.

SEEDS AND PLANTS.

ALFALFA SEED FOR SALE.—HOMER McClure, Republic, Kan.

250 STRAWBERRY PLANTS, \$1.00. BEST varieties. Wholesale prices on nursery stock. Free list. John F. Dayton, Waukon, Iowa.

KANSAS SUNFLOWER, REID'S YEL-low Dent, Boone County White, Iowa Silver-mine seed corn. Fred Sanders, Route 3, Concordia, Kan.

GOOD ALFALFA SEED FOR SALE— Clear of obnoxious weed seed; using for my own sowing. \$9 per bushel. A. L. Brooke, Phone 351, Grantville, Kan.

PLANT OUR KAFIR CORN. RIPE, selected seed from 80-acre field, averaged 56 bu. per acre. \$1.00 per bu., sacked, Topeka. Grand Champion white seed corn from \$280 prize corn, \$3.00 per bu. Snyder Seed Co., Toneke Ker. rize corn, \$3 opeka, Kan.

FOR \$1 I WILL SEND YOU EIGHT apple, pear, peach, plum or cherry 2 year 4 to 6 ft. grafted trees, or 75 raspberry, blackberry or dewberry, or 20 grape, currant, rhubarb or gooseberry, or 100 asparagus or 200 strawberry plants, or 25 Red Cedar or other evergreens, or eight 2 year Rambler roses. Catalog free. Manhattan Nursery, Box 1, Manhattan, Kan.

When writing advertisers, please mention KANSAS FARMER.

Dry Farming is Better Farming

ANY people believe that dry-farming is strictly a far-western method of agriculture in districts of very small rainfall, and it has puzzled them to know why the International zied them to know why the International Dry-Farming Congress should hold a convention in a region whose annual rainfall is close to forty inches. Mr. Burns, who is secretary-treasurer of the Congress, explains this in very clear fashion. He says that dry-farming, which is a hyphereted word is as much as ion. He says that dry-farming, which is a hyphenated word, is as much an agricultural system as is irrigation, and means as much in yields to the farmer who takes advantage of its methods. It means deep plowing and surface cultivation to save moisture. It means the planting of seeds which are accustomed to the climate in which they are expected to grow. It means the selection of crops for soils, the rotation of crops, and the return of manure to the land to maintain soil fertility.

return of manure to the land to maintain soil fertility.

It has been found, says Mr. Burns, that evaporation figures largely in the crop production of every district, and that therefore many regions of very heavy rainfall need dry-farming methods. The average loss by evaporation from April to September, inclusive, is 30 inches of water in Montana and North Dakota. In the southern and southwestern states during the same period it is from 40 to 55 inches, the latter figure including nearly all of Oklahoma and Texas. Texas.

It is also known that it requires 21 inches of annual rainfall to grow the same native grasses in Texas and Oklahoma that are produced in Colorado on 17 inches of rainfall and in Montana on 14 inches. In other words, seven inches more rainfall is needed in Oklahoma, for instance, to produce a profitable crop than it takes in Montana, merely because under ordinary conditions so much more of the vital crop element is lost through evaporation. Comparing the 20 or 25 inches of added evaporation with the seven inches of needed rain, it is also evident that any district having an evaporation three inches greater than an evaporation three inches greater than another district will need an additional inch of rainfall during the growing season to produce crops of equal quality and quantity. It is further evident that a southern rainfall of 30 inches, half of which comes in the growing season is of which comes in the growing season, is of no more value for the production of crops, unless the additional rainfall is conserved through proper tillage methods, than is a rainfall of 16 inches in

ods, than is a rainfall of 16 inches in North Dakota or Montana, half of which also falls within the growing season.

It is safe to say, Mr. Burns concludes from these figures, that the southern farmer who does not cultivate to hold his moisture loses at least four-fifths of it through evaporation during the growing season. This loss may readily be checked from 50 to 75 per cent. through tillage methods as taught by the dry-farming system, and all crop yields increased to a great degree. Every inch of rainfall saved for the use of the crop through dry-farming methods will crop through dry-farming methods will add from one to two and a half bushels of wheat to the acre, and other crops in proportion.

When a hard sediment forms in glass water bottles, pitchers or vases, keep the stained portions covered with lemon juice for several hours. It can then be easily removed by washing in the usual way.

10 Weeks For 10 Cents. We will send KANSAS FARMER on trial

10 weeks for 10 cents. Could you do five of your friends a greater favor than to introduce them to KANSAS FARMER by sending it to him for 10 weeks? To anyone sending us five trial subscriptions we will send, free, one of our threepage wall charts, containing a large map of Kansas, the United States, World, Insular possessions, a fine new map of the Panama Canal, and hundreds of statistical facts of interest, last census of cities, towns, countries, etc. Send us your club today. KANSAS FARMER,

Topeka, Kan.



When writing advertisers, please mention Kansas Farmer.

CANADA'S OFFERING

To The Settler western Canada le I

Western Canada le Increasin Free Homesteads In the Districts of Manitoba, Saskari-chewan and Alberta, there are thousands of Free Homesteads (left, which to the man making entry in 3 years' time will be worth from 80 to 820 per acre. These lands are well adapted to grain growing and cattle raising.

Excellent Railway Facilities
In many cases the railways in
Canada have been built in advance of settlement, and in a short time
there will not be a settler who need be
more than ten or twelve miles from a line
of railway. Railway Rates are regulated
by Government Commission.
SOCIAL CONDITIONS. The American Bettler is at home in Western Canada.
He is not a stranger in a strange land,
having nearly a million of his own people
already settled there. If you desire to
line why the condition of the Canadian
fettler is so prosperous write to any of
the Canadian Government Agents and
send for literature, rates, &c., to

Canadian Government Agent 125 W. 9th St. Kansas City, Mo.

or address Supt. of Immigration, Ottown, Canada.

HARNESS DIRECT 14-inch russet lea-halters, solid brass tubular riveted, five or six ring, \$1 each, \$11 per dozen. Write for harness catalog. INSKEEP & SCHAUBEL, Manhattan, Kan.

HOGS.

HAMPSHIRE HOGS-MALE PIGS, 150 pounds, \$15. Will Woodruff, Kinsley, Kan.

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

POLAND CHINAS—TWO BRED SOWS, one sired by Growthy King, the other by O. K. Chief, and my herd boar sired by Long Orange. Orlando Fitzsimmons, Yates Center, Kan.

DOGS.

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

GOATS

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

HONEY.

PURE ALFALFA—TWO 60-IB, CANS, cased, at \$9.50 per case, f.o.b. Las Animas, Colo. W. P. Morley, Producer.

POULTRY WANTED.

WE PAY 18c FOR TURKEYS; 12c FOR fat hens; 9c for stags. We sell seed potatoes, per bu., 75c; seed sweet potatoes, per bu., \$1.00; onlons, per bu., 75c. Cope's Sales System, Topeka, Kan.

RICHARDS SELLS SHORTHORNS.

A delayed letter calls attention to the fact that J. F. Richards of Bevier, Mo., will sell 30 head of Shorthorns in his great sale of March 19, instead of 20 head, as stated in his advertisement. As these cattle are Collynie bred, the sale is a most important one, and, with 30 head to select from, no one can afford to miss it. There will also be sold 30 head of bigtype Poland China tried sows and gilts of the Big Price kind. Be save to type Poland China tried sows and gilts of the Big Price kind. Be sure to attend or send bids to fieldman.

MENTION KANSAS FARMER WHEN YOU WRITE.

HORSES AND MULES

Closing out Sale OF DEER PARK BREEDING STOCK, TUESDAY, MARCH 18

SAPPINGTON & BROCKMAN of Centralia, Mo., will sell five head of registered Stallions and thirty Jacks and Jennets at their closing out sale, Tuesday, March 18, at Deer Park Breeding Stable, South Side, Centralia, Mo. The offerings in this sale include the best blood of Missouri and Kentucky and are as good a line of young stock as can be found anywhere. Don't miss this rare opportunity offered you. Remember the date, the place and the stock.

SADDINGTON & BROCKMAN CENTRALIA MO. SAPPINGTON & BROCKMAN, CENTRALIA, MO.

50-PERCHERON STALLIONS-50

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

BISHOP BROS., TOWANDA, KAN.



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

J. M. NOLAN

Paola

Kansas



PRAIRIE VIEW JACK FARM

LINCOLN. NEB.

80829

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

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



DIAMONDS IN THE ROUGH

I am offering for sale at very low prices fine lot of young Percheron, Belgian, rench Draft and Coach Stallions. These orses are not fat, but in good, thrifty andition and will make good. Come C. T. RICKETTS, Paola, Kansas.

Imported and Home Bred Stallions and Mares

PERCHERONS—BELGIANS—SHIRES



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

EXCELSIOR SHETLAND PONIES.

Registered stock. Ponies for sale, reason-ble prices. Spotted and solid colors. W. Fulcomer, Belleville, Kan.

