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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeder's Directory for \$15 per year or \$8.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

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C. S. CROSS, Emporia, Kas. We have one of the largest herds of registered

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in the United States. Write for anything you want.

ATTENTION FEEDERS

I have for sale

300 Head 3 and 4 year old Steers

in good flesh and splendid quality. Will sell in car-load lots, on terms to suit. Come and see me, or write. Mention KANSAS FARMER. Address

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Have twenty-two choice pure-bred

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THE ROCK CREEK HERD

(Founded by Thos. J. Higgins.)

200--Pedigreed Herefords--200

45 Young Bulls, 36 Heifers coming on.

250 High-Grade Cows,

15 yearling bulls, 73 heifers, 154 calves.

Stock for sale at all times. Inspection and correspondence solicited. Address all correspondence to C. M. SHELDON, President, BURLINGAME, Osage Co., KAS.

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EMPORIA, KANSAS.

We are the largest breeders of pure-bred hogs in the world, and have won more premiums at State fairs this year than any other breeder in the United States. We are breeding

this year 200 brood sows and have twelve boars in our herd. At the head of our herd this year we have the great prize-winning boar, Hadley Jr. 13314, who took first prize at the Nebraska State fair.

He is the sire of the two prize-winning pigs, King Hadley and Sababine, that have won more prizes than any two six-months-old pigs shown in 1895. Longfellow 29785, who has the best Columbian record of any Poland-China boar west of the Mississippi river. J. H. Sanders Jr. 35089, Sir Chas. Corwin 33095, L's Sensation 13316, Clay Dee 25877 (who took first prize and sweepstakes at the Kansas State fair, 1895). These boars are either individual prize-winners or from sweepstakes boars. We bred the great sweepstakes sow, Faultless Queen Corwin 29798. We now have on hand about 140 boars sired by the above. Our prices are as low as small breeders. Why not come to the fountain head and get boars to head herds? We also breed English Berkshires on a separate farm, four miles from Sunny Slope. One of the largest breeders of pure-bred Hereford cattle. H. L. LEIBFRIED, Manager.

The O.I.C. to the Front.

Send for description of this FAMOUS BREED OF SWINE. Two of which weighed 2806 lbs. Sold 1893 for breeding purposes last year. First applied can have a pair ON TIME, and an agency.

L. B. SILVER CO., CLEVELAND, OHIO.

(Breeder's Directory continued on page 16.)

Agricultural Matters.

THE FUTURE OF FARMS AND FARMING IN THE UNITED STATES.

In his latest report, just from the press, Hon. J. Sterling Morton, Secretary of Agriculture, has essayed somewhat the role of the prophet, and has delivered himself of a considerable dissertation, a part of which is here given—the wise and the foolish together—with becoming impartiality:

"The farms of the United States, averaging 137 acres each, are valued at more than \$13,000,000,000. Those farms number 4,564,641, and their average value in the census of 1890 is \$2,909. (The 1893 report of the Secretary of Agriculture erroneously stated the number of farms in the United States at 6,000,000.)

"The farm family, including hired help, averages six persons. By their own labor, with an additional investment upon each farm of about \$200 in implements and \$800 more in domestic animals and sundries (making a total farm plant of \$4,000), those families made for themselves during the year, out of the products of the earth, a wholesome and comfortable living.

"The same farmers have with part of their surplus products also fed all the urban population of the United States, poor and rich alike. Cereals, meats, vegetables, fruits, eggs, milk, butter, cheese and poultry have been supplied the village and city markets of the United States in abundance. It is probably safe to say that more than 40,000,000 of American citizens not living on farms have been so furnished with all the necessities and luxuries known as products of the varied soil and climate of the States and Territories of the Union.

"During the fiscal year 1895 the United States exported to foreign countries domestic commodities, merchandise and products aggregating in value \$793,000,000. The aggregate value of the agricultural products included in that sum was \$553,215,317. Of the total exports Europe received a valuation of \$628,000,000, or 79 per cent. of the whole.

"Thus American agriculture, after feeding itself and all the towns, villages and cities of the United States, has also sold in the outside world's markets more than \$500,000,000 worth of products. So the farmers of the United States have furnished 69.68 per cent. of the value of all the exports from their country during the year 1895.

"But this large number of consumers, consisting not only of our own citizens, but the citizens of all nations, have not been gratuitously fed, though their supplies have been constant and abundant. With sound money of the least fluctuating buying power—money on a parity with and convertible into gold the world over—American farmers have been remunerated for their products.

"The exact amount paid for the products of agriculture consumed in the United States during the year is not known, but it must have aggregated hundreds of millions of dollars. But all products, i. e., those consumed at home and abroad, were, in 1870 (including betterments and additions to stock), \$2,447,538,658; in 1880, \$2,212,540,927; in 1890, \$2,460,107,454.

"No absolutely credible method of estimating products for 1895 is available at this time, but since production has not increased to any considerable extent, and the farm value of many of the chief products has decreased to a remarkable degree, it seems reasonable to assume a decrease in the total valuation of farm products since 1890. Say, as a rough approximation, the valuation is \$2,300,000,000.

"In the presence of these facts, in the front of these figures demonstrating that agriculture in this Republic has fed itself, supplied all citizens of the Union engaged in other vocations, and then shipped abroad a surplus of over \$500,000,000 worth of its products, how can any one dare to assert that farming is generally unremunerative and unsatisfactory to those who intelligently follow it?

"How can the 42 per cent. of the

population of the United States which feeds the other 58 per cent. of the population and then furnishes more than 69 per cent. of all the exports of the whole people, be making less profits in their vocation than those whom they feed when the latter supply less than 31 per cent. of the exports of the country?

"For the purpose of illustrative comparison transfer the \$4,000 agriculturally invested in each farm of 137 acres to the choicest Wall street investment. Risk that money in railroad first mortgage bonds, in bank stocks, or any other allegedly safe security which may be found a favorite among shysters, brokers, plutocrats, monopolists, money-power manipulators and multimillionaires, and if it returns 6 per cent. it is a remarkably profitable investment in the eyes of capitalists. Therefore \$240 is the annual income.

"Follow the transfer of the farm money with that of the farm family to urban residence. Now, with the same labor in the city or village can they attain by hard work every day in the year, adding their wages to the \$240 income, as much of independence, wholesome living and real comfort as the same amount of money in the land and the same heads and hands working on the soil generously and healthfully bestowed upon them, in the sweet quiet of a home, amidst flowers, trees, fruits and abundance, on the farm?"

Corn Exhibits at Institutes.

EDITOR KANSAS FARMER:—As we have nearly reached the time for the holding of farmers' institutes in the different portions of the State, I desire to make a suggestion, which is of such a practical nature that it ought to commend itself to every thoughtful and progressive farmer.

We are very much interested in the raising of corn, and why should we not be, when it has become the leading industry in our farming operations? as it is the leverage that moves the cattle and hogs, as well as being the main source of income to many who have but little stock.

In the spring-time the absorbing question is: "What variety will return the greatest yield and what shall be planted?" A large amount of money is sent away for high-priced seed, which, in a majority of cases, gives way to new experiments the following year, and an investment in another variety that some enterprising salesman has just thrown on the market, with glittering advertisements. In view of these continued experiments, would it not be well for each institute to offer premiums for the best varieties of corn for general cultivation, and thereby encourage a large exhibit? Let there be three premiums, of \$5, \$3 and \$2, for the first, second and third choicest lots of twenty ears each, or divide this amount and have three classes of both white and yellow corn. Where a community has the "get up" to have an institute, I think ten men could easily be found who would give \$1 each, for such an exhibition, and ten times ten would not measure the value of it, if conducted by discreet, intelligent and practical judges. If the means is lacking, let the institute adopt a rule fining any person 50 cents who contends that he has better corn at home than has been shown, and there will be enough to pay all premiums, and to spare.

I do not mean by this to encourage the growth of monstrosities or excessively large ears of corn, nor would I offer the premiums for overgrowths, as they are usually produced at the expense of the general crop, or the result of selecting from a large quantity of ordinary corn. Let the farmers at these meetings compare their crops, so as to intelligently determine what variety is likely to give the best return with good care and cultivation. In this way they may enable others to get that same variety for less than the cost of from six to ten times the amount of ordinary corn. After the premiums have been awarded, send the choicest kinds to our enterprising Secretary of the State Board of Agriculture, who, I think, would be glad to place them on exhibition for the benefit of visitors in his department.

BRADFORD MILLER.

Topeka, Kas.

Broomcorn.

EDITOR KANSAS FARMER:—It is very seldom I write of anything I am not familiar with, for though I see much broomcorn growing, I have never raised any myself, as it does not fit in well with wheat farming. Perhaps the KANSAS FARMER is circulated in Oklahoma more than any other one farm journal, and I wish to reach our broomcorn-growers with two supposed facts and a suggestion.

In one of our local papers, I noticed the statement that a leading broomcorn dealer was in the Territory during the growing season and pronounced the quality of the brush as the best grown. Now, I am not prepared to say how much of that was truth and how much local boom.

In a current Chicago farm journal, I see a card from a leading broomcorn dealer, stating that Oklahoma and other far Western broomcorn offered in the Chicago market is of low grade, especially being off color, not having the bright green of the Illinois brush, also much of it being crooked.

Now I don't know anything about it, and am not going to give you theory, but I hear a great deal of grumbling about low prices.

Now, for a few questions, and for a suggestion—possibly more than one. If it is not up to standard is it worth while grumbling? If the above supposed facts are true, where is the trouble? Is it not in the lack of proper care? It generally pays best to put products on the market in the best shape. But if it will not pay to harvest the crop when it is of right color and keep it straight and nice under shed or some other way, it is not worth while grumbling at prices, if that is the cause of it.

The broomcorn industry is an important one, and if first quality can be grown it would seem desirable to put it upon the market in first-class condition as soon as it is possible to fit up for it.

Winview, Okla. J. M. RICE.

The broomcorn grown in the vicinity of Sterling, Kas., goes into market in such uniformly high condition as to color, texture and shape of brush that it commands the top of the market. Indeed, some Eastern manufacturers of high-grade and fancy brooms and brushes have frequently gone personally to Sterling at the marketing season and there made their purchases, shipping directly to their own works, in order that there should be no mistake about getting this superior brush. But the Sterling growers have been long at the business and they spare no pains to have their brush in the best possible condition. Notwithstanding this, prices this season are very low—scarcely one-third as high as last season—and the best growers find themselves without profits.

Sorghum and Alfalfa for Hogs.

EDITOR KANSAS FARMER:—I want to compliment you upon the able manner in which you handled my inquiry about beets, also to thank you for your kindness. The reason of my inquiry is that I am a young man, just starting in the hog business, and am very desirous of knowing the values of the different feeds that can be successfully raised in this part of the State. I would like to know the analysis of sorghum cane, also alfalfa hay cut early, as I am going to try and winter my brood sows on that ration. I have corn and barley, if necessary, but if they can be successfully carried through on the sorghum and alfalfa ration, I shall try my fall pigs on it, as it will be much cheaper. I would like to hear from old and experienced hog-feeders, through the columns of the KANSAS FARMER, on the subject.

C. M. LESLIE.

Hoxie, Kas.

