

# KANSAS FARMER

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## KANSAS FARMER.

Established in 1863.

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E. B. COWGILL.....President  
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KANSAS FARMER CO.  
116 West Sixth Ave., Topeka, Kans.

The Kansas State Poultry Show will be held at the Auditorium, Topeka, January 5-10, 1903.

In answer to many inquiries received during the past few weeks, we can furnish one year's subscription to the KANSAS FARMER and the Daily Kansas City Star for \$4, which is the net price of the Star to subscribers generally.

The Kansas State Agricultural College announces the continuance of the "Farmers' Short Course." While it is desirable that as many as possible of the future farmers of Kansas take a full four years' course of instruction at the Agricultural College, it is also true that for various reasons only a small percentage of these will ever take a full course. The short course is available and is of great value to such as can not take a full course and it is of untold value to these.

The twenty-seventh annual meeting of the Kansas State Historical Society will be held in the hall of the house of representatives, Topeka, December 2, 1902. None of the great winter meetings is more interesting than that of the historical society. It is the one great Kansas gathering which does not discuss any aspect of the problem of getting on in the world. It concerns itself with what has been done and with preserving the record of current events. An invitation is extended to the public.

Mr. F. Z. McClelland, R. F. D. 5, Topeka, brought in six shoats, three barrows and three sows, of a 6-months-old

litter. They were fed skim-milk, shorts, and rape until corn was mature enough to husk, since which time they have had corn in addition to the other feeds. The six weighed 1,455 pounds and brought \$6.07½, which figure was a little above the market for that day. They were grade Poland-Chinas. They never stopped growing as long as they were permitted to live.

### CONTROL OF TRUSTS.

The efforts of the Attorney-General of the United States, under direction of President Roosevelt, to prevent the "packing-house merger" are causing some delay in the consolidation of the great packing-houses of the country under one management.

Another factor which seems to be giving the promoters of the merger some concern is the National Live-stock Association, a delegate convention of which is soon to meet at Kansas City. The members of this association are said to own \$1,000,000,000 worth of live stock. They apprehend that if the buyers of animals for slaughter become merged into one interest—one buyer—the prices of live stock will be less than under a system of competition.

This danger may be less real than feared but the American stockman does not like the idea of being reduced to the choice of selling to one and only one customer. It is intimated, therefore, that the coming session of the Live Stock Association may take steps to checkmate the packers' merger. Whether this shall be done by establishing a great stockmen's packing plant, by means of legislation, by arranging for more general export of stock on foot, or by offering inducement to some independent packing concern, is not stated. The power of the stockmen is conceded, and their movements will be watched, and, if possible, influenced by the shrewdest agents the merger people can employ.

This is only one aspect of the trust problem. But whatever ought to be done in the case, and whatever efforts shall be made by executive officers, by legislators, or by combined effort on private account, it will doubtless be found that mergers or some other methods of bringing about the consolidation of industries will continue as long as there is money to be made thereby.

The best that can be done by the people is to exert salutary control through the agency of the Government, and through other means of manifesting the power of the public.

One of the devices, by which the "trusts" manage to make large profits appear small, is the over-capitalization of their properties. The "innocent purchaser" of their shares is brought into court when attempts are made to regulate "trust" charges by law, and this innocent purchaser shows that he paid his good money for those shares at par or thereabout and that he can not get a fair return on his investment unless the law be declared confiscatory and, therefore, unconstitutional and void. How long this innocent purchaser's plea will be effective in court can be guessed only when it can be surmised how long it will take the general public—the voting public—to see through the fraud and make the courts recognize its fraudulent character.

But the innocent purchaser is often indeed innocent—the victim of shrewder men than himself. It is coming to be realized in some prominent circles that the innocent purchaser can not always be protected from the consequences of

his cupidity and gulability. The proposal has, therefore, been made that Congress provide for full publicity of the exact situation of every merger, especially as to assets, capitalization, earnings, and expenditures, to the end that the public, especially the innocent purchaser, may be informed. Even some official control of the relation of values owned to shares issued has been suggested.

As a precedent for such publicity and control, the case of the National banks is cited. This is a fitting example of an effectual remedy for what was once an outrage upon the public. Persons whose memories run back into the fifties have not forgotten the paper money of those days. It was, not inappropriately, called by various names, as "wildcat," "yellow-dog," and "stump-tail" currency. It was issued by the banks of various States under State charters. The securities, usually municipal bonds, were of uncertain value, sometimes valueless. Bank failures were common and with the failure the currency became either greatly depreciated or utterly worthless. The person who received it in payment for services or products one day, often found on the morrow that his money would buy far less than when he took it, or, perhaps, that it would not pass at all. The establishment of the National banks with such regulations by National statute that their currency is redeemed at par, whatever may be the fate of the bank and its stockholders, was a step in the direction of safety. But the provision of law which made "wildcat" currency impossible levied an exorbitant tax on all issues of currency except those by the Government and by the National banks. The National banks were placed under a rigid official supervision, so that they were obliged to comply with the law as to capitalization, the use of their capital, interest rates, etc. Their currency was and is furnished by the Government, so that its limitation is absolute.

It is not intended here to enter upon a general discussion of the National banking system, some features of which were and still are, doubtless, open to criticism, but only to use it as an illustration of what may be done to regulate corporations, however large or small.

When Congress shall enact a general corporation law, defining and limiting the powers of National corporations, and placing them under a supervision as close as that of the National banks, and taxing all State corporations, mergers, and trusts, by whatsoever name designated, at such rates as shall drive them all to surrender their State charters and to incorporate under National law, then may the trusts be brought under effective control, and the evils of the trust system may be eliminated as effectually as were the evils of the currency of the old banking system.

### MOLES AND GOPHERS.

EDITOR KANSAS FARMER:—Do you know of any way to successfully destroy the moles that are so destructive to alfalfa fields? I have been trying to trap them, but have had no success whatever. Please inform me if there is, and what is the best way to exterminate the little rascals and oblige a new subscriber.

W. H. GILLIS.  
Culver, Ottawa County.

This is the first report of damage to alfalfa by moles. The burrowing animal that does most to render life a burden to the alfalfa-grower is the pocket

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gopher. This animal has been made the subject of careful experimentation by Prof. D. E. Lantz of the Kansas Experiment Station. His report discusses the methods of dealing with the gopher. Moles live chiefly on insects so that, if they are to be poisoned, insects must be used for bait. For the benefit of this correspondent and others who may be troubled with gophers or may like to try the gopher remedies on moles, we present herewith an epitome of Professor Lantz's report.

It was found that poisonous gases such as carbon bisulphide were not uniformly successful in the destruction of the pocket gopher. The great lengths and irregular depths of the burrows prevent the gases from flowing into every part.

Trapping is a sure, but slow, method if properly done and persistently followed. An excellent trap for general use is the No. 0 ordinary steel trap. In using it, enlarge the hole sufficiently to admit the trap, and remove all the loose soil which may have fallen in to obstruct the runway. Sink the trap in loose soil to the level of the runway, and nearly conceal it by sprinkling fine earth over it. Leave the hole open.

There is a special trap for moles which is set by pressing a prong into the soil on either side of the run. The mole springs it by the slight pressure he exerts against the under side of the trap in passing it.

Poisoning is the most efficacious method with pocket-gophers. The methods and poisons used may well be tried with moles. Professor Lantz says:

"Pocket gophers are easily poisoned. They are very fond of common potatoes, (Continued on page 1166.)"



## KANSAS CROP REPORTS ARE CONSERVATIVE.

Not infrequently the appearance of the annual crop report of the secretary of the Kansas State Board of Agriculture calls forth lustrous criticism from people whose vision is too narrow to cover the trans-Missouri country. They can not believe that we produce so much of the standard food materials of mankind or that we receive so much money for them. Their quick judgment is that the secretary has padded the returns.

A few comparisons of final reports of the Kansas secretary with final reports of the National Secretary of Agriculture show conclusively that the Kansas reports are very conservative, being always lower than those compiled by the Government officials from data of their own gathering.

Following is a comparison of Kansas wheat, corn, and oats yields and their values as estimated by the United States Department of Agriculture and by the Kansas Board of Agriculture, for five years ending with 1901:

wheat, owing largely to the weeks of continuous rain following harvest, is not all that we could wish, and our millers have difficulty for the time being in procuring a full and constant supply of the grades necessary to maintain the high standard of Kansas' famous hard wheat flours.

"In corn yields likewise, but in another direction, we shall disappoint the wise ones, especially those whose ideas have been formulated from the Government's preliminary estimate, issued November 10, giving us about 252,000,000 bushels. We have lots of good corn on the whole, and in some sections it is phenomenally so, but any estimates which push it far past the two-hundred-million-mark are likely to be too stiff.

"Uncle Sam's figures are every year far more generous toward us than any we care to make for ourselves, and we are glad to have it so, as it is always the policy of her board of agriculture that Kansas shall be able to deliver all the goods she advertises, and more, but

CORN.		Value.	
Yield—Bushels.			
U. S. report.	State report.	U. S. report.	State report.
1897.....162,442,728	152,140,993	\$ 35,737,400	\$ 28,555,293
1898.....132,842,048	126,999,132	34,538,932	30,298,097
1899.....237,221,222	225,183,432	59,405,306	53,530,576
1900.....163,870,630	134,523,677	52,438,602	39,581,835
1901.....61,506,034	42,605,672	38,748,801	21,731,215
Total.....758,282,662	681,452,906	\$220,869,041	\$173,697,016

WHEAT.		Value.	
Yield—Bushels.			
U. S. report.	State report.	U. S. report.	State report.
1897.....47,998,152	51,026,604	\$ 35,518,632	\$ 34,385,304
1898.....64,639,412	60,790,661	32,469,706	32,937,042
1899.....36,468,044	43,687,013	18,963,383	22,406,410
1900.....82,488,655	77,339,091	45,368,760	41,974,145
1901.....99,079,304	90,333,095	58,456,789	50,510,505
Total.....330,973,567	323,176,464	\$190,777,270	\$182,213,406

OATS.		Value.	
Yield—Bushels.			
U. S. report.	State report.	U. S. report.	State report.
1897.....38,680,080	23,431,273	\$ 6,962,414	\$ 3,828,192
1898.....26,689,248	21,702,537	5,871,635	4,268,861
1899.....39,129,410	26,046,773	8,608,470	4,951,636
1900.....43,063,943	31,169,982	9,904,707	6,626,444
1901.....17,332,410	20,806,329	7,452,936	7,375,817
Total.....164,895,091	123,156,894	\$38,800,162	\$27,050,950

Briefly, the State is credited by the United States reports with more than she claimed on these three products alone in five years thus:

	Bushels.	Value.
Corn.....	76,829,756	\$47,172,025
Wheat.....	7,797,103	8,563,864
Oats.....	41,738,197	11,749,212
Total.....	126,365,056	\$67,485,101

Speaking of this year's report, published in another column of this paper, Secretary Coburn said:

"Our report shows very much more wheat than the 'talent' anticipated, but Kansas has this wheat, and more rather than less, as a critical analysis of our very full returns in careful detail shows that we have been even more than usually conservative. With the slightest willingness or disposition to permit a semblance of inflation the State could easily be given a showing of sixty million bushels of winter wheat in spite of early-season mishaps and the enormous doubtful acreage plowed up, to be planted in corn and other crops.

"Of course the quality of much of this

## If Your Friend Is Sick

### Tell Me the Book to Send.

No money is wanted—not from you nor from him. I ask only a postal card, and I ask it as an act of humanity.

Then I will do this:  
I will mail the sick one an order—good at any drug store—for six bottles Dr. Shoop's Restorative. He may take it a month at my risk. If it succeeds, the cost is \$5.50. If the sick one even thinks it has failed, I will pay the druggist myself.

Please note what that means. I furnish a costly treatment that I spent a lifetime in perfecting, and whenever it fails the test is entirely free. But failures are rare. My records show that 39 out of each 40 get well, and pay for the remedy gladly.

No other remedy, in chronic and difficult cases, could stand a test like that. The reason is this: My Restorative alone strengthens the inside nerves. There is no other way to bring back that nerve power which alone makes each vital organ do its duty. There is no other way to make weak organs well.

Simply state which book you want, and address Dr. Shoop, Box 529 Racine, Wis.  
Book No. 1 on Dyspepsia.  
Book No. 2 on the Heart.  
Book No. 3 on the Kidneys.  
Book No. 4 for Women.  
Book No. 5 for Men (sealed).  
Book No. 6 on Rheumatism.

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

we do not claim she has 250,000,000 bushels of corn this year.

"These official figures taken together convey the State's story plainly and more eloquently than is otherwise possible."

### THE POLAND-CHINA MERGER AGAIN.

The efforts of representative breeders of pedigreed Poland-China swine to consolidate the Poland-China Record Associations into one National record for the breed, are meeting with prompt and hearty response from stockholders in the various associations, and the agricultural papers of the country are doing everything possible to promote the business interests of Poland-Chinas in urging the consolidation as soon as possible.

It is a sane and business-like idea and of vital importance to the future welfare of this breed, and every breeder of Poland-Chinas who owns a share of stock in any association who is anxious to avoid the confusion and expense which now obtains by the multiplicity of records, or who wishes to have one record for one breed like all others, should offer his shares in exchange for similar amount in shares in the proposed national consolidation.

On October 30, the KANSAS FARMER gave a detailed account of a meeting of breeders which started this movement during the American Royal Swine Show at Kansas City. We are now in receipt of a letter from Frank B. Winn, secretary of the committee appointed at that time with the following announcement:

"Since publication of the minutes of the meeting of the Poland-China breeders in Kansas City, during the American Royal Swine show, for the purpose of bringing about a consolidation of all the Poland-China record associations, I, as secretary of the committee appointed at said meeting to consider the matter, have had many letters from stockholders in each association, strongly favoring consolidation. In almost every instance they offer their shares for the consolidated shares.

"The committee referred to, appointed at Kansas City, consisted of J. C. Hendrick, Wilmington, Ohio, representing the Ohio Record, T. R. Wilson, Morning Sun, Iowa, of the American, C. F. Dietrich, Richmond, Kans., of the Standard, John Harcourt, New Augusta, Ind., of the Central, and H. M. Kirkpatrick, Wolt, Kans., committeeman at large. A meeting of the committee was held after the adjournment of the stockholders' meeting and H. M. Kirkpatrick made chairman, and it was decided that another meeting of all those interested in consolidation should be held during the International Exposition at Chicago, at which time the plans suggested by the



committee can be considered and something definite decided upon.

"It is hoped that all those favoring and interested in consolidation of the different records, the greatest thing that could possibly be done for the advancement of the breed, will be present at the meeting in Chicago, or, if this is impossible, will at least write their views and suggestions as to how it may best be accomplished. I should like for every Poland-China breeder in the United States, who can not attend the meeting, to write me in care of Wyoming Hotel, Chicago, at which place the meeting will be held so that we may have a better idea of the wishes and desires of the whole fraternity."

### PARTITION FENCE QUESTIONS.

EDITOR KANSAS FARMER:—I have had some difficulty concerning a fence, and wish you would state in the KANSAS FARMER your opinion, or the law in regard to the matter.

A owned the north half of the east half of the section, and B owned the south half. A fence was built, each building half the fence, A building his half on the west end, and B building his on the east end.

After a death in B's family, 90 acres were sold off from the east part of B's place. A new fence is necessary, and the owner of the 90 acres refuses to build a fence.

(1) Is it right that A should put up half the fence on this 90 acres?  
(2) Should A build his half of the fence, could he compel the owner of the 90 acres to build the other half?

CLEM GEIGER.

Everest, Brown County.

(1) In case the agreement between A and B, assigning to each a definite portion of the fence to build and maintain, was acknowledged as conveyance of land, and recorded by the register of deeds, such agreement would be binding upon all subsequent owners of the land. In case the agreement was not recorded, it is doubtful whether the purchaser would be bound by it.

(2) The law requires that the owners of adjoining lands shall keep up and maintain in good repair, all partition fences between them, in equal shares, so long as both parties continue to occupy or improve such lands, unless otherwise agreed. The law also provides a method of compelling a party who neglects and refuses to build his share of a fence, to do his duty in this respect, or to pay the other party for building it. The provisions of the law are ample, but space forbids their full presentation here.

It would be better for A, if possible, to make a new agreement with each of the present owners. If A has maintained a good fence on the west half of the line, he should, under the new arrangement, get pay for half of the present value of such fence. If there is any value in the remnant of the fence along the east half of the line, such value should also be taken into consideration. Neighbors should, if possible, settle such matters by agreement, or by calling in a competent and disinterested third person, and avoid the cost and ill-feeling sure to result from going to law.

### TO CURE A COLD IN ONE DAY

Take Laxative Bromo-Quinine Tablets. This signature *B. F. Jones* on every box, 25c

### Agricultural Matters.

#### More About the Sugar Industry.

EDITOR KANSAS FARMER:—The question of the sugar industry is one of the greatest importance to the farmers, not only in Kansas, but in the whole country. It is one that in a few years more, will be worth hundreds of millions of dollars to the farmers of the United States. If this industry can be so well established here as to provide all the sugar consumed by our people, it will permanently provide a market for one of the most profitable crops the farmers can raise. It is therefore a subject of such practical importance that it should be thoroughly discussed in all of the agricultural papers in the United States. Sugar beets can be profitably raised in

all of the northern States. Sugar-cane can be grown in southern Texas, Mississippi, and Georgia. Sorghum can be raised in most of the Central States running east and west.

You doubtless remember that soon after the McKinley tariff bill was passed, the government leased forty acres of Miller & Benedict's land, for the purpose of experimenting with sorghum as a sugar-producing plant. In the three years the experiments were being made, the percentage of sugar in the sorghum raised was increased from 9 to 12 per cent to 14 to 18 per cent. The government built a small factory at Medicine Lodge, for manufacturing sugar from sorghum, and the city of Medicine Lodge was bonded for \$35,000 to raise funds to establish a large sugar factory there. The experiments made were sufficient to prove that the industry could be made a perfect success if it was properly and permanently protected. The framers of the McKinley bill, however, made one serious mistake. They took the tariff off from sugar, and thus cut down the revenues of the government about \$50,000,000 a year, and offered a bounty on sugar of about two cents per pound. Had they placed a tariff of two cents a pound on sugar, and let it remain, factories for the manufacturing of all the sugar we consume would have been built, and the sugar would be produced by this time. But the Wilson-Gorman tariff bill stopped the bounty, and put the duties so low, that it ruined the industry at Medicine Lodge. Colonel Hinman and the Best company, who managed the large sugar factory at Medicine Lodge, told me that with a duty of two cents per pound maintained, they could produce sugar from sorghum for two cents a pound, in a short time.

In the reports of the investigations, made to the ways and means committee last year, it was shown that Cuban sugar planters can produce sugar out of sugar-cane for 1½ cents a pound. Cuba has the soil and climate that will enable her to produce more than 3,000,000 tons a year if she can have free access to our market. Without ample protection, therefore, we can never succeed in producing our own sugar.

Suppose it does cost \$221,450,000 to produce the 3,000,000 tons of sugar we shall soon need, who gets that money? Does it not go into the pockets of the sugar-cane, sugar-beet, sugar-sorghum raisers and manufacturers? Suppose you could buy the 3,000,000 tons of sugar for \$180,000,000 of Cuba, who gets the money it costs but the Cuban planter and the Cuban sugar-maker?

But the amount paid for foreign sugar is estimated too low. The very day your paper reached me, I had ordered a barrel of granulated sugar, of a wholesale grocer in New York, for Miller's Hotel. The cost was 4½ cents a pound. That would be \$90 a ton. Our 3,000,000 tons would have cost \$270,000,000. This would make a net profit of \$48,000,000, all of which our own citizens would get.

Furthermore, last September, when at my ranch in Medicine Lodge, my manager was paying 5 cents a pound. That would be about the required average price of sugar for our people, or \$100 a ton. Our sugar would, at that price, cost \$300,000,000, which, if all made at home, would find its way into the pockets of our own people. With 600 sugar factories in this country, making all our own sugar, the competition in its production would soon be such that the price would be brought down to a fair profit over the actual cost, and the people would get their sugar at 3 cents per pound at retail. Just figure up what such an industry would amount to in twenty years, and what a blessing it would be to our farmers and laborers.

New York.

E. P. MILLER.

The above letter from Dr. Miller is in answer to some remarks in the KANSAS

WHEN YOU  
**DRILL WELLS**  
DRILL THEM FAST!  
Use our latest improved machines and you can down all competition! The old kinds are "not in it." Address  
**LOOMIS MACHINE CO., Tiffin, Ohio.**



FARMER of Nov. 6, with reference to figures presented by Dr. Miller in an Eastern paper. The KANSAS FARMER will be very glad if the sugar industry shall have a large and healthy development in this country. But the figures presented by beet-sugar enthusiasts as to disbursements to be made among the people on account of the hoped for development of the industry are almost uniformly too roseate.

If the manufacturers of sorghum sugar could have obtained at wholesale the price which Dr. Miller paid at retail, though buying of a wholesale house, their factories would not be dismantled today. That Dr. Miller paid more than the wholesale price for his sugar is apparent from a comparison of the 4½ cents a pound charged him with the 33-16 cents a pound quoted by the Louisiana Planter as the New York price on November 14, 1902. That Dr. Miller is paying a fairly high price for his sugar is further shown by comparing his 4½ cents a pound with the Havana, Cuba, quotations of Nov. 7. The correspondent of the Louisiana Planter says: "At close, exporters are willing to pay 13-16 to 17½c for 95-96 test, but holders' pretensions range at from 2 to 2-16c, which is higher than New York quotations." Now, 2c for 95 test is a little more than 2-10c for pure sugar. Add ¼ cent for refining and we have 2.35c, which according to the Planter's correspondent, should be above the New York price less tariff. It is contended by opponents of the proposed reciprocity arrangement with Cuba that planters are doing well at present prices of sugar in the island. A writer a few days ago even placed the cost of production, since the introduction of improved appliances, at one cent a pound. This, it will be remembered, is the figure at which Herbert Mysick, some years ago, placed the cost of producing sugar in the East Indies, while he gave 1½ cents as the cost in Cuba.

In view of these latter figures it is evident that if sugar in this country is to command a price of even 3 cents a pound, pretty stiff tariff rates will have to be maintained.

The KANSAS FARMER has great confidence in the ability of Americans to do things. If chances were at all even we should be able to make our own sugar. That we shall be able to compete with beet-sugar producers there is little doubt. But with a country like Cuba at our doors and likely to become a part of us, a country in which improved machinery and processes are readily adopted, a country that will doubtless be able to produce sugar at one cent a pound, it is questionable whether any amount of artificial stimulus will result in permanently establishing a beet-sugar industry here.

#### Seed-corn.

The division of agronomy of the Iowa Experiment station, has issued a circular on "Storing and Purchasing Seed Corn," from which we excerpt the following points, most of which will be found applicable in Kansas:

Owing to the extremely wet season followed in many sections by an early frost, the problem of seed-corn for 1903 is of unusual importance. Those who save seed-corn from their own fields should take unusual precautions to thoroughly dry and store in a well ventilated place.

#### STORING SEED-CORN.

There are many different methods of storing seed-corn, but the experiments which have been conducted by the station indicate:

1. That it is not advisable to harvest immature corn and place in a warm room, as there is danger that the corn will begin to germinate as a result of the moisture and warmth.
2. That corn intended for seed should be allowed to thoroughly mature on the stalk or in the shock before husking.
3. That the best results are obtained when stored in a dry and thoroughly ventilated place.
4. That cold does not injure the vitality of corn when it is thoroughly dried and kept dry, but on the other hand, if allowed to gather moisture, freezing will reduce the vitality and may destroy it entirely.
5. That it is unwise to store seed-corn in barrels or boxes, as it will gather moisture. Corn often contains a great deal of moisture, even though it appears to be thoroughly dry. This is especially true during the fall and early winter months.

The one thing that seems to be the most essential in the storing of seed-corn is thorough ventilation.

#### IMPORTANCE OF PURCHASING SEED-CORN IN THE EAR.

The injury by frost to the corn crop

will make it necessary for many farmers, who in previous years have saved their seed-corn from their own fields, to purchase their seed this year from seedsmen or seed-corn breeders.

At this early date many inquiries have been received by the Experiment Station, requesting information regarding the purchase of seed-corn. It is a significant fact and worthy of special note, that almost every inquirer has stated that he desired to secure his corn in the ear. Disappointment and loss have often been the result when these farmers bought shelled seed-corn. This year they demand that seed be shipped in the ear. Their action is not a fad, but is based upon the fact that when the corn reaches them in the ear, opportunity is afforded for a careful study of the uniformity of shape, size, and color of the ears and of kernels, the freedom from mixture and the vitality.

#### GREATEST FACTOR IN PURCHASE OF SEED-CORN.

In securing seed, the factor of the greatest importance is the purchase of that corn which will give the largest yield per acre and of the best quality. The acre is the unit in corn production, and therefore that seed is the best which gives the largest yield per acre. Carefully selected seed, of pure-bred varieties, gives the largest yields. Hence, the important question for the farmer who must purchase seed-corn this year is not one of cost, but of quality. It will prove far more profitable to pay three or four dollars for a bushel of seed-corn which will germinate well, and insure an even stand and a large yield, than to accept an inferior grade, even though the first cost be exceedingly low. Purchasing seed-corn in the ear offers the farmer the surest and safest way to secure seed which will prove satisfactory.

Heretofore the common practice among corn breeders and seedsmen has been to send out to farmers shelled corn. This method of handling seed-corn can never, in any adequate way, really help the corn growers of the State to improve their corn. This is true because much of this corn has been indiscriminately purchased from farmers who have paid no attention to the selection and breeding of the corn. For this reason the seed often proves no better, if as good, as that which the farmer himself has been growing in years past.

#### SEED-CORN IN THE EAR.

A marked advance will be made in the improvement of the quality and

yield of corn in Iowa, when our farmers realize the importance of purchasing seed-corn only in the ear.

The following facts are offered as evidence that the custom of purchasing shelled corn is unwise and detrimental to the best interests of Iowa corn growers:

When the corn is in the ear the farmer can see just what he has. If, after a critical examination he is confident that the corn is unsatisfactory he can reject it and return it at once. This plan will enable him to secure corn from another source or use his own seed, which in fact may be superior to that which has been shipped to him. He will not lose a year in discovering that he has an undesirable type of corn. The corn grower seldom buys seed-corn for his entire acreage, and therefore it is possible for him to select, from the few bushels which he has purchased, the best ears in the entire shipment. If these ears have been selected with care and are of a desirable type as to size, shape, market condition, and character of the kernel, they should be planted on one side of the field where the conditions are the most favorable. Thus a limited area is grown from the best seed. This portion of the field should yield superior corn for seed for his future crops. When this plan of selection is repeated year after year, corn is grown which is well adapted to the latitude and conditions in which it is raised.

Corn in the ear also, is the farmer's strongest guarantee against the fraudulent practices of unscrupulous seedsmen, who often purchase entire fields or cribs of corn and shell it and ship it without care for selection or real merit.

Seed-corn handled in this manner is of inferior type and quality, often lacks vitality and must necessarily give a poor stand and a low yield.

#### SEED-CORN SHOULD BE TESTED.

Again, when seed-corn is received in the ear, two or three kernels from each ear should be removed and tested. Those ears which show poor germinating qualities can be rejected. On the other hand, if shelled corn is purchased, the kernels from the ears of low vitality or germinating power are mixed with the others and can not be separated. The result must necessarily be a poor stand and a reduced yield.

Experiments show that all the kernels from an ear generally possess approximately the same degree of vigor and therefore the vitality of an ear can generally be determined by testing a few of its kernels.

If every purchaser in Iowa will de-

Nobody else apparently dares put his name on his lamp chimneys.

MACBETH.

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

MACBETH, Pittsburgh.

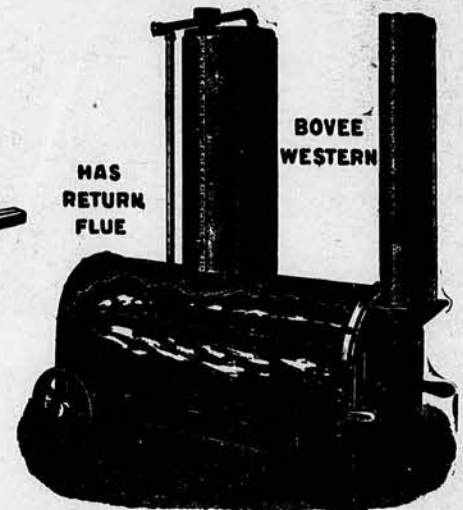
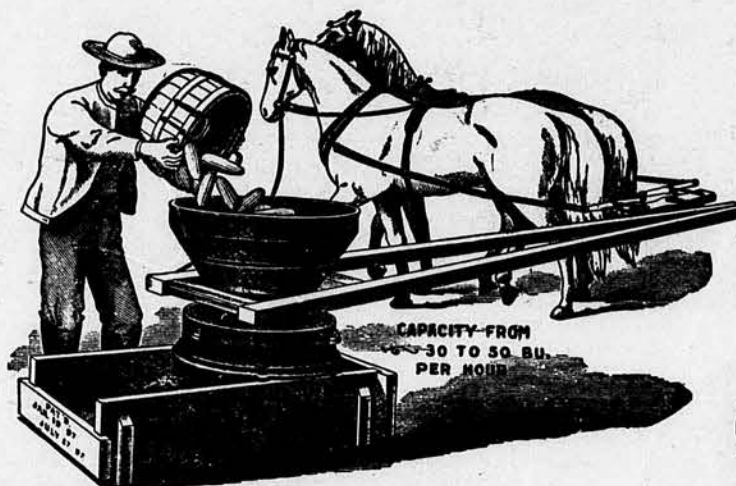
cline to receive any seed-corn except in the ear, the most important step tending toward the improvement of seed-corn will have been taken. Reliable seedsmen will stand ready to supply seed-corn in the ear whenever the demand is such as to warrant it.

#### IDEAL EARS FEW IN NUMBER.

The purchaser, however, must not expect too much. Good ears of corn, those approaching perfection, are few in number. Seed ears, such as are exhibited at corn shows, are hard to find, and the farmer must not expect to receive corn from any source which is up to the standard of show-corn.

However, uniformity of shape, size, and color, of both ears and kernels, such uniformity as indicates good breeding, trueness to type, strong vitality, and freedom from mixture should characterize every ear in the shipment.

The question of seed-corn in Iowa for the season of 1903 is important, for upon the type, quality, and germinating power of the seed planted will depend, in large measure, the stand, yield, and quality of nearly ten million acres of corn next year. To much emphasis can not be placed upon the fact that success or failure in corn production is based very largely upon the seed planted. Iowa now has annually nine and one-quarter million acres in corn, an increase of one bushel of corn per acre, means to Iowa farmers over two million dollars.



IOWA GRINDER AND STEAMER WORKS.  
WATERLOO, IA.