Mammoth Jacks and Percheron Stallions

33 head of mammoth jacks and Percheron stallions—33. Jacks from 2 to 6 years old, from 15 to 16 hands high. Percherons from 2 to 5 years old weighing from 1,800 to 2,000 pounds. Farm and sale barn on 21st, one mile east of union stock yards.

J. C. KERR, Wichita, Kan.



JACKS AND JENNETS

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

PHIL WALKER, Moline, Elk Co., Kansas.

- A - C - K - S

Prize-winning jack, Black Dillingham. Also extra good 2-year-old jack, four extra good Jennets, one Percheron stallion, and the great stallion, Sir Roderick, a grandson of Assistus, the sire of many fast ones, also the great saddle stallion, Top Squirrel. Livery stock for sale. All priced right to close out.

A. B. DEAN, Dearborn, Mo.

Herd Jack For Sale

On account of other business, I am compelled to close out my Jacks. The great herd jack, Easter, by Black George, and a great grandson of the famous show jack, Compromise; also outstanding 2 and 3-year-olds and one jack colt. They are priced to sell quick. A bargain. Come and see them. R. W. MURPHY, Cosby, Missouri.

AL. E. SMITH STOCK FARM.



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

Mammoth Kentucky Jacks



Nine black, mealy-nosed, heavy-boned fellows, 6 months to 7 years, weighing up to 1.000 pounds, and 15 hands high. Also 15 jennets, all ages. Inspection invited.

A. ALTMAN,
Almena, Norton County, Kansas.

HORSES and JACKS

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

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

JACKS JACKS
I have an exceptionally good lot of jacks
for sale. They are from 2 to 6 years old
from 14 ½ to 16 hands high, black with
white points. They are all big boned mammoth jacks, priced to sell. Come and see
them. Lawson is 38 miles from Kansas City.
MOSS B. PARSONS, LAWSON, MO.

.PERCHERONS.

Three coming 4-year-old; three coming 3-year-old; two coming 2-year-old stallions. Home bred. Registered P. S. A. Trains direct Kansas City, St. Joseph.

FRED CHANDLER, R. 7, Chariton, Iowa.

HOME - BRED STALLIONS \$275 to \$650. Imported stallions \$700 to \$1,000, two higher. All draft breeds. Any banker in Creston, FRANK L. STREAM, Creston, Iowa.

GOOD YOUNG JACKS Ready for Service, BRUCE SAUNDERS, Holton, Kansas.

FIELD NOTES

It Sold a Herd.

Please discontinue my advertisement in Kansas Farmer, as all my cattle have been sold. I found it a good medium to let the public know what I have to sell.—MRS. WYATT STANLEY, Breeder of Shorthorn Cattle, Anthony, Kan.

Kansas Jack Sale a Great Success Kansas Jack Sale a Great Success.

D. J. Hutchins, Sterling, Kan., and H. T. Hineman & Sons, Dighton, Kan., held their first annual jack sale at Sterling, Kan., on Tuesday, February 25. It was the greatest sale of jacks ever held in Kansas. A large part of the offering were young jacks not ready for service. More jacks of mature age would have readily sold to the buyers who were present from Kansas and adjoining states. It was a jack-buying crowd, but the jennets were slow sale. Twenty-three jacks sold for \$14.890. average \$647.40; 11 jennets sold for \$997.50, average \$90,70. The following is a list of jack sales;

FIELD NOTES

1-B. L. Turner, Frederick, Kan	1,180,00
2-J. U. McCoy, Alamota, Kan	
3-R. H. Lamb, Pawnee Rock, Kan.	
4-J. C. Dean, Butler, Okla	525.00
5-A. T. Quick, Bluff City, Kan	1,005.00
6-T. C. Langford, Alamota, Kan	1,100.00
8-B. H. Linville, Wiley, Colo	600.00
9-G. W. Kirby, Bentley, Kan	220.00
10-G. H. Fornwalt, Penalosa, Kan.	900.00
12-H. L. Lalmon, Fowler, Kan	805.00
13-H. S. Guthridge, Kingman, Kan.	280.00
14-J. C. Windmill, Offerle, Kan	800.00
15-J. S. Humphrey, Pratt, Kan	400.00
	240.00
18-H. A. Hutchins, Lyons, Kan	
19-J. G. Clark, Fowler, Kan	565.00
20-E. G. Akers, Conway, Kan	350.00
21-G. W. Cook, Putnam, Okla	425.00
22-H. A. Hutchins, Lyons, Kan	225.00
23-T. E. Cavanaugh, Spearville, Ks.	805.00
24-M. E. Richardson, Sterling, Kan.	600.00
25-M. Blerton, Pratt, Kan	580.00
26-A. E. Rowland, Hutchinson, Ks.	560.00
	20.20

Last Call for Richards & Son's Sale.

Last Call for Richards & Son's Sale.

Breeders of Shorthorn cattle and Poland China hogs should not overlook the offering of J. H. Richards & Son at Bevier, Mo. March 19. Their offering of Shorthorn cattle will include sons and daughters of their great herd bull, Lord Collynie, by Imported Collynie, and a number of choice cows and heifers bred to this bull. They will sell a number of young bulls ready for service that are high-class in every way. Poland China breeders wanting the big, high-quality, easy-feeding kind will find Richards & Son's offering of tried sows and gilts one of the best of the season. They will have boars and gilts sired by the great boar. Pawnee Price, by Big Price; sows sired by Chief Price 4th and other great boars; sows and fall yearlings bred to Pawnee Price, and others to one of the good sons of Big Wonder. This offering of both cattle and hogs will be a very carefully selected lot and will be in a condition to make good.

"Ways and Means" for Farm Profit.

A prominent cattle feeder who is personally acquainted with Drs. Hess & Clark of Ashland, Ohio, writes as follows: "Perhaps the greatest achievement in recent farm science' is what is known among cattle feeders as 'the tonic idea'—the giving, in daily ration, of a simple, harmless preparation which aids and strengthens the digestive functions in stall-fed steers and milch cows. Dr. Hess, a veterinary surgeon of Ashland, Ohio, the originator, is a man of wide experience in both human and veterinary medicine. His study of foods and their effect on different animals led him irresistibly to the conclusion that a method of feeding was possible which would reduce food waste to an amount so slight as to be hardly worth considering. Working with this idea in mind, he finally formulated a preparation containing iron, nitrates and bitter tonics in right proportion to produce the result aimed at, and put it on the market under the name Dr. Hess Stock Food. Do not be misled, at this point, by the name, and think of Dr. Hess Stock Tonic as a ration to take the place of grain or fodder. It is not a ration, and in itself possesses no fattening or nourishing properties whatsoever. Its sole purpose is to make food available to further the digestive process so that less nutrition passes off as waste and more is converted into flesh and milk. Farmers have been—as was said a little way back—quick to see and appreciate the worth of Dr. Hess' Stock Tonic. Many give it regularly to all farm stock and find it of the very greatest value—the more so as, by building up bodily vigor in feeding animals, it goes far toward warding off disease." "Ways and Means" for Farm Profit.

animals, it goes far toward warding off disease."

How to Keep the Boys on the Farm.

In a recent issue of The World's Work, a successful farmer in discussing the problem of keeping his boys on the farm, wound up by giving this bit of timely advice: "Farmers are prosperous. They have automobiles, they have steam-heated houses, and live as well as anybody. Sentiment is all right, but sentiment won't hold boys on the farm. But let me tell you, if you make your boys think that a farmer can make more money, have more fun, lay by a better competence for old age than any other line, you will put those boys in a state of mind that you cannot drive them off the farm with a club." There is food for thought in his remark, and there is no denying that the great prosperity of the present-day farmers has been the light which has been calling many "back to the farm." And the things that have made for this great farm prosperity are the modern conveniences which have helped to make the farmer's home life more complete. The old-time drudgery that was always associated with farm life is practically a thing of the past. Instead of the nights being dreary and the family now spends a pleasant evening together in a steam-heated house, lighted by gas or electricity, and more than likely one of those wonder instruments, the Victor-Victrola, is there to furnish music and entertainment. Music is needed by the farmers, and when there is a Victor-Victrola at a price to suit every purse there is no reason why there shouldn't be one of these instruments in every farm home. It is one of the secrets of keeping the boy on the farm, and you should make it a point to hear the Victor-Victrola the next time you go, to town. There is likely a dealer near you who sells the Victor Victrola and he will be glad to demonstrate it to you. At any rate, get the handsome catalog by writing to the Victor Talking Machine Co., Camden, N. J., and you can then begin to appreciate what such an instrument would mean to your home.

Lamer's Big Horse Sale.

C. W. Lamer, Salina, Kan., will hold another of his big draft horse sales at his sale pavilion in Salina, Kan., on Thursday, March 13. He will offer twelve imported and eight home-bred Percheron, stallions and thirty mares and fillies, besides one jack. These animals have been carefully selected both at home and abroad, and will weigh from 1,500 to 2,100 pounds, according to age. On the day before this sale, March 12, Mr. Lamer will sell 100 brood mares, work horses and mules, and on the day following, March 14, G. C. Cochran & Son will sell Shorthorns in the same pavilion. Remember, the brood mares on March 12; the pure-bred Percherons and jack on March 13, and the Shorthorns on March 14. Something doing all the time.