[The average of analyses of alfalfa, as given by the United States Department of Agriculture, shows in percentages: Water 74.8, ash 2.4, protein 4.8, fiber 7.4, carbohydrates 12.3, fat 1. Sorghum, as given by the same authority, shows the following average percentages: Water 79.4, ash 1.1, protein 1.3, fiber 6.1, carbohydrates 11.6, fat .5. —EDITOR.]

Get up a club for the FARMER.

Over Thirty Years Without Sickness.

Mr. H. WETTSTEIN, a well-known, enterprising citizen of Byron, Ill., writes: "Before I paid much attention to regulating the bowels, I hardly knew a well day; but since I learned the evil results of constipation and the efficacy of



AYER'S

Pills, I have not had one day's sickness for over thirty years — not an attack

that did not read: yield to this remedy. My wife had been, previous to our marriage, an invalid for years. She had a prejudice against cathartics, but as soon as she began to use Ayer's Pills her health was restored."

AYER'S

Cathartic Pills

Medal and Diploma at World's Fair.

To Restore Strength, take Ayer's Sarsaparilla.

A Point on Using the Subsoil Plow.

EDITOR KANSAS FARMER:—I would like to say to the readers of your valuable paper that if they desire the treasures old Mother Earth withholds in her possession, they must loosen the soil deeply. It is a fact that the soil has become congested by being tickled so long and it has locked up its storehouse of good things, in great measure, and lost the key. But there is a key that unlocks the storehouse of the soil, greatly to its delight, and brings forth its treasures in great variety. That key is a subsoil plow made on the only principle that can possibly solve the question of removing the deplorable condition and congested state of the under soil throughout the whole western part of the United States. The old saying, we all have heard so many times here in the West, that the soil is so rich that if you merely tickle it with any sort of an implement it would respond with a bountiful harvest, has been misleading. Many farmers have become aware of that fact and are using this key to some extent, yet they find some difficulties. The key turns awful hard; it fits all right, but the lock has not been operated for a long time and has become rusty.

Every one knows that a straight pull on anything of heavy draft is very much the best, and every one knows that a horse that goes into the soil nearly to his knees at every step has very discouraging work. But it is very difficult to avoid that when the subsoil plow is used to follow a common plow. Now, I would suggest as a better way, to leave the common plow under the shed, and if you do not want to burn off the trash on the surface, and there is a large amount there, put a rolling cutter on the subsoil plow, hitch four horses about as near the center of the beam as possible. If the plow runs too deep, lower the front end of beam on the standard, which you can do in two minutes or more. Commence at one end of the field, and when you turn at the other end, if you went north on the east side of the field, that furrow would come between the two near horses going back the other way, and so the next bout the furrow would come between the two off horses, so your furrows would be about three feet apart, or perhaps they might be closer. In that way your horses all have good footing all the time, and having a straight pull could run the plow from sixteen to twenty inches deep from the surface at one time; then cross-plow it in the same way. Your horses would soon learn where to step to avoid going into the first furrow and the cross-plowing would be lighter work. That will give

the rain plenty of chance to go into the earth, and thus being retained in the soil, the moisture will spread through the whole mass and is accomplished with less expense and labor. Try it. H.

Salt for Chinch Bugs.

EDITOR KANSAS FARMER:—In September last, I met a gentleman at a seed store in Wichita, Kas., who stated that by planting chloride of sodium (salt) with wheat in Wisconsin the farmer was thereby protected from damage to his wheat crop by chinch bugs. The narrator was a man of mature years and possessed of intelligence, though I accepted the statement *cum grano* and did not make inquiry as to the quantity of salt necessary to make the wheat plant obnoxious to the bugs. Have you ever made any observations on this line, or do you know of any one in Kansas who has? W. McKAY DOUGAN, M. D. White Rock, Nev.

About the time of the discovery of the great salt deposits under central Kansas, a good many persons talked in the way reported in the above letter. On experimenting with salt, some imagined they found advantage in checking the inroads of chinch bugs. It was recommended to scatter it through the corn fields and upon the corn plants as a protection against the bugs. The remedy was, however, found to be quite ineffectual, and interest in the matter has almost entirely disappeared.

The English Farmer and Wheat.

Dornbusch's London List is quoted by the Cincinnati *Price Current* as follows:

"The average merchant and miller are more desirous to see a steady, active, living market, affording opportunities for the exercise of judgment, than to have a run of high prices producing unhealthy excitement and alternate trade 'fever and ague,' and ultimately reaction, if not collapse. On the other hand, the English farmer is lamenting that the 'vanished prices of days that are dead' will never come back to him. Meetings of agriculturists have been held in several parts of the country for the purpose of inducing government to do something to rehabilitate agriculture. The cry of the farmer is unfortunately too well grounded, but apparently he has at present 'no language but a cry,' for neither he nor any of his representatives seem able to devise, not necessarily a panacea, but something definite and practical that would alleviate even in a modified degree the fearful agricultural depression. No royal commission nor special committee can do anything to stop the world's growth of wheat and no legislative measures are likely to be effectual in controlling the value of grain so as to bring back prosperity to the waste wheat fields of old England."

Heating Attachment.

The Stock Fountain Co., of Lake City, Iowa, recently received the following letter:

BRADGATE, IOWA, November 9, 1895.
STOCK FOUNTAIN CO.—Gentlemen:—Have just taken from the express office your fountain and heating attachment. It is the grandest device for watering hogs in winter ever presented. I could not believe your claims until I tried your fountain. You have not commenced to express its merits. I ordered express agent to forward you the \$3.50. Send me \$1.50 worth of your coal, which I think will last thirty-five days. Unless very cold the fountain can be run without the heating attachment. Your valve cannot freeze and water can be shut off at night. Send me another for my tank and terms in dozen lots. Followed closely advice as to banking barrel.

L. H. STEVENS.

The Improved Stock Breeders of Kansas will remember their annual meeting in January. The men who have attended former meetings would not take money for the benefits received.

Every swine breeder in Kansas should send his name and address to the Secretary of the State Swine Breeders' Association, Hon. O. P. Updegraff, Topeka. Secretary Updegraff's notice in this paper tells why this is important.

It is not generally known that Mrs. Frank R. Stockton is a writer as well as her famous husband. She has written in the forthcoming volume of *The Youth's Companion* a delightfully humorous paper on her first experience as a housekeeper. Mrs. Harriet Prescott Spofford has written another article on the same subject.

The Stock Interest.

POTATOES AS A FOOD FOR STOCK.

By Prof. W. A. Henry, Director Wisconsin Experiment Station.

The heavy yields of potatoes secured this fall in potato-growing districts, and the low price of the crop, have brought forward prominently the question of the value of potatoes as a food for farm animals. With the market price of potatoes at 50 cents per bushel and upward, few farmers would seriously consider the question of feeding them to their stock, but when a bushel of sixty pounds brings only 10 or 15 cents the matter assumes an entirely different aspect. Owing to the good price generally paid for potatoes in the past, but little practical experience has been gained by our farmers concerning their value for feeding purposes; but we have abundant evidence from abroad, as well as from our own experiment stations, which goes to show that potatoes will produce good results when fed judiciously to either cattle, swine, sheep or horses. Whether or not they are an economical food will, of course, depend upon their market price. Comparative feeding experiments with potatoes and other stock foods have been conducted by the late Prof. Fjord, in Denmark, by Prof. Girard, in France, and in this country by the writer. Fjord found in feeding fattening swine that four pounds of potatoes gave a similar increase in live weight to that of one pound of grain (rye or barley). These figures were obtained as a result of experiments with a large number of animals, and carry a great deal of weight with them.

The writer fed six lots of ten-month-old pigs for forty-two days, as follows: Lots I. and V., corn meal wet with water; lots II. and VI., potatoes and corn meal in the proportion of 3 to 1; lot III., potatoes and shorts in the proportion of 6 to 1; and lot IV., potatoes and corn meal in the proportion of 2 to 1. The results showed that 789 pounds of potatoes took the place of and thus saved 178 pounds of corn meal, or one pound of corn meal was found equivalent to about four and one-half pounds of potatoes. The shorts did not give quite as good results with potatoes as did the corn meal.

If we take the ratio of 4 to 1 as indicating the true value of potatoes compared with grain feed, we find that if corn is worth 40 cents a bushel, potatoes will be worth about 11 cents a bushel to feed to stock; with corn at 30 cents, potatoes will be worth 8 cents a bushel; with corn at 50 cents, potatoes will be worth 13½ cents to feed, etc. These prices may seem rather low to many, but we believe that under existing conditions the figures given will show that in many districts potatoes may be fed to stock with profit. With the market price of potatoes at 10 or 15 cents and several miles to haul them, less money will be realized by selling the crop than may be secured by feeding to stock and selling cattle, sheep, hogs, milk and butter. The potatoes will save the grain and thus lower the cash outlay necessary for concentrated feeds for farm animals.

How to Feed Potatoes.—Potatoes should be fed sliced, chopped or broken to all farm animals except hogs; to these they had better be cooked. The writer found that the hogs ate cooked potatoes best when there was least water mixed with them. Milch cows may be fed up to twenty-five pounds of potatoes per day per head, or less than half a bushel; if more is fed the flavor of the milk and butter is liable to be affected. Dry forage should always be fed along with them.

The value of potatoes for steer and sheep feeding is shown by the French scientist Girard's work. He concludes from his experiments that "the potato when healthy (free from rot) and well developed, must be regarded as a fodder yielding remarkable results in respect to the production of meat."

Potatoes may be fed in moderate quantities to horses, either sliced or chopped; they should not form a large portion of the daily ration, not exceeding ten or twelve pounds per head daily, and less should be fed to heavy work horses or young animals. Potatoes may be fed in addition to dry forage, so as to furnish a variety and to give succulence to the ration.

The chart of feeding and manurial values and accompanying tables (published by the Orange Judd Company), gives the following information about potatoes compared to corn meal and timothy hay:

FEEDING VALUE.

	Potatoes.	Corn meal.	Timothy.
One hundred pounds potatoes, corn meal and hay contain:			
Water, pounds or per cent.	79.0	15.0	13.0
Dry matter	21.0	85.0	87.0
Ash	1.0	1.4	4.4
Digestible protein	1.3	7.0	2.9
Digestible sugar, starch and fiber	15.0	64.3	43.8
Digestible fat .....	.....	3.3	1.4
Food value (calories)	31,360	148,028	92,729
Nutritive ratio, 1 to	11.5	10.2	16.1
Feeding values	80.15	80.84	80.52
Feeding values, per ton	8.08	16.98	10.48

MANURIAL VALUE.

	Potatoes.	Corn meal.	Timothy.
One hundred pounds potatoes, corn meal and hay contain:			
Nitrogen	\$.21	\$1.58	\$1.28
Phosphoric acid .....	.07	.63	.58
Potash .....	.29	.40	.90
Manurial value, per 100 lbs. ....	.04	.28	.25
Manurial value, per ton .....	.98	5.69	5.03
Total value, per 100 lbs. ....	.17	.98	.65
Total value, per ton	3.54	19.83	13.00

Experience With Hog Cholera.