## The Stock Interest.

### THOROUGH-BRED STOCK SALES.

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

November 28, 1902—J. R. Young, Richards, Mo., Poland-China hogs.  
November 28-29, 1902—W. P. Harned, Vermont, Mo., and F. M. Marshall, Blackwater, Mo., at Kansas City, Mo., Godoy Short-horns.  
December 4 and 5, 1902—Herefords at Chicago, Ill., under auspices of American Hereford Cattle Breeders' Association. (During week of International Cattle Show.)  
December 8-9, 1902—J. E. Logan and Benton Gabbert Sons, Kansas City, Mo., Herefords.  
December 16, 1902—Gifford Bros., Manhattan, Kans., Short-horns.  
December 19, 1902—Hanna & Co., Howard, Kans., Percheron horses, at Kansas City.  
January 12-17, 1903—C. W. Armour and Jas. A. Funkhouser, Herefords, at Kansas City, Mo.  
January 22 and 23, 1903—Combination sale pure bred Hereford cattle at South Omaha. W. M. Rogers, McCook, Neb.  
January 28-29, 1903—C. A. Jamison, Peoria, Ill., Short-horns, at Chicago.  
February 3, 4 and 5, 1903—Combination Sale, Wichita, Kans., Percherons, Short-horns, and Poland-Chinas.  
W. & J. C. Robinson, Snyder Bros., and others.  
February 10, 11 and 12, 1903—J. F. Stodder, George Bothwell and others, Short-horns; also C. A. Stannard and others, Herefords; Oklahoma City, Oklahoma.  
February 17, 1903—Geo. F. Kellerman, Short-horns Kansas City, Mo.  
February 20, 1903—S. S. Spangler, Milan, Mo., Percheron horses.  
March 3, 1903—L. M. Monsees & Son, Smithton, Mo.,acks, Jennets, saddle horses and Poland-China swine.  
March 3 and 4, 1903—C. H. Garner and M. A. Judy, Aberdeen-Angus cattle, Chicago.

### Fattening Steers Without Hogs to Follow.

BULLETIN NO. 112—JUNE, 1902. FARM DEPARTMENT KANSAS EXPERIMENT STATION.

H. M. Cottrell, M. S., Agriculturist.  
G. Haney, B. S., Assistant in Field and Feeding Departments.

(Continued from last week.)

#### WATER.

The eighty steers were watered at two tanks, the tanks so arranged that each tank could be used by two yards. The steers had free access to water at all times. During the cold weather the water in each tank was warmed by a tank-heater, manufactured by the United States Wind Engine and Power Company, Batavia, Ill. The water was kept at a temperature of about fifty degrees, the temperature of cool well-water. The tanks stood in open lots, uncovered and unprotected, and the heaters were satisfactory in every particular.

The heaters were kept running sixty-eight days, when the weather became so warm that there was no further use for them. The two heaters in the sixty-eight days consumed 2,545 pounds of coal. At four dollars per ton, this cost \$5.09—less than one-tenth of a cent a day for each steer. The care of the heaters was no more than was necessary to keep the ice out of other tanks where heaters were not used. The warmed water was palatable to the steers, and we regard the tank-heater as profitable in cold weather in every feed-yard.

#### SALT.

Salt boxes were placed in each feed-lot and were kept filled with loose barrel salt. The steers had access to the salt at all times. The steers fed shelled corn and whole hay ate an average of .44 of an ounce of salt per steer per day. The steers in the other three lots ate an average of .46 of an ounce of salt per steer daily.

#### MINOR THINGS.

"CONTENTMENT IS FAT," and every little thing that adds to the comfort of the steer or makes him more contented increases the gains which he makes from each bushel of grain. For this reason we mention some of the minor things connected with this experiment that may have influenced the results from feeding.

Each car-load of steers (twenty head) was kept in a yard 100 by 280 feet. At the north end of each lot was a shed fifty feet long, fourteen feet wide, closed on the north, open to the south. The lots sloped to the south and were well drained, so that there were very few days when the steers could not lie down comfortably on dry ground. A steer makes the greatest gain when he spends the most time lying down comfortably chewing his cud, and he will not spend enough time lying down to make good gains when the lots are muddy.

The feeds were mixed and fed dry. Experience since this experiment was completed indicates that it would have paid us to have dampened the hay before the grain was mixed with it. The best results are obtained where each stalk and leaf has grain adhering to it, and where there is no loose grain. The more concentrated the grain, the greater the advantage of this close mixing. Several feeders the past winter have succeeded in feeding as high as eight pounds of cottonseed-meal a steer per

day for several months, in addition to a good ration of corn, by dampening the roughage and mixing the grain with it so thoroughly that every small particle of grain was attached to a piece of roughness. Where only two or three car-loads of steers are fed, the dampening of the roughness can be done in a few minutes each day by using a common watering-pot.

The steers were fed twice each day, at seven a. m. and five p. m., and the feeding was done exactly to the minute each day. The steers were watched closely and were given all that they would eat up clean within three hours after feeding. With this method the steers knew exactly when to expect their feed, they were always ready for the next feed, and did not lose in weight by fretting, as steers do when fed at irregular times. The hours of feeding were so arranged that the steers did all the work of eating by daylight. All our experience goes to show that this is an important help in making the best gains. By giving the steers just enough feed so that they would eat it up clean within three hours after feeding, they had fresh feed each time they came to the feed-boxes, and their appetites were not so cloyed by having to work up left-over



### The Old Reliable Anti-Friction Four-Burr Mogul Mills

No gearing; no friction. Thousands in use. Four-horse mill grinds 60 to 80 bushels per hour; two-horse mill grinds 30 to 50 bushels per hour. We make a full line of FEED MILLS, best ever sold, including the famous Iowa Grinder No. 2 for \$12.50. Send for free Catalogue.

Manufactured and sold by the IOWA GRINDER and STEAMER WORKS, Waterloo, Iowa.

anchored posts. The steers seemed to know what these trees were for before the work of setting out was completed. They spent hours of enjoyment in rubbing themselves on these trees; the rubbing seemed to have the same effect as grooming, and after the trees were set we had no further trouble with the steers rubbing either sheds or fences.

The first day of the experiment the steers were fed at the rate of five pounds of corn and eight pounds of alfalfa hay per day per steer, and all the prairie hay they could eat. They ate an average of eight pounds of prairie hay each the first day. The alfalfa was increased gradually, and the steers themselves reduced the amount of prairie hay consumed until at the end of thirty days the prairie hay was dropped entirely, and the steers were given all

steers fed corn-meal and cut alfalfa hay up to the time the soy-bean meal interfered with the work.

Days fed.	Av. daily gain per steer, lbs.	Feed required for 100 lbs gain	
		Grain, lbs.	Hay, lbs.
Up to 7.....	6.42	101	281
Up to 21.....	3.98	251	425
Up to 35.....	3.41	382	429
Up to 49.....	3.19	467	405
Up to 63.....	2.98	541	400
Up to 77.....	2.84	593	381

The steer is naturally a grass-feeding and fattening animal, and will make good gains during the early part of the fattening period on a good quality of roughness with but little grain. Such gain is made cheaply, and the digestive apparatus of the animal is not thrown out of balance, as it is when the steer is put on full feed quickly.



Fig. 1. Feed-box for Feeding Grain and Hay Mixed.



Fig. 2. Rubbing Pole.



Fig. 3. Shed and Yard.



Fig. 4. Tank-heater.

This is a cast-iron stove that is set in the center of the tank and is surrounded by water, except on the top. Openings for draft and for fuel are at the top.

feed that had been mused over at the previous feeding. Six hours a day was all the time the steers were allowed to spend in eating and most of them spent considerably less. This allowed many hours each day for chewing the cud and working up the feed, so that the greatest amount would be absorbed by the body and go to increase the steer's weight. The steers were handled quietly, not a loud word was spoken in the feed-lots, and the steers soon became so tame that they paid little attention to the many visitors that came to the yards.

The feed-boxes were sixteen feet long, three and one-half feet wide at the top, two feet wide at the bottom, one and one-half feet in depth, and were two and one-half feet from ground to top. They were made tight and were portable, so that they could be kept in the driest part of the yard. The steers were fed in the open air. One feed-box was required for each ten steers, and the grain and roughage were mixed and fed together in the same feed-box.

When the steers began to shed their hair in the spring they threatened to rub the sheds and fences down. Trees twenty-five to thirty feet in length were cut and taken to the feed-lots. One end of the tree was set in the ground, the other end was raised above the ground so that it just cleared the back of the tallest steer. The tree was held in place by being bolted to well-set and

the alfalfa hay they would eat clean. We have found that when stock has not been accustomed to eating alfalfa hay, full-feeding of it induces scours. We usually take thirty days to get either horses, steers or dairy cows on full feed of alfalfa hay, and when this is done there is no trouble in feeding it. While getting stock on full feed of alfalfa, either prairie or timothy hay or straw may be fed.

An increase of one-half pound of corn per steer per day was made for 24 days; then the amount of increase was slightly dropped. At the end of 35 days of feeding each steer was receiving daily 19.4 pounds of grain. From this time on each lot was fed twice daily all that they would eat up clean in three hours, but it was seldom that they ate more than 19 or 20 pounds of grain and 10 to 12 pounds of hay daily per steer. After 30 days the steers began dropping slowly in the amount of hay consumed.

Feeders are divided as to whether this system of taking thirty to forty days to get steers on feed is the one to use, or whether steers should be put on full feed in one or two weeks. No accurate experiments have been made to test this matter, but this experiment, as well as all our feeding experience, indicates that good gains may be made with small quantities of grain when the fattening animal is put on feed slowly.

The following table shows the progressive gains and feed required by the

#### INDIVIDUAL GAINS.

The steers were fed 116 days and the gains made by individual steers varied widely.

Feed.	Greatest gain for single steer, lbs.		Least gain for single steer, lbs.	
	lbs.	lbs.	lbs.	lbs.
Shelled corn, whole alfalfa...	460	145		
Shelled corn, cut alfalfa.....	360	115		
Corn-meal, whole alfalfa.....	385	165		
Corn-meal, cut alfalfa.....	460	180		

The eighty head of steers were selected for evenness in size at the beginning; the lightest weighed 885 pounds and the heaviest 1230 pounds. Especial pains were taken to get the four lots as equal in size, weight and feeding quality as possible, and yet there was great variation in the gains made by individual steers. A careful study failed to give an explanation in every case of the cause of these variations.

#### CONCLUSION.

The best results obtained in this experiment was an average gain of 100 pound for 680 pounds of grain, or 8.2 pounds of gain for each bushel (56 pounds) of grain eaten. This was made with the car-load of steers fed corn-meal and cut alfalfa hay. This gain was obtained by grinding the corn, cutting the hay, feeding the grain and hay mixed, keeping the steers in well-drained yards, feeding them regularly



with fresh, palatable feed, giving them comfortable shelter and kind care, and having clean, ice-free water always within their reach.

This shows a saving in grain of from twenty-five to forty per cent over the usual methods of fattening steers. This experiment was our first in developing methods of fattening steers that would save grain, and it is improbable that the method that will make the greatest saving was discovered at the next trial. It is reasonable to consider that further trials will develop even more economical methods. It is almost certain that a mixture of grains will give better results than corn alone.

The business of fattening steers has reached a turning-point. With cheap land and cheap corn, the old method of shoveling half a bushel of ear corn a day to each steer and paying little attention to the roughage, sometimes paid. It will not pay now. Good corn land near Manhattan, Kans., costs \$75 per acre, and farther east in the corn belt the cost rises to \$100 or even to \$150 per acre. Feeders on this high-priced land will have to do what manufacturers have already done—more thoroughly utilize the materials which they handle. With the old methods, a large portion of the corn was not digested by the steer, and this kept him in an unhealthy condition. The old methods gave four and one-half to five and one-half pounds of gain from a bushel of corn. The best method used in this experiment gave more than eight pounds of gain per bushel of corn.

The feeder should adopt methods that are along the best lines shown in this trial, and then feed well-bred cattle that produce the greatest per cent of high-priced cuts.

#### The International Outlined.

The magnitude of the International Live Stock Exposition, soon to open at Chicago, is best realized in the fact that more than ten acres of actual floor space under roof and in permanent buildings is required for accommodations for the greatest display of fine live stock ever brought together in the world; that a large outdoor tract in the Union Stock Yards is devoted to car lots of cattle, sheep, and swine; that permanent buildings involving an outlay of several hundred thousands of dollars have been erected by the Union Stock Yards and Transit Co., the parents of the great Exposition; that the President of the United States, recognizing the pronounced commercial importance of the Exposition, is endeavoring to arrange to attend; that foreign nations have promptly named official representatives to report to their respective ministers of agriculture on the developments and benefits to the live-stock industry, as shown in this exposition; that half a million people from every section of this country and many delegations and individuals from abroad will attend; that at least twenty governors of agricultural States will participate in the ceremonies of governors' day; and visit the exposition during the week; that the railroads have granted cheap rates from every section, and are fully prepared to handle the largest number of visitors to Chicago at any one time since the world's fair, and many other items of greater or less force tend to impress the enormous scope and effectiveness of the International Exposition.

On November 29 the exposition is to be opened informally, and all animals and exhibits are to be in the places they will occupy until the close. General Manager W. E. Skinner advises the public that the exhibition will also be open Sunday under the same conditions, the work of judging commencing Monday morning, December 1. In addition to the original selling date of November 28 for exhibitors on the certificate plan, the Central Passenger Association has announced that the reduced rates will be sold on November 29, December 1, 2, and 3. This gives the visitors the full benefit of the time of the exposition. According to the official program, Monday is Agricultural College Students' Day, and Monday evening the ceremonies of formally opening the exposition will be presided over by Mayor Carter Harrison, of Chicago. Judging in all the rings commences Monday morning, and continues mornings and afternoons, and in some instances during the evenings, until the close of the show. Tuesday is Chicago day, when local civic bodies will cooperate in arranging an interesting program, and an immense throng of city visitors will mingle with those from out of the city. Wednesday, Governors' day, will be exceptionally important in the fact of the presence of Secretary of Agriculture Wilson and a score of governors of agricultural States will participate in a program, including

public addresses, and in the evening the splendid new Pure-Bred Live Stock Record Building, the only permanent building in the United States devoted exclusively to the headquarters of live stock associations, will be dedicated by Secretary Wilson and the governors. Thursday will be devoted to the railway live-stock officials and State sanitary boards, and Friday is designated as live stock association day. On Saturday, the championship and carcass awards will be supplemented in attractiveness by the decisions in the agricultural college student judging contest, and to which farmers' boys who are not enjoying the educational advantages are also admitted this year. Saturday is also children's day, when thousands of youngsters attend with teachers and parents, and every effort is exerted by the exposition management to make the show an occasion enjoyable for the juvenile element.

All the National live-stock record associations will meet in convention and annual meetings in Chicago, during the week of the exposition, and many important measures will be discussed and methods of breeding, feeding, etc., outlined. According to careful calculation the railroads anticipate an attendance from outside the city of half a million visitors. In order to provide for the comfort and accommodation of the hosts of visitors, General Manager Skinner has organized a complete bureau of information, and over a thousand homes have been listed, in addition to the hotels and boarding houses, and assignments are being made daily, on receipt by Mr. Skinner, of applications for accommodations.

The principal headquarters of the bureau will be located in the magnificent new retail store of Marshall Field & Co., where every convenience exists for the comfort of visitors, and the management extends the hand of Chicago's hospitality with a view to making the visitor feel as welcome in the business part of Chicago as he is at the exposition.

Downtown branches of the bureau are to be located in the Great Northern Hotel, in the Western Union building at Clark and Jackson streets, and at other points, and members of the committee are to meet each train and give full directions and reliable information. Special provisions for the transportation of the throng have been made, and the train on the Lake Shore road from the gates of the exposition to the business center every few minutes, and the reverse, will greatly relieve the heavy traffic on the elevated and surface lines. The International this year will be by long odds the greatest, most attractive and complete exhibition of its kind ever known in the world, and indications point to the attendance of everyone interested in live stock and agricultural products who can possibly arrange for the trip.

#### Norton's Hog-trough.

EDITOR KANSAS FARMER:—The present wet season has been a severe trial on the hog-man who used the common open trough. As the trough was the only solid foundation in the muddy pens, of course the hogs used the trough to walk on, and when they came up for their slop they used the trough to walk on.

Every hog-man knows the evils of the open hog-trough, and I can not tell him anything new about this abomination. I have used them until I really thought they would drive me crazy. Three times a day, over and over again, day in and day out, week and month in and out, it is the same old thing.

You approach the pen with the rich slop and find the pigs all muddy and nasty and standing up on the fence, so there is no chance for you to get over without getting all mud and filth, and the trough a mass of filth. You set down the slop and hammer away on the pigs' heads until you can get over the fence with the hoe to clean the trough out, and while you are cleaning out the trough the pigs are biting at your boot straps, running between your legs and crowding into the trough, actually making it more filthy than it was before.

All this time you are saying pleasant things that would not look well in print, and that should be reserved for your grandmother-in-law. The pigs are making a noise that would wake the dead for miles around and finally get so bold and so hungry that you have to climb out of the pen to save your life.

This picture is not overdrawn, but actually happens three times a day where the open trough is used, and much of the feed put in it is wasted. I have been through all this and graduated with high honors long ago. In despair and frenzy I have cried out for some change from this awful waste and association with filth, until I was forced

to sit down and think it all over and plan a trough to avoid all this. As a result of this forced study, I have for a long time been using troughs that are the joy of my life—an actual pleasure to use. So important is this subject to the hog-man that I will go into minute detail and describe this trough so any one can make it. There is no patent on it as far as I know and it can be made by any one who chooses.

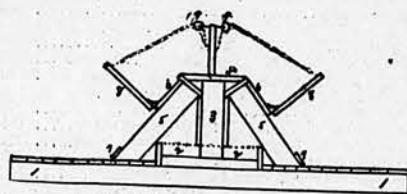
Take for sills 11 strips 1 by 4, or 2 by 4, 6 feet long, or, better still, 8 feet long, and set them up parallel about 19 inches apart. Take 2 planks, 2 inches thick, 12 inches wide and 16 feet long, spike them down to these sills, placing the plank crosswise of the sills and side by side near the center of the sills, thus forming the bottom of a double trough. Around these planks nail a 1 by 4 strip to form the edges of the trough and on each side of these planks lay down boards and nail them to the sills and we have the bottom of a trough and the board floor at each side of it that the hogs are to stand their front feet on while drinking. Now to keep the hogs out of the trough. Take 11 pieces of 2 by 4 scantlings 18 inches long, and set them up on end over the crack between the two planks that form the bottom of the trough. Place them 19 inches apart, and to the edges of these nail a 12-inch, 16-foot board on each side, having the bottom of boards just flush with top of edge of trough, making a double partition in the center of trough with 4 inches of space between walls of partition. Beveled-ended strips of 1 by 4 boards are nailed across the top of each upright studding. On each side above the partition boards a 1 by 6 board, 16 feet long, is nailed flaring out at top, thus making a sort of a hopper or second-story trough on top of the hollow partition in center of trough. Now to brace the top of the trough, nail on 22 braces, 11 on each side, just over the sills, made of 1 by 4 stuff. The top ends of these braces are beveled to hold the second-story trough or hopper, and the bottom ends beveled to fit tight on floor, snug up to the edge of trough and just over the sills. To make the braces secure, nail a 1 by 4 16-foot board across the bottom ends so that the hogs can not tear them loose.

If the trough is to be made under a roof, this is all one needs, but if out in the open yard it must be protected from rain, hail, and snow, so as to be always in order without leaving to be cleaned out.

At the top of the braces nail a board 9 inches wide on each side of the trough. This leaves a space of 12 inches to put a 12-inch board in that is to be hung at the top edge with hinges and these two-hinged boards and a 12-inch board on top of the second story or hopper of the trough will exclude any storm; also the hogs when not wanted at the trough. The board on top is used as a cover and also to walk out on and has a trap door in center 8 inches wide by 20 inches long where the slop is thrown down. The whole board is on hinges so it can be tipped over out of the way to let in the sunshine, to fill up with shelled corn or any other reason.

Set the trough perfectly level with one end up within four feet of the fence and connect an outside stile with the top of the trough by a stout plank and carry the slop out on top and turn it down in center of trough. There will be 20 stalls, 19 inches wide, for the hogs to drink out of and will accommodate 20 of the very largest hogs and 40 or 50 gilts. For pigs, use a trough with the bottom board one foot wide and 1 inch strips between the partition boards. A lady in a silk dress can slop the most vicious hogs without getting a particle soiled and not a pinch of feed is wasted and no filth can possibly get into the trough. When the top and side-boards are hinged on, an upright must be put in middle of trough to fasten two pulleys to guide the rope used to lift the up the storm sides of the trough. When there is a bad sleet, one side may be put out of use, but the other will be in working order.

I submit a drawing of the end of the trough.



J. C. NORTON'S HOG-TROUGH.

- 1 represents the sills.
- 2 the end of trough.
- 3 the space between the partition boards.
- 4 the cross pieces at top of partition

## Horse Owners! Use GOMBAULT'S Caustic Balsam



A Safe, Speedy, and Positive Cure  
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUSTIC OR FRIING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.  
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studding to sustain top board that you walk out on.

5 the side braces that keep the hogs from turning side wise and getting their front feet in trough.

6 and 7 are the top and bottom boards that brace the side braces. The hogs will get their feet over 7 but never in the trough.

8, the storm doors, connected by rope to pulleys at 9.

These troughs will last 10 to 20 years and will save enough feed in one year to pay for themselves, and they are a genuine treasure to have.

Skids can be put under the troughs to move them around with, and shorter troughs can be made for smaller numbers of hogs. Forty pigs can easily use one trough until old enough to separate the sexes, when 20 to a trough is the proper thing no matter how large or vicious they get.

As a sanitary measure, there is nothing to equal it. The hinged top and side boards need not be used only in winter time, as storm water can be drawn off through a hole bored in bottom of trough in which a plug is inserted.

Build one trough and use it awhile and then you will be prepared to build some more. I will try to get up to To-



peka this winter with a model of this trough.

If I have not made myself quite clear, keep this article and write me about it and I will get our local carpenter to make a model and will send it to you C. O. D. J. CLARENCE NORTON.  
Moran, Kans.

#### Red Polled, the Dual Purpose Cow.

EDITOR KANSAS FARMER:—In your issue of November 13, page 1118, Farmer, Pomona, Franklin County, desires to hear from some one who has tested Red Polled cattle as dairy cattle.

I will give the amount of milk given by the 10-year-old Red Polled cow Sunshine Rose 2d 7560. This cow came fresh April 22, 1901. I allowed her bull calf to suck her until May 8, when I took him from her, putting him with another cow and milked her, weighing the milk carefully night and morning. From May 8, 1901, to April 12, 1902, she gave 8,372½ pounds of milk, and gave 14 pounds per day, sixty-nine days before calving. She came fresh June 21, 1902. I allowed the calf to suck until July 1, when I took the calf from her, as before, and from July 1, to November 15, she has given 4,438 pounds. I had this milk tested but once, which was about the middle of the first period of lactation. It tested 4.2 per cent butterfat. Am sorry that I had not a tester so that the quality could be shown during the entire time. This cow's 1901 calf is a bull, and shared the milk of another pure-bred Red Polled calf about the same size and age. Sunshine's calf, when just a year old, after walking 2½ miles, weighed 828 pounds. He took second prize as yearling at Topeka Exposition, in competition with the champion 1902 herd of the United States, and first prize at Ottawa, Kans., fair, competing with the splendid herd of Geo. Groenmiller & Son, of Centropolis, Kans., where the Red Polls came under the adjudication of that excellent judge of bovine form, C. A. Stannard, who placed them according to beef points only. This cow, Sunshine, will weigh in flesh fully 1,500 pounds. Is she a dual purpose cow, or is there no such thing as a beef and milk cow in one animal?

I also weighed the milk given last year by the Red Polled heifer, Beulth Bride-Rose 8th 14547, calved October 28, 1898. She came fresh April 19, 1901, being two and one-half years old. I milked her from May 8, 1901, to February 7, 1902, in which time she gave 4,918½ pounds of milk. Milk not tested for quality, but from the amount of cream that raised on it, the quality is good. This heifer came fresh again March 11, 1902, being dry thirty-four days. Began milking her March 27, and up to November 15, she has given 5,836 pounds of milk. This cow's sister won second prize at Topeka, being placed by Prof. D. H. Otis above the heifer which, the week previous won first prize and junior female sweepstakes at the Nebraska State fair. These two cows were fed and cared for according to ordinary farm conditions, with no attempt to force, and that during the very trying season of 1901, being the hottest and driest season on record.

Almost every one has read of the noted Mayflower 2d, the Red Polled cow who won second place in the Model Dairy test at the Pan-American Exposition, where fifty cows, of ten breeds, were tested, and out one cow, a Guernsey, having beaten her. Her record for twelve months is 10,458½ pounds of milk, which made 547 pounds of butter. Who has not heard of the noted Popsey 3d, who has an official record of 393½ pounds of milk in one week; 17 pounds and 14 ounces of butter in one week, and who recently sold for \$1,125, while her 2-year-old bull calf sold for \$1,200?

Now let me say to Farmer, of Pomona, there are Red Polled cows not worth the salt they eat, as dairy cows. And so there are of all other breeds. Buy your bull from a man who pays attention to the milking qualities of his Red Polls, and a bull which comes of deep milking ancestry, and he will produce you heifers that will do you good. There is a tendency among some Red Polled breeders of the United States to ignore dairy quality. Moreover the dairy Red Polled stands no show of winning in the majority of American show rings. The American mind caters to the rotund form of the over-fed beef animal. In

Secretary Coburn's report on Polled cattle (and I would advise your correspondent to get and read this work), the picture is given of the great English prize-winning Red Polled bull, Champion, who has recently been exported to Australia. Secretary Coburn says, "Our illustrations have been chosen to show the present highest type of Red Polled." In my opinion, Champion, if he looks anything like the picture, would not stand a shadow of a show of winning in an American show ring, because he is too much of a dairy type. Those who have Secretary Coburn's book should note the difference in type between Champion and Richland Boy 5th. The picture, although a poor one, of the latter bull, shows him to be much stronger in beef points than the former. Richland Boy 5th, as well as his sire Dobbin, an all round beef bull, having won many prizes in American show rings, is proof of my assertion, that it requires a beef animal to win in America. WILKIE BLAIR.

Beulah-Land Farm, Girard, Crawford County.

#### Marshall County Hereford Sale.

The first annual sale of the Marshall County Hereford Breeders' Association has become history. In many respects it was a great event. Great in its immediate results. Great for the locality. Great for the breed. Greatest for its possibilities. Marshall County has long been known as the Herefordshire of Kansas and as one of the best and richest stock counties in the west. Prior to this sale, this county was the home of more herds of pure-bred Herefords than any like area in the United States, so far as the knowledge of the writer goes. The quality of the stock here is of the best and the sale served to disseminate seed which will serve to form nuclei of many other herds in this and other localities. Prior to the organization of this association the breeders had been competitors with each other with but few buyers and a resulting low price to all. Since that time they have worked for the common interest and have practically doubled the price of their output, and the sale realized \$10 to \$15 more of an average upon the principal consignors expected.

It was a noticeable fact that not a single animal sold at this sale went outside of the State, while nearly 50 per cent of them went to breeders in Marshall and adjoining counties. The members of this association are the owners of excellent representatives of the get of such great bulls as Lamp-lighter, Ancient Briton, Corrector, Wild Tom, Java, Weston Stamp, Roseland and others. Heretofore they have only lacked the opportunity to make their animals known to the breeding world in order to assure their future success as breeders.

While the prices realized may not appear especially good on paper it must be remembered that many of the animals were too young for immediate usefulness. It is also true that some of the animals were thin in flesh while none of them could be considered in show condition. It was a most important event, not only to the Hereford interests of the West but to all other pure-bred interests as well, and will make its influence felt for many years to come.

Ninety-eight head were sold for a total of \$12,830, or an average of \$130.92. Of these fifty-nine were females which brought \$8.64, an average of \$144.83. The thirty-nine bulls brought \$4,285, an average of \$109.87.

The sale in detail is as follows:

#### FEMALES.

Verbina 113035, W. M. Morgan, Irving.	100
Graceful 102188, E. M. Winter, Irving.	100
Thelma 81495, G. C. Radkey, Blue Rapids.	70
Queen of the Ranch, Henry Stagg, Marysville.	100
Pearl 95175, E. M. Ruthstrom, Leonardville.	150
Lottie 84490, Downing Bros., Scandia.	135
Ruth 109580, E. M. Winter.	260
Patti 125096, E. M. Winter.	140
Naomi 121738, Frank Sheldon, Blue Rapids.	115
Allanah 113301, W. A. Hostettler, Blue Rapids.	130
Lady Moonlight 114770, N. T. Christensen, Bremen.	115
Roxana 115047, Chas. Drennen, Blue Rapids.	320
Anna Belle 110102, D. C. Calhoun, Irving.	125
Miss Callie D. C. Calhoun.	75
Grace 104411, E. H. Erickson, Cleburn.	205
Prairie Queen 92762, H. H. Dunn, Wakefield.	150
Hester 129232, W. M. Morgan.	105
Ruby 131220, N. T. Christensen.	110
Queen Esther 147776, W. A. Gilson, Blue Rapids.	150
Rosebud 104413, H. S. Finley, Blue Rapids.	210
Prairie Wilton 107632, N. Patterson, Blue Rapids.	175
Pansy 113313, I. D. Yarik, Blue Rapids.	235
Easter Blossom 74468, A. Hirsch, Formosa.	110
Daisy 2d 127151, E. H. Brittenger, Frankfort.	75
Seba 129046, Cottrell Bros., Irving.	100
Evadne 103346, Fred Cockrell, Frankfort.	165
Trinket 11497, C. H. Brittenger.	180
Lady Lenore 129105, Fred Cockrell.	105
Lady Washington 96498, W. M. Morgan.	200
Cinderella 59178, N. Patterson.	155
Laska 156926, N. Patterson.	105
Octavia 86246, J. N. Wanamaker, Blue Rapids.	115
Marigold 113309, Thos. Strange, Blue Rapids.	230
Lou 136723, E. H. Erickson.	100
Queen of Oakland 116883, I. D. Yarik.	145
Rosebud 134591, W. H. Trosper, Blue Rapids.	120
Lillie Belle 113201, J. N. Wanamaker.	185
Emmert's Rose 124373, N. Patterson.	110
Bessie Shaw 75726, B. M. Winter.	125
Princess Alice 92763, N. Patterson.	110
Miss Fancy 116493, A. Borch, Blue Rapids.	215
Creola 2d 119734, Solt Bros., Barnes.	120
Hannah 72932, John Dawkins, Irving.	175
Geneva 113293, J. M. Williams, Frankfort.	170
Bloomer Girl 97345, Geo. Miller, Blue Rapids.	180
Star 128047, Towne Bros., Osborne.	150

Thelma 126927, Geo. Helmrich, Green.	80
Flota 69491, C. M. Burkett, Blue Rapids.	180
Marianna 66030, C. Brenninger, Frankfort.	100
Christmas Gift 136719, Towne Bros.	120
Kate 120419, I. D. Yarik.	185
Carrie Nation 125090, H. H. Drake, Frankfort.	115
Golden Girl 126446, W. S. Tilly, Frankfort.	135
Lady Hanks 126050, E. G. Cockrell, Blue Rapids.	110
Luciel 47th, Solt Bros.	115
Blanch F. 129735, G. C. Rodkey.	100
Creta 638818, Geo. Miller.	165
Jennie 136721, W. H. Trosper.	120
Madeline (twin) 116494, L. C. Powell, Frankfort.	115

#### BULLS.

Cymric 136613, A. Hirsch.	160
Teddy 125373, J. M. Layton, Irving.	65
Saucy Boy 134592, Geo. Hermit, Green.	85
Lomax 129740, N. P. Christensen.	140
Major 132545, Henry Schreiner, Frankfort.	125
Chief 119911, Henry Edelblute, Keats.	110
Longford 134705, Jno. Guess, Osborne.	90
McKinley 125372, E. W. Choate, College Hill.	100
Stanley 136155, Frank Nugent, Blue Rapids.	100
Milton 137550, B. M. Winter.	80
Gold Standard 140409, W. F. Wilkerson, Success.	90
Blocky Jim 2d 124372, H. H. Drake.	115
Walter 136725, C. A. Johnson, Success.	100
Great Heart, C. N. Burkett.	75
Gay Lad 128934, G. L. Ruthstrom.	75
Leonard 128801, John Guess.	165
King 144984, C. A. Johnson.	180
Bruce 147773, S. F. Paul, Blue Rapids.	75
Climax 125363, Kelly & Currier, Cabbell.	110
Benedict 124319, H. S. Finley.	105
Keno 137276, Kelly & Currier.	105
Warwick 134708, W. T. Erickson.	90
Gervase 132196, Alex McCulloch, Irving.	140
Sam 133273, F. L. Hunt, Waterville.	110
Landis 136722, John Dawkins.	65
Marc 125370, E. M. Ruthstrom.	150
Joker 116438, Kelly & Currier.	145
Saturn 138835, Downing Bros.	200
Endicot 147774, G. C. Rodkey.	90
Fargo Boy 134703, Harry Orchard, Vermillion.	95
Boulder 109907, Kelly & Currier.	90
Vick 133274, Jno. Guess.	90
Grove Real 132197, Samuelson Bros., Cleburn.	90
Vignon 140134, Samuelson Bros.	115
Kuno 142288, J. C. Rencin, Barnes.	70
Silver Coin 124373, August Kuhn, Corn-ing.	115
Kansas Britton 125367, Kelly & Currier.	65
Weston's Pride 128935, Fred Cockrell.	165
Lieutenant Golden 136113, Geo. Miller.	165

#### A Grand Offering of Herefords.

Hereford breeders generally can not afford to overlook the next great sale of the breed to be held at Kansas City on Monday and Tuesday, December 8 and 9, by Benton Gabbert & Son, of Dearborn, Mo., and Dr. J. E. Logan, of Kansas City. A personal inspection of this offering convinces the writer that a more ideal or desirable offering of the breed has seldom, if ever, been made.