Deming Ranch Bred Sow Sale.

JERSEY CATTLE



at as small feeding cost, nor is there any breed of cattle that will keep it up like Jerseys will, year in and year out. That's why you ought to buy Jerseys to increase your herd's efficiency. Send for Jersey facts.

AMERICAN JERSEY CATTLE CLUB 324 W. 23d St., New York

THE ENNIS FARM

Horine Station, Mo.
(Thirty Miles South of St. Louis.)
JERSEY CATTLE—BIG-BONED SPOTTED
POLANDS.
Send for quarterly bulletin listing stock
for sale. Best breeding and individuals.
Prices reasonable.
ALBERT S. ENNIS, Horine Station, Mo.

FOR SALE—One of the greatest young Jersey bulls ever bred. Sired by Eminent Cornet, by Eminent 2d, which sold for \$10,000. Dam of the calf is Sultana's Golden Tipsey, on official test will make a Register of Merit cow. Her dam gave 10,500 pounds milk, from which 740 pounds of butter was made in one year. Nice fawn color and elegant type.

color and elegant type.
R. J. LINSCOTT, Holton, Kan.

BANKS' FARM JERSEYS

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

W. N. BANKS, Independence, Kan.

GOLDEN RULE JERSEYS.
Richly bred helfers and bull calves for sale. The blood of Golden Lad and other noted sires. Farm one mile north of town. Inspection invited.
Johnson & Nordstrom, Clay Center, Kan.

WINELAND FARM JERSEYS.

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

50 HEAD Solid fawn colored, registered Jersey cows and helfers; a nice lot of springers; Forfarshire, Imp. Stockwell, Fox and Guenon Lad breeding. Three light fawn bull calves, St. Lambert blood.

S. S. SMITH, Clay Center, Kan.

JERSEY BULLS.
For Sale—An extra good tried sire of Tormentor breeding. Cannot use any longer.
Also, a 2-months-old calf of St. Lambert breeding. O. E. NICHOLS. Abilene, Kan.

AUCTIONEERS.

Missouri Auction School.

(Largest in the World.)
The school that gives you practice in actual sales in their own auction rooms.
Special four weeks actual practice term opens February 3. Address
W. B. CARPENTER,
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LIVE STOCK AND REAL ESTATE Auctioneer

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Kansas

J. E. BUMPAS The Missouri Big Type Hog Auctioneer. Write for date and terms. WINDSOR, MO.

Col. W. B. RYAN LEBANON. KANSAS.

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

Col. L. R. Brady Manhattan, Kansas. Ask about my work.

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W. B. CARPENTER Live Stock and Real Estate Auctioneer 14th and Grand Ave., Kansas City, Mo.

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Live Stock and General Auctioneer. Also
Registered Durocs.

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

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T. II. Indiapodi, Oswego, Rail	
22-Roy Johnston	30.00
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27-C. Schmidt, Oswego, Kan	20.00
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29-J. B. Dillingham	35.00
G. H. Schuttler, Bartlesville, Okla.	29.00
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36-J. H. Downing	25.00
35-J. H. Mason, Chetopa, Kan	40.00
39-J. F. Smith, Arkansas City, Kan	
or J. F. Billith, Arkansas City, Kan	31.00
40-F. O. Potter, Edna, Kan	45.00

GREEN LAWN STOCK FARM.

Some good September and October pigs at \$30 a pair. Strictly big type breeding. Don't forget ("F February 22 bred sow sale. Write for catalogue.

A. J. ERHART & SONS, Adrian, Mo.

STRAUS SPOLAND CHINAS Model Bill 54624 heads our herd, assisted y Model Wonder, one of the largest yearling boars of the breed. Fifteen spring oars for sale, priced to move them.

O. R. STRAUSS, Route 1. Milford, Kan.

TWENTY-FIVE SEPTEMBER BOARS AND GILTS
Sired by Big Bone Pete and out of mighty big sows. Express prepaid.

J. L. GRIFFITHS, RILEY, KANSAS.

HEBD BOAR FOR SALE.

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

FALL BOARS FOR SALE—Sired by First Quality and First Prize, a Mouw bred boar, out of such sows as Lady Golddust by Gold-dust. Hadley bred sow sale February 6. James Arkell, Boute 4, Junction City, Kan.

SATISFACTION OR MONEY BACK. For sale, 12 young boars, will make herd headers; 20 choice gilts; 100 spring pigs. Prices reasonable. W. A. BAKER & SON, Butler, Mo.

POLAND CHINAS

For sale. A May litter, 2 boars, 5 gilts. Fine ones. Breeding the gilts to one of the best boars in the land. \$20 to \$30. No

JEWELL BROS., Humboldt, Kan.

DUROC JERSEYS

DUROC APRIL BOARS—Well built, good length, heavy bone. Gilts bred for May farrow. Summer and fall pigs, both sexes write me what you want to buy. Have some choice stuff I will guarantee satisfaction on. Herd material and farmer's kind.

J. E. WELLER, Faucett, Mo.

QUIVERA HERD OF DUROC JERSEYS A few choice summer boars and glits by Quivera 106611 and M. & M.'s Col. 111095, G. MUNSELL, Route 4, Herington, Kan.

DUROC BRED SOWS AND GILTS.
25 choice Duroc Jersey tried sows and gilts, bred to a son of White Hall King. Good individuals and richly bred.
HOWELL BROS., Herkimer, Kan.

PERFECTION STOCK FARM DUROC JER-SEY HOGS.

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

GOLDEN RULE DURO JERSEYS

Young boars all sold. Sows all reserved for big bred sow sale January 30. Can spare one good herd boar December 15.

LEON CARTER, Asherville, Kan.

Crow's Durocs

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

W. R. CROW, Hutchinson, Kansas. MARSH CREEK DUROCS.

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

E. P. WELLS, Formoso, Kan.

DUROC BRED SOWS FOR SALE.
Choice individuals, sired by Tatarrax
Chief, White House King and Carl Critic.
Reasonable prices.
ALVIN VILANDER, Manhattan, Kan.

OHIO IMPROVED CHESTERS

O. I. C.—125 Head Hogs

Pigs in pairs. Bred sows, and 40 boars ready for service. Fifty fall gilts.
W. H. LYNCH, READING, KAN.

WOLFE'S O. I. C. SWINE.

Large, prolific kind, March and April
loars. Gilts bred or open. Fall pigs. Prices
ow. Pedigrees free. Write your wants.
D. W. WOLFE, Route 2, Carrollton, Mo.

O. I. C. PIGS—PAIR, \$25.00. H. W. HAYNES, MERIDEN, KANSAS.

HAMPSHIRE HOGS



Tried sows and gilts for sale, bred for spring farrow. A few fall pigs left. A. M. BEAR, Medora, Kan.

We have a few gilts and tried sows, bred to Sunny Brook 1st, 9483, he by the famous Pat Maloy 1415, which will farrow during the month of April. We will offer these to the public for a short time at very reasonable prices.

WM. INGE & CO., Independence, Kan.

MULE FOOT HOGS

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

When writing advertisers, please mention kansas Farmer.

FIELD NOTES

The Harrison Nurseries of Berlin, Maryland, have a very excellent catalog this year.

To sheep men, the forty-fourth catalog issued by the Chicago Flexible Shaft Co. should be very interesting.

The monthly news bulletin of the Rumely Co., La Porte, Ind., for February, is at hand, and as usual is replete with excellent matter.

The Jeschke Manufacturing Co. of Bellevue, Ohio, have out an excelent booklet on the value of ditching, entitled "Ditching Dollars." Anyone interested should write for this booklet.

The Hackney Auto Plow Co. of St. Paul, Minn., has a very well illustrated and attractive Catalog C. The illustrations are well to the point and with reading matter combined make an excellent treatise on this subject.

The 1913 Farmers' Manual, by the Henderson Seed Co. of 35-37 Cortland Street. New York, is just published, and as usual is an excellent number. Replete with many illustrations and much information, it is a fine booklet for those interested.

Another issue of that excellent booklet by Henry Field entitled "Field's Seed Sense" has just been issued. It is sparkling from cover to cover and has the same ex-cellence of material that is always charac-teristic of it.

Mr. Pirie of the Chalmers Motor Car Company of Kansas City, Mo., has an unusual offer in this week's issue of Kansas Farmer of second-hand automobiles for sale. He says they are in excellent shape and that he is making the prices right. It seems like an unusually good offer he makes, and no doubt there are many people interested and looking for this kind of a bargain.

The Avery Gas and Oil Tractor Catalog for 1913 is out and has a very excellent front page showing one of their tractors working. There is an attractive picture on page 5 of their 12-traction 25-brake horse-power Avery "Light Weight" Gas and Oil Tractor. This one they are placing on the market for \$1,200. Their catalog is interesting and instructive and can be had for the asking.