Henry Wallace reproduces a portion of a letter from Waldo F. Brown to the *Ohio Farmer*, as follows:

"There is no need of abandoning pork because the bad management of your neighbors makes them lose their hogs with cholera, and I would feel just as safe to grow pigs there as anywhere else, and would not give 25 cents a head to be insured against it. All that is necessary to enable you to grow healthy pigs is, first, to feed wisely, giving them but little corn until four months old, but a well-balanced ration that will develop bone and muscle instead of fat, and bran and oil meal should form the bulk of it; second, keeping your hogs confined to lots where no water flows from adjoining farms and giving good, pure water or slop to drink, and third, pushing your pigs so as to have them ready for market at six or seven months old. It is cheaper to cut green food for young hogs and take it to them than to fence the farm pig-tight and let them wander over the land for it, and your hogs will gain faster and give better returns for the food eaten when confined to small lots than when roaming over the farm."

Mr. Wallace remarks as to the above:

"A great many men who have had no experience with the hog cholera take exactly the same view of the subject as Mr. Brown. We confess that some years ago we held this identical opinion, and so did Prof. Knapp, who was at that time at the head of the agricultural department of the college. In one year, and nearly at the same time of the year, both the college herds and our herds were attacked with cholera, and many farmers in the State said quite freely that they were not greatly sorry, because the experience we would gain would be valuable to the farmers at large. We had said frequently before that every farmer made his own cholera; that all that was necessary to protect hogs from the disease was proper sanitation, proper food, plenty of pasture, clean quarters, fresh water, etc. All these conditions were supplied and the utmost cleanliness observed in both our herds. They had not been fed exclusively on corn, but had plenty of oats, bran, pure water and an abundance of pasture, and yet they died like flies in October as soon as the disease was introduced. Feeding hogs wisely will grow healthy pigs, and well balanced rations will develop bone and muscle. Pure water and sound food is as healthy for the hog as for the man, but let the germ of cholera be once introduced into the herd and there will be comparatively little difference between the mortality of a herd managed in this way and under ordinary conditions. The main thing in preventing hog cholera is to keep the germ from being introduced. It is

well known that hog cholera prevailed last summer on the Agricultural farm. It was, however, only on one side of the railroad that runs through the yard. The experimental hogs, or those under the control of the Experiment Station, as distinct from the college farm, have been in first-class health all the year. When the outbreak occurred, which was caused by the purchase of hogs that had been diseased and the neglect to quarantine them, every precaution was taken to prevent the germs being carried by attendants from one side of the farm to the other. No man in charge of the experiment hogs was allowed to put his foot on the farm side of the railroad and vice versa. Prof. Wilson stayed away from the experiment pens for a long time. The disease has finally died out on the one side, and on the other side the hogs are, and have been, perfectly healthy. All this shows that it is possible by quarantining, or by keeping the sick hogs from the well, to prevent the spread of hog cholera even on the same farm."

The experience here recorded and the advice given are both valuable. In addition to these, however, it should not be overlooked that, as with most infectious diseases, something in addition to the precautions mentioned by Mr. Wallace may be done to assist in warding off the disease. No more effectual general agent for the destruction of disease germs has been discovered than sulphur. This fed to hogs does not always make them proof against the attacks of cholera, but its efficacy has proven so great in many cases that some of those who have used it consider it a sure preventive. The best form to administer is in the hard lump, which hogs eat readily and without wasting it.

To Kansas Swine Breeders.

For some reason unknown to me the Kansas State Swine Breeders' Association saw fit to elect me their Secretary. Had I been present at the time I should have endeavored to have shifted this responsible position on more able and worthy shoulders; but now, as it is too late, I want to do all I can to make our association larger and our next meeting a "rouser." To that end, I ask the co-operation of not only every member, but of every swine breeder in the State, and inasmuch as the list of members seems to have been lost and it is impossible for me to obtain it (and it being hard to work effectively without knowing who all our members are), will it be asking too much, for each member to send me his name and address, also any swine breeder who is not a member but desires to become one? This can be done on a postal card, at the cost of 1 cent, and will greatly aid me in mailing you reading matter of interest, program of our next meeting, etc.

An effort will be made to secure special rates over all Kansas railways for the meeting, to be held early in January, about the time of the Improved Stock Breeders' meeting, which is also in line with our work.

The foundation swine stock in our State has already given us a great reputation, and careful attention to our business will put millions of dollars in our pockets. Let us put forth a grand effort to further the interests of our association. Its like that household necessity, the baby buggy—"a good thing, push it along."

O. P. UPDEGRAFF, Secretary,
433 Topeka Ave., Topeka.

ELECTROZONE

IT KILLS THE GERM
An Absolute Cure for Chicken and
HOG CHOLERA

Mr. JEFF. D. CRIBSHAW, of Riverton, Ala., in *South-eastern Cultivator*, of Sept. 25, 1895, says in part:
"After an experience of nearly a month during which time about every hog on our premises has had cholera, we have lost three out of a forty-odd killing ones—ELECTROZONE has proven to be a specific for which I go on record as saying it will cure hog cholera, and will prove of incalculable benefit to pork producers throughout the land."

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Irrigation.

SOME LESSONS OF THE DROUGHT.

BY PROF. S. C. MASON.

The years of drought which have passed, let us hope, to give way to years of abundant rainfall, have not been without their lessons, and one of these is to be learned from the various timber plantations. Especially is it true on the uplands that the varieties have been thoroughly sifted.

The results to be noted are only such as might have been looked for by any one familiar with the natural habitat of different trees, but many people seem to think that the teachings of nature are to be wholly set aside by the results seen in a few favorable years growth in a young grove or shelter belt.

Trees which naturally flourish only on low bottom lands, where their roots can readily penetrate to permanent moisture, have been planted by thousands on upland timber claims, chiefly because of their ready propagation and their rapid growth while young. Most prominent among these are the cottonwood, box elder and soft maple. All of these are naturally found in moist situations, along the banks of streams or other places where the supply of moisture is constant, no matter how dry the season. That they do at times get a hold outside of such favoring conditions only to thrive poorly, and, perhaps, to die when the long dry seasons come, only makes the lesson the more impressive.

The soft maple is a native of eastern Kansas as far west as the Blue river, but so far I have never found it growing above high-water mark of the streams. Being a rapid grower and a handsome tree, with abundance of foliage, this has been much planted for shade and for wind-breaks. A few groves of this tree may also be found. Where this maple has been planted on sandy bottom lands, the rapid growth has continued till a large size has been reached, and though the branches have at times been badly broken by high winds, the trees have on the whole been valuable.

Upland plantations have started out well, but as some size is reached, especially in groves, the lack of moisture begins to tell on them, and their ranks are thinned, dead trees strewn the ground. Planted in rows or singly, they will vary with the situation, individuals here and there in a little draw or favored spot making nearly as good growth as on the low-lands.

With the succession of dry years, this failure has gone on rapidly, till at present the grove and shelter belts on the upland of the old college farm are in a sad state of decay. The destruction of cottonwood groves in similar situations has been no less rapid. A block of box elder in the eastern part of the old college plantations has suffered perhaps the most complete destruction of all.

The black walnut thrives naturally in a deep black soil, such as is usually found on small creek bottoms or river bottoms where the wash comes in from tributaries. Sandy river bottoms show but little walnut. We should not expect to find this a thrifty upland tree, and while it has endured better than the three I have mentioned, the growth of such plantations has been slow, and the past three years has seen the destruction of large numbers of trees. A block of Osage orange, after making a strong growth on the old college farm for over twenty years, now shows many dead tops, with large water sprouts from below. The white elm in college grounds, though suffering in close plantations, has, where it has room, endured remarkably well, and would suggest that this is of much more permanent value to plant as a shade tree on upland than either box elder or soft maple. The green ash has endured drought as a young tree quite well, better, apparently, than the white ash. Plantations sufficiently old to meet the most crucial test I have not been able to note around here. The hackberry grows naturally in the greatest diversity of soils and situations of any Kan-

sas tree. A magnificent tree in the low, rich bottoms, a shrubby bush on the chalk hills of the west, wherever it gains a foothold it stays, growing slowly or rapidly as moisture and nourishment are afforded. It is a tree worthy of more attention than it has received, but should be planted rather with other quick-starting, shading sorts than by itself.

One of the very significant lessons of the past three years drought in the old college plantations is to be learned from the coming in as undergrowth among the maple, box elder and other trees, of many shrubs and trees evidently brought from the creeks and rivers near. That is, while these groves are in themselves dying out, they have by their presence and growth there established on a small scale forest conditions, and under their cover are springing up, besides many small shrubs and vines, seedling trees of such valuable sorts as hackberry, mulberry, white and red elm, and most valuable of all, a good many oaks of the species *Quercus Muhlenbergia*, the chestnut-leaved oak of our hillsides in this county. The western limit of this oak in our State is the lower Republican valley, and it is a matter of much significance and value that this should spring up spontaneously in an artificial plantation twenty or twenty-five years old. Our native bur oak, *Q. macrocarpa*, though seldom found self-seeded in this way, has done well where planted in alternate rows with quick-growing nurse trees, and the inference seems to be a fair one that if the groves mentioned had been under-planted a few years ago with young trees of these two valuable oaks, we might now have an excellent start toward oak groves to replace the short-lived and comparatively valueless ones of soft-wooded trees. Further notes on these plantations will be given at a future time.

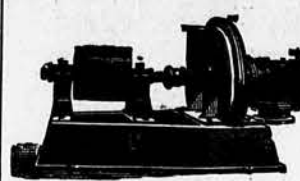
Moistening the Air.

EDITOR KANSAS FARMER:—I would retrospect fifteen or twenty years, and ask the settlers of that date if they do not think there was more rain and better crops (aside from insect ravages) then than now, as an average one year with another?

When this country was settled, and before the sod was broken, whenever there was a shower of rain every little hole and hollow was filled with water, which did not seem to soak away into the ground as it does since the land was stirred, but it stood there until the atmosphere absorbed it by evaporation, cooling and moistening the air and assisting nature to clothe the fields and plains with verdure and making the crops—what there were—to grow in the same manner the ocean breeze makes them grow in eastern Oregon and Washington. Now, my suggestion is that the farmers build ponds on every forty acres possible, and see how soon the timber, the fruit and all other productions of this State would increase in quantity and quality until it would no more be spoken of as droughty Kansas, but would take its place in the front rank of States or countries for beauty, health or fertility. Where, in the knowledge of man, can you find a State or country able to overcome the many and different failures and drawbacks which yearly befall the farmers of Kansas? I believe if the farmers would only take more interest in storing the rainfall and using it for irrigation and fish ponds wherever possible, it would make one of the most beautiful and fertile States in the Union, as such a storage all over the State would give an evaporation which would materially change the atmosphere and, in fact, the climate of the entire State.

A. J. BENNETT, SR.
Anness, Kas.

The third annual convention of the Nebraska State Irrigation Association will be held in Sidney, Neb., Tuesday, Wednesday and Thursday, December 17, 18 and 19, 1895. The ablest experts and speakers on the highly important question of irrigation will be in attendance and will deliver addresses and read papers upon the various phases of this agricultural science.



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Get Ready for Next Season.