The offering of forty-one head of Columbus Herefords, of Benton Gabbert & son, forms the largest draft yet sent out from this well-known breeding establishment. None of these cattle are over 4 years old—mostly two—and the entire lot, with but one exception—are of their own breeding. There has been a fixedness of purpose in breeding these Columbus Herefords that has resulted in a uniform type of cattle of the very best quality. On the original foundation stock, which was formed of cows running principally to old Success, Sir Richard 2d and Winter de Cote, was used Quaker 11076, a son of Anxiety 4th. Hesiod 17th, a son of the great Hesiod 2d, and tracing on his dam's side with equal directness to Lord Wilton, was used on the females resulting from this cross. And then came Columbus 51875. On the Columbus females have been used Royalty's Java, Weston Stamp 15th and Lord Southington. Is it any wonder the Columbus Herefords are good ones? Most of the females in this consignment are 2 years old. Eleven of them are by old Columbus and are bred to Royalty's Java, pronounced one of the best sons of that great breeding bull, Java. One is a full sister to Columbus 17th, that sold to Frank Rockefeller for \$5,050, the highest priced Hereford ever sold in any of the Association's sales. This heifer is a show animal from one end to the other. Thirteen of the females are by Hesiod 17th. Two are in calf to old Columbus; the others to Columbus 29th and Columbus 33d. Columbus 33d took first prize as 2-year-old at the American Royal this fall. Columbus 29th won sixth in the same class and topped the Association's sale offering, selling for \$1,005. One of these Hesiod 17th heifers is a full sister to the dam of Columbus 33d and is safe in calf to that bull. Two of them are granddaughters of old Columbus and show that the cross works equally well either way. The bulls—sixteen in number—are a smooth lot, just ready for service. Five are by old Columbus, and every one of them are herd headers. One—Dale Duplicate 2d—won sixth in the junior yearling class at the American Royal this year, and it took a good one to find a place in such company. One of the bulls listed that will at once appeal to the breeder who wants an out cross in the shape of an extra good individual is Lord Southington, sired by imported Southington—formerly at the head of the Armour herd, and the bull that topped the Association sale at Kansas City in 1901—and out of imported Nada. He is a low, blocky bull, pretty head and horns, a broad level back—a plum in every respect. Another bull by Hesiod 17th and out of a Columbus cow is a regular model. Gabbert's "Columbus Combination" is his great stuff for Herefords as "Casey's Mixture" is for Shorthorns. The other bulls are by Weston Stamp 15th by Imp. Weston Stamp.

The grand offering of forty-nine head of Dr. Jas. E. Logan's Sunset Herefords is the first large public offering to be made from this source. This draft from the Sunset Herd shows what may be done in a few years with Hereford blood, brains and money. Dr. Logan started with the right kind of breeding stock and with the right idea. Cattle of his breeding in this sale show that. And to the original foundation stock he has added every year the very best that was offered by the best breeders. The result is that his offering at Kansas City, on December 8 and 9, contains not only the cream of his own breeding but the best that other breeders have sold—and their sons and daughters. It



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#### REMOVE THAT SPAVIN.

No matter what you have done or tried you can positively remove the spavin quickly and without injury with Fleming's Spavin Cure. One 45-minute application usually does it after all else has failed. Costs nothing if it fails. Cures Ringbone, Splint, Curb, etc. Our free spavin book will be worth dollars to you.

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Cattlemen have lost hundreds of thousands of dollars by lump jaw. No one need lose a cent hereafter because Fleming's Lump Jaw Cure cannot fail once in 200 times. Simple, common-sense and economical cure.

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But 15 to 30 days are required to cure either disease with Fleming's Fistula and Poll Evil Cure. Has never failed. No cost if it ever does fail. Write today for circulars on any or all the above remedies. State which circulars are wanted.

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would be hard to select a choicer collection of females than the Sunset Herefords offer on this occasion. Some are bred to calve within a few months, some have calves at foot and are bred again—in fact, all, with possibly two or three exceptions, will be bred to one or the other of the three great herd bulls, Saint Grove, the best son of St. Louis; his best son, Earl of Sunset Farm; or Quartermaster, a worthy son of Scott & March's Hesiod 29th and out of Brilliant, a granddaughter of Anxiety 4th. The quartette of imported cows deserve special mention. One is Snowflake, by Argon, a half-sister to Majestic, the bull now at the head of the Armour herd. Another is Gipsy Jane, by Rory O'More—a grandson of the grand old bull, Maidstone—and she is out of Gipsy Countess, one of the best cows the late K. B. Armour ever imported. There is Lena 2d—a cow of great individuality—by Pagan, and out of a Statesman cow. Another is Kenswick Beauty, a 2-year-old cow with calf at foot by the Earl of Sunset Farm, and she is a great cow or rare merit. She is by John Bull, a son of Rupert, and is out of Kenswick Hartington 2d, the grandest cow in the Sunset herd. Five daughters of imported Soudan, a bull sold by the late K. B. Armour for a fancy price to head the old Scott & Whitman herd, are included. These heifers will bear the closest inspection. They are individuals of unusual length and depth of carcass; big boned, straight hind legs, and beautiful heads and horns. They are good enough for any company and are all safe in calf. Beatrice Beauty 4th, by Hesiod 30th and out of Beatrice Beauty 3d, a line-bred daughter of Beau Real's Rudolph, is a charming specimen of individuality. She is rich in color, deep in the flank, has a great back sustaining a wonderful breadth of loin. She is also safe in calf. Two sets of twin heifers are included, both of which Dr. Logan guarantees safe in calf. One pair, Francis and Mary Lena, are by imported The Strand, and out of Queen Mab, one of the few living daughters of Prince Edward. This grand breeding cow has given birth to four other sets of twins. The other twins are Dona B. and Lady Ernestine. They are by imported Soudan and out of Marianna, a famous cow that has given birth to three sets of twins. Nor is the Sunset bull offering one whit behind the female contingent in the matter of quality and desirable blood lines. It can be easily seen that Dr. Logan's favorite is The Earl of Sunset Farm, and a grand young bull he is, too. He is a son of Saint Grove and out of Breeze, a daughter of Columbus 44570 by Cherry Boy, and out of Spangle 4th. A number of the cows in the sale are in calf by this great 2-year-old bull, and a number of his sons and daughters will stay at the Sunset Farm. Of him Dr. Logan says, "I offer him for sale to show the quality of my breeding." He needs only to be seen to be appreciated. Two other Saint Grove bulls are included that will suit the most fastidious judge.

#### Cattle Sales at the International.

During the week of the International Live Stock Exposition, at the Union Stock Yards at Chicago, on December 1 to 6, 1902, there will occur a number of notable and representative sales of the principal beef breeds of cattle, and the following gives some interesting facts concerning this annual national offering:

#### THE HEREFORDS.

There seems to be a slight misunderstanding on the part of some members of the American Hereford Breeders' Association as to the date of their annual meeting. In the notices sent to each member the date is correctly given as the evening of December 3, Wednesday evening, of the week of the International Live Stock exposition. Some breeders have mistakenly read this as the 30th. The meeting will be held in the assembly hall on the third floor of the new Pure-bred Live Stock Record Building at the Stock Yards. The up-town headquarters for the Hereford breeders will be the Great Northern Hotel, where good rooms can be obtained at \$1.50 and \$2.00 per day. The week will undoubtedly be an eventful one for the Hereford people. There will be a much larger display of Herefords in the show ring than has heretofore been made at Chicago. The sale offering of seventy females and thirty bulls from forty of the leading Hereford herds is perhaps, the best offering of show and breeding stock that has ever been made under the auspices of the Association. Hereford breeders will find much to



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Interest and benefit them during the week, and should attend the meeting, the show and the sale if possible.

### THE ABERDEEN-ANGUS.

The catalogue of the Angus sale to be held at Dexter Park, December 2 and 3, reveals the fact, that the twenty-nine breeders contributing thereto, are selling the best they possess. No sale of this kind has ever contained so many superior specimens. The Messrs. Pierce and Judge John S. Goodwin contribute females in calf to the celebrated Prince Ito. Mr. Goodwin sells the imported Erica bull, Enstamp and the Messrs. Pierce a Blackbird and Antelope that are desirable as herd headers. W. A. McHenry, Denison, Iowa, parts with Royal Laddie, a full brother in blood to the champion Rosegay and sire of the sensational Bobbie Dubbs. Anderson & Findlay, Lake Forest, Ill., include representatives of the Erica Coquette and Pride strains, topped with the blood of their imported bulls Elberfeld, Pacific and Monitor of Glamis. Chas. Escher, Jr., Irwin, Iowa, sells imported and American bred females of choice quality and breeding. A. C. Binnie, Alta, Iowa, sells the yearling Pride show bull Paragon of Alta and three exceedingly choice Pride and Drumlin Lucy heifers imported from Scotland this year. E. Reynolds & Son, Prophetstown, Ill., sell the show bull Ida's Eclipse and the prize-winning females May Escher, Ida Blackbird 2d, and Zara Palmer. Cantine Bros. & Stevenson, Holstein, Iowa, part with the imported Erica heifer Erica 3d of Woodhead; the Erica heifer Pride of Cherokee in calf to the fine imported bull Edward R; the Queen mother heifer Queen of Cherokee, by Longbranch Rosegay, a brother in blood to the champion Rosegay and the young bull Poughkeepsie, a double Pride that fills the requirement of a high-class Angus bull. William Cash, Williamsburg, Iowa, includes the Lady Ida heifer Longbranch Ida; the Montblanton Fancy cow Eva Estill by Imp. Prince of Kerrera; Vesper 2d, a daughter of Imp. Jim Jams, and Young Veteran, the first son of the Blackbird bull Woodlawn that has been, we believe, exposed at auction. Each consignor contributes attractive animals to the sale. Mr. Judy opens it with the champion imported heifer Queen Mother 7th of Drumfargue, and the quality with which the sale is begun is well maintained throughout. Friends, admirers and breeders of the Angus are offered an unusual bunch of cattle in this great sale. They are guaranteed in every way and we trust the values set upon them will be in proportion to their superior merit.

### THE SHORTHORNS.

It is seldom that breeders of Shorthorns have the opportunity of attending a sale of so many cattle of exceptional merit, drawn from so many leading herds of the world and representing the best blood of the past and present. These cattle are the product of the brains and skill of a long line of distinguished breeders who have made Shorthorns the most cosmopolitan and the most admired breed of cattle in existence. This solid foundation so carefully and splendidly laid by thoughtful breeders of the past is a safe one on which cattlemen of to-day can build with perfect confidence of success and reward, if they build wisely. Examination of the catalogue will show the excellence of breeding, and the following statement will show the wide range from which these cattle have been drawn: Seventeen were bred in Scotland and 2 in England, 13 in the province of Canada, but all are now owned by American breeders, while the remaining 45 represent the skill of various leading breeders of our own country. Parties wanting imported cattle will have a very superior lot to select from, while the home-bred cattle will be found good enough to suit the most exacting. About one dozen calves will be sold with dams, and several cows are due to calve soon to the service of the best bulls in America. The following is a list of consignors: I. M. Forbes & Son, A. G. Leonard, C. C. Bigler & Sons, C. S. Barclay & Son, E. S. Donahue, N. P. Clarke, F. A. Edwards, W. I. Word, W. O. Minor, T. J. Wornall, George Bothwell, J. A. Gerlaugh, Kellogg Stock Farm Co., Purdy Bros., George Allen, C. Hintz & Son, E. R. Baeby, T. C. Robinson, Moorman & Miller, William M. Randel & Son, J. F. Huckleberry, U. Z. Green, and Allen Varner. These breeders unite in a cordial invitation to all admirers of good Shorthorns to attend this sale, which will begin Wednesday at 1 p. m., December 3, 1902, and will be concluded Thursday forenoon, December 4.

### THE GALLOWAYS.

On Friday, December 5, 1902, at the Union Stock Yards, Chicago, fifty high-class imported and American Galloways will be sold by the following members of the American Galloway Cattle Breeders' Association: Brookside Farm Co., Ft. Wayne, Ind.; L. L. Bullock, Nodaway, Iowa; C. E. Clarke, St. Cloud, Minn.; E. L. Davis, Davisburg, Mich.; T. J. Davis & Son, Triumph, Ill.; J. R. Hodges, Mechanicsburg, Ohio; Lloyd-Jones Bros., Burford, Ontario; Wm. Martin, Winnipeg, Canada; B. B. Richmond, Columbus, Wis.; A. M. & R. Shaw, Brantford, Canada; O. H. Swigart, Champaign, Ill.; E. L. Wilks, Blair, Ontario. The number of imported cattle offered in this sale, is such as to make this the largest sale of imported cattle ever held by the Association. The excellent quality and individual merit of the animals offered, both imported and American-bred, makes this a rare opportunity for breeders to secure exceptionally good Galloways for foundation stock or to improve your herd.

### The J. F. True & Son Combination Sale.

On Saturday, November 22, at Wellington, Kans., was held a combination sale of pure-bred Shorthorns from the herds of J. F. True & Son, Perry, Kans., and of Preston Wyckoff, Corbin, Kans. A general average of \$106.50 was realized on the sale of a total of 74 animals which brought \$7,880. Col. J. F. True & Son sold 64 head at a general average of \$109; 33 of these were females which averaged \$127.30, and 31 of them were bulls which averaged \$90. Preston Wyckoff's consignment consisted of six females which brought an average of \$101.68, and four bulls which averaged \$75, making a general average for the ten of \$91.

The top price of the sale was brought by Carrie 6th, a Waterloo Duke of Hazelhurst cow out of a Lord Mayor dam, who went to Preston Wyckoff, Corbin, Kans., at \$240. The top price for bulls was brought by

Rosa Duke 3d 190529, who went to E. E. Sheets, Braman, Okla., for \$150.

The complete list of purchasers is as follows:

T. E. Wooderson, Renfrow, Okla.; J. H. Heffley, Anson, Kans.; H. E. Silliman, Winfield, S. R. Myers, Enid, Okla.; E. H. Glover, Renfrow, Okla.; W. A. Burford, Belle Plaine; C. D. Evans, Clyde, Okla.; A. W. Roberts, Ponca City, Okla.; H. Hemphill, Hennessey, Okla.; Harry Burling, Caldwell; O. R. Smith, Belle Plaine; W. H. Wheelock, Marian; J. F. Stodder, Burden; F. O. Watkins, Enid, Okla.; M. F. Yale, Milan; Fred Fangerman, Newton; J. C. Schwyhart, Belle Plaine; D. M. LeMar, Braman, Okla.; F. C. Wiltberger, Winfield; Edward Cook, Freeport; Preston Wyckoff, Corbin; J. P. Cornwell, Braman, Okla.; Chas. M. Baird, Arkansas City; Clay Harrington, Clearwater; John D. Craft, Peck; John Cottingham, Winfield; J. E. Webb, Wellington; H. M. Arnett, Arkansas City; E. E. Sheets, Braman, Okla.; J. D. Brewster, Belle Plaine; A. J. Arnett, Arkansas City; Chas. Shafer, Milan; F. J. Wolff, Conway Springs; E. W. Frazier, Iuka; John Massey, Wellington; Jake Alderson, Ford Creek, Okla.; Jeff Aubrey, Wellington; A. C. Barner, Belle Plaine; F. C. Watkins, Enid, Okla.; J. H. Tenny, Belle Plaine; Oscar Wolf, Renfrow, Okla.; Walter S. Murray, Wellington; Jasper Williams, Rome; Wm. Fox, Braman, Okla.; W. S. Nelson, Wellington; W. H. Jeffreys, Blackwell, Okla.; E. G. Barnard, Hennessey, Okla.; John Leight, Portland; G. P. Miller, Oxford; Perry Orendorff, Numa, Okla.; Snyder Bros., Winfield; E. C. Miller, Oxford; J. W. Wartick, Portland; J. E. Webb, Wellington; L. Irvin, Wellington; Thos. Potter, Stillwater, Okla.; Geo. Miller, Mulvane.

### Gossip About Stock.

#### IMPORTANT SALES NEXT WEEK.

December 4 and 5—International Hereford deen-Angus Sale, Stock Yards, Chicago.  
December 2 and 3—International Aberdeen-Angus Sale, Stock Yards, Chicago.  
December 3 and 4—International Short-horn Sale, Stock Yards, Chicago.  
December 5—International Galloway Sale, Stock Yards, Chicago.  
December 3 and 4—International Berkshire Sale, Stock Yards, Chicago.

A. G. Lamb, of El Dorado, Kans., who recently advertised a sale of Poland-Chinas, was unfortunate in having a rainy day for the sale, but sold fifty-one pigs at an average of about \$14, and is in no wise discouraged by the result of this sale and says he expects to hold a big sale another year about October 1.

C. A. Johnson, Success, Russell County, Kans., who bought a number of bulls at the Marshall County Hereford sale, a graduate of the Kansas State Agricultural College, who in making application of the training received at his Alma Mater and is also making money. With a combination of a good Russell County farm, a bunch of good Hereford cattle, and a wife who is a graduate of the Agricultural College, it would be remarkable if he did not succeed.

It is now definitely settled that the breeders' combination, or State Berkshire sale, will be held at Topeka on January 23, 1903. This sale will consist mainly of bred Berkshires and will be held during the week of the Kansas Mid-Winter Exposition at Topeka. The consignors to this sale listed so far are: Manwaring Bros., Lawrence; C. A. Stannard, Sunny Slope, Emporia; Will H. Rhodes, Tampa; E. W. Melville, Eureka; W. H. S. Phillips, Carbonale; O. P. Updegraff, Topeka; and G. W. Berry, Topeka.

Following the Hereford sale at Trenton, Mo., on Thursday, November 20, came the sale of Shorthorns on Friday afternoon. The attendance was large and the new pavilion which has a seating capacity of 800 was not large enough to accommodate the crowd. Fifty-three head of Shorthorns brought \$5,135, average \$96.88. Thirty-six females brought \$3,655, average \$101.53. Seventeen bulls brought \$1,480, average \$87.06. The top of the cow sale was brought by Waterloo of Hill farm 6th and heifer calf who went for \$400. The top of the bull sales was \$250, brought by Dewey 130630.

Geo. W. Berry, Station A, Topeka, who recently began advertising pure-bred Berkshires, reports recent sales as follows: "Sales of Berkshires from Spring-Brook Farm include the fine boar Royal II to Morgan Powell & Son, Hardy, Neb. This pig was farrowed April 5, and five pigs of the same litter, two boars and three sows, now average 225 pounds weight. We have also sold the Silver Tips boar Silver Crown II. He is one of the litter including four boars and four sows farrowed April 25, now weighing over 200 pounds average weight. These litters are wonderfully uniform and possess rare finish."

The magnificent new sale pavilion at Trenton, Mo., was dedicated on Thursday, November 20, with the sale of sixty-one registered Herefords contributed by the members of the North Missouri Breeders' Association. The White-faces ranged in age from 9 months to 12 years old and made a general average of \$110.67. The thirty-seven cows and heifers averaged \$130.27, and twenty-four bulls averaged \$81.04. Mr. O. Harris, Harris, Mo., contributed three cows to the sale which topped the sales at \$325 each for two of them and \$300 for the other. The top bull sale was \$205 paid for a 7-year-old Corcorator bull.

Immediately following the Marshall County, Kansas, Hereford association sale, was the LeSalle County Hereford Breeders' Association sale held at La Salle, Ill., on November 20. This is the first annual sale of this association also, and at a meeting held during the sale the members voted to build a sale pavilion at Streator, Ill., and to hold semiannual sales hereafter. The top of the sale was \$455 for the imported cow Nun Nicer with heifer calf at foot. The top of the bull sale was \$170 paid for Dandy Bob, a grandson of Lamplighter.

SUMMARY.  
39 females brought \$6,110; average.....\$156.66  
12 bulls brought \$1,345; average.....\$112.08  
51 animals brought \$7,455; average.....\$146.37

We are in receipt of the sale catalogue of registered Percherons to be sold at Kansas City, Mo., December 19, 1902. It is the

property of Hanna & Co., Palo Duro Stock Farm, Howard, Elk County, Kans., to whom requests for catalogues should be sent. The offering consists of 32 head of stallions, brood mares and fillies and five jacks. It is a dispersion sale of his entire herd, which represents the results of a quarter of a century of careful selection and breeding from the best sires and dams obtainable, regardless of cost. The foundation stock was imported from France by Geo. S. Hanna, of Bloomington, Ill., and no expense was spared to obtain mares of the highest individuality and breeding. The entire herd is bred in the best black strains and in the line represented by the great prize-winners of France and America.

The farm of W. L. Reid, whose advertisement on Poland-Chinas appears in breeders' directory, is located four miles north of Indian Creek school house, in Shawnee County. Mr. Reid, although comparatively a new breeder, had the good judgment to lay the foundation of his herd in such animals as are in popular demand. His aged boar Shawnee Chief, by Black Queen's Chief, by Chief Tecumseh 2d, dam by Hadley, Jr., is exceptionally good, with strong legs and other marks of a vigorous constitution. The young boar in service was sired by Chief Perfection 2d, dam Chief Tecumseh M., by Chief Tecumseh 2d. Mr. Reid has a number of gilts for sale that will be bred next month to Shawnee Chief, these gilts are the best of his herd and possess merits that will please any breeder. Farmers wanting the best should open an early correspondence with Mr. Reid.

The first combination sale held by the Cooper County, Missouri, Shorthorn Association was held at Buncheon, on Wednesday, November 19. A good crowd was present and the sale was considered a satisfactory one. Forty head of Shorthorns were sold for \$5,115, average of \$128. Of these, twenty-six were females which brought \$3,490, average \$134.23. Fourteen bulls sold for \$1,630, average \$116.42. The top of the sale was brought by Grand Count, a charming Rose yearling bull by Lavender Viscount, consigned by C. E. Leonard & Son. Of course he came to Kansas. A. L. Sponsler, of Hutchinson, paid \$500 for him. The highest priced female was Craigs 22d, a 6-year-old Alice Maud cow by Sharon Airdle from the herd of Sam W. Roberts. She brought \$400.

President Rowland, of the American Galloway Breeders' Association, recently called an invitation to Dr. Gillespie, the Nestor of Scotch Galloway breeders and secretary of the Highland Galloway Society, to come over and judge the Galloway classes at the International Live Stock Exposition. Scotch and American Galloway standards are materially different, and there is interest felt in knowing how a high Scotch authority will tie the ribbons on American Galloways. O. H. Swigart, of Champaign, Ill., is credited with saying that Dr. Gillespie's appearance as judge at the International will mean much for the Galloways. "I am willing to take a licking to have such a man pass judgment on my cattle. He is the best living authority and if we can get him here it will be a feather in our cap."

While the modern breeder is the man who develops the highest type of the animals which he breeds, it is the farmer who uses them. A criticism is sometimes raised that breeders of the best breeds ignore the milking qualities of their cows. On some of the greatest beef-producing farms the dams with famous pedigrees are unable to raise their own calves and nurse cows must be resorted to. It is claimed that the average farmer can not afford the extra nurse cows nor can he afford to raise cows that can not raise their own calves any more than dairymen can afford to raise calves that can not be sold for beef. This is one of the strong pleas made by the breeders of Red Polled cattle, and together with the rapidly increasing demand for this breed seems to supply evidence that there is a real place for the dual-purpose breeds in the economy of Western farm life.

McLaughlin Bros., of Columbus, Ohio, and Kansas City, write: "We received a cable message from Mr. James McLaughlin, Thursday, in which he said that he sailed that day on the Mesaba with one of the largest importations of Percheron and French Coach Stallions that ever crossed the Atlantic Ocean and every horse well. He should arrive home with them about December 2. During the past year we have saved out of the three hundred odd of the best of them. These horses will be shipped from here Friday night, November 28, in two express cars consigned to the Union Stock Yards, Chicago, where they can be seen at the International Exposition. These horses have won all of the first prizes with a single exception, and in fact nearly all of them are prize winners at the leading Percheron shows in France this year."

One of the best herds of Poland-Chinas that the writer has had the pleasure of seeing belongs to G. E. Fuller, of Morrowville, Kans. He has a large number of sows and gilts of his own breeding which were sired by Onward Perfection 59045, a son of Chief Perfection 2d 42559, out of Last Price's Daughter 15564, by Ben Wilkes 43477 and out of the One Price sow Last Price. These females are all bred to the great young boar Sunshine Success. He is by Ideal Sunshine 37885, by Ideal Black U. S. 29509. His dam was Ideal L. L. 123822, by Tom Chief 44589. Sunshine Success has the distinction of being the only Ideal Sunshine boar in the State of Kansas. In addition to the gilts and sows mentioned above, he has a number of yearling sows by Kansas Union 19070, Chief's U. S. and Tecumseh Chief 2d. These latter are brothers out of a Black U. S. sow. This herd is in surprisingly good condition and stands to-day one of the best herds of Poland-Chinas that the writer has seen in Kansas this year.

The National Druggist for November says: "There is much said, and particularly at this time of the year, in the agricultural and live-stock publications about creosote, or coal-tar preparations. Often times the crude combinations of carbolic acid are recommended. Then again, solutions of creosote are suggested. Among those who are familiar with the use of these combinations, as utilized in the veterinary practice of medicine, there has been

## Talk No. 16.

## LENSES.

In buying hats, gloves, or shoes it doesn't make so much difference if you get a bad article; it will soon wear out and you know better next time. A bad lens will wear out nothing but your eyes, often without your knowledge. You can not get new eyes. I believe that I am thoroughly informed upon all grades and qualities of lenses. I am particular in buying to select only the very best that is made. Every pair of lenses that I sell undergoes a careful inspection and thorough test before leaving my hands. I am equally particular that the lenses fit your eyes. It is to this that I give my most careful attention. I have a consulting room built especially to my order and am thoroughly equipped for measuring every defect and selecting lenses especially adapted to your condition. A carelessly chosen lens is one hundred times worse than none.

My exclusive attention is given to fitting glasses.

## DR. C. BENNETT,

Registered Optician.

730 Kansas Ave. : Established 1879.

tested a new solution called zenoleum. This is a carefully and scientifically compounded American preparation, economical in its cost and thoroughly efficient in its operation. It is American through and through, and redounds much credit to its manufacturers. In cases where coal-tar or creosote preparation are suggested, zenoleum can be used with absolute safety, as it is not poisonous and as it makes a perfect emulsion, it is easily accessible for dispensing purposes. The manufacturers, Zenner Linsinfectant Company, of 61 Bates St., Detroit, Mich., will be glad to send literature and prices."

On Tuesday, November 18, Mr. G. W. Priest, of Meriden, Kans., held his first annual sale of Poland-China hogs. The auctioneer was Mr. W. O. Warner, of Topeka, Kans., who certainly did very creditable work. The list of buyers is as follows: John Wilkerson, Topeka; W. M. Ream, Topeka; Chris Martin, Meriden; W. A. Fleischer, Hoyt; E. R. Barnes, Meriden; John Dauber, Meriden; G. W. Chase, Mayetta; W. E. Collier, Meriden; Jas. Davney, Meriden; Henry Edwards, Rock Creek; F. Eberwein, Hoyt; D. S. Rice, Hoyt; Ed. Dickey, North Cedar; John Russell, Meriden; J. T. Palmer, Meriden; J. F. Keim, Osawatie; W. L. Reed, Topeka; C. Simpson, Meriden; Golden Cunningham, Meriden; W. B. Cunningham, Elmont; and Aug. Leadka, Rock Creek. The highest price paid was \$19 by John Wilkerson for a March boar. A few grade sows with pigs were also sold the top price for which was \$30.50. The sale as a whole was a success, though on account of the crowd being small the prices paid were not as large as they should have been.

Duroc-Jersey breeders will be interested in knowing that W. E. Mason, Haddam, Kans., has bought a new farm in another part of the State and intends to close out his entire herd of Durocs, which he has been breeding for the past ten years, in a public sale on December 10, 1902. He will offer forty gilts and ten yearling sows, mostly bred, and a few boars not akin to the sows in this sale. The foundation stock of this farm is almost entirely of Gilbert VanPatton's breeding. This will be a sale in which everything on the farm will be offered and at which breeders of Duroc-Jerseys as well as farmers who merely wish to secure good hogs can be satisfied. The yearling sows in this sale are a splendid lot and trace directly back to some of the best show hogs in Nebraska. These sows will be bred to Mason's Perfection by Liberty Perfection 11195, out of Red Belle 15436, by Shinn's Glory 2855. Some of them will be bred to Red Lad, by King L. 7997, out of Grace N. 17480, by Kansas King 4939. This sale will prove a snap for buyers of red hogs. Breeders should go to Haddam, Washington County, Kans., on the B. & M., where they will be met by carriages and transported to the farm, where a free lunch will be served just prior to the opening of the sale. Those who can not attend in person may send bids to W. E. Mason, Haddam, Kans.