The St. Joseph Veterinary College has been entirely reorganized and in own offering a very excellent course in veterinary medicine. New instructors and complete equipment make this school one of standing. Their reading matter states that the college now complies with all requirements of the United States Department of Agriculture governing eligibility to veterinary inspector's examinations.

Jack and Stallion Sale.

Sappington & Brockman, Centralia, Mo., will close out their herd of 30 jacks and jennets at public sale on March 18. They will also sell five head of stallons, some of the best blood of Kentucky and Missouri ncluded. Don't forget this sale, nor the place, nor the date.

Rinehart's Good Deal.

Rinehart & Son, Smith Center, Kan., write that they have just sold a bunch of 22 Duroc Jersey bred gilts at an average of \$35 per head. If these had been included with their public sale stuff on which they averaged \$42.50, the average would have been \$39.75. Not so bad.

Better Than Ever.

Please find enclosed a check for our advertising bill. Kansas Farmer has done better work for us than ever before, and we think it is one of the best farm papers published. You may continue our advertisement without change.—JEWELL BROS., Breeders of Shorthorns and Poland Chinas, Humboldt, Kan.

Last Call for Clary & Son's Jack Sale.

This will be the last call for J. E. Clary & Son's annual jack sale. This will be one of their greatest offerings and during the many years they have been holding annual sales they have had some fine ones. They have a lot of jacks and jennets this year that will interest buyers wanting good ones, and their offering of horses and mules, also cows and brood sows, is the kind that makes good. Don't fail to attend this great sale event of northwest Missouri at Sheridan, Mo., on March 12. Last Call for Clary & Son's Jack Sale.

Mulefoot Hogs.

Mulefoot Hogs.

Sultan Farm, Bloomington, Ind., writes:
"We have received many inquiries from our
advertisement in Kansas Farmer and have
recently shipped five Mulefoot pigs to Henry
Myers, Bendena, Kan., who writes that he
is well pleased with them. The pigs from
our herd are going all over the United States,
from Nevada and Arizona to Mississippi and
Pennsylvania. We still have a few late fall
pigs which are crowding our room for the
spring litters. We know that the corn and
alfalfa of Kansas could be put to no better
or more profitable use than to be fed to
these same pigs."

How to Make Money on Hogs.

If hogs are kept healthy and their appetite good at all times, there is no waste of feed. Their food is quickly assimilated, and hogs gain flesh very rapidly. This means quick return for the hog man and large profits. Dr. D. C. Snoddy Co., Nashville, Tenn., claim their Hog Powder superior to anything for this purpose. It not only prevents disease, but keeps hogs in a healthy, growing condition at all times, and they fatten and grow much faster. This means money to the farmer. It also clears hogs of all worms, and cures hogs after they are sick. Hog men should look into this matter, and write Dr. D. C. Snoddy Co., Hog Specialist, Nashville, their hog book and particulars. Mention Kansas Farmer when you write. How to Make Money on Hogs.

Have You Necessary Tools for Spring Work?

This is the time to look around and see what tools you need for spring work. In the line of cultivating tools you'll probably need some good rakes and hoes, while good manure forks will be much in demand. Get the best, Keen Kutter. The undisputed quality line of farm tools in America today is Keen Kutter. Made by the Simmons Hardware Co., of St. Louis, Mo., and sold by dealers in every city, town, village and crossroad in the United States, these tools have won their reputation on steel quality, fine cutting edges, sharp points, perfect temper and straight-grained handles. Keen Kutter tools have "hang" to them—they work with the worker, saving labor, time and money. Whatever you need in spring tools, specify Keen Kutter, for then you get an unqualified guarantee that every tool must be perfect or your money will be refunded by your dealer. Have you the necessary tools for spring work? Have You Necessary Tools for Spring Work?

POLAND CHINAS

POLAND CHINAS

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

Having decided not to hold our February sow sale, we will offer at private sale 10 tried sows, 10 fall yearlings and 10 spring gilts. Blood lines Designer, Major Look, or Gold Metal. Safe in pig for March and April farrow. Price, \$25 to \$50.



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

WRAY & SON'S BIG TYPE POLAND CHINAS

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

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

Hillwood Herd of Hampshires

Twenty head of choice gilts sired by the great boars, Earlinger, Pirate and Edward's e Belt, the prize winning boars, bred to Sure Shot and Taft for March and April ow. Priced right for quick sale. Have no room for them.

J. Q. EDWARDS

SMITHVILLE, MO.

BRED SHROPSHIRE EWES mated to the best imported rams obtaintant English prizes, as well as the most coveted American blue ribbons, and new head the flocks at Henley Ranch.

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

HENLEY RANCH, GREENGASTIE MO

while the ewes can be safety handled.

HENLEY RANCH, GREENCASTLE, MO.

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

SHROPSHIRE SHEEP

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

ED GREEN, Howard, Kan.

RED POLLED CATTLE

PHILIPS COUNTY RED POLLS. For Sale—Cows and heifers, sired by the great Launfal and bred to Cremo 22d. CHAS. MORRISON & SON, Philipsburg, Kan.

AULD BROTHERS Red Polled Cattle

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

Coburn Herd of Red Polled Cattle and
Percheron Horses.
25 extra good young bulls and 7 first
class young stallions for sale at bargain
prices. Also young cows and heifers.
GEO. GROENMILLER & SON,
Pomona, Kansas.

SHORTHORN CATTLE

Choice Young Shorthorns

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

PEARL SHORTHORN HERD.

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

C. W. TAYLOR, Abilene, Kan.

High Class Shorthorn Bulls

Lord Mayor 3d 249943, 8 years this spring, weight 2200, on pasture alone. Three years in show ring, won 22 championships. His calves never defeated. Price \$200. Lords Duplicate, May Calf. Good all over, Show prospects. Price \$150, LAUDE & SON, ROSE, KANSAS.

125 Miles Southeast of Kansas City.

SCOTCH SHORTHORN BULLS
Reds and roans, mainly Captain (205741)
Archer blood, from 8 months up. Two good
roan herd bulls. Reasonable prices. Write
for prices, breeding and photos.
MRS. WYATT STANLEY, Anthony, Kan.

OXFORD DOWN SHEEP

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

POLLED DURHAM CATTLE

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

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

POLLED DURHAMS.

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

C. J. WOODS, CHILES, KANSAS.

GALLOWAY CATTLE

SMOKY HILL GALLOWAYS

A carload of yearling and 2-year-old bulls J. GUILBERT, Wallace, Kan.

HOLSTEIN CATTLE

Holsteins For Sale

High grade cows and heifers, about 40 head, heavy springers, from two to five years old. Fifteen head coming two-years to freshen this spring and summer; all bred to registered bulls. Also bulls, high grade and registered, from 4 to 12 months old. These are all highly bred dairy cattle and fine young stuff.

IRA ROMIG, Station B, Topeka, Kansas.

M. E. MOORE & CO.

Cameron, Missouri.

A special bargain in registered young bulls, sired by our herd bull, and tuberculin tested. Could spare a few very high-class

MISSOURI HOLSTEINS.

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

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



HOLSTEIN CATTLE
The Greatest Dairy Breed.
Send for FREE Illustrated Booklets.

Holstein-Friesian Association, Box 114, Brattlebore, Vt.

CHENANGO VALLEY GRADE HOLSTEINS Fifty extra fine, well bred, nicely marked ung cows to freshen in two mont high grade, well bred heifers coming two and three years old and bred to registered

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

HOLSTEINS FOR SALE.
Fifty head of registered helfers and bulls; also 75 head bred helfers and young cows, \$58.50 up. Come and see them.
M. P. KNUDSEN, Concordia, Kan.

CORYDALE FARM HERD.

Holsteins. Three registered bull calves.
Also offer one high-grade Shire Stallion and
two span young Draft Mares for sale.
L. F. CORY, Belleville, Kansas.

HOLSTEIN BULL CALVES always en and, and worth the price.
H. B. COWLES, Topeka, Kansas.

Ask your dealers for brands of goods advertised in KAN-SAS FARMER.

CLARY & SONS Sixteenth Annual Jack Sale at Sheridan, Missouri

Wed. March 12, 1913

The jacks range in age from yearlings to four-year-olds. They are a lot of big-boned jacks with quality, black with white points, and right in every way. An extra good lot of jennets ranging in age from four to eight years old and all bred to the great jack, Ben Hur.

Will also sell a select lot of horses and mules, including extra good road and draft mares. Twenty head of choice cows, some with calves by side. Ten head extra good brood sows. Sheridan is 55 miles north of St. Joseph, on Great Western Railroad. Good train service. This will be one of our biggest and best offerings.