EDITOR KANSAS FARMER:—In looking over a score or two of agricultural papers this morning, I failed, to my surprise, to find an item in any way referring to irrigation. It is a great surprise to me, after being in your midst for three months this summer, and knowing the great enthusiasm at that time prevailing with almost all classes in the southwestern part of your State, to see this great problem omitted and ignored as soon as the winter season sets in. My personal investigation of this matter had impressed upon my mind the necessity of irrigation in winter as well as in summer. It seems to me that orchards could be irrigated at the time of the year when water was not needed for other purposes; also, that it would pay well to flood other portions of the land and get it in good shape for spring cultivation and seeding.

Would an alfalfa field flooded once or twice during winter (when there is no danger of frost) not be able to withstand the early dry season without water, especially in April and May, when every drop is needed for other crops?

If the above reasons would not be sufficient to keep this issue fully alive at all times, would it not be policy for writers on this subject to fully utilize their spare moments in keeping the matter of irrigation before their readers? A rainy season or the winter months should not, in my opinion, be the cause of a lapse in the energy of all true advocates of irrigation. It would remind the irrigator that he should see that his plant is in good working order, also the prospective irrigator would be reminded that now is the time to buy and erect his plant. It is well to remind these people that it will take from three to four months, as a rule, to get a plant erected and in good working order, and if they wait until spring to make a start that they are most likely to secure but little benefits from their efforts the first season. My advice would be to get ready now, and try everything this winter and be in line in the spring to secure full benefits from their efforts.

Batavia, Ill.

R. T. COOL.

An Irrigated Fruit Farm in Kansas.

The irrigating plant of Geo. M. Munger, located at his Catalpa Knob fruit farm, seven miles south of Eureka, Greenwood county, has been much talked of and written about.

The farm comprises over five hundred acres of fruit trees, besides two hundred acres of forest trees, all moderately rolling upland prairie. The water supply is furnished by an artificial pond, which, with the dam now constructed, will cover about one hundred acres. The plant for pumping is quite similar to the water-works of many of our towns, a heavy engine, suction and force pumps.

The distance from the pump house to the reservoir is nearly eighty rods. This reservoir is a small pond made upon the highest point of the farm and connected with the main dike. The dike is built of earth scraped from the surface, after which the ground was plowed and pulverized so that the few inches of soil lost is not noticeable. The dike resembles an ordinary railroad embankment. Following the highest ground, it winds among the trees, being the full width of a tree row at the base. The good condition of the trees attests the careful driving.

The face of the dike is about eight feet. The fall is about one-half inch to the hundred feet. In the center is the ditch, two and one-half feet wide

and eighteen inches deep. Laterals are put in at each tree row. Where the fall is so great as to wash the lateral ditches, a small dike is built up and a board drop put in. This drop resembles three wooden boxes twelve inches wide and three feet long, built together, one perpendicular between two horizontal ones, the horizontals being laid on the bottom of the ditches. By making the perpendicular longer, and the lower horizontal inclined upward, the force can be practically overcome.

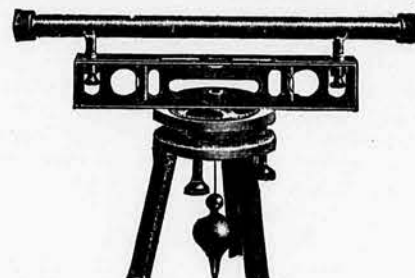
To the many growers of fruit and truck who cannot spend thousands of dollars upon irrigation plants, another one here is more interesting. This is a temporary plant in use while the large one is being completed. It consists of a gasoline engine and a pump, throwing upwards of 400 gallons per minute. The engine is rated at four and one-half horse-power and, with the pumps, cost about \$500. The pond furnished the water, but these pumps can easily be fitted in dug or drive wells where the supply would be adequate.

The water from this pump was carried to the field where used, about 400 feet, in a flume made of twelve-inch boards. For a permanent plant, a flume of this kind should be of two-inch stuff. The wetting and drying warps the inch boards.

Water is only one factor in the increased yields on irrigated land. The high culture required to prevent baking keeps the weeds down, and the crop gets all the benefit of soil and water. Irrigation means much more than putting on water.—Albert Dickens, in *Industrialist*.

Leveling Instrument.

In laying off land for irrigation, a matter of first importance is to determine the levels. The KANSAS FARMER has desired to offer its patrons a reliable, low-priced instrument for this purpose, and has finally secured the one herewith illustrated. It is



manufactured by L. S. Starrett, a well-known and reliable manufacturer of fine mechanical tools at Athol, Mass., who warrants it to be true in every respect.

The price of the instrument is \$12.50 at the factory. By a special arrangement we are able to furnish it to subscribers, together with a year's subscription to the KANSAS FARMER, delivered at any express office in Kansas, charges prepaid, at the manufacturer's price. Send orders with money to KANSAS FARMER Co., Topeka, Kas.

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Shawnee Horticulturists.

EDITOR KANSAS FARMER:—The November meeting of the Shawnee County Horticultural Society was held at Oak Grange hall, Mission Center, Thursday, November 21.

The interests of fruit-growers were well represented by the best orchardists of Shawnee county, many coming a distance of twenty miles. Judge Wellhouse, President, and Mr. Barnes, acting Secretary of the State Horticultural Society, were present, adding much to the interest of discussions.

The ladies of the society, who very successfully manage the social features, also taking part in the discussions, besides contributing to the literary program, prepared a dinner generous in quantity and of epicurean luxuriousness in quality. The daintiest dishes, requiring the greatest skill of the bright housewife, graced the tables in profusion, and after the numerous guests were satisfied to repletion, there remained baskets full, which would have feasted many deserving poor, were there any, either deserving or otherwise, in this vicinity. Besides boilers of hot coffee for the thirsty, there was cider, pure and sweet—nectar fit for the gods.

At 2 o'clock p. m., the meeting was called to order by the President Phillip Lux.

Before commencing the regular program, a short discussion was held in response to the question, by B. F. Van Orsdal, "What shall I do with peach trees of two year's growth, which are infested with worms at the roots? How trim, etc.?"

Ocell:—Early in fall dig out worms, putting wood ashes or potash around roots, and replace soil. Would trim earlier. Others spoke favorably of this mode of treatment; also used ashes, salt and lime.

In regard to growing peaches, Mr. Barnes stated that "budded" peaches were taking a back seat. Seedlings are bound to supersede them. While in Salina, recently, found one orchardist who planted peach seeds where they were to grow, planting three seeds at ten feet intersections, and when of sufficient growth, remove two plants. Thought every society should have a "human calendar," to learn and tell others what, when and how to plant; what insects to destroy this month or that, etc. Mr. Barnes also replied to question in regard to a preventive that a Fort Scott firm were selling—tree-protectors, at 40 cents per hundred. Would have some to show friends shortly. Come and see.

Question: "What time of year should peach seed be planted?"

Mr. Barnes replied that seed could be planted in fall, to be acted upon by frost, or kept moist in mold.

Mr. Armstrong also gave a simple method. Plant in soil one or two inches deep, and place flat rock over. In spring will find pit burst and ready for putting out. Objections were made that seed did not reproduce itself.

Mr. Miller spoke strongly in favor of the Gage Seedling, which had not deviated in forty years. Several orchardists familiar with the Gage Seedling corroborated Mr. Miller's statement.

Mr. W. H. Coultis, being unable to be present, sent his paper on "Grape Culture," which was read by the Secretary. Mr. Coultis took a pessimistic view of the future in grape culture, and arrayed against success in Kansas—hot winds, unfavorable atmospheric conditions, market glutted with fruit in cold storage from Eastern States, etc.

Mr. Barnes maintained that we could raise as fine grapes in Kansas as in New York. Must get right down to business and have cold storage.

Mr. Coultis named, as the only grapes he would put in vineyard, Moore's Early and Dracut Amber, which A. H. Buckman thought unfit for family use.

Mr. B. B. Smyth, Librarian of the Kansas Academy of Science, read a very entertaining and instructive paper on "Foods of the Indians of the Plains," a subject so seldom treated of that its lessons were a surprise and gave one some new ideas of the red man. We hope to hear Mr. Smyth more frequently.

Mrs. Sims read a pleasant paper on

"Horticultural Literature," bright, racy and full of truthful ideas. The paper was commended by Mr. Ocell and others, and the fact was noticed that horticultural literature, though plenty, was so scattered as to be useless, and also that the legislative appropriations were inadequate to the needs of the State society in making necessary reports.

Cold storage was brought up, but a thorough discussion was deferred to the December meeting. Judge Wellhouse stated that Mr. Moeser desired dimensions, etc., and assurance that it would be patronized, and he would put up the necessary building and run the plant. Mr. Whiteker, fruiterer, of Topeka, expressed his desire for it and thought it very necessary to success in fruit business.

Committee on Nomination reported as delegates to State Horticultural Society meeting, at Lawrence, B. F. Van Orsdal, Bradford Miller, with A. L. Entsminger and W. Brobst alternates.

December meeting will be held at Lincoln Post hall, at which time the ladies of the society are to be the guests at a dinner prepared by the gentlemen members.

KITTIE J. MCCracken,
Secretary pro tem.

Treatment of Corn Smut.

EDITOR KANSAS FARMER:—The smut in corn differs in several important particulars from the common smuts of the smaller cereals—wheat, oats, rye and barley. In no respect is the difference more marked than in its mode of attacking the plant, and in this fact lie valuable hints to the cultivator. It has been assumed that because the smut of wheat and oats can be prevented by immersing the seed in hot water or a solution of some fungicide, the same method is applicable to corn. But it is not true, and for the reason that the method by which the corn smut attacks the plant is very unlike that of most of the other cereal smuts.

It has been found out at the Indiana Experiment Station that the smut does not attack the plant through the seed, but, like wheat rust, it starts in the leaves and stems wherever the spores are carried by the wind and find lodgment and sufficient moisture to enable them to germinate. The spores will grow as soon as ripe, that is, as soon as the mass containing them turns black, and they will also retain their vitality for a year or two in case conditions for growth are not favorable.

It is evident from this that neither the time of planting nor the previous condition or treatment of the seed will have any effect upon the amount of smut in the crop; and experiments already carried out substantiate this deduction. It is equally evident that meteorological conditions will have decided influence. But the farmer cannot control the weather.

Two things can be done to decrease smut in corn. The growing crop can be sprayed with a suitable fungicide and the entrance of the smut into the plant prevented. That this can be made effective is shown by experiments at the Indiana station. But it is an expensive and troublesome method. The other, more convenient but less thorough, method, is to gather and destroy the smut, and thus eventually rid the fields of it.

The best time to gather the smut is just before the ears silk, when the fields should be gone through and every sign of smut removed, being careful not to scatter it upon the ground or in any way let the spores get free. The gatherings must be burned or deeply buried to certainly destroy the smut. One or more later gatherings should also be made. This may be called clean culture, and if persisted in for a few years would reduce the annual production of smut to an inconspicuous and harmless amount.

J. C. ARTHUR,
Botanist Indiana Experiment Station.

"BROWN'S BRONCHIAL TROCHES" are a simple and convenient remedy for Bronchial Affections and Coughs. Carry them in your pocket. Sold only in boxes.