For thirty years past the Gifford Shorthorns have been famous, and the Gifford Bros., who now own and manage this herd, have reason to feel proud of a later success attained by it. This breeding farm has always used good bulls, prominent among which was Red Knight 120752, and it is now proposed to offer a draft of thirty cows and heifers and fifteen bulls in a public sale to be held at Manhattan, on December 16. This will be distinctively a Red Knight sale, and will be a remarkable one owing to the even quality and excellence of the whole consignment. The writer has never visited a herd of sale cattle that was so uniform in its excellence as the one now offered by the Gifford Bros. All of the thirty females except one are bred to the pure Cruickshank bull Red Gauntlet 149507 or the pure Bates bull Rose Duke 155031. All the cows and older heifers are due to calve early. This is a red herd of cattle and includes Flat Creek Young Marys, Josephines, Zellas, Goodnesses and other standard families. Rose Duke is now 3 years old and weighs 2,100 pounds in ordinary flesh. The Giffords have had two crops of calves by him and he is guaranteed to head somebody's herd. He should go to date and place and remember that you will see on this occasion the most uniform lot of excellence that will be found in any sale in Kansas this fall.

Since the American Royal Show, breeders of Berkshire swine report an unusually brisk sale, and as there is a limited supply (Continued on page 1172.)



## Horticulture.

### Planting Seed of Forest Trees.

How to collect and plant tree seed, is a question that is interesting a great many farmers in Oklahoma. The planting of trees for shade, wind-breaks, fire wood, posts, and fencing material is becoming quite common in the prairie districts. The trees desired for such planting can hardly be purchased of nurseries but can be raised on the farm at a reasonable cost. Most of the trees used for this kind of planting bear seed while quite young, and the small plantings that were made early in the old part of Oklahoma are now bearing seed enough to supply the farms with plenty of young trees. The black locust and catalpa bear young and the seed is easily gathered. The elms do not bear so young as the two trees just named, but by selecting the seed from the native white elm, that grows along the banks of the small streams, most farmers can secure plenty of seed at small cost. The box elder, ash, and hackberry are all native trees, and the seed can be secured with little trouble.

Tree seeds should be gathered as soon as ripe. The squirrels, mice, and worms soon destroy a large part of the seed if it falls to the ground, and some kinds of seeds will not grow well if thoroughly dried. Most of the seeds are easier to gather from the trees than from ground several weeks after they have fallen. The seeds that mature before mid-summer, should be gathered and planted as soon as ripe, as few of them will grow if kept till the next spring before planting. The late maturing seeds may be stored over winter and planted in the spring. The seeds with soft shells or coverings should be stored in a cool, dry place. The nuts and seeds with hard dry coverings should be planted in the fall or stored in boxes, sand, or moist soil out of doors. Freezing and thawing these seeds during winter helps to break the shell.

Hard shelled seed may be planted in the fall or early winter, if the land is well drained, but if planted on wet land they are liable to rot. Moles and field mice will sometimes dig out some of the seed, but if the land is free of grass and litter, little harm will be done. This will save the trouble of storing, and the planting can be done when there is less press of labor by the regular farm work. The seeds should be covered with about two or three inches of soil. If the seeds are stored dry over winter they should be soaked in water for two or three days before planting. Pouring hot water over the seeds will help to soften the shells. The light, soft-shelled seed, like the catalpa, should be planted in early spring and should not be planted any deeper than is necessary to place them in moist soil.

The soil should be well prepared, and should contain a good supply of decaying vegetable matter, which may be supplied in form of well-rotted manure. The seed of slow-growing trees, like pines and cedars, should be planted in a seed bed where they can be shaded during the first one or two summers. The seeds that are planted in midsummer may also be planted in a bed, and then the little trees can be set in the nursery row the following winter. The seeds that are planted in the beds should be planted in rows about eighteen inches apart and thick enough to have the plants about two inches apart in the row. These seedlings require very close attention and good care to bring them through the first summer.

The seeds of the more rapidly growing trees may be planted in nursery rows, and the young plants cultivated there until large enough to set in the permanent planting. The seeds should be drilled in the rows so the plants will stand from four to eight inches apart in the row and the rows about three feet apart. The trees in the nursery row must be well cultivated and cared for.—Press Bulletin Oklahoma Experiment Station.

[In gathering catalpa seeds it is extremely important to secure the true Speciosa variety. Others bear seeds more abundantly, but no other is as valuable as the Speciosa. It is a more rapid grower and produces a better wood than the others. Through hybridization many varieties of catalpa have come into existence. The speciosa is of a more upright habit than most of the others, and is a more robust grower. Its seed-pods are much larger in both diameter and length than those of other varieties. The seeds are also larger. But only observation of the characteristics can enable one to determine the Speciosa with certainty. Now is the time to gather catalpa seed.—Editor.]

## HER UNCLE'S WISE

### This Young Woman is Glad She Complied With It.

There is a woman in New Hampshire who can congratulate herself on complying with a request of her uncle. She is Mrs. Ella Chapin, of Claremont. Not long ago she contracted anæmia and was in a miserable condition till, at the request of her uncle, she took Dr. Williams' Pink Pills for Pale People. What this wonderful remedy did for her is best told in her own words:

"From long and constant caring for my sick mother," she says, "my system became all run down, and, in the fall of 1897, I realized that I was in a very poor state of health. I was nervous and my blood was thin and poor. I had dizzy spells and severe headaches, had no appetite and became so weak that I was unable to do anything. The slightest exertion made me short of breath and faint."

"This state of affairs continued for a year and I grew constantly worse. My uncle heard of Dr. Williams' Pink Pills for Pale People at Springfield, and was told of some remarkable cures they had accomplished, so he got me a supply. I began taking them and in less than two weeks I could see a change for the better. I continued their use and in a short time was cured."

Mrs. Chapin suffered from anæmia, a disease caused by an actual deficiency of the blood and a watery and depraved state of that fluid. It is characterized by a pallid complexion, pale lips, dull eyes, tongue and gums bloodless; shortness of breath upon slight exertion—especially upon going up stairs; palpitation of the heart, feeling of impending death, weakness, loss of appetite and ambition. If left to itself it is apt to result in decline and death.

The one remedy that has proved itself a specific for this disease is Dr. Williams' Pink Pills for Pale People. These pills, taken in increasing doses, will never fail to effect a cure if used persistently for a reasonable length of time. They are also an unfailing specific for such diseases as locomotor ataxia, partial paralysis, St. Vitus' dance, sciatica, neuralgia, rheumatism, nervous headache, the after-effects of the grip, palpitation of the heart, pale and sallow complexions and all forms of weakness either in male or female.

Dr. Williams' Pink Pills for Pale People may be obtained at all druggists, or direct from Dr. Williams Medicine Company, Schenectady, N. Y., 50 cents per box; six boxes for \$2.50.

### Fruit Parasites and their Destruction.

The fruit growers of California willingly acknowledge their great obligation to the entomological department of their university for the success with which the ravages of fruit pests in that State have been diminished if not totally prevented. To the scientific investigations of the faculty of that institution is due the general immunity from severe financial loss which the orchardists of the State enjoy.

No class or variety of fruit, the cultivation of which has been attempted in California, ever reached the period of successful propagation than some new species of destructive insect pest instantly appeared to prevent it. This fact is true in all localities. The orange, for instance, could not have been successfully raised in California, but for the introduction of the Australian lady bug, which feeds upon the orange scale. The plum, peach, apricot, apple, and in fact every other fruit known to the coast, each developed a natural enemy which would have destroyed it but for the successful efforts of the university entomologists in combating it. In some portions of the State, notably in Placer County, a new specimen of moth developed which proved so destructive that a loss of 50 to 60 per cent in the peach crop was suffered. Around Newcastle the direct financial loss in the peach crop alone is estimated at \$1,373,000 in the past four years.

The University of California was appealed to, and Warren T. Clarke, assistant entomologist, was sent to investigate. He was successful in his search, and returned with complete data of the habits and life history of the worm and methods of propagation. Professor Clarke, in order to learn the characteristics of the new species of insect which was doing such immense damage, fastened twigs, in which the eggs were imbedded, to his underclothing and thus hatched them out.

From the knowledge thus gained, Pro-

fessor Clarke was enabled to devise a means for the extermination of the destructive pest. The loss of fruit was reduced in the current year to a maximum of one and one-half per cent.

### Early Sweet Peas.

For the earliest sweet peas prepare the ground and sow the seed early in November for the northern localities; farther south the sowing may be done later—any time before the ground freezes to hard to work easily. Choose a warm, sunny location, sheltered from west and north winds. Have the rows run east and west. Spade the ground deeply, working in a supply of well-rotted manure and top-dress with air-slaked lime and wood ashes, one quart of the former to four of the latter for fifteen feet of double row. This should be thoroughly worked into the soil. Make two trenches four or six inches apart and three inches deep. In the bottom of trenches sow the seed very thickly, not more than an inch apart, as many will fail to grow. Cover the seed with soil and firm with a small board. The entire surface of the soil should then be covered with manure or coarse mulch to prevent deep freezing. Remove the mulch early in the spring and rake the entire surface of the bed as soon as it can be worked. This will let the sunshine and air get in their work and start the young seedlings upward in quest of light.

Nature sows most of her seed in the autumn, and we may follow her lead with many varieties. If we prepare the beds and plant the seeds, care must be taken not to do the work too early, otherwise the seed will start growth before freezing and the young plants will be cut off by winter's icy breath. If we go strictly "according to nature" and simply scatter the seed on the surface, there is little danger of its germinating before the proper time, for it must be first carried down into the soil by the action of rain and frost. Nearly all hardy annuals do better and start earlier when fall-planted. Those classed as "half hardy or tender," of course, will not flourish under such treatment.—Up-to-Date Farming and Gardening.

### Propagating Roses.

Considering the ease with which the work may be done, it is strange that so few people attempt to propagate roses. There is no great mystery surrounding the work; nor is it necessary to do the work in a greenhouse. Take cuttings from medium ripe wood, severing them just below an eye or bud. Insert them in clear sharp river sand so there will be at least one eye beneath the surface. Keep the soil constantly moist. A glass tumbler or fruit jar may be turned over the cutting, or a number of them may be covered by a bell glass. Another good way is to sink a box in a sheltered corner of the garden, fill it with clear sand and put in cuttings of the roses and any hardy shrubs you may want to increase your stock of. Have the box slightly tilted toward the south and cover it with any old window sash you may happen to have; water whenever necessary to keep the cuttings from drying out. When cold weather comes on bank up around the box and provide a board cover for the glass. By spring the cuttings will be nicely rooted and may be put in permanent quarters.—Exchange.

President Roosevelt spent several days hunting bears in the wilds of Mississippi. He got not a shot. Here is a newspaper's explanation: "My dear, I don't know what we would do without the daily newspapers," said Mr. Mississippi Bruin to his better half. "If we

## KENTUCKY BLUE GRASS SEED.

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# SEEDS



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# The Young Folks.

Conducted by Ruth Cowgill.

## THE CORN SONG.

Heap high the farmer's wintry hoard!  
Heap high the golden corn,  
No richer gift has Autumn poured  
From out her lavish horn!

Let other lands, exulting glean  
The apple from the pine,  
The orange from the glossy green,  
The cluster from the vine;

We better love the hardy gift  
Our rugged vales bestow,  
To cheer us when the storm shall drift  
Our harvest fields with snow.

Through vales of grass and meads of  
flowers  
Our plows their furrows made,  
While on the hills the sun and showers  
Of changeless April played.

We dropped the seed o'er hill and plain,  
Beneath the sun of May,  
And frightened from our sprouting grain  
The robber crows away.

All through the long bright days of June  
Its leaves grew green and fair,  
And waved in hot midsummer's noon  
Its soft and yellow hair.

And now, with Autumn's moonlit eves,  
Its harvest-time has come,  
We pluck away the frosted leaves,  
And bear the treasure home.

There, richer than the fabled gift  
Apollo showered of old,  
Fair hands the broken grain shall sift,  
And knead its meal of gold.

Let vapid idlers loiter in silk  
Around their costly board;  
Give us the bowl of samp and milk,  
By homespun beauty poured!

Where'er the wide old kitchen hearth  
Sends up its smoky curls,  
Who will not thank the kindly earth,  
And bless our farmer girls!

Then shame on all the proud and vain  
Whose folly laughs to scorn  
The blessing of our hardy grain,  
Our wealth of golden corn!

Let earth withhold her goodly root,  
Let mildew blight the rye,  
Give to the worm the orchard's fruit,  
The wheat-field to the fly;

But let the good old corn adorn  
The hills our fathers trod;  
Still let us for His golden corn,  
Send up our thanks to God!

—John G. Whittier.

## The Tramps' Thanksgiving.

... The muffled tramp of years  
Comes stealing up the slopes of Time  
They bear a train of smiles and tears,  
Of burning hopes and dreams sublime.

—James G. Clarke.

It was a biting cold afternoon. The snow creaked sharply under the runners of passing sleighs, and the frost on the windows refused to yield to the combined influence of the pale November sunlight without and the furnace heat within. Norah, the pretty maid of all work at the Whiting's, coming home from a hasty trip to the grocer's for some article which she had forgotten to order, slipped in through the bulkhead instead of facing the fierce wind which came whirling round the corner. She did not stop to fasten the bulkhead. They seldom did fasten it. They were young people at the Whiting's, new to house-keeping, and it was one of their careless ways.

"Now see them two poor b'ys," said Norah to herself, as she looked out of the kitchen at two tramps who were sauntering by. Even the cold did not make them hasten, but what use to hurry, since, as warm-hearted Norah said to her mistress a second later, "There's no Thanksgiving for the likes of them, poor souls, an' its biting cold!"

"Yes, it's hard," said Mrs. Whiting abstractedly. "And Norah, you had better put the cold boiled ham and the jar of doughnuts in the store closet down cellar, until after Thanksgiving, to make room in the pantry for other things."

Mrs. Whiting was a kind-hearted young woman, but her mind was full of her first dinner party, to be given that night, and there really wasn't a corner of it left for tramps.

"I'll take these paper bags down, too," said Norah, "they are just in my way here, and it's no use saving them."

The tramps had looked at Norah as she dodged in through the bulkhead, but exchanged no words about her, and plodded wearily on. The sun dropped down out of sight, and the short winter twilight deepened into night. The wind went down, but it was still bitterly cold, and the two tramps wandered into the railway station to get warm. There they stayed until after the last express train had thundered by.

"Sorry to turn you out, boys," said the kind-hearted old station master, "but I've got to leave now. If I just had a home," he said, reflectively, "but I'm a bachelor, and the old lady where I board—well she's a cranky one."

"It's all right, mate—thank you just the same," said the elder of the two. "We'll get on."

The station master looked after them as they stepped outside the circle of the electric light and were swallowed up in the blackness beyond.

"Them ain't no common tramps, now," he said to himself. "Young, too. That little one now. He ain't mor'n seventeen—just a boy. Too bad, too bad."

The two tramps plodded wearily back over the route they had come. The houses were all dark. There were long stretches of blackness between the scattered street lamps that seemed colder to the poor fellows just by reason of the absence of light. They turned up the collars of their threadbare overcoats, and thrust their hands deeper into their pockets.

"I can't stand this much longer," finally gasped the younger, with chattering teeth.

His companion looked about him. They were opposite the Whiting house and a thought struck him. He remembered seeing Norah go in through the bulkhead, and hearing Mrs. Whiting say to a departing caller, "Yes, we are going this evening on the late train, Norah and all—yes—to spend Thanksgiving."

"Come this way," he said briefly, and led his companion towards the bulkhead. It yielded to his touch; they stumbled down the steps, and were at last under cover. It was not specially warm in the cellar, but it seemed a paradise in contrast with the bitter cold outside.

A faint light streamed from the half-opened door of the furnace—evidently left ajar to keep the fire alive until the family should return the next night.

The elder of the two tramps, whom his companion called Joe, closed it and opened the drafts. He brought up an old chair without any back and a wash-tub which turned upside down made a good seat. When they were warmed enough to talk, he said:

"We are all right till to-morrow night. I heard the lady say they were going away on the evening train to spend Thanksgiving."

"Maybe somebody here all the same—you better go slow, old boy!" continued his chum.

"Guess not, by the way they left the fire; but we'll keep quiet all the same," and he changed the dampers a trifle, drew up his improvised chair, and opened the furnace door to warm his chilled fingers.

"Say, Joe, how'd you know about furnaces?" said the boy.

"Used to have one at home, Fred," said Joe, briefly.

His companion glanced curiously at him. In the faint light his face looked stern and sad.

"You wasn't always a tramp, no more'n me?"

"No," said the other with a harsh laugh; "I wasn't born one! few are."

"There wasn't no furnace in my father's house," said the younger and more talkative one. "It was a farmhouse, and I hated a farm, so I run away."

There was a long pause, Joe filled two of Norah's paper bags with coal and replenished the fire noiselessly. Then he took out a clasp knife and began to whittle a piece of pine wood into long splinters which he put into a basket near by.

"What are you doing, Joe?" said Fred. "Oh, just paying for my lodging! That's what a tramp is supposed to do—cut wood to pay for his lodging!"

"I say," said Fred, "we ain't bad uns, for tramps, we don't steal, and we don't swear nor—"

"Oh, we are an ornament to the profession, we are!" interjected the other contemptuously—then in a different tone, "Fred, my boy, we are a bad lot, and you know it; just useless loafers. Fred, did they used to keep Thanksgiving at your home? That farmhouse that you were such a fool as to run away from."

"Well, what did you run away from, I wonder? You hain't no call to talk to me!" growled Fred angrily.

"What, indeed?" said Joe with such a despairing groan that the other's anger melted away.

"Say," he went on after a pause, "you must have had a lot of learning. You don't talk like me. You may be a college chap, for all I know."

Joe made no reply. His great hopeless-looking black eyes were fixed on vacancy and he did not seem to hear.

"What shall we have for Thanksgiving dinner?" said Fred, presently, "I hate to steal their food, but we can't starve."

Joe roused himself. "If we can find any food we'll take it—and pay for it." "Sorry," said Fred, "but my pocketbook's in my other pants!"

"Oh, shut up!" said Joe, good naturedly, "you listen to me. When it's light we'll look about and see what we can find to do." ("Never heard of a tramp hunting for work much," muttered Fred

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"never does in them newspaper yarns—wouldn't think a tramp had feelings like other folks, to read them yarns, or ever washed his face!"

"When you are done jabbering, young fellow, we'd better get a nap, if we can." "H'm, can't find my pillow," said the irrepressible Fred, "and some feller must have swiped my blankets!"

Joe took from his pocket a bit of candle, which he lighted and went on an exploring expedition.

In the adjacent laundry he found some old rugs hung over a line, and in the store closet the boiled ham and doughnuts and some raw apples and potatoes.

Going back with the rugs, he told Fred what he had discovered, divided the rugs with him, fixed the furnace for the night, and then the two poor wanderers tried to sleep, haunted by who shall say what dreams of Thanksgivings past, and gloomy visions of others yet to come.

Thanksgiving morning dawned clear and cold. "I'll get breakfast," said Joe, "and you—well, you'd better make the beds and sweep up."

Somewhat refreshed by a night's rest, and in comparatively comfortable quarters, their spirits revived and they entered into the fun of the thing with a boyish abandon, surprising to themselves as they looked back upon it in after years. Joe raked down the furnace fire and put some potatoes to roast in the hot ashes.

Going into the laundry he washed his face and hands at one of the set tubs, smiling a little as the action reminded him of Fred's remark about the "news-paper tramps" who never washed their faces! Then he carefully washed his useful clasp knife, cut some generous slices of boiled ham which he piled on one of the paper bags, filled a tin pail cover with doughnuts, spread a stray newspaper on the wash bench and breakfast was ready.

"What are we going to drink?" Fred asked.

"Well," answered Joe, soberly, "tea is sort of womanish, and coffee might make you bilious—let's try cold water!" Bringing out two empty fruit jars, he filled them with that wholesome if not exactly "warming" beverage. Two paper bags answered for plates; the potatoes were done just enough, and eaten from their jackets, were not to be despised. Salt would have improved them, but the ham helped to make that deficiency less apparent. As they drew up to the improvised table the same thought struck each that it was Thanksgiving morning!

"I can't help thinking," said Fred, huskily, "of the farm, and—"

"Don't talk!" said Joe, sharply, "eat your breakfast! we're tramps—just tramps. Be thankful you are not frozen or starved."

Fred choked back a sob. He was only a boy after all, poor fellow, and this was his first Thanksgiving away from home. Both were silent for some time. Fred's thoughts persisted in going back to the bright New England kitchen and his last Thanksgiving breakfast there. He could see it all, like a picture. The yellow painted floor with its braided mats, the sun shining across the breakfast table with its coarse, white tablecloth, its steel knives and forks and brown and white tableware. There was always chicken pie for breakfast on Thanksgiving morning, he remembered. There by the stove was grandma's rocker with its patchwork cushion, and on the other side, father's big cowhide boots were warming. He always would keep them there, no matter what mother said, and mother—Fred jumped up suddenly and going into the laundry shed bitter tears—the first for many a month—over his home memories.

And that older man, left to his own thoughts at the rough breakfast table! What words can describe the pictures his memory called up of happier Thanksgiving days?

No humble kitchen with its rustic table service, but glitter of silver and perfume of flowers, costly damask and priceless china—a gracious presence presiding over all. His widowed mother, Heaven help her! Was ever mother cursed with such a son? a gambler, a fugitive from justice, an outcast forever.

"The only son of his mother and she a widow." Ah, happy widow of the Bible story, whose son had not disgraced her!

"It may be too late for me, but I'll try to save the boy," he thought to himself. "He shall go back to the farm, and in a few years these months of wandering will seem almost like a dream to him."

When Fred reappeared, Joe made no allusion to his absence, and they set about the work they had planned to do. They piled up the wood neatly, cut up a large quantity of kindlings, mended the handle to the wood basket, and did various things that had been left for the man who came periodically to do odd jobs. Then it was time to get dinner, which was a repetition of the morning's bill of fare, but the tramps were not fastidious and waxed facetious over their repast.

"Will you have dark or light meat?" said Joe with the boiled ham before him and the clasp knife in his hand. "This," surveying the ham critically, "is the finest turkey I've seen for some time! Do let me give you a bit of the breast and some stuffing."

"I'd rather have a wing!" said Fred with a chuckle.

"No cranberry sauce, thank you," said Joe, after laughing at the picture suggested by Fred's remark of a pig with wings! "I prefer a roasted apple," helping himself to one of several that Fred had roasted by stringing them on a long stiff wire that he found among the rubbish. By resting one end on the back of the furnace lining, and moving the other back and forth, he kept them turning so that they roasted evenly without burning.

After dinner they occupied themselves in making plans for the future. The memories of the day had stirred their hearts of both, and determined them to make a new start. At least, Joe was determined to give his young companion one, and mature his own plans later.

There was no shadow of a crime between Fred and his home, and his parents were both living. It was possible and easy for him to return. With him the self the case was different. His mother had died, and he himself was dead to corn all of his name and race. But in the far West, with a new name, he might have had an honorable if not a happy career, after a year of hard work and discouragement.

At least he could try. "Fred," he said, "we are about eight miles from W—, and I am going to send you with a note to an old friend who will help you to get work. When you have earned enough to get some, a decent clothes and pay your rare back to the old farm, you are to go—you will go, understand?"

"What are you going to do?" said Joe.

"Never mind about me," said the other. "You do as I tell you. It's enough for you to know that I'm not going to live this way any longer."

"But I hate to leave you, Joe," said the boy. "You've been awful good to me since we've been together. I'd rather tramp with you and starve than live right up to the handle with most folks." In Joe looked at his sadly and irresolute friend—here was his only friend. He could never go back to those of former times.



He must make a new start among new people, if he made one. Perhaps he might fail; it would be up-hill work anyway. Why not keep the boy with him? But reason said "No." He might not be able to save himself—he could save the other.

"So you want to stay with me?" he said, and Fred brightened instantly. "Now," said Joe, "don't you want to see your mother?" Fred nodded. Well, old fellow, I'm going to fix it so you can, but you must drop me to do it. 's the best thing, the only thing for you. You see I can ask for you what I couldn't for myself."

On the blank leaf of an old letter which he found in the rubbish, he wrote with a leadpencil as follows:

"Will you help the bearer to get work at which he can earn an honest living, and see that he goes to visit his parents when he has a respectable position and has earned money enough to clothe himself properly for the visit? I ask this in the name of the friendship which once existed between us, and to which I forfeited all claim four years ago."

He signed the name which had been in that prosperous time, which he had disgraced and had been forced to announce forever. Folding the shabby little note, he addressed it to one of the prominent business men of W—. Then taking one of the useful paper bags he wrote a note to leave behind them for their involuntary host and guest:

"We thank you," it read, "for your involuntary hospitality. When we tell you at the quiet 'Thanksgiving' which we have passed in your cellar has not only saved us from possible death, from cold and hunger, but has given us courage to make a new start in life, we feel sure that you will not grudge us the food and shelter which you would probably have denied us, asked, and not without reason. We are only two tramps, but we hope to be men in some place in the world, however humble, before another Thanksgiving, and to sign to this the names which have served our purpose as tramps and which are now drop forever. Gratefully yours, 'Joe' and 'Fred.'"

As Fred read this epistle and signed in a big schoolboy hand, he expressed an admiration for the author of it in no stinted terms. "But it don't sound like a tramp's letter," he objected. "The folks'll think it's a joke."

"It won't seem like a joke to find all their ham and doughnuts gone, I'm thinking," said Joe grimly.

"Well, it's a great letter," said the boy. "Don't believe old Winters that got your school at home and thought he was some pumpkins, could hold a candle to it! Wouldn't I like to be here when you read it?" with a boyish chuckle.

"Would you, though?" said Joe significantly. "Well, I wouldn't. And now we must have our last meal here, and they would make no use of anything except left behind him, we may as well take the rest of the ham and doughnuts with us."

They ate their supper in a thoughtful mood. Then Joe tacked his "letter" on the door at the head of the cellar stairs, and the fire once more, and they left the shelter that had meant so much to them to be homeless wanderers once more, but not together—never more together. Fred's boyish grief was open and violent, Joe's repressed but none the less sincere.

"Shan't I ever see you again, Joe? go with you now if you'll only let me," pleaded the boy, but Joe refused. "The world is small, after all. You may see me again sometime," he said; but in his heart he knew better.

Outside the gate they parted. Joe watched the ungainly boyish figure till disappeared in the darkness, then turned with a heavy sigh and walked in the opposite direction.

Five years later, the Whittings, who had moved to a crude new Western city, one day reminded of their "tramp episode," as they always called it.

Mrs. Whiting and a lady friend were dictating subscriptions for some charity, and Mr. Whiting went with them one afternoon and stopped at the office of a business acquaintance noted for his benevolence, even in a city where open-handed giving was the rule and not the exception. The gentleman cheerfully signed the paper and brought it to the ladies, as he was just leaving the office at the night. As the signature caught Mrs. Whiting's eye she gave a start and exclaimed, "Why, it looks like our tramp's writing!" and then blushed as she realized that her remark might be a trifle uncomplimentary.

Mr. Whiting laughed and closed the carriage door. Then, in reply to Mr. Boynton's inquiring look, he said, "Shall I walk a few steps with you and tell you our 'tramp story'? It is quite like a romance." As he finished, he said, "I don't mind telling you, Mr. Boynton, that there's apt to be a lump in my throat when I think of those poor fellows, and for my wife, I don't believe there are many nights when she doesn't pray for these two tramps whom we never

saw, and of whom we know only what is written on a brown paper bag which she keeps in her desk."

Mr. Boynton paused and lifted his hat reverently.

"Heaven bless her always, and all women like her," he said. "Good-night, this is my corner."

Mr. Whiting looked after him a moment. "Queer fellow—Boynton—rather abrupt sometimes," he muttered, and he, too, went his way.

As Mr. Boynton sat in his handsome but lonely room that night, there was a wistful expression on his face as he said to himself, "I wonder if Fred went home to the farm!"—Good Housekeeping.

We wish to repeat and emphasize the proposition which we made last week. To every one who sends us a good article upon "The most wonderful exhibition of animal intelligence I have ever seen," which articles we intend to publish, we will send a year's subscription to the KANSAS FARMER; or, if you prefer, we will send it to any other address you may send us. (We might suggest, in passing, that it probably would be hard to find a more acceptable Christmas gift for your father or friend than the KANSAS FARMER for a year.)

In addition to this we propose to award a prize of one dollar to the best article on the subject. We wish these articles to be interesting, carefully worded, pointed and truthful. We are grateful, also for care in spelling, punctuation and penmanship, which make the task of looking over contributions and getting them ready for publication much lighter.

### FOR THE LITTLE ONES

#### A THANKSGIVING STORY.

The pudding and pies on the pantry shelf (I know it was so, I saw it myself) Had a falling out on Thanksgiving day, And I heard every word they had to say. I think I was just about six years old, And shut in the house with a horrid cold. The rice pudding began counting his plums, And calling, "Children, come, put in your thumbs, My face is some blistered and burned, I know, But my heart is as sweet and as white as snow." Then the Indian pudding cried, "I am chief," And he shouted as though they all were deaf, "I'm as full of suet as I can hold, And all the way through as yellow as gold." "Yellow, are you? Well, then, sir, so am I," Quoth a grave and motherly pumpkin pie, "And just as happy as a pie can be, For every one chuckles who looks at me." "It's me they're looking at," quoth the squash, "Beside a squash pie a pumpkin is bosh." "I shall not last for a very great while," The mince pie said, with a broad, winning smile, "Lucky for me it's Thanksgiving day, For I'm so rich I should soon melt away." "Rich!" cried the apple pie, wagging her head, "You'll lie in the stomach as heavy as lead, So I heard it said, but all say of me, That pie is as wholesome as wholesome can be." The custard pie shook, attempting to speak, But the chicken pie crowed—an awful shriek— "We all looked quite well, till our faces to pick That girl took a notion—she ought to be sick." At that I awoke, beginning to cry, And heard mamma say, "She's had too much pie." —Christian Register.

#### Thanksgiving in Olden Times.

(By a Little Boy.)

It was a cold and chilly morning. Papa had gone to get grandma and grandpa; he had taken the old spring wagon and

put two seats in it and several chairs. I wondered why he had put so many chairs in, because I supposed nobody but grandma and grandpa were coming, for I didn't know who else in the world he would get, because we had no relatives who lived nearer than a hundred miles away from us, but I supposed he meant all right for he was as sound as an iron bar.