R. L. HARRIMAN, Auctioneer. W. J. CODY, Fieldman.

J. E. Clary & Sons, Sheridan, Mo.



Never before have we had as choice a lot of young cows and helfers to pick from, in lots of one to a carload. Some twenty head to calve within next 90 days by sires of the best A. R. O. backing. A clean, straight, sound lot, all tuberculin tested. The calves from these cows should be worth half the purchase price. Come see the herd, or write for breeding and prices. Herd numbers nearly 50 head, all registered.

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

The West's Largest Importing and Breeding Establishment.

IMPORTERS AND BREEDERS OF

Percheron Belgians and Shire Stallions and Mares. 120 Head to Select From.

Our stallions and mares are strong and massive, with great quality, style and conformation, with splendid color and dispositions. They are selected with an eye single to the wants of the most critical American buyers, and we can sell them for less money than any one in the business, quality considered. The stallions will go into any community and command the best mares, command the men who are the best pay and who take the best care of their stock. Let us know your wants. We can suit you in both price and quality.

L. R. WILEY,

EMPORIA, KANSAS

Lafayette Jack

HIGGINSVILLE, MISSOURI

MAMMOTH JACKS AND PERCHERON STALLIONS

TWENTY JACKS—Three to six years old; 14½ to 16 hands high. All black; all broke and guaranteed.

TEN PERCHERON STALLIONS—Two to eight years. Mostly imported. All guaranteed breeders.

Will Exchange Stallions for Good Jacks. One German Coach stallion eleven years old. One Belgian stallion five years old. Both sound. Twenty jennets in foal to my champion jack, Dr. McCord.

ALL FOR SALE PRIVATELY—NO PUBLIC SALE THIS SPRING. Visit or Write.

FINLEY

HIGGINSVILLE, MO.

Fifty-five Miles East of Kansas City on C. & A. R. R.



IMPORTED PERCHERON STALLIONS, JACKS AND JENNETS.

FOR SALE—5 imported black Percheron stallions, 4 to 6 years old; all tried and regular breeders; can show colts; weigh 1,800 to 2,200 pounds. One Morgan stallion, 7 years old. 10 large black Jacks, 2 to 7 years old, all broke; good performers; can show colts and mares in foal. 10 head big black jennets, all bred to our imported jack. Prices reasonable. Write or come to farm 4 miles from Raymond or Chase. Our horses and jacks were shown at the Kansas State Fair at Hutchinson, September, 1912, in six different classes, and won in every class. Come ix different classes, and won in every class, see us. J. P. and M. H. MALONE, CHASE, KAN



DEIERLING & OTTO'S PRIZE WINNING



50 — Mammoth Jacks and Jennets — 50

From 2 to 5 years old, big-bined, big black kind with white points; 15 to 16 hands high. We are offering our prize winners at Missouri, Iowa and Illinois State Fairs, 1912. Every jack and jennet guaranteed just as represented.

DEIERLING & OTTO, QUEEN CITY, MO.

For Sale at Riverside Stock Farm—Registered Percherons.

10 head of young stallions from 2 to 3 years old. 4 head coming 3 years old that weigh from 1650 pounds to 1800 pounds. 4 head coming 2 years old that weigh from 1500 to 1600 pounds, blacks and dark greys. They are the big bone kind. 2 head standard bred and weigh from 1250 to 1280 pounds. 3 head of large young Jacks, Mammoth bred, from 15 to 15½, well broke. A warrantee goes with every animal as to soundness and breeding.

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

On the main line of the Union Pacific R. R., 150 miles west of Kansas City, Mo.

Lamer's Percheron Sale

Thursday, March 13, 1913

MARES and

Consisting of

Twelve Stallions, 3 years old (imported), weighing from 1,900 to 2,100 pounds.

Eight Stallions, 1 to 5 years old (home bred).

Thirty Mares and Fillies.

ONE JACK

The horses in the above consignment were all carefully selected and bought by me and I can assure you that no prospective purchaser will be disappointed if he attends this sale.

My stallions weigh from 1,500 to 2,100 pounds; mares weigh from 1,500 to 2,000 pounds, and most of them are heavy in foal.

COME ONE DAY BEFORE SALE AND LOOK THIS STOCK OVER.

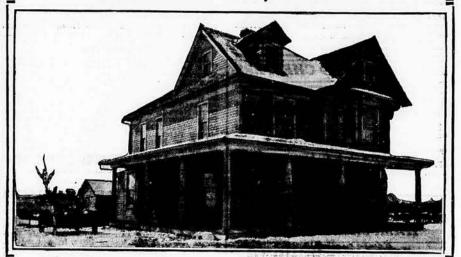
WRITE FOR CATALOG.

C.W.Lamer&Co. Salina, Kansas

P. S.—On Wednesday, March 12, we sell 100 head Brood Mares, Work Horses and Mules.

Shorthorn Cattle (70 head) of C. G. Cochran & Sons will be sold here on Friday, March 14.

A Well Improved Stock Farm at Auction **March** 12, 1913



2½ Miles from Louisburg, Kan.; 30 Miles South of Kansas City, Mo.

On rural route, telephone, close to good school. Large new modern house, On rural route, telephone, close to good school. Large new modern house, good outbuildings, plenty good water, new orehard with all standard varieties of fruit, good barn 32 x 54, good sheds, plenty of spring water at barn, good hog houses and other buildings. A good six-room tenant house with other buildings. Ten acres prairie, 60 acres bluegrass and timber pasture, three springs and never-failing water in pasture, 14 acres alfalfa, fine stand; 40 acres good meadow, 12 acres rye; 210 acres under cultivation; about 40 acres extra good bottom land; 50 acres fenced hog-tight.

This farm will be sold to the highest bidder on March 12, 1913. Louisburg. Miami County. Kansas, is a heautiful little town, good stares good

burg, Miami County, Kansas, is a beautiful little town; good stores, good schools and six churches, including one Catholic. Very liberal terms can be made to purchaser. Free transportation from Louisburg on sale day. For further information write or wire

W. C. McDOWELL, Clerk, Louisburg, Kansas. Andy Weir, Auctioneer.

ANK IAM'S DRAFT STALLIONS AND MARES

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

PERCHERON AND BELGIAN STALLIONS AND MARES

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

Get Into lams' "get rich wagon" and save

\$1,000 on a "top stallion"

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

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

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

[few higher) than are sold to stock companies for \$4,000. Imported mares, \$700 and \$1,000. Iams gives 60 per cent breeding guarantee; pays freight on horse and fare of one buyer. He can furnish \$1,500 insurance. Iams buys and sells every stallion himself. Saves buyers \$1,000 in middlemen's profits. He buys stallions by "train load." He speaks languages—(saving 20 per cent). He is not in the "stallion trust." No partners to share profits. He "pays cash" for his horses—and sells "top notchers" by He speaks languages—(saving 20 per cent). He is not in the "stallion trust." No partners to share profits. He "pays cash" for his horses—and sells "top notchers" by "that sell "hot advertising" and having "the goods." "Big Ikey," leave your "happy" home and buy a "top" stallion or pair of imported mares (of Iams) that bring colts that sell "American full. bloods" of questionable breeding. Buy an imported at \$500 each. "Papa," don't let those "auction men" "hand you a lemon" in one of those "so-called" "American full. bloods" of questionable breeding. Buy an imported at \$500 each. "Papa," don't let those "auction men" "hand you a lemon" in one of those "so-called" "American full. bloods" of questionable breeding. Buy an imported at \$500 each. "Papa," don't let those "auction men" "hand you a lemon" in one of those "so-called" "American full. bloods" of questionable breeding. Buy an imported at \$500 each. "Papa," don't let those "auction men" "hand you a lemon" in one of those "so-called" "American full. bloods" of questionable breeding. Buy an imported the sells that the sells of them." Iams' guarantees are backed by "half million dollars." References—lst won't let you go without a peaches and cream stallion or mare. "He sells the tails off them." Iams' guarantees are backed by "half million dollars." References—lst won't let you go without a peaches and cream stallion or mare. "He sells the tails off them." Iams' guarantees are backed by "half million dollars." References—lst Nat'l



Wednesday, March 19, 1913

20 Head, High Class Scotch and Scotch Topped Short-horn Cattle

Six bulls sired by the great Lord Collynie, by Imported Collynie. A number of choice yearling heifers sired by this bull, and a high-class lot of two and three-year-old heifers and cows, all of breeding age and safe in calf to Lord Collynie.

Also thirty head of tried sows and gilts, including daughters of our great herd boar, Pawnee Price, by Big Price. Tried sows that are right for size and Also thirty head of tried sows and gilts, including daughters of our great herd boar, Pawnee Price, and others to one of the best sons of Big Wonder. quality, a number of young boars sired by Pawnee Price, tried sows and fall yearlings bred to Pawnee Price, and others to one of the best sons of Big Wonder. We have the size with quality, the easy feeding kind. Bids sent to fieldman or auctioneers in our care will receive careful attention. Write for catalog at once. We have no mailing list.

once. We have no mailing list.
AUCTIONEERS—COLS. HARRIMAN AND COTTINGHAM.
W. J. CODY, FIELDMAN.