Every breeder in Kansas should have the *Breeder's Gazette* (price \$2 a year) and the *KANSAS FARMER* (\$1 a year). Both journals are furnished by us for the price of one paper, viz., \$3.

The Family Doctor.

Conducted by HENRY W. ROBY, M.D., consulting and operating surgeon, Topeka, Kas., to whom all correspondence relating to this department should be addressed. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

Answers to Correspondents.

TO THE FAMILY DOCTOR:—I am bothered a great deal with dandruff and my hair keeps coming out. I am 28 years old. Can you please give me a recipe that will do me any good?
A SUBSCRIBER.

Peabody, Kas., November 25.

Most cases of dandruff, like nearly all cases of baldness, come from compression of the scalp by too tight a hat, or too tight a doing up of the hair on women. Either one impedes the circulation of the blood just enough to lower the vitality of the scalp and weaken its nutrition.

For treatment, wear a very loose hat. Then wash the scalp in warm rain water and castile soap twice a week till better, and then once a week till well. After washing, rub the scalp gently but persistently with a towel for thirty minutes, then wrap it up in a clean, warm cloth and go to bed. The next morning apply and rub in thoroughly a little of the following mixture: Glycerine, 2 ounces; rose water, 6 ounces; tincture cantharides, 1 drachm; tincture pulsatilla, 2 drachms. Rub this in once a day until improvement is well started, and then every other day until the scales practically disappear, and then once a week for three or four months.

A Sale of Choice Swine.

There will be a public sale of thoroughbred Poland-China swine at the farm of Winterscheidt Bros., seven miles northwest of Horton, Kas., on Wednesday, December 4, 1895, consisting of five aged sows, six gilts of last spring farrow, six male pigs of last spring farrow and two of our herd boars. Gen. Wilkes Jr. 11893 is a grandson of Geo. Wilkes 5950. This boar ought to go in good hands. He is a good and sure breeder. He has better length than the average Wilkes family—in fact, the best we have seen. He is low down, extra heavy bone, short pastern and toe, smooth coat of hair, solid black with white points. Winterscheidt's Victor 13294 was sired by Admiral Chip 7919. His dam is a granddaughter of Tecumseh Chip 2169. This fellow is good enough to head any herd, has extra length, heavy bone, solid black with white points, smooth coat of hair and as fine as silk. For a drawing card, we include two of our best sows, viz., Square Tecumseh 20744 and Legal Tender 27679. These are granddaughters of Tecumseh Chip 2169. Legal Tender is an extra large sow, measures about seventy inches in length, long, deep body and very heavy bone. These sows and other aged sows are bred to Kansas Chief, Admiral Chip's best son. When it comes to size, bone and finish, we consider him second to none. Among the boars and gilts are two gilts and one boar sired by Admiral Chip. They are strictly first-class. The gilts will be bred by day of sale. All of the above stock has gone through the cholera and is, so to speak, cholera-proof. They are now perfectly healthy and have been six weeks. We also include one thoroughbred Short-horn bull, coming 3 years old, deep red, gentle, sure breeder, good individual, eligible to record.

Note our liberal terms: Six months without interest; 5 per cent. off for cash, on every dollar exceeding \$10.

Location, nine miles north of Whiting, Kas., on Central Branch; seven miles northwest of Horton, Kas., five miles southeast of Powhatan, Kas., both on Rock Island; five miles southwest of Baker, Kas., on Missouri Pacific railroad. Will meet parties at either point if notice is sent us.

WINTERSCHIEDT BROS.,

COL. E. ZIMMERMAN, Horton, Kas.
Auctioneer, Hiawatha, Kas.

Every farmer can make his present crop of corn realize a good round price by feeding it to his hog and cattle, instead of selling it at the present price. But to obtain the best results cook your corn before feeding. By cooking it you increase the fattening powers 50 per cent., and besides make one bushel almost go as far as two uncooked. Every farmer should have a steam feed-cooker, because it will enable him to fatten his stock more quickly and economically, and will save its cost in a short time by steaming moldy hay and corn perfectly sweet, making dry straw and corn stalks soft and palatable, furnishing steam for running light machinery, heating water, etc. The Eureka Steam Feed-Cooker, announced in another column, is certainly as good, if not better, than any other on the market, because it is made of heavier and better material, and, having boiler-flues

Long-lasting

and good-looking leather comes of using Vacuum Leather Oil. Get a can at a harness- or shoe-store, 25c a half-pint to \$1.25 a gallon; book "How to Take Care of Leather," and swob, both free; use enough to find out; if you don't like it, take the can back and get the whole of your money.

Sold only in cans, to make sure of fair dealing everywhere—handy cans. Best oil for farm machinery also. If you can't find it, write to VACUUM OIL COMPANY, Rochester, N. Y.

passing directly through the water, distributing the heat, needs less fuel. They are sold and guaranteed by the Creamery Package Manufacturing Company, Kansas City, Mo.

Gossip About Stock.

Breeders of improved stock in Kansas need both the *KANSAS FARMER* and the *Breeder's Gazette*. We furnish both for the price of one paper—\$2 only.

Some very choice Poland-China swine of splendid breeding is offered for sale by Winterscheidt Bros., of Horton, Kas., as per announcement in another column.

Sunny Slope farm, Emporia, Kas., makes some striking announcements in its new advertisement in this week's issue. The proprietor means what he says and says what he means.

The Nebraska State Poultry show will be held at Omaha January 21-24, 1896. H. C. Young, Secretary, Lincoln, Neb. This show offers \$2,000 in cash premiums besides \$1,000 in specials.

The hog sale of Willis E. Gresham, of Burton, conducted at Hutchinson, November 19, by Col. S. A. Sawyer, was quite successful. The top price was \$30; lowest, \$10; average, \$19.29.

R. L. Blodgett & Sons, of Beatrice, Neb., breeders of Improved Ohio Chester White, Large English Berkshire and Poland-China hogs, write the cheerful news of inquiries every day and sales of three Poland-Chinas last week and three Polands and one Berkshire the week before. Their hogs are doing well and it is in evidence that the owners are prospering also.

W. S. Hanna, of Ottawa, Kas., reports the following sales last week: One boar to Ben Sands, of Ottawa; ten brood sows to L. A. Boys, Grenola, Kas.; two sows and two boars to Martin Kopf, of Elk City, Kas.; one boar to Wm. Curl, Centropolis, Kas.; one boar to E. M. Kohl, Council Grove, Kas.; two boars for service to Wm. and J. V. Baldwin, Overbrook Kas. Fifty boars for service left, at low prices.

SHEEP SHEARS FREE.—Do you want a pair of imported sheep shears free? If so, we will send the *American Sheep Breeder* and *KANSAS FARMER* one year and one pair of five and one-half inch sheep shears for \$2.65, or a pair of six-inch shears for \$2.70, mailed postpaid to your address. The *American Sheep Breeder* is devoted exclusively to sheep breeding and wool-growing. Edited by the highest authorities on sheep and wool. The veterinary department is worth ten times the subscription price. Will keep you posted on wool-growing in all parts of the world. If you keep ten sheep, you cannot afford to miss this offer.

Homes for the Homeless.

The opening of two Indian reservations in northeastern Utah to settlers opens up over three and one-half million acres of fine agricultural and stock-raising land for home-seekers.

The Uintah and Uncompahgre reservations are reached by the only direct route, the Union Pacific system, via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

MODELS.

Let us make your models, patterns and machines. TOPFKA FOUNDRY, Cor. J. and Second Sts., Topeka, Kas.

German Hair Restorer

N. H. F.—NEVER HAS FAILED—to cure Baldness, Dandruff and Falling Out of Hair.

Write for testimonials and prices. W. F. RIGHT MIRE, Secretary, GERMAN MEDICAL CO., Topeka, Kas.

COLLAR YOUR HORSE
with a collar that will not bruise or gall the shoulder. The non-heating, non-packing, non-irritating qualities of cork prevent horses from getting sore or galled shoulders. All others do it, but "CORK-FACED" don't. If your merchant does not keep them, write us for free catalogues. Cork-Faced Collar Co., Lincoln, Ill.

The Home Circle.

To Correspondents.

The matter for the HOME CIRCLE is selected Wednesday of the week before the paper is printed. Manuscript received after that almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

THE HOME-COMING.

Oh, oh! for sweet joys and good living
When dear ones who wander and roam
Come flocking along at Thanksgiving
And meet in the happy old home.

There's grandmother's face in the hallway,
With welcoming smiles and good cheer
For some little baby that always
Adds one to the group every year.

What! two cousin tots in a riot—
Already there, over the toys!
But auntie soon has them both quiet—
She knows how to silence the boys.

With each extra leaf in the table
We're crowded at that, I declare,
But by snuggling up close we are able
To make room for baby's chair.

My stars, how the table is loaded!
The turkey is stuffed to such size
We wonder it hasn't exploded
Right there, before grandfather's eyes.

Then, after the dinner is over
And the children all play hide-and-seek,
Why, who should come in but the lover
Who quarreled with auntie last week!

And they made it all up, and Thanksgiving
Goes up from each heart like a prayer,
And the happiest family living
Draws round the great fireplace there.
—Ella Wheeler Wilcox.

A THANKSGIVING LETTER TO GRANDMA.

"Dear Grandma, I finked I would rite you a letter
To tell how I love you—a bushel or more;
Mamma hopes that now your sore foot is all better
And we'll come to Fanksgiving as we did before.

"Please make us some pies and some pudding and jelly,
A turkey wit stuffing and onions, and then
Please don't you forget that I like stuffing smelly
Of sage. From your 'fectionate Charley. Amen."

And grandma, dear soul, as she pores o'er the letter,
With a smile on her lips and such mist in her eyes
That she wipes off her glasses to see through them better,
Plans out a whole shelf full of puddings and pies—

Of tarts and of cookies; of custards and jelly;
A goodly battalion of gingerbread men;
And last, but not least, a fat turkey cooked "smelly"
Of sage, for the youngster who wrote her "Amen."
—Good Housekeeping.

TO REDUCE FLESH.

Sponging Before Retiring Recommended in Some Cases.

In the large cities, says Womankind, middle-aged women throng the gymnasium and physical culture schools to learn how to reduce the too abundant flesh and keep off the rheumatism which is often an accompaniment. The woman who does her own housework has most of her muscles called into exercise every day, and the danger with her is that they are over-exercised; still much relief can be received by sponging every night after hard labor with the following inexpensive lotion: Two ounces of spirits of ammonia, two ounces of spirit of camphor, 1½ cups of sea salt, one cup of alcohol and one quart of rain water.

The woman whose face and throat are thin can remedy the thinness by frequent bathing in cold water, and before retiring rubbing in some good cream. In rubbing the wrinkles should be rubbed against, so as to rub them out, and it is as much in the rubbing as in the cream. A nice bit of soft white flannel rubbed several times daily over the face will be beneficial, and she whose double chin detracts from her good looks can, by judiciously rubbing downward, get rid of the superfluity. Above all things, let the woman who desires to keep her youth and beauty cultivate a sweet disposition and her intellect at the same time.

Salad Dressing Without Oil.