He had made up the fire in the fireplace and had started early. While he was gone mama and my little sister were fixing all kinds of good things to eat for dinner, and I was out chopping wood for the fire when it got low, and some for winter. The clock struck ten just as I brought in an armful of wood and what do you think I saw? It was turkey, two pumpkins, carrots, cabbage, and so many things that I believe I could not tell you all of them. It would make a pretty picture, wouldn't it?

Then after I had chopped a little while longer I put the ax away and was just coming out of the barn when the old spring wagon came up to the house, and who do you think got out? It was grandma and grandpa and my jolly old uncle and aunt and my little cousin. Then we went into the house. I got washed and then we all sat down to the table and ate the best dinner I had ever eaten.

After dinner we talked together for awhile, and then we had our supper, though I must say, I for one didn't eat much but pie, and had to suffer for it too, for that night I had a nightmare and this is what I thought I saw: There were three turkeys ready to chop my head off, when mother came to quiet me down, then I went to sleep and slept all night. Now I guess I'll have to stop. Goodby and that's all.

### The Home Circle.

#### THANKSGIVING ON THE FARM.

Oh! the farm was bright Thanksgiving morn, With its stacks of hay and shocks of corn, Its pumpkin heaps in the rambling shed And its apples brown and green and red— And in the cellar, its winter store In bins that were filled and running o'er With all the things that a farm could keep, In barrel and bin and goodly heap, Hung to the rafters and hid away— Oh! the farm was a pleasant place to stay!

And here and there was the Jersey stock, The sheep and horses—old Prince and Jack— The turkeys and geese and awkward calf, And the goat that made the children laugh. A pair of mules that a friend had sent Out to the farm on experiment; Pigeons and fowls and a guinea pig, Dogs that were small and dogs that were big, Chickens that were white and black and gray— Oh! the farm was a pleasant sight that day!

Out back of the house the orchard stood, Then came the brook and the chestnut wood. The old saw mill where the children play, The fodder barn with its piles of hay; The walnut grove and the cranberry bog, The woodchuck hole and the barking dog, The wintergreen and the robber's cave, (Wherein who entered was counted brave); The skating pond with its fringe of bay— Oh! the farm was a jolly place to stay!

Oh! the pantry shelves were loaded down With cakes that were plump and rich and brown, With apple pies and pumpkin and mince, And jellies and jams and preserved quince; Cranberry sauce and puddings and rice, The dessert dishes that look so nice; Vegetables, breads and bonbons sweet, A great brown turkey and plates of meat, Sauces fixed up in the daintiest way— Oh! 'twas a glorious sight that day!

Oh! the farm was bright Thanksgiving morn, The sun shone clear on the hay and corn, The guests came early with laugh and shout,

And the boys and girls scattered about Seeking the pets they had known before, Climbing through window instead of door; Racing from barn to corncrib or mill, Shouting and laughing with glee, until The dinner horn sounded. Oh! I say, 'Twas pleasant upon the farm that day!

The big home barn was a place of joy For the romping girl and the climbing boy, With beams and mows and ladders to mount, Horses and oxen and sheep to count; Hunting of nests of sly old hens, Tunnelling hay and fash'ning dens, Helping the men to do up the chores, Shutting windows and locking the doors. Letting some work come in with the play— Oh! the farm was a pleasant place to stay.—Up-to-date.

#### Finding of the White Lama.

A STORY OF INDIA, BY LIEUT.-COL. A. F. MOCKLER-FERRYMAN, IN THE BALTI-MORE SUN.

(Continued from last week.)

The receipt of this note was a great consolation to the traveler; he knew now the approximate length of his journey and he had the satisfaction of knowing also that on the morrow he would at any rate be able to talk. The guide had so far done his work well, and the various intricacies of the mountains through which they had been wandering made it

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quite certain that Gillmore could not possibly retrace his steps to Himis alone. The track was often quite invisible and passed now to the eastward, now to the westward, though the general direction of the day's march was south. The same bare country was traversed throughout the day, and by sunset the traveler estimated that he must have covered nearly fifty miles, but where or when the lama intended to halt for the night he had no idea. Darkness came on apace, but still there was no sign of the end of the tedious ride; then, without warning, the guide set up a weird and loud wailing, which echoed again and again from side to side of the deep valley. In time came an answer back out of the depths of the gloom and again all was silent as the march continued. Suddenly a sharp voice rang out like a sentry's challenge and the lama replied; then a figure issued from behind a rock and a hurried conversation took place between the newcomer and the guide.

#### SWUNG UP THROUGH THE AIR.

After a while the two men approached Gillmore and signed to him to dismount; no sooner had he done so than a twisted fiber rope was tied around his waist and the guide gave forth a long dismal cry resembling the night call of the jackal. The rope tightened and the astonished Englishman instinctively raised his hands above his head and clutched the cord by which he was now suspended in midair. What was about to happen to him he knew not, but he felt that he was being pulled rapidly and steadily upward. The sensation was not altogether unpleasant, though the rope was somewhat rough to his hands and tight around the waist. Toward the end of this adventurous ascent the motion became more rapid, and at last, to Gillmore's intense relief, he felt himself seized by half a dozen hands and his half-numbered body was laid on the floor of a room while the rope was untied.

#### THE DELIGHT OF CONVERSATION.

The chamber in which he found himself was well lighted and bright, and he was received by a pleasant-looking lama, who told him in Hindustani that this was to be his room for the night. Gillmore was delighted at being able to talk again, and plied his host with numerous questions. The answers he received were short but satisfactory, though he was unable to discover the name of the lamasery at which he had arrived, who the mysterious Englishman was, or where he would be found. He was well looked after, and was given a good dinner, with a plentiful supply of chong and a comfortable bed for the night, his new friend warning him on taking his leave that he would be aroused before daybreak and that the following day's journey would be a long one.

#### DOWN AGAIN BY THE ROPE ROUTE.

The night's rest was all too short, and it seemed as if hardly an hour had passed when Gillmore felt himself shaken gently, and the lama, standing over him, bade him get up and dress. With the rope secured around his waist he departed from the strange lodging as he had come, being slowly lowered down

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the precipitous cliff, which stood out above him in the descent bold and black against the starlit sky. At the bottom the ponies stood ready saddled. The rope, when released from his body, passed swiftly up the cliffside, to come down again immediately with the Hindu-stani-speaking lama—the guide for the day's journey.

As on the previous day, the ride was over rough and stony ground, though the monotony was relieved to some degree by conversation. For a Tibetan, the lama was decidedly loquacious, and, having formed one of a party that had been dispatched to India on a religious mission some few years before, was in a measure enlightened and intelligent. He discussed his religion freely with the Englishman, and though only belonging to the working or worldly class of lama, he appeared to be well versed in matters with which his spiritual brethren alone concerned themselves. Toward evening the pathway suddenly descended into a wide valley watered by countless streams from the mountains; a rich verdure spread for several miles, and parties of red-clothed lamas were busily engaged in agricultural pursuits. This, the guide said, was known as the Golden Valley, and belonged to two lamaseries situated at a distance of several miles. At the far end the streams fell into the lake lying in a basin hemmed in on all sides by high mountains, and beyond this point there appeared to be no passage.

**BLINDFOLDED AND BOUND.**

"We leave the ponies here," said the lama, turning to his companion. "You are now about to enter the Stronghold, which no stranger is allowed to enter under any pretext whatever. In your case, however, a special permit has been granted by the Holy Shooshok, in consideration of the object of your journey, and you will be passed over the frontier, blindfolded and carried by the guard. Fear nothing. I will see that no harm comes to you."

The two men then dismounted, and the Bhoti, drawing two strips of puttoo from his saddle-bag told Gillmore that his instructions were to tie his hands behind his back, as well as to bandage his eyes. This done, the same weird jackal-cry that he had heard on the previous evening echoed among the hills, and on the instant a succession of similar calls, mingled with the loud barking of dogs, answered from every direction. An interval of several minutes passed; then came the sound of voices, followed by a number of questions, to which the lama-guide replied. Everything was apparently satisfactory, and the Englishman felt himself lifted off the ground by two or three strong men, to be immediately carried rapidly along what seemed to be a fairly level though rough road. In ten minutes or so he was set down again, and a long discussion took place between his carriers, resulting in his being seized by the legs and hoisted aloft to sit on the shoulders of two men walking side by side. What this new mode of progression meant it was hard at first to discover; but after a while the astonished Gillmore learned by the sound that his bearers were wading in deep water. Suddenly the air became chilly and raw, and the splashing of the water reverberated in what was undoubtedly a subterranean chamber. The air grew colder and colder as the journey continued, and it was with no small amount of comfort that, after rather more than half an hour, the traveler found himself standing on dry land in a warmer atmosphere. His troubles were not yet over, however, for he was again carried up a steep incline for some considerable distance, and then down again for almost a similar distance, after which he was placed gently

on a rock in a sitting position. He heard the round of his bearers' footsteps rapidly fading away; then, when all was quiet, the lama-guide spoke to him, and untied the cloths which bound his hands and eyes.

On looking around Gillmore discovered that he was in a narrow gorge, with sides rising perpendicularly for apparently several thousand feet; down this he and his attendant slowly wended their way, arriving shortly after dusk at a huge gate in a massive stone wall built across the end of the gorge, and completely blocking the exit.

Once more the jackal signal was given and the gate was opened. Several large mastiffs strained at their chains, and two armed lamas received the travelers, who were at once conducted to a small serai on the inside of the gate. Here, in an inner room, as on the previous night, Gillmore was accommodated with food and a bed; his guide on the day's march set down the baggage, which he had carried down the gorge, and, after a little while, brought in the guide for the following day's journey.

**THROUGH A LAND OF MIRAGES.**

Fresh ponies were provided in the morning, and, as usual, an early start was made. Nothing of interest occurred for several hours, the way lying for the most part across an open sandy desert, over which ever and anon arose a succession of mirages, while occasionally a herd of antelope was to be seen scampering across the plain, the animals' bodies projected by the shimmering heat-waves to a height of several feet above the ground. The hills were reached again at noon, and in another hour the guide halted on the summit of a snow-pass, and, pointing down the valley, exclaimed: "Yonder stands Tscho Pangl, our destination."

It was a most striking view that presented itself to the eyes of the Englishman. From where he stood the country sloped gently down into a wide valley, the perpetual snow-line ceasing half a mile below, when its place was taken by a long stretch of cultivation, now bright and green with springing corn. Beyond lay a lake of vast expanse, bounded on two sides by mighty mountains, its farthest extremity, however, being invisible. The scenery was not altogether unlike that of the Golden Valley, except that the lake was of far greater extent and the picturesqueness was increased a hundredfold by the strangely situated gompas, standing perched, a thousand feet above the water, on a rocky islet in the lake.

**MET BY ARMED MEN.**

On the margin of the lake they were met by a small body of armed men, who, after taking charge of their ponies, led them to a large barge quaintly painted in red and gold. This the whole party entered; and the lamas, bending to the oars, soon covered the mile of water which separated the island from the shore. Landing place there was none; one huge solid rock rose out of the depths of the lake, its sides being round, perfectly smooth, and perpendicular for a height of 200 or 300 feet; above this appeared fissures and clefts, with here and there a gnarled and twisted juniper bush; then followed further lofty precipices, surmounted by massive projecting rocks and built-out platforms, on which stood the lamasery itself. No more impregnable fortress could be devised, as Gillmore had every opportunity of judging for himself during the ten minutes that he was suspended over the water by the rope which had been lowered for him.

**BESIDE THE DYING WHITE LAMA.**

The end of the toilsome journey had come, and a strange feeling of suppressed excitement took possession of the man who had undertaken to fulfill the wishes of his dying countryman. A large number of solemn geupkas, or lamas of the yellow order, with shaven heads, stood on the platform by the prayer-mill windlass, which was combining the double office of rope-winder and prayer-maker; and as Gillmore was released they formed themselves, without uttering a word, into a procession to precede him along a dark, rock-hewn gallery ending in a flight of steps. Up these they moved until they reached the topmost chamber of the gompas—a square and spacious apartment, with windows opening from all four walls and letting in the long golden rays of the setting sun. In the center, on a low wooden couch, lay the dying man, clothed in yellow robes. Within easy reach of his outstretched hand was a heavy prayer-wheel, pivoted between floor and roof, and slowly revolving—the only sign that life still flickered in the otherwise motionless body. Silently the lamas knelt round the cot, and with

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bowed heads muttered a prayer; then one of them gently touched the prostrate form and whispered that the Englishman had arrived. The effect was electrical; the man raised himself and, shading his eyes with his hand, stared at Gillmore; then, motioning to the lamas, he murmured, "Brothers, leave me for a space."

The two Englishmen were now alone, and Gillmore, kneeling by the bedside, took the thin bony hand in his and kissed it. The face before him, pale, wan, wrinkled though it was, still had the unmistakable features of a European; otherwise there was nothing to show that the dying man was not an ordinary Bhoti lama.

**THE LAMA SENDS A MESSAGE TO THE WORLD.**

"Thank you a thousand times for coming," began the English lama, clasping Gillmore's hand. "I had the wish, and my brethren were good to carry it out. I believe they love me, as I also love them; but they know that though I am their head I am not of their people. My time is short. I can not talk much; but I have secretly written out my history on scraps of paper which I have here under my pillow. Take them, but be careful that they are not discovered on you. Promise me that you will remain with me till I die and hold my hand in yours. It will not be long now. Om mani!"

The opening words of the sacred verse were uttered in a loud, clear voice. Gillmore heard hurrying footsteps on the stone stairs; and, just in time, he secured the papers from beneath the pillow and thrust them into his breast. The priests entered the chamber and took up the low wailing chant: "Om mani padmi hum," but too late; the soul of the white lama had flown to prepare for its re-birth on the morrow.

Four days later Gillmore was seated with Keane and the Wuzir in the latter's house at Leh engaged in answering questions, after an enthusiastic greeting on his safe return and at the conclusion of a general description of his extraordinary experiences.

"You have not told us the name of the white lama."

"For the very good reason that I never learned it; but I dare say it is in his confession, which I have been afraid to look at as yet, as I carried the papers next to my skin on the return journey, and hardly slept a wink, fearing that they would be stolen from me. Here they are. Let's have a look at them."

"Not now," said the Wuzir. "Take my advice and keep them safe until you get out of this country. I am as much interested in the story as either of you; but I know what a hold their religion has on the lamas. Probably the mystery of the white lama is known well enough in the country, and if it were suspected that the secret were discovered Buddhist fanaticism might rise to the occasion. I am certain that in a similar case we Mohammedans would stop at nothing."

So it came about that Gillmore continued to carry the papers on his person during the march back to Srinagar; and, as the Wuzir was as inquisitive as either of the Englishmen, he contrived to find some urgent business which required his immediate presence in the Kashmir capital. It was a month later that the two friends met to open the mysterious manuscript—a month every night of which had been a sore temptation to Keane and the Wuzir; but Gillmore guarded the treasure jealously, arguing that he had undergone immense toil and severe hardships, and that it

would be a thousand pities if the white lama's history should run the risk of being lost forever by impatient curiosity. (To be continued.)

**The New President of the Missouri State Dairy Association.**

Replying to inquiries as to his views as to the dairy interests of Missouri in his new position of president of the State dairy association of that State, Mr. W. W. Marple, of St. Joseph, says: "The course I have pursued and my attitude towards Missouri is the best evidence of my opinion of its future in the dairy business."

"After my work in Kansas and Nebraska, which was so pleasant and satisfactory, after laboring in a field so acceptable and with a people held in such high esteem, the very fact of my associating myself with the dairy interests of Missouri is conclusive proof of my confidence in the outcome. Missouri has been a little slow to take advantage of her rich resource in this line, but I expect to live and see the day when there will be no line between the two great States of Missouri and Kansas. Their dairy interests will unite them. It will be one great country, one people, of one mind—all God's chosen people, living in a land of 'milk and honey.'"

"In reply to inquiries as to my policy, as work for the coming year as president of the Missouri State Dairy Association, will say my best effort will be put forth to assist in making it a strong organization and a great aid in developing the dairy interests. The same energy and vim that I try to put into my work in building up the business of the Blue Valley Creamery Co. shall characterize my effort in the interest of the people who saw fit to place me in the position they did."


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## MOLES AND GOPHERS.

(Continued from page 1155.)

sweet potatoes, apples, raisins, and prunes. The presence of strychnine, arsenic and other poisons does not seem to deter them from eating the food; but if the poison is sweetened they seem to eat it more readily. In summer it may be desirable to take the trouble to sweeten the poison, but in the fall and early spring it does not seem worth while to do this. The poisoned food being introduced to the burrows below the surface, there is no danger of poisoning stock. It might be well, however, not to let swine run in the alfalfa fields for a time after the poison has been put out.

"The following method of introducing the poison is recommended: Cut the potatoes, or other food, into pieces not more than three-fourths of an inch in diameter. Cut a slit in each piece and with a point of the knife blade insert a little sulphate of strychnine; as much as half the bulk of a grain of wheat will answer the purpose. The moisture from the potato will cause the poison to adhere to the blade.

"Having prepared the bait in sufficient quantity, go to the field armed with a round, sharp-pointed implement an inch or an inch and a half in diameter and of sufficient length. The tools here illustrated were made by a blacksmith for the writer. One is a shovel handle and the other a spade handle, and each is shod with a conical iron point. A bar is attached about fifteen inches from the point to enable the operator to use the foot in pressing it into the soil. These tools have proved to be quite serviceable. With one of them it is only necessary to find the runway of the gopher. The handle is sufficiently thick to make a hole large enough to permit one to drop the poisoned potato directly into the burrow. The operator then passes on to another place, leaving the hole open. No digging with a spade or other hard labor is necessary. An experienced person can distribute poison to many acres of alfalfa in a day; and if proper care is taken to rightly distribute the bait, it will not be necessary to go over the ground a second time.

"Some experience is required to enable one to find the burrows quickly. It is best to insert the food as near as possible to the freshest mounds of earth thrown up by the animals. Two or three pieces of potato at that place are worth many scattered in other parts of the runway. The operator should avoid the larger mounds and those that are not freshly made."

## Kansas Crops for 1902.

The State Board of Agriculture has issued its summary of the agricultural, horticultural and live-stock products of Kansas—yields, numbers and values—for the year 1902.

Winter Wheat.—The yield of winter wheat was 54,323,839 bushels. Its home value is given as \$28,983,943.60. The area sown, as returned by township assessors in March, was 6,254,474 acres. The output of each of the thirty counties leading in winter wheat product, and having 63.47 per cent of the year's crop, is shown as follows, the counties being named according to their rank in yield:

Rank.	County.	Bushels.
1.	Sumner.....	2,548,832
2.	Reno.....	2,441,920
3.	Stafford.....	1,783,620
4.	McPherson.....	1,555,738
5.	Barton.....	1,512,282
6.	Sedgwick.....	1,508,598
7.	Pratt.....	1,469,336
8.	Harper.....	1,366,362
9.	Rock.....	1,362,340
10.	Rice.....	1,216,229
11.	Phillips.....	1,214,234
12.	Dickinson.....	1,098,939
13.	Harvey.....	1,080,843
14.	Saline.....	1,079,244
15.	Kingman.....	1,065,750
16.	Marion.....	942,490
17.	Clay.....	895,154
18.	Washington.....	867,370
19.	Decatur.....	848,172
20.	Labette.....	841,425
21.	Doniphan.....	841,320
22.	Smith.....	836,299
23.	Cowley.....	827,200
24.	Norton.....	806,544
25.	Brown.....	802,980
26.	Marshall.....	776,076
27.	Mitchell.....	756,100
28.	Cherokee.....	742,007
29.	Rush.....	739,384
30.	Montgomery.....	725,021

The area reported as probably sown for next year's crop is 6,020,103 acres,

being a decrease of 234,644 acres or 3.7 per cent below last year's sowing, which was much the largest ever reported. The soil and weather conditions for its prosperity have been unusually favorable, and the even, wholesome and not too rank growth presents a prospect most promising, barring unpleasant reports from numerous localities of "yellow spots" in the fields, chargeable to the presence of Hessian flies in greater numbers and activity than before observed in the State. The prolonged autumn weather has afforded these pests unusual opportunities for working mischief, and their activity has, in some counties, caused no little disquietude.

Spring Wheat.—The shrinkage in spring wheat sowing so conspicuous annually of late years is again strikingly in evidence, this year with but 46,293 acres, and a yield of 325,397 bushels, worth \$155,546.57.

Corn.—The corn area of 6,990,764 acres (which includes the 5,919,590 acres reported by assessors, plus 1,071,174 acres of the plowed-up wheat land stated by correspondents as having been planted in corn) yielded 201,367,102 bushels, worth \$78,321,653.26.

The fifteen counties leading in corn and having four million bushels or more each, with their yield, named in the order of their rank, are:

Rank.	County.	Bushels.
1.	Namaha.....	7,547,358
2.	Marshall.....	7,503,561
3.	Brown.....	5,812,664
4.	Washington.....	5,692,685
5.	Jackson.....	5,410,260

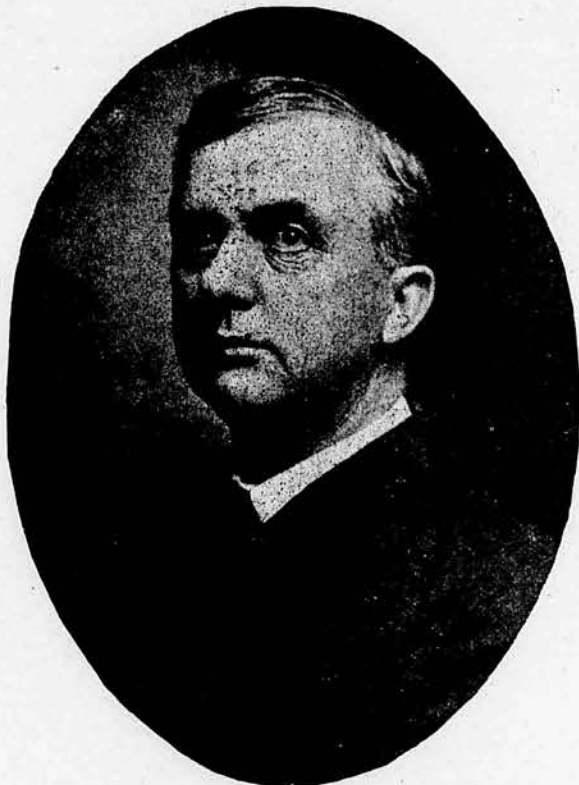
Buckwheat (bus.).....	2,770	2,216.00
Irish and sweet potatoes (bus.).....	8,733,511	3,471,344.12
Castor beans (bus.).....	4,400	5,500.00
Cotton (lbs.).....	136,005	9,520.35
Flax (bus.).....	1,427,975	1,713,570.00
Hemp (lbs.).....	10,200	610.00
Tobacco (lbs.).....	15,150	1,515.00
Broomcorn (lbs.).....	16,584,205	495,640.15
Millet and Hungarian (tons).....	400,160	1,445,415.00
Sorghum for syrup (gals.).....	1,792,200	663,114.00
Sorghum, Kafir-corn milo maize, and Jerusalem corn for forage (tons).....	803,334	12,738,694.00
Tame hay* (tons).....	820,637	4,823,604.00
Prairie hay* (tons).....	647,427	3,282,548.00
Wool clip, (lbs.).....		97,114.05
Cheese, butter and milk.....		8,412,217.65
Poultry and eggs sold or sold for slaughter.....		5,706,352.00
Horticultural and garden products and wine.....		51,346,569.00
Honey and beeswax (lbs.).....	403,155	1,995,550.50
Wood marketed.....		60,631.20
		186,150.00
Total value.....		\$215,868,995.00

## NUMBER AND VALUE OF LIVE STOCK.

	Number.	Value.
Horses.....	811,594	\$51,130,422.00
Mules and asses.....	95,671	6,696,970.00
Milch cows.....	791,844	23,755,320.00
Other cattle.....	2,555,800	61,399,200.00
Sheep.....	136,753	410,259.00
Swine.....	1,427,302	11,775,241.50

Total value.....\$155,107,412.00  
Grand total.....\$370,976,408.00  
\*Product of 1901.

NOTE.—As published in some of the daily newspapers, the value of the corn, the totals and gain are erroneously stated.



W. W. Marple, President of the Missouri State Dairy Association.

6. Pottawatomie.....	4,757,025
7. Osage.....	4,711,232
8. Sedgwick.....	4,668,551
9. Cowley.....	4,406,552
10. Miami.....	4,214,884
11. Jewell.....	4,185,728
12. Jefferson.....	4,118,520
13. Republic.....	4,101,552
14. Butler.....	4,073,760
15. Reno.....	4,027,500

Oats.—The yield of oats is nearly 60 per cent greater than last year's, or 32,966,114 bushels, and the largest since 1892.

Irish Potatoes.—The yield on the considerably diminished area, 60,618 acres, was 8,193,632 bushels, the largest and best crop by far since 1889, with a value of \$3,136,856.71.

The net increase in value of this year's agricultural productions over that of 1901 is \$20,614,343, and of live-stock \$2,069,680, or a total net increase for the year of \$22,684,023 or 6.5 per cent. In two years the increase in value of agricultural productions has been \$28,072,589, and of live-stock \$11,649,659. The total increase over the value of three years before amounts to \$68,071,029.

The quantity of old corn in farmers' hands March 1 was 7,724,942 bushels. The year before it was 35,121,339 bushels, and two years before 48,252,667 bushels.

The quantity of old wheat in farmers' hands March 1 was 9,664,595 bushels; the year previous 7,996,555 bushels, and two years previous 4,824,828 bushels.

## ALL CROPS AND PRODUCTS.

The yields and values of the year's crops and products are as follows:

Winter and spring		
wheat (bus.).....	54,649,236	\$ 29,139,490.17
Corn (bus.).....	201,367,102	78,321,653.26
Oats (bus.).....	32,966,114	9,584,254.35
Rye (bus.).....	8,728,296	1,594,321.31
Barley (bus.).....	2,188,973	801,381.69

## Will Save Labor and Expense.

Hon. H. A. Castle, auditor for the U. S. Post-office Department, says in the July, 1902, North American Review:

"A measure is now pending in Congress embodying what is known as the 'Post-check' system, which is intended to furnish something more simple and accessible than money orders for ready use in making small remittances. To adapt these notes to their purpose it is provided that the words 'payable to bearer on demand' shall be eliminated, and the words 'payable to the payee named herein; payable to bearer if the spaces are not filled,' be substituted. These notes will thus pass from hand to hand as currency until the blank space is filled. Thereafter they are payable only to the payee; they can be redeemed at any money order office and they will not again be used as a circulating medium. They will find their way by legal channels to the United States Treasury, where they will be handled and destroyed as mutilated currency.

"This plan seems to be practicable, to accomplish several desirable results simultaneously and to afford accommodation to the entire public at a minimum of labor and expense. The saving that would be effected by treating the paid and cancelled notes as mutilated currency instead of vouchers; the intricate reports and interminable columns of fig-

ures that would be abolished; the simplicity of accounting and certainty of correct adjustments that would supersede present complications and uncertainties, can only be appreciated by those familiar with the crude methods employed in the auditor's office for bringing forty millions of money orders annually into dubiously accurate relations with the thirty thousand postmasters who issued and paid them."

## ANNUAL MEETINGS OF NATIONAL BREEDERS' ASSOCIATIONS.

During the week of the International Live Stock Exposition, at Chicago, December 1-6, 1902, the following national breeders' associations will hold their annual meetings:

Dec. 1, 8 p. m.—American Hereford Breeders' Association, Live-Stock Record Building.

Dec. 2, 2 p. m.—Red Polled Cattle Club of America, Sherman House.

Dec. 2, 8 p. m.—National Association of Exhibitors of Live Stock, Live-Stock Record Building.

Dec. 2, 7 p. m.—American Polled Durham Breeders' Association, Saratoga Hotel.

Dec. 2, 10:30 a. m.—American Shropshire Registry Association, Live-Stock Record Building.

Dec. 3, 8 p. m.—Intercollegiate Live Stock Association.

Dec. 3, 8 p. m.—American Aberdeen-Angus Breeders' Association, Palmer House.

Dec. 3, 8 p. m.—American Duroc-Jersey Swine Breeders' Association, Windsor-Clifton Hotel.

Dec. 3, 7 p. m.—Hampshire Down Breeders' Association of America, Balcony Club Room, Palmer House.

Dec. 3, 7:30 p. m.—American Association of Importers and Breeders of Belgian Draft Horses, Sherman House.

Dec. 3, 8 p. m.—American Shorthorn Breeders' Association, Palmer House.

Dec. 3, 10 a. m.—National Lincoln Sheep Breeders' Association, Live-Stock Record Building.

Dec. 4, 5 p. m.—American Leicester Breeders' Association, Transit House.

## KANSAS FARMER'S NEW WALL ATLAS.

The KANSAS FARMER has arranged with the leading publisher of maps and atlases to prepare especially for us a New Wall Atlas, showing colored reference maps of Kansas, Oklahoma, Indian Territory, the United States, and the world, with the census of 1900. The size of the New Wall Atlas is 22 by 28 inches and it is decorated on the outer cover with a handsome design composed of the flags of all nations.

Tables showing products of the United States and the world, with their values, the growth of our country for the last three decades, and a complete map of the greater United States are given. This is an excellent educational work and should be in every home. The retail price of this New Wall Atlas is \$1.

Every one of our old subscribers who will send us \$1 for two new trial subscriptions for one year will receive as a present a copy of this splendid New Wall Atlas postpaid, free.

Any one not now a subscriber who will send us 50 cents at once will receive the KANSAS FARMER for five months and will be given a copy of our New Wall Atlas free and postpaid.

A commendable system of railroad insurance has been established by the French government. A patron of the state railroads, by the purchase of a ticket which costs about two cents, secures the right to \$2,000 in case of death or permanent injury, from \$500 to \$1,000 for minor injuries, and \$1 a day while the person is unable to work.

A good agricultural and live-stock paper is a necessary farm implement. You can get the KANSAS FARMER and the Breeders Gazette for a year for \$2.00, the price of one.

## Reduced Rates for Christmas and New Year Holidays.

The Nickel Plate Road will sell tickets December 24, 25, and 31, 1902, and January 1, 1903, at rate of a fare and a third for the round trip, to any point located in Central Passenger Association territory, good returning to and including January 2, 1903. Pullman service on all trains. Individual club meals, ranging in price from 35 cents to \$1 served in dining-cars. Address John Y. Calahan, General Agent, 113 Adams St., Chicago, for particulars. Chicago city ticket office, 111 Adams St.; Depot, Harrison Street and Fifth Avenue. (65)

**PILES**

**NO MONEY TILL CURED. 25 YEARS ESTABLISHED.**  
We send FREE and postpaid a 200 page treatise on Piles, Fistula and Diseases of the Rectum; also 100 page illus. treatise on Diseases of Women. Of the thousands cured by our mild method, none paid a cent till cured—we furnish their names on application.  
**DRS. THORNTON & MINOR, 907 Oak St., Kansas City, Mo.**



Keeping up with the Times.

MRS. T. WILLMATH, BEFORE THE SUMMER-FIELD FARMERS' INSTITUTE.