J. F. RICHARDS & SONS, Bevier, Missouri



ROBISON'S PERCHERONS

One hundred fifty percheron stallions, mares and colts. Fifty imported. All for sale.

J. C. Robison, Towanda, Ks.

PARK & FIRKINS' PERCHERONS AND JACKS.

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

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

MENTION KANSAS FARMER WHEN YOU WRITE.



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

W. H. RICHARDS, - - EMPORIA, KANSAS

Imported Stallions: Percheron, Shire, Belgian

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

GOCHRAN'S BIG SHORT-HORN CATTLE SALE

Lamar's Pavilion, Salina, Kansas

FRIDAY, MARCH 14, '13

70 Head, Select Draft from our 70 Herd Numbering Over 500 70

FIFTY-FIVE FEMALES FIFTEEN BULLS



The females consist of choice young cows and heifers, mostly descended from animals that we have purchased out of the best herds in this and other states. Our policy was always to buy the best without much regard to cost if the animal suited. Every female in this sale will be in calf to a bull that has proven his greatness as a sire. The bulls included are good, blocky, thick-fleshed fellows of serviceable age. The offering is Scotch and Scotch topped, and full information can be had by writing at once for catalog. We have raised these cattle under the most natural conditions possible and fed them only such feeds as grow upon Kansas farms in our part of the state, and they will be sold without the big fat, but will be all the more valuable for their new owners.

G. COCHRAN & SON, PLAINVILLE, KANSAS

Auctioneers: Cols. Carey M. Jones, J. W. Travis and L. S. Ruggles.

Fieldman, Jesse Johnson.

C. W. Lamer & Co. Sell Registered Percherons at the same place the day before. Attend both sales.

DISPERSION DUROC JERSEY SALE—Formoso, Jewell Co., Kansas, Thursday, March 13, 1913

FORTY RICHLY BRED DUROC JERSEY BRED SOWS AND GILTS. FOUR TRIED SOWS. THIRTY-FIVE FALL YEARLINGS AND SPRING GILTS. ONE HERD BOAR.



Sired by such boars as Hebron Wonder, Kansas Special, Nebraska Boy by Bonnie K, Defiance 2d by Defiance, and Triumphs Hero by Bell's Chief. The offering as a whole represents the big, well formed type. Among the attractions will be Kansas Bessie by Kansas Special, and Bessie Mack by Hebron Wonder, Every female in the sale will be safe in pig to one or the other of these great boars: Red Bobbie 135203; B. & C.'s Col. Chief 135709. or Crimson Prince. Send for catalog and if unable to attend send bids to Jesse Johnson or Walter Ward in our care.

Auctioneer, John Brennen. Fieldman, Jesse Johnson.

STURTEVANT & McMULLEN, Formoso, Kan.

GANZDALE HERD.

WE ARE OFFERING ANYTHING IN OUR HERD

FOR SALE.

Pure-bred registered Holsteins, nothing else. We are breeders, not jobbers, and do keep grade stuff. We offer anything in our herd, from one to a carload. We can a you young bulls, some old enough for light service, that combine the blood of sevworld's champions, and at prices extraordinarily low. If you want blood from the and at grade prices, come and see us, write, or telephone. We answer promptly inquiry. We want to sell.

CASPER A. GANTZ, Prop. - King City, Missouri

Shorthorns Make Best Gains.

The Florida Experiment Station bred Hereford, Shorthorn and native bulls to native cows. After breeding the cows were kept on range until the calves were weaned at seven and a half months of age. The calves were kept in the same pasture after weaning and were given the run of velvet beans and Japanese cane field.

At birth the calves weighed as follows: Grade Herefords, 47.9 pounds; grade Shorthorns, 56 pounds; natives, 48.6 pounds each. At weaning time the weights for the grade Herefords were 351.6 pounds, the grade Shorthorns 342.5 pounds, and for the natives 305 pounds.

60 HEAD of solid fawn-colored Jersey cows and heifers of fashionable breeding. Will make special prices on car lots. Most of them in calf to "Blue Boy Baron," sired by half brother to Noble of Oakland. His five nearest dams on mother's side made 102 pounds butter in 7 days. A few light fawn bull calves. S. S. Smith, Clay Center, Kan. mals were put in a small yard and fed a ration of shelled corn, cottonseed meal and Japanese cane. The average daily gains were 1.25 pounds for the grade Herefords, 1.89 pounds foh the grade Shorthorns, and 1.78 pounds for the na-

Test Front Wheels for Play.

Test the front wheels occasionally for Test the front wheels occasionally for smoothness of running and side play. Jack up each wheel and give it a tug and a push to see if there is any side play. If any is noticed, it should be remedied at once by taking up the bearings. In spinning the wheel listen at the hub. If any sharp clicks are heard it is an indication that there is a split or chipped ball which should be removed. ball, which should be removed.

WIGSTONE BROS. - - - STANTON, IOWA

Mend Your Own Harness WITH A KANSAS FARMER SPEEDY STITCHER SEW-



This Speedy Stitcher Awl is the latest and best hand sewing tool on the market. The regular price is \$1 everywhere. Finished in highly polished rock maple handle and nickel metal parts. Provided with a set of diamond-pointed, grooved needles, including a special needle for tapping shoes. All parts inside the handle. Convenient to carry—always ready to mend a rip or tear. Anyone can operate the Speedy Stitcher. Mends anything made of leather or canvas.

OUR OFFER.

We will send one of these Speedy Stitcher Awis to anyone sending us one new subscription to KANSAS FARMER for one year at our regular subscription price of \$1, or will send it free to any present subscriber sending \$1 for a renewal subscription, and 25 cents extra for shipping.

THE KANSAS FARMER, Topeka, Kansas.

FIELD NOTES

O. W. Devine......Topeka, Kan.

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

PURE BRED STOCK SALES.

Bercherons and Other Draft Breeds. May 21-J. C. Robison, Towanda, Kan.

Percherons and Jacks. March 12—L. H. Luckhardt, Tarkio, Mo.

March 10—G. C. Roan, La Plata, Mo. March 12—J. E. Clary & Sons, Sheridan, Mo.

Shorthorns.

March 14-C. G. Cochran & Son, Plainville, Kan.
Sale in Lamer's pavillion, Salha, Kan.
Sale in Lamer's Pavillion, Salha, Kan.
March 19—J. F. Richards & Sort, Herier, Mo.

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

Poland Chinas.

March 19—J. F. Richards, Revier, Mo.
Aprili 3—Roy Joinston, South Mound, Rich.
Aprili 18—W. F. Fulton, Waterville, Han.
Oct. 21—H. B. Weiter, Himming an, Han.
Feb 10—H. B. Whiter, Effingham, Ean; Duror Berseys:

arch 13—John Mohadlem Formoso, Han, and J. G. Sturievant, Formoso, Kan. Hampshire Rogs.

March 12—H. D. DeKalb, DeKalb, Iowa.

Sale at Council Bluffs, Iowa.

One of the very last chances of the season to buy Duroe Jersey bred sows and gilts will be at the Sturtevant & McMullen sale to be held at Hormoso, Ham, Thursday, March 13. This is a dispersion sale and contains some mighty choice sows and gilts. Write at once for catalog, and mention Kansas Farmer. If umable to attend, send bids to fieldmen or auctioneers.

Harness Direct to Farmer.

This week we start advertising for Inskeep. Schaubel, harness dealers of Mentiattan, Kam. This firm offers to sell direct to the farmers of Kamsus and adjoining states. They have a fine equipment for turning out work and on account of minimum copensare able to offer their goods fully guaranteed and at surprisingly low pribes. Whism writing for catalog please mention Kansas Farmer.

Hark & Firkins' Stallions and Jacks.

In the issue of Kansas Farmer for March by mistake a cut of one of J. E. Parks' fine two-year-old Jacks was used in a field note concerning the herd of Mr. Edi Baen. The Jack represented in the cut is one of the greatest two-year-old Jacks in Mesour, and Messrs. Firkins & Park Have a lot of outstanding good ones. They are also offering a lot of high-class- Perdierom stallons that are as good as can be found anywhere, and they are selling them well worth the money.

Dorr's Kall Bigs.

Mr. A. G. Dorr of Obage City, Kan., is advertising ten Duroc Jersey, boars and gitts, that are an extra fine lost. The boars are large enough for service and the gilts are readly to breed. They, were siret by a lifne-bone with the best of colon. Deep, cherry red, rice arched brocks and wife hams. All immune from choical. If you are looking for something good in fall pigs, write Mr. Dorr, as he is making a specially low price on them this month.

Reports Good Denmand for Jerseyes.

S. S. Smith of Clay Center writes that the demand for registered Jerseys; is increasing all the time. Inquiries gome in from every section of Kamese and some from other states. He says sales have been unusually good, and among good recent sales are two cows to William Beiter, Norton, Kana;; a bull to Anguet. Volker, Tarkie. Mo., and one to E. J. Call, Rogers, Aris Mr. Smith writes that these sales were all made through his advertising in Kanase Harmory He changes his card this week, and, offers of head, which number includes an chiefer of bred cows and heifers. Special prices will be made on carbad litts.