A coffee cup of cream, either sweet or sour; put on the stove in a hot water pan; then beat one egg with a teaspoonful of corn starch, adding to it, beating till it thickens. While it is boiling a little put in a cup a teaspoonful of mustard, one of sugar, a small one of salt, adding vinegar enough to dissolve them, and put into the mixture. This is a useful recipe, as it utilizes the leftovers of cream, which will collect in hot weather. Milk, of course, may be used; then a piece of butter must be added to enrich it.

LATEST WEDDING FADS.

Charming Decorations More Lavish Than Ever Before.

Winter Brides Will Not Be Satisfied with Anything But the Most Expensive—The Display of Presents Again in Fashion.

This winter the weddings, with their charming decorations and pretty schemes, seem to be more numerous than ever before. This season strict attention will be paid to the collation room, with its bride's tables in which so many fine devices are said to be the reigning fad. The daughter of a well-known New York society woman, a debutante of last year, will be married in December, and already preparations have been ordered for the festal event. It is to be a home wedding. In the dining-room there will be a floral bowler or arch, under which the happy



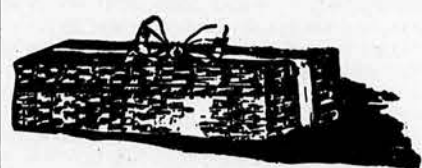
BOOK FOR BRIDAL GIFT.

couple will stand. This, the ladies claimed, could be constructed without much outlay. At the upper end of the room a dais, from which two steps lead to the floor, will be erected; and in the middle of this place will stand the bowler or arch, which will be securely fastened to the floor by screws.

This peculiar dais will be carpeted, or a long rug will be spread over it. For the background there will be potted ferns, palms, or good-sized evergreens lavishly ranged against the wall. Then the arch will be trimmed with all sorts of leaves and ferns. White flowers will be added here and there, which, even if sparingly used, will make a brilliant display, as a few flowers are wonderfully effective if artistically placed. The asparagus plants at all weddings is very acceptable, with its feathery branches, and can be procured at all florists' during the winter months. For all weddings the mantel-shelf can be made a charming picture if draped in white. Scarfs in all cream tones are very fashionable; and flowers of every hue will add to this scheme, although the white alone is more fitting for bridal decoration.

Another woman of fashion has conceived the brilliant notion of a new wedding basket, instead of the usual white paper wedding box. These small affairs are made by the dozen. They are of narrow white straw, an inch wide, and caught together by ribbon of the same width and of the same tint. On both sides of this ribbon is a silver or gold cord, which is very ornamental. These receptacles are a trifle larger than the common wedding box. In the center will be a large piece of wedding cake completely hidden by an inside lace effect. This box is very gorgeously ornamented on the outside by a cream ribbon two inches in width, which is put around the middle, terminating in a well-made bow with ends. This is a new departure, and exceedingly pretty.

Of late the display of presents for a newly-married couple has been omitted; but now a renewal of the old-time fashion has come to the front, and has



WEDDING CAKE BASKET.

been accepted by the up to date woman. Wedding presents of every style are brought, sent and received. Gold,

Highest of all in Leavening Power.—Latest U. S. Gov't Report

Royal Baking Powder

ABSOLUTELY PURE

silver, embroideries, "trifles as light as air," and all kinds of decoration and tasteful objects of which the expense is not generally in question.

One of the prettiest gifts this autumn was sent by an artistic woman to a pretty bride-elect. It was a volume of poems by a celebrated author, with charming illustrations. This book was bound in a rich green cloth, very sparingly ornamented with gilt. The outside cover was painted by a clever artist in branches of cherry blossoms, the petals dropping here and there, in artistic hues. As an outside cover for the book, solely for preservation, a white linen canvas cover was neatly made, and made to fit, so that the book slipped in and out most easily. This affair was decorated at each corner with a conventional design of white and gilt of showy pattern. In the center was the monogram of the bride and groom, and running through it a vine of pure white morning glories, charmingly depicted. At the top and bottom of the cover were broad bands of white satin ribbons, which terminated in small bows with ends. This design of a wedding gift is a novelty this season, and no doubt will find favor with all. Any book can be chosen, any color selected; but the white flower must reign supreme as a decoration for treatment in this way, for it will prove more bridal in effect, and more desirable when completed.

At a recent wedding there were no bridesmaids, only a maid of honor—a pretty girl of 15—being chosen for the part. She carried a bunch of bridesmaid roses in her hands.

Would a Man Admire a Freak.

We admire a witty woman who talks well and brightly. But how often it is that the woman who really attracts our better selves is she who can preserve the variety, the charm and the mystery of silence.—Ladies' Home Journal.

Some Tasteful New Dollies.

Very pretty dollies are made of fine Japanese linen edged with rope stitch. Cut the shape of different leaves, the edge may be in green wash silk. Or they may be cut to simulate a rose and the edge worked in pink to form petals. Or decorate with a border to represent an encircling ribbon tied with ends. Or they may be made of the sheerest linen and decorated with indelible ink and a pen to form any sort of quaint design.

Strained Eyes Make Wrinkles.

If more women realized that straining the eyes produces wrinkles, more would exercise a proper care of these valuable members. Reading by a dim or failing light, coming suddenly from a dark room to a light one, or vice versa, overworking the eyes in any way, and last, but by no means least, wearing dotted and cross-barred veils—these and more taxing of the eyesight are of valuable assistance in the wrinkle-making process.

Sweet Potato Biscuits.

Boil six sweet potatoes very soft, peel and mash through colander, add one pint of milk lukewarm, two tablespoonfuls of white sugar, two yeast cakes, dissolved in milk, and flour enough to make a soft batter; mix well and allow it to rise, then add four tablespoonfuls of melted butter, a little salt, one egg and enough flour to make a soft dough. Let this rise again, roll it into a sheet an inch thick, and cut into cakes. Set to rise again and bake in a quick oven.

The Rural New-Yorker helps reduce the mortgage and increase the profits of the farm. Let us send it this week. Send your address; no money.

The Rural New-Yorker,
409 Pearl Street, New York.

A Novel Dress Binding.

Every woman has more or less trouble with her skirt bindings, especially since gowns have been worn at such an inconvenient length, and knows too well how quickly they wear to shreds. One busy business girl, who has little time to spend in replacing the shortcomings of her garments, has in despair and by experiment hit upon a device which she thinks lasts longer than anything yet tried for the purpose. She cuts black and tan suede gloves with long wrists into bias strips and sews them neatly together. Then she uses them exactly as any other skirt braid. The greatest difficulty is to secure enough gloves; she taxes all her friends to supply her with their cast-off handgear.

The Secret of Whipping Cream.

In whipping cream the secret of success is to have cream and dish as cold as possible. If the froth is skimmed off, as is sometimes recommended, it is apt to fall after a time. It is better to beat steadily until the whole mass is the proper consistency. It may be sweetened by adding a little sugar at a time, and the flavoring can be dropped in when it is nearly solid. Very thin cream cannot be whipped. If it is too thick it must be diluted with a little milk or it will turn to butter in the process.

A cup of muddy coffee is not wholesome, neither is a bottle of muddy medicine. One way to know a reliable and skillfully-prepared blood-purifier is by its freedom from sediment. Ayer's Sarsaparilla is always bright and sparkling, because it is an extract and not a decoction.

THOS. B. SHILLINGLAW, Real Estate and Rental Agency, 115 East Fifth St., Topeka, Kas. Established in 1884. Calls and correspondence invited.

\$90 Agents Wanted everywhere to take orders for MARION HARLAND'S NEW BOOK, "Home of the Bible." Over 200 New Photos. Pleases Self Fast. Pays Big. No experience needed. One sold \$1. In 30 hours. Illus. Circulars Free. Address Historical Pub. Co., Phila.

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A NEW BOOK FREE It has 128 pages, is printed on fine book paper, it has hundreds of illustrations—wood cuts, zinc etchings. Its reading matter is interesting, as much so for a man as a woman, and the children also are not neglected.

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The Young Folks.

WITH TRUMPET AND DRUM.

With big tin trumpet and little red drum,
Marching like soldiers, the children come!
It's this way, and that way, they circle and file—
My! but that music of theirs is fine!
This way and that way, and after awhile
They march straight into this heart of mine!
A sturdy old heart, but it has to succumb
To the blare of that trumpet and beat of that drum!

Come on, little people, from cot and from hall—
This heart it hath welcome and room for you all!
It will sing you its songs and warm you with love,
As your dear little arms with my arms intertwine;
It will rock you away to the dreamland above—
Oh, a jolly old heart is this old heart of mine.
And jollier still is it bound to become
When you blow that big trumpet and beat that red drum.

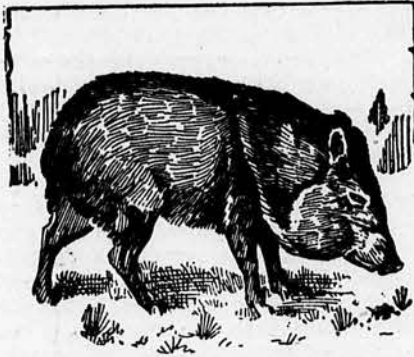
So come, though I see not his dear little face
And hear not his voice in this jubilant place!
I know he were happy to bid me enshrine
His memory deep in my heart with your play—
Ah me! but a love that is sweeter than mine
Holdeth my boy in its keeping to-day,
And my heart it is lonely—so, little folk come,
March in and make merry with trumpet and drum.
—Eugene Field.

THE LITTLE PECCARY.

A Very Plucky Fighter, When Angry, Despite His Size.

Of the few American quadrupeds for which an intelligent hunter entertains a certain amount of respect, the collared peccary is one. Although he is only a little flat-sided, high-shouldered hog, wild and uneducated, yet he is a plucky fighter when angry—and like a true child of the wild west, he gets mad quite easily. It always annoys him very much that anyone should dare to go a-gunning for him, and Mr. A. B. Baker, of the Washington "Zoo," points to a long slit in the side of his leather leggings as an illustration of what a Texas peccary can do when he is very angry.

This species has a very wide range, being found from the Red river of Arkansas as far south as Patagonia. In



THE COLLARED PECCARY.

Texas it is no longer abundant save in the low, jungly bottom lands along the Rio Grande. It does not go in great droves, like the white-lipped peccary, and it is seldom that more than eight or ten individuals are seen together. The time was when they were much more ready to fight than they are now; but, like all other dangerous animals, they have learned to fear man and his deadly firearms.—W. T. Hornaday, in St. Nicholas.

Evidently Cats Cannot Count.

A friend has several cats which have been taught to make their homes in a barn. One of the workmen in the establishment had been for a number of years in the habit of bringing food from his house, after every dinner time, for these cats. A remarkable fact is that they go from the barn to the entrance of the gate property always about fifteen or twenty minutes before the workman makes his appearance. Just how they come to learn this exact time of day is not clear, although it goes to show that these animals have reason and judgment to some extent. Strange to say, although this has been going on for several years, the cats do not seem to know that every seventh day is Sunday, and that the workman does not make his appearance at the grounds on that day, yet regularly every Sunday, for all these many years, they come to meet him, only to be doomed to disappointment. It would seem from this that cats have not the power to count, or they surely would be able to know by this time that there is a seventh day when they would be doomed to disappointment in their daily meal.—Meehan's Monthly.