The first efforts of the human family toward producing a livelihood must have been by tilling the soil. Necessity demanded it. The rich soil of the valleys was utilized for farming, and in time there were "cattle upon a thousand hills." The first agriculturists were the prime factors in the wealth and stability of the land, and of untold influence in elevating nations to positions of splendor and power! And to-day we have proof on every hand that agriculture, combined with stock-raising, is the leading industry of the land.

There is no person engaged in business of any kind, who is not dependent in a measure upon the prosperity of the farmer for his own success. If crops fail, the ministers, merchants, doctors, lawyers, all suffer from the failure. The welfare of our towns, cities, States, and nations is due to the adequate success of agriculture. Failure on the farm brings financial distress to every business enterprise, while abundant harvests insure national prosperity. To take a glance over the past and compare it with the present is often helpful in gaining a broader view of our own times. In the primitive times, the crude implements and simple methods were used in cultivating the soil; but the bent stick and wooden plow are replaced by steel plows of various kinds, the sickle by magnificent reapers and binders, and the flail by the powerful steam threshers. And may we not believe that in a few years electricity will be used to draw machinery along? Time would fail me to tell of the many inventions for the use of the farmers and farmers' wives. And who is more deserving of the best machinery to make work easier than the farmer? But let me whisper to you, brothers, do not get it all for the outside of the house. The spirit of progress has made rapid strides in the past fifty years, and the enterprising farmer of to-day needs many things his father neither had nor missed, that he may successfully carry on his work. Let us see to it that in our everyday lives we keep pace with the progress of the times. Let us keep our eyes open and not become so self-centered, as to miss the beauty on the farm, for we need not go to the mountains or coast to find beauty or pure air; it is at our very doors.

The trouble with so many is that their minds are so filled with schemes for making money they find time for nothing but hard work. It is a mistake to undertake too much, to force our tired bodies to a few more hours of labor when nature tells us we have done enough. Working sixteen hours a day is not an evidence of good farming. The farmer himself is worth more than the crop. The man who really wins on the farm is the one who sets out to win, and keeps up a steady preserving. Luck is the flickering of the firefly's wing. Success comes by following the steady blaze of the star of honest endeavor. Have high aims. If you raise corn raise the best corn. If you keep stock, keep yourself well informed in everything concerning the farm by reading the best farm and stock papers, and put your information to practical use. Do not be afraid to try some new experiment. Keep out of the old ruts. If you do not, you can never keep up with the times and may as well drop out of the race.

If your boy has a reasonable theory he wishes to put into practice, do not refuse him without consideration. The smart boy will keep up with the times. If he can not do this on the farm, he will go elsewhere. Take your boy into your confidence. Consult him with regard to some business transaction you are about to make. Make him feel he is the junior partner of the firm, and as such he has a right to a share of the profits, or at least to the money you received and put into your pocket for that colt or calf he has taken such good care of with the understanding that it was his own. Do not make his life one of drudgery. This is perhaps one cause of dissatisfaction among the youth on the farm. Let him have a day off occasionally for recreation. Remember "All work and no play makes Jack a dull boy." Some hold the idea that the dull boy should be kept on the farm, while the smart one should be sent to college to prepare for some profession. This is a mistaken idea. No education is too broad or thorough for the man who has to wrestle with the problems that confront the latter-day farmer. A good, practical education, such as our agricultural colleges give, is becoming a pressing necessity with the farmer. Brains must be brought into use as well as muscle. To obtain the greatest success, a

farmer must know more of his occupation than mere sowing and reaping. The greater the application of the mind to any department of physical labor the greater the result. The farmer must carry into his work sound judgment and plenty of fit, and like other branches of business, farming calls for knowledge gained by experience of its general principles and details. And despite the common practice of hundreds, yes, thousands of farmers, it is necessary to keep a strict account of all debits and credits, and make an inventory yearly. As fast as figures bring the truth to light, all features which do not pay should be eliminated for the promotion and development of those which do pay. This will help farmers to a better understanding and appreciation of their calling, and enable them to conduct their business on a more profitable basis. If many of our great men who were reared on the farm had not kept up with the times they would not have become the men of influence which they have. There is no excuse for the farmer not keeping himself informed on the topics of the day. The times demand this quite as much as agricultural skill. The affairs of state and the intimate relations of agriculture to the general welfare often call our legislators from the intelligent body of agriculturists. The voting farmer should do all in his power to see that the legislators are in sympathy with and will stand firm for the rights of the farmer.

I have spoken principally of the work of the farmer himself, but the same things may be said of the farmer's wife and daughter. Grace, grit, and gumption are as necessary on the inside of the house as out. To keep the household machinery running, the work must be systematically arranged. There are law and order methods in housekeeping as well as other matters. Some women are moved by sudden impulses, thoughtlessly attempting one thing and then another, only to find themselves exhausted without accomplishing any real good, while others, by well-laid plans, accomplish much without seemingly great effort. It does not require any rare gift to stand by a task till it is finished, or to see our duty and the best means of doing it. Study to make housekeeping a pleasure, not a drudgery. Do not spend all the day with baking and brewing, frying and stewing, and have no time for the latest magazine, a call on a neighbor, or even a three-minute nap to rest the tired nerves. Labor in season is part of every useful, happy life, and our girls as well as our boys should be taught that honest labor raises, not lowers, their dignity and standing, and that the quality and standing of any honorable calling can only be measured by the character of those engaged in it and, I might also add, the manner in which the work is done.

Let comfort and good cheer abound in the home, with an abundance of good papers, magazines, and books, and plenty of time to read them. There should also be music and harmless amusements and all proper efforts for the higher, better things of life, so that we may grow morally and intellectually as well as physically. Make the home so cheerful and happy that the children will always look back to it with pleasure. Keep young as long as possible for the children's sake, and remember

"The sweetest lives are those to duty wed,  
Whose deeds both great and small  
Are close-knit strands of an unbroken thread  
Where love ennobles all."

"The world may sound no trumpets, ring no bells,  
The Book of Life the shining record tells."

"Thy love shall chant its own beatitudes  
After its own life working.  
A child's kiss set on thy sighing lips  
Shall make thee glad;  
A poor man served by thee shall make thee rich,  
A sick man helped by thee shall make thee strong,  
Thou shalt be served thyself by every sense  
Of service which thou renderest."

Temperance Work for 1903.

The State Temperance Union will, during the coming year, distribute an unusual amount of tract literature. Leaflets will be sent, as far as possible, to every part of the State, and where practicable, the work will be done with such thoroughness as to reach all country neighborhoods.

The distribution of T. E. Stephens' "Prohibition in Kansas" will be continued. Since the appearance of the new edition of this work in June last, hundreds of copies have been sent out monthly all over the State. All the members of both houses of the Legislature will be presented with the work, as well as several hundred county and city officers in the State.

It is designed that the union shall reach a greater number of the people of Kansas with temperance literature than it has ever done in an equal time before.

RANCH AND FARM LIST

Offered for sale by W. A. Willis & Co., Emporia, Kansas. The following list embraces choice bargains in ranch and farm properties, and are among the very best to be had now on the market:

A fine stock farm of 987 acres—267 acres of this adjoins a good town on the main line of the Santa Fe; is nearly all choice river bottom land, and is in a high state of cultivation. There is a good two-story 8-room house, with fine cellar and water in house supplied from tank. Large stone barn, two good cattle sheds, also cribs, granary, and various other buildings. Abundance of good well water, also fine watering place along the river, good orchard, and a fine vineyard of four acres, 80 acres in alfalfa. The 760 horses is one and one-half miles from the above; is a fine quality of pasture land, 135 acres in cultivation, balance pasture, well fenced, fine springs and ponds. This is the place for a breeder of fine stock, or a feeder who wants to be close to a shipping point. Would sell the 267 acres separately. Price \$22 per acre.

2,230-acre ranch near a good town on the main line of the Santa Fe, over 300 acres of good bottom land in cultivation, balance fine quality of grass land, plenty of timber, abundance of living water, fair improvements, one of the best ranch properties in the State. Price \$15 per acre.

3,760-acre ranch in Chase County, Kansas. 20 acres of choice river bottom land, and 100 acres creek bottom, 300 acres of corn and wheat land, and nearly 100 acres in alfalfa, about 50 acres in timber and corral, balance of land good quality of limestone grass land with plenty of spring and creek water, well distributed over the pastures; fenced in three different pastures, fine condition, good frame house 1 1/2-story, high, with five or six rooms, good cellar, frame barn, sheds, chicken house, and other buildings, cattle scale, and good windmill in corral, three miles from good shipping point, on the main line of the Santa Fe, and only nine miles from the county seat. An all around good stock ranch. Price \$250 per acre.

2,160 acres in Greenwood County. 300 acres of fine bottom land 225 acres of which is in cultivation, 65 acres in alfalfa. Balance is rolling native grass pasture. Never-failing water, fine timber—in which are feeding corals for hundreds of cattle, and 30 acres of bog-tight fencing, one-half mile to postoffice, and 11 miles to shipping point on Mo. Pac. R. R., new frame house of six rooms, barn for seven horses from good grazing lands can be bought adjoining, if more land is desired, as this ranch controls the water. This is one of the finest ranches in the State, and has always been a money maker. Owner is over 65 years old and wants to sell. Price \$250 per acre. Easy terms.

520 acres, 100 acres of good bottom land, 80 acres in cultivation, 20 acres good young timber, balance fine quality of grass land, abundance of living water, house of seven rooms, stable room for 15 head of horses, cribs, granaries, chicken house, and other buildings, fine feeding corals, also tenement house and two good orchards. This place is within three miles of a good shipping point on branch of Santa Fe. The house is pleasantly located on main traveled road, is in good neighborhood, is close to school, and is within a quarter of a mile of a public long distance telephone station. This is a fine combination stock farm. Would trade for smaller farm in eastern Kansas. Price \$8,500.

640 acres, about 15 miles from Emporia, 120 acres in cultivation, about 3 acres alfalfa, balance fine quality of pasture, good spring and well with windmill, house of 10 rooms in good condition, new frame barn, within three miles of good shipping station. Price \$16 per acre.

F. D. Coburn, secretary of the State Board of Agriculture, is now president of the union.

Retain the Twine Plant.

EDITOR KANSAS FARMER:—It begins to look to me like there is going to be an effort made to do away with the binding twine plant at the State penitentiary this winter. The question is, what will the farmers of Kansas pay for their binding twine in the future if this done?

Capt. John Seaton, the father of that plant, is truly a benefactor, and when his earthly career is over a monument to his memory should be erected to reach almost to the skies, by the farmers of Kansas, for this one good thing, the best of all in a legislative way that has ever been done for the farmers of Kansas. I am a democrat in politics, but I was sorry to hear of his defeat for representative, for in that body the farmers lost a friend and giant in their interest.

M. F. TATMAN.  
Rossville, Shawnee County.

The progressive farmer keeps posted. The Kansas City Daily Star costs \$4.00 per year and we give you the KANSAS FARMER a year free if you subscribe through us.

True Philanthropy.

Mrs. K. H. Fretter, Detroit, Mich., will send free to any woman who suffers from female weakness or painful periods, a sample of the remedy that cured her.

PILES

Fistula, Fissures, all Rectal Diseases radically and permanently cured in a few weeks without the knife, cutting, ligature, or caustics, and without pain or detention from business. Particulars of our treatment and sample mailed free.

Mr. M. McCoy, Gogonac, Kans., Captain Company A, Fifteenth Indiana Infantry, writes: "Hermit Remedy Company, Dear Sirs:—I have doctored for piles since the Civil War—thirty-six years—and am now glad to report that after using your treatment for a few weeks I am completely cured. I believe you can cure any one, for a man could not be in a much worse condition than I was and live, and I am duly grateful to you. Respectfully,

"M. MCCOY."  
We have hundreds of similar testimonials of cures in desperate cases from grateful patients who have tried many cure-alls, doctors' treatments, and different methods of operation without relief.

Ninety per cent of the people we treat come to us from one telling the other. You can have a trial sample mailed free by writing us full particulars of your case. Address, HERMIT-REMEDY COMPANY, Suite 336, Adams Express Building, Chicago, Ill.

The Nickel Plate Road

will afford its patrons an opportunity to take advantage of low rates for Christmas and New Year holidays, by selling tickets at a fare and a third for the round trip to all points on their line, December 24, 25,

A finely improved farm of 170 acres, within two and one-half miles of the business center of Emporia. A fine quality of land, all in a high state of cultivation except about two acres of timber, a fine house of eleven rooms with modern improvements, two large barns with cribs, cattle sheds, hog houses, chicken houses, and other improvements, abundance of water which is piped all over place. The buildings are located on one of the main traveled roads out of Emporia, and on a rural route. This is one of the best homes in the west, and is just the place for a breeder of fine stock or some one wanting a fine home. Price \$100 per acre.

A fine bottom farm of 301 acres, all choice alfalfa land, with about 100 acres now in alfalfa, good house, barn, cattle sheds, abundance of living and well water, plenty of timber. This farm is within two miles of Emporia, and within one and one-half miles of the Emporia Stock Yards. A good bargain at \$60 per acre.

322 1/2 acres, eight miles from Emporia, within three miles of good shipping point, 185 acres in alfalfa, 25 acres alfalfa, 50 acres of English blue-grass, balance in pasture, good house of seven rooms—five closets, good frame barn, cattle sheds, cribs, granaries, etc., 15 acres of good bearing orchard of standard varieties, which has paid a handsome income for the last few years, good well with windmill, with water piped to different corals. Price \$40 per acre.

160 acres, seven and one-half miles from Emporia, three-fourths mile of good shipping point, about one-half in cultivation, 30 acres in alfalfa, 15 acres timothy, balance pasture, farm well fenced and cross fenced, living water on place, also good well, good house of six rooms, good cellar, large frame barn with mow room for 50 tons of hay, barn and shed room for 100 head of stock, cribs, and other buildings. Price \$35 per acre.

160 acres, newly improved prairie land, 60 acres in cultivation, balance meadow and pasture, new house of three rooms, frame barn, good well and pond water, young orchard of all kinds of fruit, close to school, in good settlement, 18 miles from Emporia and 10 miles from trading and shipping point. A great bargain at \$35.00.

80 acres, bottom and slope land, mostly in cultivation, house of three rooms, new frame barn, good feed lot, plenty of well and creek water, 10 miles from Emporia. Price \$2,500.

80 acres, nearly all in cultivation, 10 acres of alfalfa, three acres of timothy and blue-grass, fairly good house of four rooms, also tenement house board stable, abundance of good well water, small orchard, close to school, and only six and one-half miles from Emporia. Cheap at \$1,800.

80 acres of good, smooth land within two miles of the business center of Emporia, all in cultivation, no buildings, good bearing apple orchard of 40 acres. Just the thing for a fruit grower. Price \$4,000.

We have a large list of pasture lands ranging in price from \$8.50 to \$20 per acre. Write us just what you want, and we will send you descriptions of such places as correspond as nearly as possible to what you want.

W. A. Willis & Co., Emporia, Kans.

31, 1902, and January 1, 1903. Return limit including January 2, 1903. Through service to New York City, Boston, and other Eastern points. Chicago passenger station, Harrison Street and Fifth Avenue. For further information address John Y. Calahan, General Agent, 113 Adams St., Chicago.

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The greatest and most successful Institute for Diseases of Men. Consultation free at office or by letter. BOOK printed in English, German, and Swedish, explaining Health and Happiness sent sealed in plain envelope for four cents in stamps. All letters answered in plain envelope. Various cures in five days. Call or address  
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513 Francis St.,  
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6,000 ACRES OF INHERITED LAND  
Located in the Indian Territory, for which titles can pass. Consisting of 80-, 160-, and 200-acre tracts convenient to railroads. Good farming land—some in cultivation. Prices from \$11 to \$20 per acre. Address  
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**Hotel Oxford And Restaurant**  
Frank Long, Proprietor.  
European and American Plans.  
804-6 Kansas Avenue, Topeka, Kansas.

The hotel has moved into new quarters and everything is modern and first-class in all its appointments.  
Rates: American Plan, \$1.25 to \$1.50 Per Day. European, 75c to \$1 Per Day.  
The Finest Restaurant in Kansas.  
Visitors to Topeka are invited to give us a trial.

**FARM LAND.**  
In stock, fruit, and grain farms I have the best bargains in the world—Western Michigan—Famous fruit belt, peaches, plums, pears, apples, cherries. Excellent corn land. Clover and grass. Water the best. Better climate than in Kansas; government reports prove it. Unimproved, \$10 to \$12 an acre. Finely improved, \$25 to \$45. First-class markets, schools, churches, railroads, and towns abundant. Every up-to-date advantage. Write for list and book that tells all about it. Easy terms.  
S. V. R. HAYES  
Michigan Trust Bldg., Grand Rapids, Michigan



## Here is a 6 % Proposition



Any good separator yields from 10% to 60% more butter than any gravity system, but in addition to doing this, the

**SHARPLES Tubular Separator,**

because of its simpler construction, its perfect build and general efficiency, will pay you 6% more profit than any other separator—besides saving you over half the labor. This we guarantee and the separator must prove it or no sale. Send for Book No. 166.

SHARPLES CO., Chicago, Ill. F. M. SHARPLES, West Chester, Pa.

## In the Dairy.

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

### Eighth Report on Cow Test Experiment.

D. H. OTIS.

Previous annual reports can be found in the KANSAS FARMER for April 10, May 15, June 26, July 17, August 14, September 18, and October 16. The October record is as follows:

No.	Name of cow.	Selected by—	Fresh—	Yield.			Grain consumed.			Judges rank for profit
				Milk, lbs.	Test, per ct.	Butter fat, lbs.	Brans.	Corn chop.	Total.	
243.	Cowslip.....	J. W. Bigger.....	Nov. 3, 1901.....	476.7	5.95	28.36	107.5	78.5	186	3
238.	Haster.....	E. C. Cowles.....	Dec. 10, 1901.....	314.4	5.4	16.97	125	91.5	216.5	1
244.	Rose of Cunningham.....	J. W. Cunningham.....	Jan. 28, 1902.....	415.0	4.55	18.88	148.8	57	205.8	2
235.	Clover Leaf.....	M. L. Dickson.....	Jan. 12, 1902.....	513.2	3.4	17.45	71.5	52	123.5	7
245.	Molly.....	A. H. Diehl.....	Jan. 20, 1902.....	360.5	5.05	18.20	87.5	64.5	152.0	5
241.	Rose of Industry.....	C. L. Elssasser.....	Jan. 15, 1902.....	466.7	5.4	25.20	89.5	65	154.5	8
240.	Daisy Belle.....	S. A. Johnson.....	May 3, 1902.....	755.8	4.05	30.61	125	91.5	216.5	9
246.	Floss.....	C. C. Lewis.....	Oct., 1901.....	398.0	7	27.86	125	91.5	216.5	6
242.	May Queen.....	G. L. Priest.....	Dec. 25, 1901.....	398.0	7	27.86	125	91.5	216.5	4

\*Roughness per head, alfalfa 80 lbs., millet 163 lbs., total 243 lbs.

### RECORD FROM MARCH TO OCTOBER, INCLUSIVE.

No.	Name of cow.	March		April		May		June		Yield—July		August		September		October		Total	Grain consumed, lbs.	Roughness consumed, lbs.
		Milk, lbs.	Butter fat, lbs.	Milk, lbs.	Butter fat, lbs.	Milk, lbs.	Butter fat, lbs.	Milk, lbs.	Butter fat, lbs.	Milk, lbs.	Butter fat, lbs.	Milk, lbs.	Butter fat, lbs.	Milk, lbs.	Butter fat, lbs.	Milk, lbs.	Butter fat, lbs.			
243	Cowslip	761.6	33.89	762.1	32.00	797.5	35.88	658.9	30.64	559.2	25.16	585.1	24.87	577	27.69	476.7	28.36	4618.9	238.49	1616.5
238	Haster	849.5	32.28	743.7	29.00	878.4	36.01	793.0	34.10	657.5	27.29	582.7	25.06	385.9	20.84	314.4	16.97	4547.1	221.55	1714.1
244	Rose of Cunningham	1200.1	36.00	1090.1	35.97	1241.2	41.58	1055.5	36.41	826.6	30.58	913.0	32.87	820.5	38.56	415.0	18.88	6735.4	270.85	1802.8
235	Clover Leaf	733.1	21.62	642.9	20.25	745.7	23.86	593.9	21.97	401.9	13.65	478.0	16.76	569.4	18.79	513.2	17.45	4276.6	154.35	1059.5
245	Molly	824	25.95	726.8	24.34	830.3	29.47	742.5	26.73	633.2	24.06	610.7	22.29	552.7	25.42	360.5	18.20	4647.5	196.46	1259.9
241	Rose of Industry	802	25.27	791.5	26.91	838.1	33.10	664.6	25.92	511.4	20.97	529.4	21.97	512.6	26.14	466.7	25.20	4604.9	205.48	1262.4
240	Daisy Belle					876.4	29.79	999.3	34.48	842.2	29.90	844.7	29.14	767.8	29.17	755.8	30.61	4244.0	183.09	1172.1
246	Floss	503.6	25.68	477.0	25.04	564.6	30.40	438.3	23.89	628.0	19.35	314.6	18.4	15.8	.92			2313.9	143.77	915.3
242	May Queen	630.3	30.88	582.8	29.43	687.3	35.39	613.0	31.80	532.0	26.58	547.1	29.82	459.9	31.73	398.0	27.86	3918.4	244.49	1674.6

The sorghum pasture lasted only a few days in October. The tame-grass pasture was also scant, and the cows were fed alfalfa hay in the lot, and on a few stormy days were fed alfalfa hay in the barn.

Beginning October 16, the herd was pastured on volunteer oats and drilled wheat. Although the cows became accustomed to this gradually, on October 13 Rose of Cunningham and Molly both bloated. Rose of Cunningham was so bad that it became necessary to puncture her with trocar and canula. She

recovered nicely but her milk flow was seriously affected. Floss was brought in from pasture on October 13, and for the balance of the month was kept in the yard during the day and in a box stall during the night, so that she could receive attention at time of calving. She was fed a little more alfalfa hay and received a little less pasture than the rest of the herd, but as one will offset the other the roughness will be charged equally to each cow in the herd. The test, with two exceptions (Haster and Rose of Cunningham) increased somewhat over the previous month. Two cows, Cowslip and Daisy Belle, increased slightly in the yield of butterfat for the month. Rose of Cunningham fell over one-half in her yield of butterfat for the previous month, due to the puncture necessitated by her becoming bloated. This is a very unfortunate incident in the test.

Some of us here, who are not old yet, can well remember when such a thing as a cream separator was unknown, while to-day it is a part of the paraphernalia of every up-to-date dairy. Time was when we were satisfied if a cow produced annually 100 pounds of butter; to-day the 100-pound-butter cow is relegated to the butcher in double quick order to make room for the cow yielding 200 or 300 pounds. We were pretty well satisfied ten years ago if a cow created a gross revenue of \$25 to \$30 per annum, while to-day we expect her to have a credit balance at the end of the year of from \$60 to \$70 and in some instances more.

When I was a boy (that is not very long ago) we thought we had quite a dairy when we milked five or six cows. Now how many dairies there are, within a radius of ten miles of Topeka, that have from fifteen to twenty-five and even more cows, nothing unusual, but simply the natural outgrowth of a business that is destined to do decidedly more in the way of adding to the material prosperity of any community than any other department of agriculture, especially in this section of the country so admirably adapted to dairying.

What constitutes an up-to-date dairy? Let us subdivide it into three heads.

First, breed. A breed and type of dairy stock that will produce the very highest quality and largest quantity of milk, possible. I care not so much under what particular name the animal may go, or pedigree, as I do for the individuality, the selection of which, of course, is largely a matter of systematic study and practice, upon either of which I claim to be no authority whatever.

Second, feed. It makes no difference how good a machine one may have, un-

less he give that machine sufficient and of the right kind of work to do, it will profit him very little. Now, a cow is a machine, and be she ever so good, if we fail to supply her with proper food, she is handicapped and fails to do her best, aye, fails to do reasonably well, which alone may mean not only no profit but even quite a loss. I am not here to say what constitutes a proper ration and what feeds are most profitably raised in our section, but that is all a matter of record and research, and can be easily determined. That we need to branch out on these lines aggressively, goes without saying, a fact that our splendid Agricultural College has practically demonstrated and is ready to give any one who may inquire, such data as will convince the most skeptical. This subject of feed for dairy cattle is a very important one.

Third, care. Care should be taken, not only of the stock, but as well, of the product when once produced. My training has been more at this end of the line, and while I may disclose a little business secret, it is nevertheless a fact that there is too much indifference, too much carelessness on the part of those who buy the milk from producers, for manufacturing and domestic purposes, and that there is not a sufficient inducement for a man to take that extra precaution in the care of milk that there should be.

## DE LAVAL CREAM SEPARATORS

For twenty years the World's Standard  
Send for free catalogue.  
The De Laval Separator Co., 74 Cortlandt St., N.Y.

more essential elements in the standard measure of milk. Don't misunderstand me. I would not say a word against a high grade of milk as determined by the Babcock test, but that is not all. I maintain that what we need as well, is a flavor of an unquestioned character, and that means among other things thorough cooling and aerating of all milk as soon as drawn from the cow, handled in utensils that have been scrupulously cleansed, and kept in a place free from all odors and objectionable surroundings. We do need to place more stress upon the care and handling of milk. It is really surprising what a trifle of expense judiciously applied in this branch of dairying will add to the actual value of milk, and I hope that those of us who are at the other end of the line will gradually exact such requisites from the producers that will raise the standard as well as the price of milk and cream, and thus create a pronounced premium for cleanliness and care, because, after all, that is the sum and substance of it all, and therefore in reach of every one, no matter how moderate his circumstances may be.

In conclusion let me talk plain. There is in my judgment no excuse for any dairyman not to have a milk house, or a cooling device for cooling and aerating, nor for not having hot water, nor clean cans. The whole outfit can be had for \$50. True it is not as elabor-

We have virtually gone mad over anxiety to have a high test, regardless of, and oftentimes at the expense of other

ate as one that would cost \$500, but it beats nothing and pays a big interest on the investment. Of course it means

## Creamery Butter 28 Cents!

This is the New York top quotation for creamery butter and is the highest November quotation on that market for ten years. The market will continue high through the season and now is the time to get a winter's good profit from the Dairy.

## Our Price 25 1-2 Cents!

Every pound of butter-fat we buy is paid for on a basis of 2 1-2 cents below New York's highest quotation for creamery butter. This basis takes the setting of the price entirely out of our hands and quotes the price in advance of the delivery of the product. Compare our price for butter-fat with the prices your merchants are paying for country butter.

## Our Price the Highest.

No other purchasers of butter-fat have equalled our prices under the above basis which went into effect January, 1902. Our net price to the farmer at his shipping point is 2 1-2 cents below New York. We furnish everything and pay the cost of transportation. For butter-fat in milk we pay on the same basis, less the cost of separating and handling the milk at the station, which varies from one to three and a half cents per pound fat. Our skimming station prices are as high as any of our competitors and our direct shipper's price is higher than paid by any other creamery.

## This is Important.

We are the first to buy butter-fat on this basis, and the system has many imitators. We always lead; others attempt to follow.

## If You Want a Hand Separator

Don't experiment with inferior machines. We sell the De Laval on monthly payments. It is the most durable separator on the market. Our guarantee is behind it.

These facts coming from the Old Reliable are worthy of your careful consideration.

THE CONTINENTAL CREAMERY CO.,  
TOPEKA, KANSAS.

Do You Want to make Money from your Cows?

If so, run their milk through an

## Empire Cream Separator.

It doesn't come out in the form of dollars, but it comes in such form as can be turned into dollars with the least trouble in the shortest time.

The Empire has the lightest bowl, the fewest parts, turns easier and gives better satisfaction than any other separator.

It takes a few dollars to buy an Empire, but after you have it, it does not require dollars to keep it running, and it pays for itself in a few months.

Send for our Cow-sense book. Empire Cream Separator Company, Bloomfield, N. J. (Formerly U. S. Butter Extractor Co.)





some work, but then who ever saw a successful dairyman who did not like his work? I have not. If there is one I would like to see him. He would be a curiosity.

You know Secretary Coburn has said that any man who is lazy, or does not work before breakfast, has no business to engage in dairying, and I quite agree with the Secretary. Better stay out of it if you think there is too much work. On the other hand I could cite you to a number of instances of farmers not twenty miles from here, who are in love with their cows, second only to the love of their wives, who contentedly handle from fifteen to twenty-five cows and care for the milk along the lines indicated before. They are getting all the way from \$100 and \$150 per month from their herds, with an atmosphere of prosperity about them that can not be gainsaid.

I tell you there is something in this dairy business. It pays to be up-to-date too. True, not every one is fitted for dairying. Some make a success with poultry; others with hogs. So with dairying. We in all have our inclinations, adaptabilities, some in one line and some in another. Let us first choose that branch that would seem most to our liking and taste and then follow it in an up-to-date manner.

## Miscellany.

### October Exports.

October exports of corn are less than in October of last year, by reason of the very great shortage in corn due to last year's drouth, the total value of corn exported in October, 1902, being \$734,682, against \$2,348,640 in October of last year; while for the ten months ending with October, the value of corn exports was \$5,395,010, against \$47,283,459 in the corresponding months of last year. In wheat, which has shown a material reduction in exports in the last few months when compared with the extraordinarily high figures of the corresponding months of the preceding year, the figures for October show a marked improvement, the total value of wheat exported in October, 1902, being \$12,458,688, against \$10,515,414 in October of last year; while flour exports for October of the present year are valued at \$7,243,914, as against \$6,066,561 in October of last year. Breadstuffs as a whole show a total of \$21,900,802 in October, 1902, against \$20,372,325 in October, 1901. Exports of provisions and live animals are still below those of October of last year, and figures for October of the present year being \$15,060,173, against \$18,225,505; while for the ten months provisions and live animals show a fall in exports of 33 millions as compared with the corresponding months of last year, and breadstuffs a fall of 81 millions. The above figures are from the preliminary statement of the Bureau of Statistics, and are slightly below the final figures which will not be completed until the close of the month.

The following table shows the October exports in each year from 1895 to 1902:

Month of October—	Total exports, Dollars.
1895.....	87,090,972
1896.....	113,516,536
1897.....	111,744,517
1898.....	118,619,563
1899.....	125,966,527
1900.....	163,389,680
1901.....	145,659,415
1902.....	143,179,752

### Draft of Farm Wagons.

How to get the easiest drawing wagon, combined with convenience of loading, is always a question of practical interest. Too high a wagon means extra labor in loading and unloading. Too low wheels means heavier draft. How to get the golden mean for everyday work is the question.

This question has had special attention for years from the Missouri Experiment Station, which has recently issued a bulletin showing the aggregate results of the tests made. The draft was determined by the use of a self-acting dynamometer.

The net load was in every case the same, viz.: 2,000 pounds. Three sets of wheels of different heights, all with six-inch tires, were used as follows: Standard, from wheels 44 inches, rear wheels 55 inches. Medium, front wheels, 36 inches, rear wheels 40 inches. Low front wheels 24 inches, rear wheels, 28 inches. As summarized by the assistant who had charge of the experiments the teachings of the tests are as follows:

1. For the same load, wagons with wheels of standard height drew lighter than those with lower wheels.

2. The difference in favor of the standard wheels was greater on road surface in bad condition than on good road surfaces.