The maker of a strictly high-grade cream parator is advertising direct to the farmer brough the columns of Kansas Farmer, to ell his separator through the dealer at maill order prices. Here is a chance to buy he Standard Cream Separator through your local dealer at a figure as low or lower than you would be able to buy a machine of the same capacity and same excellence direct from the manufacturer by mail. If the blan works, doubtless other manufacturers will follow and soon the farmer with cash in his pocket will be able to buy at home any standard farm implement, from a representation of the favorable dealer at pritess which compared favorably with mail order figures. The cream separator referred, to has been made for years in Milwaukee by the Standard Separator Company. for years in Milw arator Company.

M. Gottswiller's Poland. Chinas.

M. Gottswiller of Clarkschle, Mbc. is one of Missourl's progressive Poland Chinabreeders and owns one off the high-class Poland China herds in the corr belt. His herd boars, Model Defender 62238 by Guy's Defender, and Mammoth Spot 64810 by Pancrama 53423 by Expans', are a pair of outstanding individuals. Mammoth Spot is a yearling with 9½-inch bone, a good head and ear, and good feet. He is proving a good breeder. Model Defender is one of the big, high-class bears, very heavy tione, extragood back; good feet, fine head and ear, and good feet this ime. Mr. Gottswiller has an extra good herd of sows. Among them are outstanding Defender, Long Wonder, Brandywine and Budwelser, bred sows with records for pro-

the herd is several litters of pice farrowed in January and February and some extra good fall boars. Mr. Gottswiller also has extra good fall boars. Mr. Gottswiller also has a fine flock of registered Shropshire sheep and pure-bred S. C. Buff Orpington and S. C. Binwan Beginom chilikens and Chilings goese. Watoll for his announcement, Kansas Farmer.

Isaac C. Lohman's Stallions and Jacks.

Attention is called to the card of Isaac C. Lohman of Turney, Mo., in this issue of Kansas Farmer, Mw. In this issue of Kansas Farmer, Mw. I Lohman is one of Missouri's progressive breeders and his offerings are always attractive. At this time had is offering two fine Percheron stallions, one aged 7 and the other two 5 years. They are the big, high-class kind. One of thums weighs 1,700 and the other 1,900 pounds are extra good breeders. He is also offering one extra good jack, one of the big, high class kind, big bodied, big boned, good head and ear, black with white points, and will weigh 1,000 pounds. This jack is 7 years old. He is a good performer and a sure breeder. Mr. Lohman is offering the stock advertised at bargain prices to sell them quick. Parties wantings high class lercheron stallions or a high class lank at prices that are right stimult see this offering. Write Mr. Lohman at Turney, Mb., Route 3. Please mention Kansas Farmer when writing. Isaac C. Lohman's Stallions and Jacks.

Fortissest Biscori Association Hells First Sale.

The first annual sale by the Northwest. Misseuri Bure-Bred Study Branders' Association was held at Cameron, Mo., February 27. The offering consisted of registered studions and mares, and a few jinds were also, sold. The severa storm on that date greatly interfered with the sele, and, on account of delayed trains, many bracelers from a distance were unable to attend. The

dyle Pontiac Artis, with five high records daughters averaging 18 pounds in their 2-year-old form. His dam, Pontiac Artis, is one of 'the greatest daughters of Henger-veld DeKol, with a seven-day record of over 31 pounds and over 1,000 pounds of butter in man thys." Noth the change in Mr. Sande's advertising card.

Shorthorns at Salina.

Shorthorns at Salina.

Farmers and breeders of this and adjoining states will certainly consult their best interests by writing at once for catalog of the big Shorthorn sale to be held at Salina, Kann Friday, Marchall. The Cochrans live at Plainville, Kann and own one of the largest and best herdes in the entire west. They are taking the catile to Salina because of better railrend facilities. The sale will be helding Lamer & Cods big sale pavilion near the Union Pacific depot. There will be morpostponement from any cause whatever, and the day before Mr. Lamerwill sell registered Percheron stallions and mares. These sales can be attended with but little expense. Writerforecatalogs. Always mention Kansas Farmery.

Keep Your Chickens Happy.

Keep Your Chickens Happy.

Don't allow your poultry to become a prey to vermin. That is poor management when such an efficient lice killer as Zenoleum can be had so readily and so cheaply. This famous disinfectant is nut polannous, it does not saturate the limms as learning and the sound of the same as learning and make it dangerous and likely to burn up at any time, and there is nutfling explosive about Zenoleum. Spray the houses, nests and roosts and din the distinct fielding and more thrift smorns this grown flowles. There will be thetter fielding and more thrift smorns the grown flowles. There will be the term feeling and more thrift smorns the grown flowles. There will be more legs than when they stand singing among the laying hens, and there will be more eggs than when they stand around fighting lice a good part off the time. It does not cost much. Most every dealer carries Zenoleum in stank and you can get a

STOCK OR DAIRY FARM FOR MENT

I wish to rent my 470-acre farm adjoining Wellsville, Franklin County, Kansas. Two sets of A-11 buildings, five wells, one-half hog-tight, Kentucky bluegrass. This farm has been an old feeding farm for 40 years. Our school advantages are the very best. This farm is well adapted to stock raising or dairying.

If interested, let us see you.

Wennswine, Kan., January 24, 1913.

KANSAS FARMER, Topeka, Kansas.

Please find check for \$35.63, your bill for advertisement.

It is a surprise to me that so many, are getting wise to dailying. It had thirty-six answers to that advertisement, and each party replying. It believe, had a good idea of this finest of all businesses for this part of the country. The results of this advertisement sure were a great revelation to me. Yours respectfully,

BOVE is reproduced the advertisement of J. Gr. McLain, which appeared in each of four recent issues of Kansas Farmer. Helow the peared in each of four recent issues of KANSAS FARMER. Helow the advertisement is Mr. McLain's letter and which letter is unusual. First, because Mr. McLain regarded it as well worth \$250.64 too find a satisfactory tenant, and, second, in order too find such tenant he placed this advertisement in KANSAS FARMER, which, with its 65,000 circulation, could not help but give him the choice of a much larger number of tenants than he would otherwise have hear able to obtain lie would otherwise have been able to obtain.

This is a suggestion which cannot help but appeal to those land owners who are desirous of securing tenants. The land owner should have a good tenant—a tenant who can make money for himself as well as for his landlord. A good tenant is one who will be the most permanent tenant: Every, farm deserves a good tenant. Good tenants are to be found for good farms, and the way to find them is to advertise, and the little money spent in advertising, if a good tenant is secured, is an expenditure which is always instified. is always justified.

offering was in every way a high class lot and demonstrated beyond a doubt that the members of that association are breeding as good horses as can be found anywhere and that Missouri breeders do not necessarily have to go outside of their home state to secure breeding stock as good as the best. On account of the inclement weather and consequent absence of competition, the range of prices was not as high as the quality of the offering merited. The upprice for stalllons was \$8100 and a. number of other good ones sold at from \$800 to \$800. India, of course, included a number of youngsters. The sale was under the management of Coll. Thomas H. Dhem of Camenon, Mio. and the contributors were unanimous in their approval off the manner in within the first annual sale of the manner in within the first annual sale of the manner in within the first annual sale of the manner. In within the first annual sale of the manner. In within the first annual sale of the manner. In within the first annual sale of the manner. In within the first annual sale of the manner. In within the first annual sale of the manner. In within the first annual sale of the manner. In within the first annual sale of the manner. In within the first annual sale of the manner. In within the first annual sale of the manner. In within the first annual sale, Mo.; J. E. Rollests & Suns, Maysville, Mo.; Team, Mo.; Mo.; Mo.; A. A. Hirking Changerom. Mo.; Henry Cole, Altamont, Mo.; J. E. Conk. Sun. Hattonshurs, Mo.; J. H. Weldmore, Clarkedale, Mo., and M. B. Persons, Lawson, Mo. The association expects to make annual sales, and arrangements will be made to include cattle, hoss, and in fact all pure bred stock will meet with success.

Searle Buys a Herd.

Frank J. Searle, owner of the Sunflower

Searle Buys a Hardi.

Frank J. Searle, owner of the Sunflower herd of Holstein cattle at Okkalbosa, Kan, writes as follows: "I have purchased from F. A. Hornbeck, Kansas City, Mn., his herd of Holstein cattle, which he had to dispose of because of his removal to another state on account of professional duties. These cattle are among the best which it has ever been my good fortune to buy. The cows, have A. R. O. records of from 18 to 22 pounds in seven days, and are of the wellbred, large, smooth kind. Among the sibulls which I bought is the herd bull, Sir Pontiac Artis DeKol, which I shall use as a junion herd bull. His is a son of Sir Korm-

cam for 25 cents. You can get a whole gallon for \$1.50, and that will make 100 gallons of disinfectant for spraying purposes. Besides Zenoleumits a mighty good remedy for other things besides lice and fleas; for instance cholera, roup, scaly leg, etc. It is a good investment around the chicken house. Have you a copy of that little booklet called. "Chicken Chat"? You can have one free for the asking if you drop a line to the Zemer Disinfectant Company, 362 Lafayette Avenue, Detroit, Mich.