THE YOUTH'S COMPANION

A host of the most famous men and women in Great Britain and America have contributed expressly for The Companion for 1896—the 70th year of its publication.

For all
the Family.

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Times a Year.

Six Holiday
Numbers.

700
Large Pages.

\$1.75
A Year.

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THRILLING RESCUE.

Six Heroes Risk Their Lives to Save a Would-Be Suicide.

Much imperiling of life is demanded in the midocean rescue of a drowning man, and such an incident always furnishes intense dramatic interest for a spectator. Baron de Malortie, in a recent interesting work, recalls an exciting scene he witnessed years ago while crossing the Atlantic. The ship was several days out when, one afternoon, he was idly lounging about on the upper deck.

Suddenly, he says, I saw a man approach the bulwark. He threw overboard some objects—we learned



THE BOAT-HOOK DOING ITS DUTY.

afterward that they were his Bible and a rosary—and followed them with a header into the foaming sea.

"Man overboard!" I cried, but the storm covered my voice, and I rushed up the bridge to call the attention of the officer on duty to the accident. Stop! half-speed astern, and orders for the lowering of the boat were the affairs of a minute or two.

"Volunteers to man the boat!" shouted a young midshipman, cutting a lifeboat from the davits.

Ten men came forward for every one wanted, and selecting four of the most

powerful tars, the midshipman was lowering the boat when a young doctor, quickly pocketing a flask of brandy for a restorative, let himself down one of the ropes and reached the boat as a monumental wave was dashing over it.

The men pulled with a will, and the gallant little nutshell fought bravely up and down the mountains of angry waters. As to the suicide, he was far astern, and only from time to time could we see something like a human form emerge on the top of a white-crested wave.

Oh, the anxiety with which we watched both the boat and its goal! Disappearing altogether at moments, when we feared we had seen the last of these noble fellows, another gigantic wave would toss them up again like a cork. It was exciting in the extreme. But the boat was gaining; nearer and nearer it came, whilst we were slowly following it in its wake.

There! the doctor throws a life-belt. They are only some yards off now. But no, a cruel wave has tossed them past the object of their tremendous efforts. There they are throwing round her nose; they are tacking; the midshipman has passed the rudder to an old quartermaster, and, armed with boat-hooks, he and the doctor stand ready for action.

Another second and the life-belt is hooked; the man is grasping it desperately, but he has no strength left; there he slips—all is lost, just at the critical moment.

But who is that jumping overboard? Three cheers for the brave man—it's the doctor! But he, too, disappears. Are there to be two victims instead of one? No, no! And there—hurrah!—there is the doctor, his precious burden before him.

The men pull like mad to reach the two ere they sink again. The gallant young midshipman is watching for the right moment. More life-belts are thrown. They help the doctor to keep above water; another pull and the boat-hook has done its duty, and whilst two of the men stick to the oars the others are

busy dragging rescuer and rescued on board.

The long, cold bath, the fright and the proximity of death had wonderfully sobered the would-be suicide, whom remorse for a drunken spree had driven to this mad freak. It did not require many restoratives to bring him to, and two hours later he had an opportunity of recapitulating his adventure in dire solitude, having been condemned to be kept in irons for the rest of the voyage, a well-deserved punishment for exposing six valuable lives, the lives of six heroes, indeed, in this perilous venture.

"I escaped being a confirmed dyspeptic by taking Ayer's Pills in time." This is the experience of many. Ayer's Pills, whether as an after-dinner pill or as a remedy for liver complaint, indigestion, flatulency, water brash, nausea, are invaluable.



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TOPEKA, KANSAS.

Collegiate, Academic, Musical departments. Classical, Scientific and Literary courses. Seven beautiful buildings. 160-acre campus. Large endowment. Faculty unexcelled. Highest standard of admission in the State. Expenses very low. Splendid facilities for science and classics. Fall term opened September 11, 1895. Catalogue on application.

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KANSAS FARMER.

ESTABLISHED IN 1863.

Published every Wednesday by the

KANSAS FARMER COMPANY.

OFFICE:

No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

An extra copy free fifty-two weeks for a club of six, at \$1.00 each.

Address KANSAS FARMER CO.,
Topeka, Kansas.

ADVERTISING RATES.

Display advertising, 15 cents per line, agate, (fourteen lines to the inch).

Special reading notices, 25 cents per line.

Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.

Annual cards in the "Readers' Directory," consisting of four lines or less, for \$15.00 per year, including a copy of KANSAS FARMER free.

Electros must have metal base.

Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

All advertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper free during the publication of the advertisement.

Address all orders—

KANSAS FARMER CO., Topeka, Kas.

To every one who will send us \$1 for a new subscriber and requesting it, we will send free a copy of the jolly little book, "Drummers' Yarns." It is exceedingly comical and furnishes no end of fun.

The marketing of wheat continues at a phenomenal rate. Over eight millions of bushels per week are reported as going forward and the visible supply is increasing at the rate of nearly four millions of bushels per week. Over sixty million bushels are now stored in warehouses and elevators.

The total vote on Chief Justice of the Supreme court at the late election was as follows: David Martin, 124,272; C. K. Holliday, 42,888; Martin's majority, 81,384; scattering 190. Judge Martin should be made the candidate of all parties for re-election next year so that this high office may be kept free from political obligations and partisan leanings.

We are again obliged to postpone the publication of Prof. Hilton's paper on the root development of corn, for the reason that the engravers failed to deliver the plates in time to go into this issue. The engravings are now in the KANSAS FARMER office, the type is all set and the paper will appear in the proper department next week. It is a good paper to study and to file away.

Frank Philbrick, of Kinder, La., writes, criticising a recent communication of W. E. Hutchison, of Wichita, wherein he commends the fig for Kansas cultivation. The trees often winter-kill in Mr. Philbrick's locality, only sixty miles from the Gulf of Mexico. They are more hardy after six years old and are the surest bearers of all their fruit trees and the fruit is very desirable.

It is understood that the Standard Oil Co. has acquired almost undisputed possession of the Kansas oil fields. These have lain in an unused state ever since discovery, for the reason that those in possession were unable to meet the competition of the Standard Oil Co. and to overcome the obstacles thrown in their way by this octopus. It is to be hoped now that these fields will be developed and that Kansans will soon realize at least a part of the benefits of oil at their doors.

The new KANSAS FARMER binder is made expressly for the convenience of those subscribers who desire to keep their KANSAS FARMERS for reference. It takes but a few seconds to put the paper in it when received. The binder holds fifty-two numbers, and keeps the papers in as nice shape as if they were a book. The price is 25 cents, post-paid, or \$1.10 for the binder and the FARMER one year. Send your own renewal for one year and a new yearly subscriber, with \$2 for both, and we will send two binders, one for yourself and one for the new subscriber.

IMPROVEMENT OF GRAINS BY SEED SELECTION.

The great variations in the form and appearance and value of any of the several products of the soil, are fully matched by the difference in the food values of given quantities of these several products. This is suggested by the experience of feeders, but is more directly and conclusively shown by the analysis of the chemist. While the perfection of development and maturity, together with the care with which grains have been protected from damage after the completion of growth, has much to do with their nutritive value, and while these are the variations most likely to come under general observation, they are not more marked and are really less important than the variations in specimens grown in the same field and subjected to the same treatment. The last mentioned variations are often hard to explain and are generally overlooked, and but for the work of the chemist would be unappreciated to-day. The differences of individual specimens of corn, wheat and other grains, or the differences of the products of one plant from that of another, go to the very essence of food value. They are differences in the relative quantities of the several food materials present. The grains consist of water, ash, protein, crude fiber, carbohydrates and fats. The water is indispensable to animals, but can be obtained from the running stream or from the pump at so small cost that its value as a constituent of foods is reckoned at zero. The ash consists of those mineral substances which do not disappear in burning. Some of these are important in foods, but they are usually treated as waste products, although not such in absolute truth. The protein is universally considered the most valuable or the most costly ingredient of foods. Its relation in this respect to the other ingredients has not been conclusively determined. Some writers have estimated its worth as double that of any other ingredient, pound for pound. It is an absolutely essential constituent of food and may take the place of at least a portion of the more abundant carbohydrates without disadvantage to the animal economy. If its relative value be placed at no more than 2 to 1, it is still apparent that a large percentage of protein is desirable. The crude fiber is another of the waste products, and the food material which has relatively little of it loses none of its value on this account. The carbohydrates and fats are fattening and heat-giving constituents of nearly all foods, while the protein is the muscle-former. Carbohydrates and fats are not of equal value, but the purposes of this paper will be served by considering them together.

For the purposes of this discussion the ratio of values 2 to 1 will be adopted, with the understanding that as a matter of fact the protein is probably worth more than twice as much as carbohydrates and fats, pound for pound.

If the records of analyses of the great American grain—corn—be considered, it will be seen that the percentages of protein vary between rather wide limits. The average quantity of protein in dent corn is 10.3 per cent., and the variation is between 7.5 per cent. and 12.8 per cent.

The law that like begets like is nowhere more true than in the vegetable kingdom. If corn consisting of 12.8 per cent. protein be planted, there is a better probability of getting a crop rich in protein than when seed containing only 7.5 per cent. of this valuable constituent is planted. The susceptibility of plants to change in their chemical composition by seed selection and proper cultivation was brought prominently into view by the success of sugar beet growers in developing that root into a sugar-producer which threatens to drive cane sugar from the market. When the great Napoleon set about making Europe independent as to her sugar supply the beet yielded about 3 per cent. of its weight in sugar. The caricaturists of that day had rare sport in ridiculing the attempt to suck sugar from the tail of a beet. But the great Napoleon had almost faultless intuitions, and the world has seen the

yield of sugar from the beet multiplied by four, and even greater yields than four times the initial precarious 3 per cent. have been realized. Seed selection and giving the plants such conditions as favored their most perfect development of sugar have done it. Beets were found to vary. The seed from rich sugar-yielders tended to produce sugary beets. The experience of the beet-growers has been repeated by the experimenters with sorghum. Mr. A. A. Denton, at Sterling, and the chemical department of our Agricultural college have conducted experiments in this line the results of which have been given in former issues of the KANSAS FARMER and which should prove an object-lesson to every experimenter who desires to see the value of domestic plants increased.

The cereals, as was the case with sorghum, present opportunities for rapid development which were not possessed by the improvers of the beet. The cereals are annuals, while the beet requires two seasons from planting to maturity of seed. The improvement wrought one season may be made available in seed selection for the next season.

Whether it will ever be possible to so change the composition of the more palatable grains as to enable them to displace meats in human foods, is a question of speculation which may be interesting, at least to vegetarians, but is scarcely germane to the present discussion. It may be remarked that meats differ chemically from grains chiefly in containing more water, more protein, more fat and no carbohydrates. To take beefsteak, from the sirloin, for example, leaving out the bone, its average composition is water 48.3, protein 15, fat 16.4, ash 0.8.

Corn or wheat or any other cereal need not be developed to contain half of its weight of water, as does the beefsteak, but it would be greatly increased in value if by seed selection and cultivation a portion of its carbohydrates could be made to develop into protein.

But while the extent to which the improvement in composition of useful products may be made is unknown, it is morally certain that they are susceptible of improvement to the extent of great increase in their usefulness, and it is not a little surprising that such experiments have not been ere this a matter of rivalry among the experiment stations.