3. Low wheels cut deeper ruts than those of standard height.

4. The vibration of the tongue is greater in wagons with low wheels.

5. For most purposes wagons with low wheels are more convenient than those of standard height.

6. Wagons with broad tires, and wheels of standard height are cumbersome and require much room in turning.

7. Diminishing the height of wheel from 36 to 35 inches in front and 44 to 40 inches in the rear did not increase the draft in as great proportion as it increased the convenience of loading and unloading the ordinary farm freight.

8. Diminishing the height of wheels below 30 inches front and 40 inches rear, increased the draft in greater proportion than it gained in convenience.

9. On good roads, increasing the length of rear axle, so that the front and rear wheels will run in different tracks to avoid cutting ruts, did not increase the draft.

10. On sod, cultivated ground, and bad roads, wagons with the rear axle longer than the front one drew heavier than one having both axles of the same length.

11. Wagons with the rear axle longer than the front one require wider gateways and more careful drivers, and are on the whole very inconvenient, and not to be recommended for farm use.

12. The best form of farm wagon is one with axles of equal length, broad tires, and wheels 30 to 36 inches high in front and 40 to 44 inches behind.

A knowledge of the above facts is important to the farmer who is desirous of doing the best work with his wagons and at the same time conserving the energy of his teams.

### World's Wheat Crop.

An estimate of the world's wheat crop, compiled by the Russian minister of agriculture, gives the crop of exporting countries at 2,021,475,709 bushels, compared with 2,013,225,757 bushels in 1901. In importing countries the yield was 886,678,021 bushels, an increase of almost 80,000,000 bushels over 1901. The aggregate world's crop is 2,908,153,730 bushels, or 88,000,000 bushels in excess of last year. Details by countries compare as follows:

#### IMPORTING COUNTRIES.

Countries—	1902. Bu. 60 lbs.	1901. Bu. 60 lbs.
Great Britain.....	53,154,312	56,205,837
Germany.....	137,786,879	91,815,989
France.....	348,451,635	307,388,463
Belgium.....	15,505,598	13,117,344
Holland.....	5,598,073	4,228,799
Austria.....	47,766,295	44,026,823
Switzerland.....	4,301,025	3,440,941
Spain.....	126,163,399	123,296,049
Portugal.....	5,734,700	10,035,725
Italy.....	120,571,946	133,045,270
Greece.....	5,734,700	5,161,109
Denmark.....	2,719,288	955,181
Sweden.....	4,014,531	4,354,593
Egypt.....	9,175,610	10,035,725

Total for importing countries..... 886,678,021 807,107,857

#### EXPORTING COUNTRIES.

Countries—	1902. Bu. 60 lbs.	1901. Bu. 60 lbs.
Russia.....	487,521,720	427,780,447
Hungary.....	186,703,966	132,966,433
Roumania.....	77,016,996	73,142,703
Bulgaria.....	43,010,250	38,709,225
Servia.....	11,022,806	8,102,491
Turkey.....	68,316,399	61,648,024
Algeria.....	33,303,912	22,281,548
Tunis.....	10,466,068	8,171,707
East India.....	220,788,955	248,593,946
United States.....	656,782,030	756,269,573
Canada.....	97,001,775	87,555,891
Mexico.....	3,637,755	3,233,292
Argentina.....	69,628,334	74,751,522
Uruguay.....	2,273,293	3,233,292
Chile.....	8,602,050	5,462,134
Australia.....	44,399,385	57,323,520

Total for exporting countries..... 2,021,475,709 2,013,225,757

Grand total..... 2,908,153,730 2,820,353,614

There is more Catarrh in this section of the country than all other diseases put together, and until the last few years was supposed to be incurable. For a great many years doctors pronounced it a local disease, and prescribed local remedies, and by constantly failing to cure with local treatment, pronounced it incurable. Science has proven Catarrh to be a constitutional disease, and, therefore, requires constitutional treatment. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, Ohio, is the only constitutional cure on the market. It is taken internally in doses from 10 drops to a teaspoonful. It acts directly on the blood and mucous surfaces of the system. They offer one hundred dollars for any case it fails to cure. Send for circulars and testimonials. Address, F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75c. Halls Family Pills are the best.


### Low Sleeping Car Rates to St. Paul and Minneapolis.

The Chicago Great Western Railway has three tourist Sleeping Cars per week to St. Paul and Minneapolis. Rate for double berth only \$1.50. For particulars inquire of any Chicago Great Western agent, or J. P. Elmer, G. P. A., Chicago, Ill.

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by purchasing a

### U. S. CREAM SEPARATOR



The U. S. Gets More Cream than others, which means more money to the user;

With the U. S. the calves and pigs thrive on the warm sweet skim milk, which means still more money to the user;

The U. S. Wears Better and Longer, which means more money still to the user.

These and other points of superiority described in our catalogues make

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Vermont Farm Machine Co., Bellows Falls, Vt.

## We Got 24 Cents for Butter-fat in October

WHAT DID YOU GET?

We Sold to the

**BLUE VALLEY CREAMERY CO.**

St. Joseph, Mo.

Write for Particulars, How They Do It.

## The J. P. Baden Produce Co.

Winfield, Kansas.

We will bind ourselves to buy your Cream Separator from any Centrifugal Separator on present basis for five years.

### How Does This Proposition Impress You?

We will bind ourselves to buy your cream for five years on our present offer and give you the privilege of stopping at any time you desire. We will pay for Butter-fat in cream as shown by the Babcock test, on basis of quotation of Extra Separator Creamery Butter in New York, as follows:

New York Quotations Generally One Cent Higher than Elgin.  
Within 150 miles of Winfield... 3c less | From 200 to 250 miles... 3 1/2c less  
From 150 to 200 miles... 3c less | From 250 to 300 miles... 4c less

Mark your cans, deliver to your express agent, we do the rest. We will pay all express charges and return cans free of charge.

We want your Cream; but you can stop shipping at any time it suits your interest, or convenience. If you send us only one can a month, we will thank you and use you right. When you commence doing business with us once you will have no reason to quit. Our manner of doing business, and our attractive inducements are bound to please. The enormous business which we have established, and which is increasing every day in the face of strong competition, is evidence that we have the very best outlet and procure the highest market value for our finished products. This of course enables us to pay you more money for your cream and produce than others. Write us or call on us for further information.

**THE J. P. BADEN PRODUCE CO., Winfield, Kans.**

**BUTTER MAKERS**  
make better butter and more butter  
by using the

### KNEELAND OMEGA CREAM SEPARATOR

simple, cheap, efficient. Easily cleaned. Free from repairs. Guaranteed to suit or money back. Send for Free book, "Good Butter and How to Make It." The Kneeland Omega Creamery Co., 28 Concord St., Lansing, Mich.

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May be indulged in the year round—  
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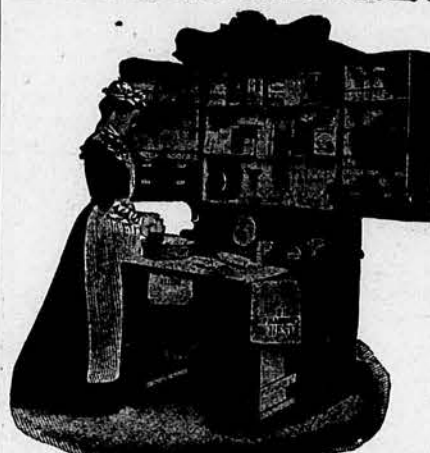
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Contains three tin-lined Flour Chests; Kneading Board; Bread and Meat Cutting Boards; fine tin Spice Boxes; six Small Drawers; two Large Drawers; one Cupboard and seven shelves; 8 feet 2 inches wide, 25 inches deep, and 6 feet 6 inches high, a little less floor space than a kitchen table. Ask your Furniture Dealer for a descriptive circular or write for one to the

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## The Poultry Yard.

### Points in Poultry-raising.

P. H. JACOBS, IN FARM AND FIRESIDE.

#### LITTER FOR SCRATCHING.

Any place to which the hens will resort may be used for scratching. They prefer to be under a shed in winter, or a shady place in summer. Anything in which the hens will scratch will answer, such as leaves, chaff, cut straw, or even dirt. Sprinkle a little whole grain in the litter once a day, and the hens will soon learn to hunt for it. It is not the quantity of the grain that should entice them. Only a small proportion is enough, as it should be the aim to keep the hens busily at work, in order to keep them in condition.

#### MENS FOR SITTERS.

The best hens for sitters are those that are active and of medium size. A clumsy hen should not be used. Small hens also usually make excellent layers, as they do not become fat so readily. As long as a hen is laying regularly there is but little liability of her becoming too fat, as the production of eggs demands all the nutriment of the foot; but such foods should not consist largely of corn-meal. As soon as a hen ceases to lay she will become fat, and the feed should then consist principally of grass and meat, with grain at night. Hens that are too small can fly over tall fences, while those too large are clumsy, the best for general purposes being of medium size.

#### QUALITY FOR MARKET.

It does not follow because a fowl seems to be of good size and nicely grown, that it is marketable. The 3-months-old chicken may have a big frame and the making of a good table bird, but unless it carries flesh, only disappointment will accrue when the accounts of sales come in from your marketman. The most certain way of fattening the young chicks is to shut them up in properly constructed coops for fifteen or twenty days, and feed them every three hours. The earlier in the morning the first meal is given, the better. Their diet should consist of buckwheat-meal or corn-meal mixed with milk to the consistency of crumbly dough; a little crude tallow added is also good. Give milk if it is plentiful.

#### POULTRY-HOUSE ARRANGEMENTS.

Never crowd too many hens together. In building a coop or poultry-house, dimensions of eight by eight feet allow of cutting sixteen-foot boards to the best advantage, and waste of lumber should always be avoided. If the house is eight by eight feet it should not contain over a dozen hens. The roosts should be at the back, with nests under them, the top of each nest being a board three feet wide, so as to catch the droppings of the roost. There should be two roosts, each eight feet long, which will give sixteen feet in length of roost. A foot space on the roost should be allowed each bird, which admits of sixteen hens being kept together; but, as was stated, it is best not to have too many together, and a dozen will be better than a large number. The nests should not be over a foot high, and the roosts may be only six inches from the top of the board over the nest. This will bring the roost eighteen inches from the floor, thus avoiding sore feet, as the birds will not be compelled to jump a great distance.

#### BREEDS AND PROFIT.

There is as much difference in the keeping of the several breeds of fowls as in the keeping of larger live stock. If one makes a specialty of raising poultry for market the weights should be as heavy as possible, as the sales are made by the pound; but if eggs are to be depended on as contributing a portion of the profits, then weight must not be considered. It is no disadvantage to have a large, heavy laying hen if weight and egg production can be combined, but as a rule the very heavy hens are not the best layers. With larger stock there are special beef breeds, while others are intended for milk. These characteristics are, of course, impossible with birds; but nevertheless there are breeds that excel in egg production, while others readily convert food into flesh. The poultryman who contemplates the management of a poultry establishment should have a definite purpose in view, and in the beginning select those breeds which best conform to his requirements, as any mistake made occasions the loss of at least one year's time. Hence, do not aim for

heavy fowls unless you intend to make a specialty of weight. The different breeds all have their peculiar characteristics.

#### KEEPING LARGE NUMBERS.

With a flock of ten or twenty hens the poultryman has an opportunity of giving daily attention, and if anything goes wrong it is quickly noticed; but when large flocks are kept, the matter of having them always in proper condition is one of anxiety. In order to give all his attention the number of hens must be sufficient to remunerate the poultryman for his labors. If this is not done there will be no profit. If the number is too small the labor will be too large an item, and failure will be the result. It is on this point that a majority of failures occur. It may be safely stated that 500 hens will support a moderate family, and there are few persons who keep more than that number; but, like any other occupation, the expenses must be taken out, and whether the expenses are too great or not depends upon the extent of the operations. As one man can attend to 1,000 hens nearly as well as he can 500, it is plain that the smaller the flock, the greater the proportional expense. Many make the mistake of endeavoring to keep too many fowls together, thus not only inviting disease, but, more frequently, lice. When lice make their appearance in a large flock of several hundred it is usually an end of the enterprise, as the labor is at once doubled. By beginning with clean premises, and cleaning them daily, as is done with stables, much difficulty may be avoided. Large flocks may be kept as easily as small ones if divided into families, and attention and vigilance bestowed.

#### Experiments in the Preservation of Eggs.

The official organ of the Board of Agriculture states that, during the past three years, some interesting experiments in the preservation of eggs have been carried out by Mr. F. T. Shutt, chemist to the experimental farms of the Canadian Ministry of Agriculture. The eggs used in these investigations were quite fresh, being supplied by the poultry department of the experimental farm, Ottawa, and taken from the nest within a few hours of being laid. In the experiments of 1898-99 some of the eggs were treated in the first week of October, and tested at the beginning of the following March; while a number were retained under experiment until December, 1899, a period of fourteen months. The preservatives employed were saturated lime-water; lime-water plus 10 per cent of common salt; 10 per cent solution of water glass (sodium silicate); 5 per cent glycerine; and distilled water. Some of the eggs were left in the solution for a few days, while others were left in the solutions throughout the entire period of the experiment. The coating of the eggs with paraffin was also tried. After a careful examination of the eggs, including poaching, it was concluded that saturated lime-water gave by far the best results.

During the past year several of the above-mentioned trials were repeated. The efficiency of certain other methods for egg preservation that have received attention from time to time in the press was also tested. The experiment was begun on June 5, and the eggs examined on December 10. Three eggs from each experiment were poached.

Briefly stated, the results were as follows:

1. Eggs immersed continuously in saturated lime-water. Outward appearance excellent; yolks non-adherent, of good color, and fairly globular; albumen somewhat more limpid than in fresh eggs, and slightly discolored; a very slight "stale" odor; air space normal. Poached eggs free from all objectionable taste and of good appearance.
2. Eggs first smeared with vaseline and immersed continuously in lime-water. Externally somewhat darker than the foregoing and rather greasy; yolk globular and of good color; albumen a very faint yellowish tint and somewhat limpid; a very slight "stale" odor; air space normal; poached egg very similar to that in 1.
3. Eggs continuously immersed in 2 per cent silicate of soda. External appearance good, and very similar to that of eggs in lime-water; yolk globular and of good color; albumen but very slightly discolored, almost normal; marked odor of a "soapy" character; which is further developed in poaching; air space normal; poached egg of very good appearance, but with a faint "stale" flavor.
4. Eggs continuously immersed in solution of 5 per cent of gum arabic and 1 per cent formalin. Outward appearance inferior to those in foregoing tests;



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In night driving, you must have some good and reliable light. One which will not blow out, or shake out by the jar incident to driving. Dampness doesn't affect it. Our

## DIETZ BUCKEYE DASH LAMP

fits every requirement. Has our special bull's eye lens on perforated plate. Makes a singularly strong white light and throws it long way ahead. Holds oil enough to burn 17 hours. Ask your dealer for it and all "Dietz" lamps and lanterns. They are the best. Write for free catalogue.

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## FEED COOKER AND ROOT CUTTER.

Our Stock Food Cooker and Root Cutter in excellence and amount of work, surpasses all other machines of that character on the market. Peculiarly adapted to the necessities of the poultryman and feeder, either large or small. Perfect service at low prices. Send 10 cents for postage on No. 19 new 20th Century Catalog. THE RELIABLE INCUBATOR & BROODER CO., Box 8-62, Quincy, Ills.

## POULTRY BREEDERS' DIRECTORY.

SCOTCH COLLIE PUPPIES—Pedigreed, and for sale cheap, on immediate orders; also some young Partridge Cochins of choice breeding for sale. O. A. Rhoads, Columbus, Kans.

WANTED—A few dozen February or March pullets, B. P. Rocks and S. C. W. Leghorns. S. K. Emery, corner Colfax and South 5th streets, Denver, Col.

CHOICE COCKERELS FOR SALE—Silver Spangled Hamburgs, R. C. and S. C. B. Leghorns \$1.50 each, Black Minorcas \$1.50 each, Mammoth Bronze turkey toms (spring hatch) \$3. Send your order early and get the best. Vira Bally, Kinsley, Kans.

I HAVE some very fine pedigreed Scotch Collie pups for immediate shipment. I also have some extra fine B. P. Rock hens and young cockerels will sell at a bargain if taken soon, as I need the room. Can furnish pairs, trios or pens headed by a male no kin to hens or pullets. W. B. WILLIAMS, Stella, Neb.



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Barred Plymouth Rocks, White Plymouth Rocks, Buff Cochins, Partridge

Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, Brown Leghorns, and Belgian Hares. First-class Standard Stock of Superior Quality. Stock For Sale. Eggs in Season. Write Your Wants. Circular Free.

A. H. DUFF, Larned, Kans.

yolks attached to shell; albumen decidedly discolored; odor not marked; air space normal; appearance of broken eggs much inferior to those in preceding test; developing marked flavor on poaching.

5. Eggs continuously immersed in 5 per cent gum arabic, plus 5 per cent salicylic acid. Preserving solution quite mouldy and with a very bad smell. Eggshells quite soft. The broken egg, though not unsightly, had a very nauseating odor, and was quite unfit for food.

6. Eggs continuously immersed in 5 per cent dextrin plus 5 per cent salicylic acid. Preserving solution very mouldy and smelling badly. Eggshells soft, and contents unfit for food.

7. Eggs dipped momentarily in dilute sulphuric acid, then washed and stored in a large bottle. All exceedingly bad; contents very offensive.

8. Eggs dipped momentarily in sulphuric acid, washed and dipped in alkaline ammonium oxalate, then stored in large bottle. All the eggs very bad, and contents offensive.

These experiments corroborate many of the results obtained in the previous year, and are held to afford further proof of the excellence of the eggs preserved in saturated lime-water. Mr Shutt thinks that, on the whole, 2 per cent sodium silicate gives better results than the 10 per cent solution, but he is also of the opinion that lime-water is superior to both as an egg preservative. "Moreover, it is cheaper and pleasanter to handle."—Greener, London.

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A. B. STEPHENS & CO.  
KANSAS CITY, U.S.A.  
WOOL  
PELTS & TALLOW.

Ship us your hides, furs, etc., direct to Kansas City, and we will pay you full value. Prompt returns. No commissions.  
SEND FOR OUR PRICE CURRENT.  
409 Delaware Street.

SHIP YOUR FURS  
HIDES, PELTS, WOOL, ETC.  
To McMILLAN FUR & WOOL CO.  
MINNEAPOLIS, MINN.  
WRITE FOR CIRCULARS.

SKUNK MINK FOX WOLF  
and all other Raw Furs; also Cattle and Horse Hides shipped to us will bring the Farmer and Trapper 10 to 50% more than if sold at home. We want every Farmer, Trader, Trapper and Buyer in the U.S. and Canada to ship his Raw Furs and Hides to us. Highest market prices and prompt cash returns guaranteed. Write for our price list, shipping tags, Game Laws, etc.  
ANDERSON BROS., Minneapolis, Minn.

WANTED 1 MILLION OPOSSUM SKINS and other raw Furs for export. Will pay extremely high prices. Address, A. E. BURKHARDT, Main & 2nd, Cincinnati, O.

This machine will sow evenly any seed that is sown broadcast. It is more compact and convenient to operate than any similar machine made. It is strongly built and with ordinary care will last a lifetime. Every Machine Guaranteed. Upon receipt of price \$1.50, we will send this seed sower to your nearest express office and prepare all charges.  
E. C. SMITH CO., Manufacturers, 115 Dock St., St. Louis, Mo.  
SPECIAL NOTICE—Every farmer ordering one of these machines while this offer holds good will be given an opportunity to have the entire cost of his machine refunded in cash.  
ONLY \$1.50.

ASTHMA CURED TO STAY CURED  
A complete, lasting constitutional cure, not just a "relief." Absolutely different from all sprays, smokes, and so-called "cures." Over 52,000 patients. Attacks never return. Cause eradicated. Health restored. Whole system built up. Book I free.  
DR. HAYES, Buffalo, N. Y.

Ladies Our monthly regulator never fails. Box FREE. DR. F. MAY, Bloomington, Ill.  
BED-WETTING CURED. Sample free. DR. F. E. MAY, Bloomington, Ill.





Built by the Union Stock Yards and Transit Company of Chicago for the convenience and free use of national breeders' associations and for permanent headquarters and offices for the various pure-bred live stock records.

#### The Cow-Pea in Kansas.

FRANK HOOVER, CHEROKEE, KANS., IN WESTERN BREEDERS' JOURNAL.

The farmers of Cherokee County have found the cow-pea one of the best of forage plants and one that brings more nitrogen into the ground than any other plant we can propagate. I was astounded on looking over an old report issued by one of our leading State experiment stations giving out that the stock at the station refused to eat cow-pea hay and that the plant was of little use save possibly as a soil renovator.

There is no animal in our domestic economy that I know, that refuses to eat it green or as a forage. Horses, sheep, and cattle eat it and hogs are lovers of it in green state, and eat the leaves and stems quite freely in winter unless they have cane or green wheat in their bill of fare. For cows it is an excellent balancer of a corn ration and increased the butter yield beyond belief. My own farm cows were making thirty pounds butter per week. When the cow-pea forage gave out they dropped to seventeen pounds per week. I attributed part of decrease to the exceedingly cold weather that followed about this time. Mr. King, of Edna, Kans., who runs a creamery, fed cows pea hay and when it gave out near springtime and he had to use other forage, his butter yield dropped from ninety pounds to seventy pounds per week. These results occurred only when the hay used was rich in pods of ripe peas. Late-sown cow-pea hay on which pods have not had time to form is not so valuable but far exceeds cane fodder, prairie hay, timothy, or red top, and, I think, is quite as valuable as alfalfa or red clover. It is a legume and has to be sowed each spring. There is hardly a spot in Kansas where it will not grow and it will fertilize any ground on which grown. The seed is highly nitrogenous and is very valuable to balance the average ration used by the Kansas farmer. No soil inoculation is needed and the crop is sowed and mowed and cured as the average hay crop. One can pull up a plant in forty days after sowing and see many nodules attached to the roots. Alfalfa looks no more luxurious in its very best growth than a field of cow-peas. It will bloat cattle or sheep but hogs revel in its luxuriance and a favorite method is to sow a lot and hog it off.

Cherokee County having a pretty tough subsoil, has not as yet grown alfalfa to any extent, although we, I think, at last, are getting the "hang of it." In lieu of it we have raised cow-peas. The methods are many and each farmer uses that best suited to his conditions. Some sow in the corn just before the last plowing, then getting the corn out, turn in the stock. The pea forage is gener-

ally ripe and dead, standing upright between the rows, and the stock consumes it thus without danger of bloat. Horses will eat the dead vines into the ground. Others sow in rows, stopping up all holes in a three-horse drill but three, letting the peas drill through these holes as the drill is set for sowing wheat. Still others use a corn-planter to drill with. When sowed thus the plants are cultivated a few times. They spread soon so as to cover the ground between the rows. Others drill them in with a wheat drill, all holes open, set at a bushel or a bushel and a peck for wheat. A yield is sometimes made thus of three tons per acre. If one has a small farm, however, he can raise a crop of oats or wheat and getting his grain off the ground immediately, get in a crop of cow-peas, which will yield a ton per acre of most highly nitrogenous forage, and leave his ground in the very best shape to follow with a corn crop. If the land is very much worn the crop can be plowed under while green, which of course will do more in reviving it.

The value of cow-peas is twofold, namely, in value of forage and in manurial qualities. We talk a good deal in Kansas about conserving moisture, but how about conserving the fertility of the soil? We can work old horses all day but we have to feed them well. We can milk the cow say nine or ten months at a stretch but we don't neglect her rations. But how about our soil? Do we give it the care we should? Hardly. And yet it is not such a big job. We may not be able to get manure, but we can get nitrogen from the air and let the plants do the extracting. And one of the greatest plants in this extracting business and one of the greatest soil renovators is the cow-pea. The writer stands for the cow-pea every time. It is as the Irishman said of his whisky: "Good any way you take it."

#### Farmers' and Breeders' Week at Topeka.

The Western Passenger Association has notified Secretary Coburn that a round-trip rate of a fare and a third, open to everybody, has been granted on all Kansas railroads, also from Kansas City and St. Joseph, Mo., for the thirty-second annual meeting of the State Board of Agriculture, which will be held in Topeka, January 14, 15, and 16. The annual meeting of the Kansas Improved Stock-Breeders' Association will be held in Topeka during the first three days of the same week. Tickets will be on sale January 10 to 17 inclusive, and be good for return passage until and including Monday, January 19. This is the week in which the new State administration will be inaugurated and the new legislature convene.



I.W.C.T.

Stands for Illinois Wire Cotton Tie, the best tie ever devised. In point of economy has no equal. It combines strength and durability, ease and rapidity of application, and is adapted to any press. No breakage and the wire never slips, hence the greatest density is maintained. Endorsed by Ginners, Compressors and Exporters. Write for circular and prices.

WM. CHRISTIAN, Agent, 203 1/2 Main Street, Houston, Tex.

## Herefords AT AUCTION!

Dispersion of Maple Glen Herefords, property of T. H. Pugh, of Carthage, Mo., at the Kansas City Stock Yards Sale Pavilion, on December 10, 1902.

13 BULLS—good ones, 6 imported, including a half brother to Unionist, first at Hereford and Evesham, half brother to Bruce (sold to O. Harris for \$1,300.) These two were bred by Morris. Also half brother to Evolution, winner at Hereford and Evesham, that succeeds Mr. Naye's \$6,000 Protector, at Lower Eaton, half brother to Lady Polly, winner at Hereford and Evesham.



THE sale is composed largely of COWS that are the dams of among the greatest prize winners on either side of the Atlantic. Their yearlings and calves are sired by Lucifer 108930, that stood at the head of the first prize calf herd at Hamline in competition with all the foremost herds in this country.

Col. R. E. EDMONSON,  
Col. J. W. SPARKS,  
Col. B. F. BOLAND,

Auctioneers.

Write for Catalog to T. H. PUGH, Carthage, Mo



"FOLLOW THE FLAG."

5 DAILY TRAINS 5

Kansas City .....TO St. Louis

FINEST EQUIPMENT. SMOOTH TRACK. NO DUST.

The Wabash passes through Forest Park, sight of the World's Fair Grounds in full view of all the magnificent buildings now being erected. The only line that does it.

Wabash Fast Mail No. 8, leaving Kansas City 6.15 p. m., saves a day's travel to Eastern points.

Wabash Ticket Office, 9th and Delaware Sts., Kansas City.



## The Veterinarian.

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

**Enlarged Glands.**—I have a fine calf, almost thoroughbred, and when about 2 weeks old, I noticed a large swelling on each side of the head, almost on a line passing through the points where lower jaw is joined to head. I opened them but they had nothing in them. They were just like solid meat. About a week later I found a large and hardened swelling on each side of base of neck, just in front of shoulders; also same kind and form of swelling on each side, just in front of flank. Each swelling has its exact counterpart on opposite side and in same corresponding position. The calf was in a box stall and could not have been hurt, and shows no symptoms of disease except occasional loss of appetite and thinness of flesh.

Preston, Pratt County. WM. WARD.  
Answer.—Give it 10 grains of iodide of potassium once a day in half a teaspoon of warm water, for ten days. Wait a week to repeat.

**Distemper.**—I have a hound pup 5 or 6 weeks old, which seems to be weak in his front legs or shoulders. He walks all right for a few minutes, when he suddenly commences walking on his toes with his knees bent as if his shoulders were drawn. Finally he is hardly able to crawl and trembles continually. He eats heartily and seems otherwise healthy. The other four pups are all right. This one became lost several times in attempting to follow his mother through the weeds and was not found for some time. The last time we found him he was so weak and trembling that he had to be carried. Since then he has acted as I described. At first his eyes seemed weak and I thought he would go blind. An old colored man told me that the weakness of his eyes was caused by cackles.

Atchison, Atchison County.  
Answer.—Give him El Calisaya bark, iron, and strychnine, 1 ounce, syrup of buckthorn, 1 ounce. Mix and give half a teaspoonful three times a day. Rub his front legs with a little alcohol in water once a day, and he will soon strengthen up.

**Diarrhea and Inflammation.**—I had six horses and a young colt take sick while running in pasture about six days after the first frost. The horses took a diarrhea and a 13-month-old colt took inflammation of the bowels and died in three days. The first treatment was for colic, then we gave tincture of aconite root, which relieved him some. I then called in a veterinary surgeon and he continued the treatment. What was the cause of the diarrhea? Was it eating frosted grass? The colt that died acted as though it had been poisoned. What is the best treatment for this sickness?

Beattie, Marshall County.  
Answer.—This was probably caused by frosted grass. Treatment should have been oils, opiates, and followed up with stimulants and tonics.

**Bloating.**—I would like to have some information with regard to tapping cattle when bloated by eating alfalfa.

C. H. CLARK.  
Answer.—Directions for using cattle trocar: Place the instrument on the skin of the left side, at a point equidistant from the last rib, the transverse processes of the lumbar vertebra (back bone), and the point of the hip. Slant the trocar slightly and give it a tap with the right hand, sufficient to send it through at once. Pull out the trocar and leave the canula in until all danger is past. When you remove the canula press the skin down tight with the left hand so as not to pull it up.

**Asthma.**—I have a bay mare 16 years old, which at intervals, probably not more than half a dozen times during the summer, has great difficulty in breathing and seems very much exhausted with little exertion. While in this state her breathing is done with a sudden jerk and when listening to her windpipe one can hear a clear piping sound at each breath. Her appearance is very gaunt and dejected. Her endurance is cut down by a mild return of these symptoms. These periods generally last several days. What can be done to improve her condition?

Blue Rapids, Marshall County.  
Answer.—Proper attention must be

paid to the diet. Water a half hour before feeding and give nothing but the very best food. Give good, light prairie hay and only at night, and then sparingly and dampened before feeding. Give tincture of nux vomica 5 ounces. Fowler's solution 10 ounces. Mix and give a tablespoonful twice a day for a week, and then half a tablespoonful twice a day in bran. Lobelia fluid extract in doses of about one teaspoonful two or three times a day will usually relieve the distressing symptoms.

### Gossip About Stock.

(Continued from page 1161.)

of hogs of serviceable age in the country, it behooves intending purchasers to place their orders promptly. Recently the writer paid his first visit to the herd of Achenbach Bros., of Washington, Kans. They have one of the best herds the writer has ever seen both as to breeding and individual excellence. This firm wisely started with the best foundation stock obtainable and have been quite skillful and successful in maintaining a herd of superior merit, discarding all animals that were not up to their standard of excellence. The herd sire, now in use, is Baron Duke XXX 50017, by Baron Lee IV 33448 out of Duchess CXXXV 33683. He is an excellent sire and his get have good size, style, with good bone and splendid hams. The brood sows are ideal dams of the Duchess, Premier, Romford, Highclere and Nora strains. One of the brood sows has raised five litters of eleven each, fifty-five pigs in thirty months. At present Achenbach Bros. have about fifty fall and spring pigs for sale, but are now closing out at a special price, a number of yearling boars, as per advertisement on page 1173. Achenbach Bros. not only breed high-class Berkshire hogs but breed Double Standard Polled Durham cattle and White Plymouth Rock chickens, and are ambitious to have the best establishment for these classes of stock in the West.