Ganzadale Holsteins.

Ganzadale Holsteins.

Caspar A. Gantz, owner of the Ganzdale Holsteins at Kings City, Mo., offers anything in his herd; with 20 head of good Holsteins to select from. Just now he offers a number of young bails old enough for light service and cows and helfers in carload lots or less. He will, sell any number, from one to a carload or morre. Mr. Gantz, is a breeder, not a dealer, and offers nothing, but nure-bred animals and good ones. Herdi is headed by the great Pletie Count. Every aminal is sold under guaranty and the transfer. of pedigree made without cost to purchaser. Head the all and get blusy.

chaser. Head the adl and get binsy.

Hisnagam Malles Good Sale.

In spite of cold weather and snow. El El Hanagam's Shorthorn and Burner Jersey sale held near Chapman, Ham, February 25, was well attended and very satisfactory prioss were received. The mature cattle averaged around \$100 par head and the young stuffactory. The demand was espanially strong for bulls, and those odd enough for service sold well. An incomplete list of Shorthorn sales follows:

1—Bull—Gus Flowhard, Wakefield. \$165.

2—Cow—Wade Flanagan, Chapman. 120.

4—Cow—John Luthin, Junction City. 100.

5—Cow—John Luthin, Junction City. 100.

5—Cow—Jas. Faldley, Wakefield. 83.

7—Cow—Jas. Faldley, Wakefield. 70.

14—William Chapman 84.

20—Charles Karmar, Milford. 84.

21—Bull—Pat Kelly, Chapman. 106.

The Buror offering was an outstanding good one, composed entirely of gilts, nearly all of late farrow and many of them bred late. The average of nearly \$40 wasn't bad. Among the principal Duroc sales were the following:

1—Amos Shoffner, Chapman. \$40.

L. H. Lichty, Peculiar, Mb. 37.

8—J. R. Blackshere 145.00
10—H. A. Berens 140.00
11—A. J. Turrinshy 140.00
12—H. A. Berens 150.00
13—J. R. Blackshere 152.50
14—Gitarless Glasglow, Shimmerfield 96.00
14—Gitarless Glasglow, Shimmerfield 96.00
10—A. J. Thrihaky 127.50
10—A. J. Harmes, Hamthurg 22.50
119—H. A. Herens 130.00
110—B. J. Harmes, Hamthurg 30.80
110—B. Griste, Armour, Neb. 30.80
110—B. J. Barnes 150.00
110—B. Blackshere 150.00
110—B. Blackshere 150.00
110—B. J. Barnes 150.00
110—B. J. Barnes 150.00
110—B. Blackshere 150.00
110—B. Blackshere

Practical Poultry Yenual

A new book that is different and

more useful! to farm poultry raisers than any yet printed.

The Practical Poultry Manual or Common Sense in the Poultry Yand, by Thomas Owen. Of the author of this book, T. A. Borman

Mr. Owen is a practical poul-tryman — makes his living that way. He is the most experiencedl poultry writer in Kansas. He has flad 40 years" experience on his own hook raising poultry, and as long, a time writing about it. He has profited from everything worth, while anyone else has written, and from it he has learned how to make poultry raising om Kansas farms pay better.

"In this new book Mr. Owen has used the every day Kansas lang-uage. Every one cam read and eacily understand all of it. What: is more, it is all so practical as to be easily applied by any poultry

"It you have been unable to find the answers to your poultry questions in other poultry books or papers—or from other poultry raisers, get this great little poultry book."

Costs only 50 cents, postpaid. Send orders with remittance to

THOMAS OWEN, Topeka, Kan. Station B, Route 7.

Farmers' Want Seed Corn

How much have you to sell? What nd is it? What is the price? here was it grown? How much have you to sell? What is it? What is the price? Where was it grown?

Answer these questions in a small advertisement, and have it printed in this paper, where it may be read by more than 60,000 after good farmers.

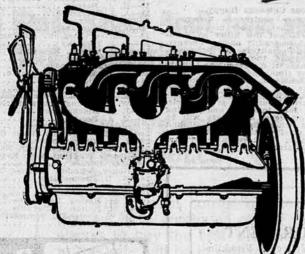
Among these 60,000 farmers are hundreds who are looking to by the very thing you have, at even better prices tham you may think to sell for. Write us what you have and we will cheerfully quote you pribss.

KANSAS FARMER, Topeka, Kansas.

subscriber wants, to buy a thoroughbred mares. Owners of thoroughbred mares can do business by using advertising columns of KANSAS FARMER.

Even think how much good solid cash is lost each winter from lack of proper housing? Loss in condition of animals, loss in flesh, and even loss of animals. The shelter need not be expensive, but itt skioultt skielten.





How Overland motors are made

All Overland motors are designed by Overland men-made by Overland men—and made in Overland factories. We will build 40,000 motors this year. No other automo-bile manufacturer will build as many of this type. That is why we can build them better, and for less coat. We em-ploy the most skilled motor builders in America. Following are a few of the most impertant facts about

the Overland motor. Cylinders have large water-jackets and are cast singly, in-creasing cooling efficiency with the advantage of being able to replace a single cylinder at low cost should an accident occur. The crank shaft and connecting rods and all other forgings are of high earbon manganese steel. All bearings, cylinders, pistons and rings are ground to accurate and tested smoothness, insuring long life, freedom from wear and positive compression.

All the wearing surfaces of the valves are ground to a one-thousandth part of an inch. Owing to their peculiar design and large size they enable the motor to develop at least fifteen per cent more horsepower than any other motor of the same bore and stroke.

The cam shafts are drop-forged (in our own drop-forge plant, which is the largest in the industry) oil-treated and ease-hardened. They are ground and machined automatically, insuring positive accuracy in the relative position of one cam to another.

This is the only car of its class provided with a five-hearing

This is the only car of its class provided with a five-bearing trank shaft. This orank shaft is drop-forged from one piece of carbon manganese steel and rotates in five bearings of unusually liberal size insuring quietness and extreme long

The crank cases are cast in two sections, of the finest grade of aluminum alloy attainable—and cast in our own foundry. No other motor in the world is given a more severe test and thorough inspection. The engine is belted up for two hours, and driven by other than its own power to limber it up so that it will start easily. Then it is put onto the block and run from 8 to 16 hours under its own power.

The Importance of a Powerful Motor

S the motor is the most important part of a car, it is safe to assume that you can judge a car by the performance of its motor. Therefore, be guided and informed by the following information. Every practical farmer knows the value of a good motor in an automobile. He knows, too, from experience what constitutes a good motor and what is a good mot

ience, what constitutes a good motor and what is expected of it. He wants power, economy and silence.

The motor is the most expensive single unit of the Overland car. It has a 4" bore and a 4½" stroke. It is the most efficient 30 horsepower motor made. We say efficient for it has, by demonstration in tens of thousands of cars, proven to be the best for your specific purposes.

It is exceptionally economical to operate—using less fuel per mile than any other motor of equal size.

It is remarkably powerful, developing forty to fifty miles an hour with ease; and over your kind of roads, without eating up an unnecessary and costly quantity of gasoline.

It is the only motor of its size made with a five bearing crankshaft which makes for real smoothness. silence and ease when in operation. This feature is only found on very high priced cars.

It is remarkably simple. It is practically frictionless. Requires no coaxing or continual adjusting. In fact, you seldom have to lift the hood. Is always obedient.

And the self-starting feature adds the final touch of perfection. Just throw a little lever and you're off. Your daughter can start, operate and drive an Overland as well and as easily as you can. It will always start in bitter cold and freezing weather as quickly as in the summer—by just switching the little lever on the dash.

So we ask you to judge the exceptional value of this car by the exceptional efficiency of its motor.

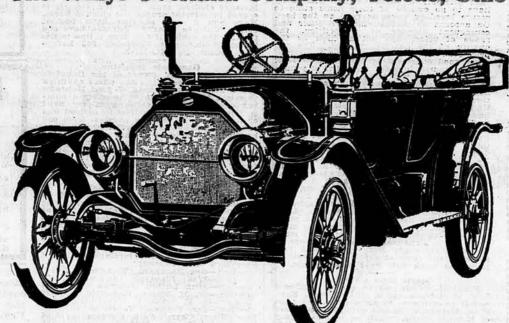
This big, powerful, comfortable touring car costs you 30% less than any other similar car made.

We have some very interesting books we would like to send you. They are free. Write us for a set today.

Please address Dept. 82

The Willys-Overland Company, Toledo, Ohio





Completely Equipped

Remy Magneto Warner Speedometer Mohair Top and Boot

Clear Vision, Rain Vision Wind-Shield Presto-O-Lite Tank