### Publishers' Paragraphs.

In view of the forthcoming State meetings by the stock-breeders, members of the State Board of Agriculture, members of the Legislature, the new advertisement of the Hotel Oxford will have a special interest. Mr. Frank Long, the proprietor, has been the leading restaurateur in Topeka for a number of years. He has now moved into new quarters at 604-6 Kansas Ave., and the new Oxford will be run on the American and European plan and he is anxious that visitors to the capital will give his new establishment a trial, and thinks that both the prices and cuisine will be sufficiently attractive to make such visitors permanent patrons of the Hotel Oxford.

Among the new advertisements which appear in this issue, and to which we desire to especially call the attention of our readers, is the "Ranch and Farm List" of W. A. Willis & Co., Emporia, Kans. The members of this firm, W. A. Willis and J. M. McCown, are both experienced real estate men, and handle all classes of property, but make a specialty of stock farms and ranches, and have on their list the best bargains to be had in central Kansas. Their sales have aggregated over \$250,000 the past year. Eleven of their largest sales which we note below amounted to \$150,955, and are as follows: The D. Biehler ranch of 660 acres near Reading, and located both in Lyon and Osage counties, to P. C. Reed, of Morris County; the Angle E. Frost bottom farm of 280 acres near Emporia, to E. E. Lambert, of Emporia; the M. S. Combs ranch of 1,076 acres near Florence in Marion County to L. M. Bard and C. M. Stackhouse, of Kansas City, Mo.; C. S. Ford 1,440 acres on the Verdigris river in Chase County to John Sattler and G. M. Peat of Lyon County; the C. W. Wilhite ranch of 920 acres near Bazaar, in Chase County, to E. B. Green of Zanesville, Ohio; 2,160 acres on Sharps creek near Bazaar in Chase County which was owned by Dr. G. H. T. Johnson of Atchison, was sold to C. S. Fowler and I. E. Lambert of Emporia; the F. W. Tucker ranch of 2,230 acres near Florence in Marion County to C. S. Ford of Emporia; the Dr. T. C. Biddle bottom farm of 160 acres on Phenix creek in Lyon County to Oscar Votaw of Mahaska County, Iowa; the J. M. Pitzer farm of 223 acres on Allen creek in Lyon County to M. D. Milliken of Ottawa County, Kansas; 235 acres on Dow creek in Lyon County from John Barulish to H. B. Loomis of Lyon County, and a 186 acre farm on Allen creek in Lyon County from I. E. Lambert to G. W. Blackburn of Chase County. The average value of the above ranches and farms was \$13,723, and the average price paid per acre nearly \$18. An interesting fact disclosed by this list is the large per cent of home buyers. This not only shows a healthy financial condition among our farmers and stock men, but an abiding faith in the future prosperity of the State. Mr. McCown, of this firm, who furnished a representative of the Kansas Farmer with the above information, says that all indications point to much larger sales the coming year. A great many are just beginning to realize, he says, that investments in good Kansas real estate pays a better income than in almost anything else, and has none of the elements of uncertainty of most other investments. Any judicious investments now made in good Kansas real estate, he thinks, will make a good margin of profit on the investment in the near future. Either the high priced lands of Illinois, Iowa, and other States must come down or good Kansas lands will continue to advance, as the productive resources and actual income in dollars and cents per acre on our best lands here are as much as in these other States where lands are selling much higher.

Do you know that sick headache is a typical nervous disorder and that the theory that it is caused by some derangement of the stomach or liver is unscientific and not sustained by facts? Everybody knows that injuries and diseases of the brain often produce vomiting and that a disgusting mental impression will cause sickness of the stomach in many persons. A leading nerve specialist after long experience states that the first symptoms of an attack of sick headache are always felt



Miss Rose Peterson, Secretary Parkdale Tennis Club, Chicago, from experience advises all young girls who have pains and sickness peculiar to their sex, to rely on Lydia E. Pinkham's Vegetable Compound.

How many beautiful young girls develop into worn, listless and hopeless women, simply because sufficient attention has not been paid to their physical development. No woman is exempt from physical weakness and periodic pain, and young girls just budding into womanhood should be carefully guided physically as well as morally.

If you know of any young lady who is sick, and needs motherly advice, ask her to write to Mrs. Pinkham at Lynn, Mass., who will give her advice free, from a source of knowledge which is unequalled in the country. Do not hesitate about stating details which one may not like to talk about, and which are essential for a full understanding of the case.

Miss Hannah E. Mershon, Collingswood, N. J., says:

"I thought I would write and tell you that, by following your kind advice, I feel like a new person. I was always thin and delicate, and so weak that I could hardly do anything. Menstruation was irregular.

"I tried a bottle of your Vegetable Compound and began to feel better right away. I continued its use, and am now well and strong, and menstruate regularly. I cannot say enough for what your medicine did for me."

How Mrs. Pinkham Helped Fannie Kumpe.

"DEAR MRS. PINKHAM:—I feel it is my duty to write and tell you of the benefit I have derived from your advice and the use of Lydia E. Pinkham's Vegetable Compound. The pains in my back and womb have all left me, and my menstrual trouble is corrected. I am very thankful for the good advice you gave me, and I shall recommend your medicine to all who suffer from female weakness." —MISS FANNIE KUMPE, 1922 Chester St., Little Rock, Ark. (Dec. 16, 1900.)

Lydia E. Pinkham's Vegetable Compound will cure any woman in the land who suffers from womb troubles, inflammation of the ovaries, kidney troubles, nervous excitability, nervous prostration, and all forms of woman's special ills.

in the head, and in some cases several hours elapse before the stomach becomes perceptibly deranged.

If you can not attend church, the theater, places of amusement, parties; if you can not have the least cold, or pass through the least excitement without having headache and other disagreeable symptoms there is evidenced a weakened state of the nerve centers in the brain and to effect a complete and permanent cure Dr. Miles' Restorative Nervine should be taken regularly as directed.

In chronic cases where the sufferer usually knows some hours before that a headache is coming on the attack may be prevented entirely by the use of one or two Anti-Pain Pills.

They are invaluable to travelers, giving almost instant relief from the fatigue,

nervous exhaustion and eye strain which so often attends sight seeing.

Dr. Miles' Anti-Pain Pills are equally good for all bodily pain. The next time you have an attack of neuralgia, sciatica, lumbago, rheumatism, backache, toothache, or other pain try Dr. Miles' Anti-Pain Pills at our risk.

Anti-Pain Pills are a perfect pocket remedy, as they may be swallowed whole or chewed and swallowed with equally good results. They do not contain opiates nor create a craving, they do not affect the stomach or bowels in the slightest degree and are never sold in bulk. All druggists sell and guarantee them to benefit or money refunded. Twenty-five doses 25 cents, or five packages \$1. They will be mailed upon receipt of price.

Dr. Miles Medical Co., Elkhart, Ind.



THE MARKETS.

Kansas City Stock and Grain Markets.

Kansas City, November 24, 1902.

Liberal runs of Western grass cattle constituted the feature of the market here last week. Total receipts approximated 61,000 head, compared with 36,000 head the same period last year. The proportion of Western cows was the largest of the season and was abnormally big for so late in the fall. Offerings of corn cattle were moderate and prices were generally weaker. Top beefs sold for \$5.75 on Tuesday. This was the best price of the week. A year ago the top was \$6.12½, showing that prices have now begun to seek a lower level after a long season of unprecedented soaring. Both native and Western cows broke under the increased supplies and the markets ruled slow. Best stock calves held about steady while common kinds sold easier. The market for stockers and feeders advanced a trifle the fore part of the week, but liberal supplies had a tendency to wipe out this betterment and the close was at the low point. Feeders and stockers are now selling as cheap as any time this fall and it would seem that country buyers have the opportunity of the season before them.

Hog receipts here were moderate, the week's supply amounting to only 57,000 head. The five markets showed a 40 per cent reduction from the corresponding period last year, yet in spite of this bullish feature of the trade, the packers again jumped in and forced values down heavily. The week's decline amounted to 20¢@35¢, and pigs sold off fully 50¢ during the six days. Sellers made futile attempts to stop the downward flight of the market but to no purpose. The quality of the receipts was generally good and showed that farmers are not stinting their hogs plenty of corn. The average weight is now at 220 lbs., while a year ago the sale stock averaged only 176 lbs., a gain of 44 lbs. to the head. Buyers thus have no complaint to register at the fat or quality of their purchases this year. Swine closed for the week but little above the \$6 mark, the bulk being \$6.10@6.15. Traders look for a reaction this week.

Sheep receipts during the past week were the lightest of the season, the total supply amounting to only 24,000 head. A restriction in the run of grass Westerns, Utahs and New Mexicans, was the main cause for the falling off in receipts. Trade ruled strong up to and including Wednesday. After that day, however, a reaction set in and prices took a downward turn. Western lambs closed 15¢@25¢ lower. Native sheep and lambs evinced but little change. Yearlings broke a quarter on Friday. A feature of the week's trade was the good supply of Kansas-fed Western muttons. Buyers took more kindly to such stock during the week than they have done at any time this season. Best wethers sold around \$3.77½@3.85. Yearlings sold up to \$4.25. Medium wethers ranged from \$3.55@3.65. Fed Texans sold from \$3.20@3.35. Stock and feeding lambs reached the low point of the season, declining a big 25¢ from the previous week. Mexicans sold around \$2.75 that commanded \$3.50 two weeks ago.

Horses had a dull week of it. The run was liberal and the supply a little beyond the demands of the trade. Prices were generally weak on all classes. Southerners held up the best, however, everything taken into consideration. Mules were slow sale but values ruled about steady. It takes an extra good bunch of mules to bring \$150@160 out of first hands. Cotton mules range from \$75@100.

Eggs went up another notch last week and are not quoted at 20¢ for the freshest stock. Heldover eggs are bringing 15¢. Turkeys are holding firm and other poultry no more than steady. Turkey hens and gobblers are worth 10¢; old toms 9¢; live hens 8¢; broilers 11¢@12¢; spring chickens 9¢; roosters 20¢@25¢; geese 6¢; ducks 10¢; game is in request; wild ducks range from \$1.50@4 per dozen; rabbits 75¢@\$1.20 per dozen.

Grains showed a betterment during the week and closed from 1¢@2¢ higher than in our last report. The edge was taken off the market at the close of the week, however. Cash wheat is now worth 63¢@68¢; corn 36¢@40¢; oats 23¢@30¢. H. A. POWELL.

South St. Joseph Stock Markets.

South St. Joseph, Mo., November 24, 1902.

The cattle market suffered another severe setback in sympathy with the bad conditions existing at other points, prices showing a still further decline of 15¢@25¢ with the good class of corn cattle bearing the brunt of the loss, while Southern steers held fully steady. Cows and heifers grading above the canner order sold 10¢@15¢ lower, but canners sold steady. Stockers and feeders lost 10¢@25¢ in value.

The trend of hog prices was higher early in the week on account of light receipts, but with an increased supply and adverse conditions East, local buyers wiped out the above advance and the week closed with prices much lower for the week. The bulk of arrivals ran to heavy weights of good quality. Prices to-day ranged from \$6.10@6.17½, with the bulk selling at \$6.12½@6.15.

Owing to the moderate supplies in the sheep department sellers had no trouble in holding prices fully in line with the close of the previous week, although conditions East were to the adverse. The market had plenty of activity with the demand far ahead of the supplies of fat grades. Native lambs sold at \$5.40, wethers \$4.25, and ewes, \$3.75, which grades, however, were the best seen here this season. The feeder market was fairly well supplied and the movement to the country was fairly good at 10¢@15¢ lower prices.

Lawrence Seed Market.

Lawrence, Kans., November 17, 1902.

We give you to-day's buying prices in our market. Outside prices are for best grades:

Alfalfa	Per 100 lbs.
Red clover	\$7.50@9.00
Timothy	8.00@9.00
English blue-grass	2.50@3.00
Millet	2.50@3.50
Cane	.70@.80
Kafir-corn	.80@.70

F. Barteldes & Co.

Trying to farm without a good farm paper is like trying to sharpen a lead pencil with a pair of scissors. Take the KANSAS FARMER.

Special Want Column.

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

CATTLE.

HEREFORD MALES—Three 2-year-olds, two yearlings, seven calves, \$75 to \$125, sired by Socrates 75613; two unregistered calves, \$35 and \$50; ten male calves, high-grade, \$25 to \$35. A few Poland-China males, registered, 150 grade cows in calf by registered Herefords, \$25 to \$35. R. J. Simonsen, Manager, Cunningham, Kan.

FOR SALE—One solid red, registered Shorthorn bull calf, 8 months old; also a few choice Poland-China pigs, eligible for register. P. H. McKittrick, McCracken, Kans.

FOR SALE—Twenty Hereford bulls, 8 to 16 months old, grade ¾ and better. Seb Wertzberger, Volland, Kas.

CATTLE OR SHEEP RANCH—2,300 acres—100 acres hay land, 200 acres alfalfa land, two miles river front, permanent range, five-room house, stock sheds, good grove. One of the best sheltered ranches in western Kansas. Price \$5,400. Will sell all or part. W. S. Pittman, Pierceville, Kans.

FOR SALE—Twenty-five registered Shorthorn bulls, 1 to 2 years old, well bred, good individuals, good colors, prices right. Call on or address B. J. Hobbs & Co., Whitehead, Okla.

FOR SALE—A few choice Shorthorn heifers and young bulls. M. C. Hemenway, Hope, Kans.

FOR SALE—Ten young Hereford bulls from the Evergreen Farm herd, headed by Lee 121232. Address Pearl I. Gill, Great Bend, Kans.

FOR SALE—Registered Red Polled bull, dark red, weight 1,650 pounds, \$75. F. P. Evans, Mont Ida, Anderson Co., Kans.

FOR SALE—My herd bull, Baron Knight 134946, got by Gallant Knight 124468, four years old, dark red, weight 2,200 pounds; also four Scotch-topped bulls from eight to twelve months old; all red. I also have a few cows and heifers for sale, and a line of Light Brahma cockerels. J. P. Engle, Alden, Rice Co., Kans.

FOR SALE—Guernsey bulls from best registered stock. J. W. Perkins, 423 Altman Building, Kansas City, Mo.

FIVE HEREFORD BULLS FOR SALE—Never used in a herd, they are in fine fix, at a bargain for cow men. O. L. Thistler, Chapman, Kans.

FOR SALE—Six good Shorthorn bulls, four of them straight Crutchenbans; prices reasonable; now is your chance to get a good individual. H. W. McAfee, Topeka, Kans.

FARMS AND RANCHES.

FREE 200 printed farm and ranch descriptions in 5 counties, 65 m. from K. C. Prices, maps, statistical book. Write G. Winders, Ottawa, Kans.

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FOR ALFALFA, wheat, corn, and grass land, improved ranches, and farms, write to M. E. Charvoz Emporia, Kans.

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April and May farrow. Large-boned, lengthy pigs, sired by Chief 3d 27415, a grandson of Tecumseh Shortstop and out of daughters and granddaughters of Black Model 2d 24672, a great grandson of Klever's Model. Close prices on these pigs to close them out. Write for description or call and see them at farm.

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YEARLING Poland-China herd boar for sale. Grand Chief, by Grand Chief 2d 55525. He will make remarkable sire for some good breeder. Address L. W. Hamilton, Kearney, Neb.

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A BARGAIN—Three fall Poland-China boars, 40 spring pigs; popular breeding, extra feet, legs, hams, backs, heads, and ears, slick, straight, black coats. G. W. Harman, Ridge, Kans.

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AT A BARGAIN—One and one-half horse power gasoline engine, cheapest known power for farm and shop use. Strictly new, never taken out of shipping case. Price and circulars on application. N. O. Waymire, Garfield, Kans.

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We have for sale a few choice yearlings, sired by Baron Duke 30th 50017, he by Baron Lee 4th 38446, and out of Duchess C 35th 35683. The dams of these boars are of the most desirable strains. . . . Inspection or correspondence desired. Address

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The Stray List

Week Ending November 13.

Cherokee County—S. W. Swinney, Clerk. MARE—Taken up by George Thomas, (P. O. Weir City), October 25, 1902, one brown mare, 7 years old, scar on neck; valued at \$20.

Week Ending November 20.

Cherokee County—S. W. Swinney, Clerk. HOG—Taken up by Melvin Pickens, in Cherokee tp., November 8, 1902, one black male hog, weight 300 or 400 pounds, no ears; valued at \$20.

Cowley County—Geo. W. Sloan, Clerk. MARE—Taken up by W. T. Edwards, in Windsor tp., (P. O. Cambridge), one grey mare.

Greenwood County. COLT—Taken up by G. W. Gray, in South Salem tp., one black colt, 3 years old, white speck on forehead.

Elk County—G. J. Sharp, Clerk. STEER—Taken up by T. Chadwick, in Painterhood tp., (P. O. Busby), October 15, 1902, one red and white spotted yearling steer, crop off right ear; valued at \$18.

Week Ending November 27.

Bourbon County—Lydia Barton, Clerk. STEER—Taken up by Wm. H. Levi, 2 miles east of Walkertown, one roan steer, 2 years old, crop off right ear and silt in left ear.

Woodson County—J. P. Kelley, Clerk. HEIFER—Taken up by John Newell, in Everett, Nov. 8, 1902, one strawberry roan heifer, about 3 years old; valued at \$20.

Jackson County—J. W. Atwater, Clerk. STEER—Taken up by Frederick Schultz, in Franklin tp., (P. O. Holton), Nov. 5, 1902, one roan steer, past 2 years old, about 850 pounds, end of right ear off, left ear split, silt in brislet, and without horns; valued at \$30.

Farms and Ranches.

We have in central and western Kansas, all kinds of farm and ranch property, large and small, improved and unimproved, for sale. In many cases we can make a desirable exchange. State what you have for sale or what you wish to buy, and we can accommodate almost any kind of a ready deal. Write for our list of bargains. All correspondence will receive our prompt attention. Address

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100 head for this year's trade; all eligible to record.**MAPLE AVENUE HERD** **J. U. HOWE**,  
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Watch for our Brood Sow Sale in February  
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**DUROC-JERSEYS FOR SALE**—Choice July, Aug., and September pigs for sale, both sexes; also 4 19-1 bred sows. Prices reasonable. Newton Bros., Whiting, Kas.**WALNUT HILL HERD**  
**DUROC-JERSEY SWINE**  
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Stock of both sexes for sale.**Duroc-Jerseys For Sale.**Sixteen choice, vigorous males of spring farrow, and 25 head of extra good gilts, either bred or open; best of breeding. Come and see them, or write your wants. Prices reasonable. **J. F. CHANDLER**, Frankfort, Kas.**MAY'S DUROC-JERSEYS.**  
Higgin's Hero 11889 at head of herd. Choice spring pigs of both sexes for sale.**Wm. A. MAY**, Blue Hill, Nebraska.**ROSE HILL HERD OF**  
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A choice lot of boars ready for service, and gilts ready to breed. Also August pigs now ready to wean. All from large, prolific old sows.**S. Y. THORNTON**, Blackwater, Missouri.**Standard Herd of Registered**  
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**PETER BLOCHER**,  
RICHLAND, SHAWNEE COUNTY, KANSAS.**Golden Rod Herd of Prize-winning**  
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FOR SALE: 20 boars ready for service; sows bred or open. 100 spring pigs.  
Our **POLAND-CHINAS** are at the Top.**Kansas Herd of Poland-Chinas**  
Has some extra fine gilts bred; also some fall boars. Will sell Sen. I know, he by Perfect I know.  
Address—  
**F. P. MAGUIRE**, Hutchinson, Kansas.**High-Class Poland-China Hogs****Jno D. Marshall**, Walton, Harvey Co., Kas.  
Breeds large-sized and growthy hogs with good bone and fine finish and style.**SHADY BROOK STOOK FARM**  
**POLAND-CHINAS**I keep constantly on hand all sizes and ages of high-class Poland China pigs. Quality high, prices low. Write for description and price to  
**H. W. CHENEY**, NORTH TOPEKA, KANSAS.**CLOSING OUT****TWO GREAT HERD BOARS FOR SALE.**  
One son of Chief Perfection 2d, one son of Perfect Perfection; both good. Will sell cheap to deliver December 1st or after. Have just weaned 5 splendid litters of September pigs, grandly bred and all O. K. Will sell 3 for \$25; not akin if wanted. Ten aged sows all tried and found good enough. Sixteen spring gilts, 4 spring boars, 1 yearling boar, all at bargain prices.  
Address **HARRY EVANS**,  
Big-boned only. **PLEASANTON, KANS.****WAMEGO HERD**  
—OF—  
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**C. J. HUGGINS**.**POLAND-CHINA SWINE.****FOR SALE** Poland-China Hogs, Holstein-Friesian Cattle; either sex. Best strains represented. **H. N. Holderman**, Rural Route 2, Girard, Kans.**A. B. DILLE & SON**, Edgerton, Kans.  
HAVE A FINE LOT OF YOUNG  
**Poland-Chinas**  
of the best blood, both sows and boars, at reasonable prices. Sows bred if desired.**VERDIGRIS VALLEY HERD OF**  
**POLAND-CHINAS**  
FOR SALE: Six 8 and 10 months old boars, every one a show boar and as good as I ever bought to use in my herd. Also 150 spring pigs that are immense.  
**E. E. WAIT**, Altoona, Kans.**SHADY LANE STOOK FARM****HARRY E. LUNT**, Proprietor,  
Burden, Cowley Co., Kans.  
A few choice bred Poland-China Boars for sale, some choice open gilts and bred sows.**Elmdale Herd of High-Class**  
**Poland-Chinas**  
**W. L. REID**, Prop. R. F. D. 1, North Topeka, Kans.

Shawnee Chief 28502 at head of herd. Have for sale choice boars and gilts at living prices. Will have sows bred to Shawnee Chief or a son of Chief Perfection 2d.

**THOROUGHbred**  
**Poland-China Hogs.**Special price for next 20 days on 10 bred gilts, to farrow in April and May; they weigh from 200 to 275 pounds, and most of them are bred to Black Perfection 27182, the best breeder I ever owned. Also 20 fall pigs, and 4 boars large enough for service. 100 head in herd. Write for anything you want in Poland-China hogs.  
**JOHN BOLLIN**, R. F. D. No. 5, Leavenworth, Kans.**PECAN HERD OF POLAND-CHINAS**  
Having sold our farm here, we will make close prices on our**Poland-China**  
**BOARS AND GILTS**  
Have a very fine lot to select from. Sired by Model Tecumseh, J. L. Best, and U. S. Wilkes.**J. N. WOODS & SONS**, OTTAWA, KAS.**KNOLLWOOD FARM HERD****B** LUE BLOODED  
IG BONED  
ROAD BACKED  
ERKSHIRES . .A few fancy young boars ready for service. Orders booked for spring pigs.  
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150 choice spring pigs, sired by five first-class boars, for sale; a son of Chief Tecumseh 3d at head of herd. Parties wishing to visit herd will be met at Abilene, if notice be given. Farm 2½ miles northeast of Abilene.

**C. M. GARVER & SON**,  
R. F. D. No. 1, Abilene, Kansas.**CHOICEST STRAINS**  
....OF....**Poland-China Hogs.**400 head in herd. Fashionably bred sows and gilts bred to Broad Gauge Chief 25733, first prize winner International Show 1900, and Simply O. K. 24290, first prize winner Missouri State Fair 1901. 200 winter and spring pigs in special offer. Bargains in Registered Stallions and Mammoth Jacks. Also **SHORTHORN** AND **POLLED DURHAM CATTLE**.**SNYDER BROS.**, Winfield, Kas.**CHESTER WHITE SWINE.****D. L. BUTTON**, North Topeka, Kas.  
BREEDER OF  
**IMPROVED CHESTER WHITES**  
Stock For Sale.  
Farm is two miles northwest of Reform School.**CHAMPION HERD OF**  
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Choice spring pigs of both sexes for sale.**BLODGETT BROS.**,  
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The prize winning boar, Ell 4049, at head of herd. The best in Chester Whites for sale in select young boars and gilts.  
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**O. I. C.** } The World's  
Best Swine.

Hero 13583 (11761) at head, assisted by Teddy R. 13463. Choice spring pigs as good as grows, for sale. Only first-class shipped.

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**CENTRAL CITY, NEBRASKA.****BERKSHIRE SWINE.****Large English Berkshires.**

Boars and gilts for sale at prices to suit. Write quick and get our prices. Also a few good yearling boars.

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Possessing rare quality, substance and finish, of April farrow. Also, October pigs for sale.**Spring Brook Farm.**  
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STATION A, TOPEKA, KANS.**HIGH-BRED**  
**BERKSHIRES****Of the Leading Families**  
Herd numbers 150 head. All classes of stock for sale. Satisfaction guaranteed. Shipping station, Polo, on C. M. & St. P. R. R. Write for prices and full particulars.  
**D. T. MAYES**, Knoxville, Mo.**EAST LYNN HERD OF**  
**LARGE ENGLISH BERKSHIRES.**  
Herd headed by Premier 4th 55577 assisted by Rutgers Judge 2d 61108.  
ONLY THE BEST.Imp. Elma Lady 4th 44688, the highest priced Berkshire ever sold in Kansas City, is in our herd and there are others like her. Inspection invited six days in the week.  
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Herd now numbers 115 head. Young bulls for sale.  
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Young stock for sale.**Registered Herefords.****THOS. EVANS**, Breeder,  
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**W. J. Smith**, Oketo, Kas.**SCOTCH-TOPPED**  
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**FASHIONABLE**  
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**REGISTERED BULLS FOR SALE.**  
**L. A. MEAD**, Carbondale, Kansas.**SUNFLOWER HERD OF**Scotch and Scotch-topped  
**SHORTHORN**  
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**SWINE**  
Two Scotch bulls in service. Representative stock for sale. Address  
**Andrew Fringle**,  
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E Young Stock For Sale. Your orders solicited.  
Address **L. K. HASELTINE**, DORCHESTER, GREEN CO., MO. Mention this paper when writing.**MEADOW BROOK SHORTHORNS**—Ten fine  
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Also German Coach, Saddle, and trotting-bred horses. World's Fair prize Oldenburg Coach stallion Habbo, and the saddle stallion Rosewood, a 16-hand 1,100-pound son of Montrose in service. Visitors always welcome.  
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**C. S. NEVINS**, Chiles, Miami County, Kansas  
40 miles south of K. C., on main line of Mo. Pac. R. R.**E. H. WHITE, ESTHERVILLE, IOWA,**  
Importer and Breeder of  
**GALLOWAY CATTLE****HERD FOUNDATION STOCK A SPECIALTY.**  A Few Choice Females and 14 Bulls For Sale.

Inspection or Correspondence Invited.

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**...N. MANROSE...****Shorthorns**Rural Route No. 5, Ottawa, Kansas.  
Giltspur's Knight 171591 at head of herd. Young bulls ready for service for sale.**A Herd of Red Polled Cattle**  
**For Sale.**  
Headed by Falstaff 3d, the champion of the breed. The show herd has been the leading winner at all the Western State Fairs this year. Address the owner and breeder,  
**J. H. CROWDER & SON**, Bethany, Illinois.**SHORTHORN**  
**HERD FOR SALE.**

Consisting of nine 1 and 2 year old bulls, fifty cows from 2 to 10 years old, and twenty-five calves by the side. The get of Royal Bates 123675. Biggest Short-horn Bull in Kansas. Cows bred to Captain of Mayflower, Red Rover, or Royal Bates. Everything in good shape. Call or address, Louis Rothan, Carbondale, Kans.

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**HEREFORDS.****"ANXIETY WILTONS."**  
Printer 66384, a son of Beau Brummel 51817; March On 14th 106676, a son of March On 76335; God Sign 140887, a son of Printer 66384, are the bulls in service. Some excellent young things—both sexes—for sale. Keep your eye on South Omaha, January 22 and 23  
**W. W. GRAY**, Fayette, Mo.**...CHOICE...**  
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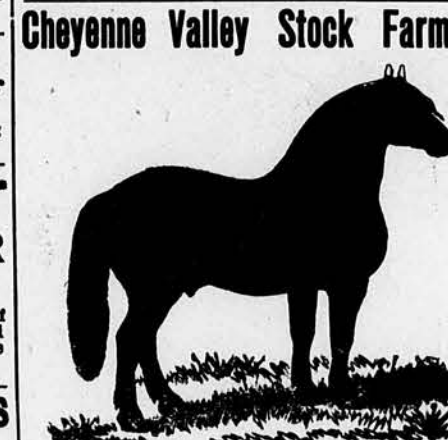
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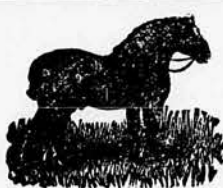
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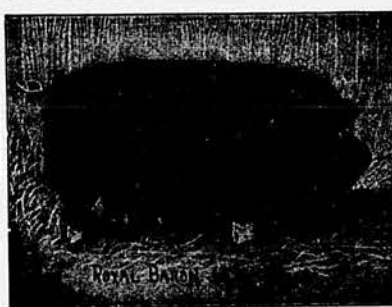
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Blanchard, North Dakota, Sept. 27, 1902

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Your Security Worm Powder for Hogs saved 60 head for me. I had 114  
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 seeing your Worm Powder for Hogs in the store one day I bought some and  
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 the pens were alive with Worms, then I knew it was not cholera, but  
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Yours truly,

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 For any  
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 a liniment CAN do good,  
 experts know there is none  
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**50 cts and \$1.00 a bottle** **Family Sizes 25 cts** **ALL DEALERS**

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60 Young Females bred to calve within a short time to such bulls as Columbus (the sire of Dale), St. Grove (the greatest son of St. Louis), Hesiod 17th, Earl of Sunset Farm, Lord Southington, Quartermaster, and Columbus 83d. Thirty Bulls of desirable ages—the tops of two great herds. Of breeding and quality good enough to head any herd.



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All are the get of Red Knight 120752, and are pronounced by judges to be the most uniformly good lot of Shorthorns to be sold at auction this fall. Females all bred to the pure Cruickshank bull, Red Gauntlet 149507 or to the pure Bates bull, Rose Duke 155031. The cows and older heifers due to calve early. This is a red herd of superior merit and includes Flat Creek Young Marys, Josephines, Zellas, Goodnesses, etc.

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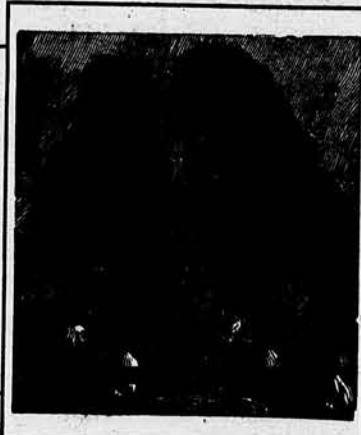
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