THE AGRICULTURAL PRESS LEAGUE.

At last a national association of publishers of agricultural journals has been formed under the above title, and a majority of the representative agricultural journals of the nation are members. The organization, after years of efforts, has now finally been successfully launched, and the officers for the first year, recently elected at Chicago, are as follows: President, M. J. Lawrence, of the Ohio Farmer; Vice President, James W. Wilson, of the Farm, Field and Fireside, of Chicago; Secretary, Edw. Chandler, of the Farmer's Review; Treasurer, J. B. Connor, of the Indiana Farmer. Executive committee—Chairman, Frank P. Holland, of the Texas Farm and Ranch, J. J. Dillon, Rural New Yorker, and W. F. T. Bushnell, of the Dakota Farmer.

Ira C. Hubbell, the well-known mechanical engineer of Kansas City, who has for twelve years managed the extensive business of Fairbanks, Morse & Co., at that place, has announced his intention to withdraw from the position he has so ably filled, and, about January 1, establish a jobbing business on his own account. Mr. Hubbell's advice as an irrigation engineer has helped a great many people in the past. Whatever else he takes into his new business, he is sure to take his information, and he will no doubt be just as accessible as heretofore. The goods he will handle will be much the same as those carried by the firm with which he has been connected. Windmills, pumps, gasoline and steam engines, will be prominent items with the new house. Thousands of Kansas friends will wish Mr. Hubbell success and their trade will help to bring it.

NEBRASKA SUGAR BEETS FAIL TO RIPEN.

The glowing reports of the success of the Nebraska beet sugar industry, which were given out early in the fall, have received a black eye by the later experiences. After the factories had started, much complaint was made that the beets were not ripe. The farmers were unwilling to accept the analyses of the factory chemists and it was finally arranged to have Prof. H. H. Nicholson, of the Nebraska State University, examine into the matter.

The last week in October the outlook for beets in Nebraska was very bad, as indicated by dispatches to the Omaha World-Herald, October 26.

From Norfolk that day came this word: "Prof. Nicholson, of the State University, concluded his labors here to-day in the interests of the sugar beet growers. He has been engaged the entire day at the factory laboratory making analyses in the presence of different committees of farmers.

"The results of the tests made have been a complete vindication of the work of the beet sugar company's chemists and it is hoped that all friction between the company and the growers has been effectually removed.

"The company's position regarding the unripe condition of beets thus far this season is verified by the report submitted by Prof. Nicholson at a farmers' meeting showing the results of analyses of beets at the University from all the beet growing counties in the State during the present season. The report shows the following:

"Ten days, September 17 to 27, average per cent. sugar 9.30, average per cent. purity 70.09; ten days, September 27 to October 7, average per cent. sugar 9.49, average per cent. purity 66.40; ten days, October 7 to 17, average per cent. sugar 11.82, average per cent. purity 74.41; five days, October 17 to 22, average per cent. sugar 13.01, average per cent. purity 76.38. The factory's contracts call for a sugar per cent. of 12 and a purity per cent. of 80.

"Prof. Nicholson attributes the backwardness of the crop to the late rains and says the beets are now rapidly maturing and will, with a few warm days, be in prime condition.

"Word came from Fremont to the effect that the farmers of Dodge county are becoming disgusted with the discouraging reports from the sugar factories. Several have sent samples of the beets and in nearly each case the answer has been the same—that the beets were not ripe and did not contain the required amount of saccharine matter. The farmers are advised to silo their beets and take the chances.

"There is also a big kick coming from those who have shipped beets between the weight here and the weight allowed by the factory. On one car from W. A. Hepburn there was a difference of 10,000 pounds, or five tons, between the weight at the scales before loading and the weight of the beets with tare deducted at the factory.

"The factory at Grand Island has been shut down and the manager stated to a reporter that he could not tell how soon it would be started again. There were forty-five cars of beets shipped to Norfolk from Fremont this week.

"Beatrice sent in this: 'The farmers in this locality are becoming much exercised as to what disposition will be made of the sugar beet crop, which is ready for harvesting. Several have already sent samples to the factories two or three times, and in all cases have received very discouraging reports, the chemists claiming that the stock was not matured or was short of the required per cent. of saccharine matter, and as the crop must be harvested soon to avoid freezing, many have about concluded to begin feeding their product to cattle and hogs. Should the crop prove unsalable to the factories it will be a great disappointment to the people of Gage county, as a move has already been started to contract 5,000 acres for next year and secure a factory for Beatrice.'

If you want one of the finest magazines published, send us \$2.25 for KANSAS FARMER and Cosmopolitan.

"HOW TO GET RICH."

A head-line like that at the top of this article would not have needed quotation marks a few years ago, but now, when, with the vast majority, the question is how to keep from getting poorer, a line like the above arrests attention with a magnetic spell which cannot be overcome. It appeared recently in a financial magazine, and served as a reminder that, even in these times of almost universal complaint, there are still some people who are getting rich. The writer in the financial publication treated the subject in a very candid way and assumed that by following his suggestions any person of average ability with half or two-thirds of his life before him, may become rich.

The power of compound interest has probably surprised every school boy when he has reached that subject in his arithmetic. As might be expected the directions for getting rich suggest the use of this power. But before interest of any kind can be had it is necessary to have something to put at interest. The financial writer thinks that by industry and frugality it is possible for any one to make small savings. He suggests that ever so little saved every day and immediately put at interest will amount to a surprising sum as the years go by. He is, of course, not discussing the borrower's side of the question, but is showing how, under existing conditions, the person who will may become wealthy. He suggests the necessity of securely investing savings as made, in order that they may be removed from the liability of being spent, and that they may immediately be put to work. As a starter, he commends the savings bank. He finds also that the building and loan or savings and loan associations offer the most attractive opportunities to invest small or moderate savings so that they at once commence to earn compound interest. The method of loaning pursued by these associations commends itself for safety, from the fact that payments of both principal and interest are required monthly from the beginning, so that the debt is continually reduced while the security remains the same. The fact that 2 cents per day saved and invested with one of these associations, most of which are co-operative, will amount to \$100 in less than ten years, and that a daily saving and investment of a very small sum will amount to \$1,000 in twenty years, places it within the reach of very many to lay the foundation of a fortune. The product of a single hen whose keep on the farm costs so little that it cannot be estimated, grows mightily at compound interest as the years go by.

The financial writer commends other investments in interest-bearing securities as the candidate for wealth has more to invest. But it is noticeable that every suggestion is to get money to drawing interest. This seems to be an age of interest-paying and interest-drawing. It is a noticeable fact that the person who has money at interest can still earn just as much as if his daily earnings were his only resource. Indeed, it is not infrequently the case that he becomes more industrious, more frugal, on account of his beginnings at accumulation. At the present time very few are getting rich, and those few are almost exclusively investors in the way commended by the financial writer before mentioned.

The moral is not hard to point. If one would get rich, he should avail himself of the drawing power of compound interest.

THE KANSAS MILLION CLUB SHOW.

A few weeks ago the Kansas Million Club conceived the idea of making up a train of a few cars of Kansas agricultural products for the purpose of advertising Kansas lands. They succeeded in securing several car-loads of Kansas' choicest products, which they exhibited at various points along the Santa Fe route between Kansas and Chicago.

After reaching Chicago, the display was taken to Battery D banquet hall, on the lake front, and set up for free exhibition by members of the Kansas

Million Club, under the supervision of Prof. Worrall, of Topeka.

After the display was complete in Chicago, it was visited by a FARMER representative, who was both surprised and greatly pleased to see the success achieved by the club in making such an artistic and complete display of Kansas' choicest fruits, vegetables, grains, grasses and mineral products. It was unquestionably the finest display ever made, on a small scale, of agricultural products in this country. It was a magnificent story of Kansas in one chapter.

After the exhibit had been viewed by thousands of visitors a few days, it was turned over to the authorities of Chicago to be distributed among her worthy poor.

DAIRYMEN MEET.

The ninth annual convention of the Kansas State Dairy Association convened at Newton, on Wednesday, the 20th inst., and lasted three days. The attendance was larger than in any previous year in the history of the organization, bearing evidence of growing interest in the dairy cow. The entries of butter exceeded those of last year by nearly one-third, but unfortunately the showing of cheese seems to grow less with each recurring exhibition. Several local causes are responsible for the decrease, still first-class cheese can be made were the same attention given it as to butter-making.

Among the new topics introduced was that of Pasteurizing milk and cream, and the process is finding considerable favor in other States, according to the reports.

The principal attraction of the assembly was centered in the afternoon and evening session of Thursday, when the following papers drew crowded houses: "Possibilities of Kansas as a Dairy State," by A. E. Jones, Dairy editor of the KANSAS FARMER; "Dairying as an Agricultural Pursuit," by Hon. F. D. Coburn, Secretary State Board of Agriculture; "Benefits of a Dairy School in Connection With the State College," by Prof. C. C. George, Manhattan, Kas., and "The Bright Side," by J. E. Nissley, Abilene, Kas., ex-President of the association.

Proposed oleo legislation received a good share of attention after the introduction of a paper by ex-Governor Lewelling, of Wichita, on that subject. Additions were made to the Legislative committee, and strong grounds will be taken to secure an anti-oleo law at the next session of the Legislature.

BUTTERINE A FORBIDDEN WORD.

There will be no more "Silver Churn" or "Jersey" butterine after the 1st of January next. A recent ruling of the Treasury Department, which has just been received at the packing-houses, practically knocks the word butterine out of the English language, and declares that any brand that suggests a cow, a churn or a dairy, shall not be used on the packing-house substitute for butter.

The unpretentious, down-trodden farmer seems to have been sitting up nights and getting in his best work while the packing-house magnates were sleeping. At all events, he has the best of it in the new order from the Treasury Department. We give a few extracts:

"The use of any trade-mark, label, brand, picture, illustration or advertising or descriptive device representing a cow, or dairy farm, or in any other form indicating the oleomargarine to be a product of the dairy, or calculated to induce the belief that it is such dairy product, is inadmissible. The use of the word butterine is also inadmissible, since section 2 of the act of August 1886 prescribes that 'butterine' shall be known and designated as oleomargarine."

Hereafter, then, the packing-house substitute for butter must be known only as oleomargarine, its original appellation. The Missouri farmers, through their representatives in the Legislature last winter, took the matter in hand and said the substitute must be white, without any coloring matter whatever, and now the people of that State will have a chance to eat genuine butter without the fear of be-

ing imposed upon by a yellow-colored imitation article. The "silver churn" that Armour has been using to advertise that fraud must come down, and Swift's "Jersey" labels may as well be used for kindling-wood, and both firms must find new names that will contain no intimation that butter is offered at the packing-houses. The terms, "Choice dairy" and "Creamery," which have been so artfully used to catch the unwary, will now revert to the product of the cow, where it will remain for all time. The Jacob Dold Packing Co. is the only one that escaped. Its most generally advertised brand of butterine is "Orange Blossom," a name even the Treasury Department would hardly say suggests either a cow or a dairy farm. Each packing-house has a favorite brand which was advertised throughout the country, from the Atlantic to the Pacific. When the same article is offered under its true name, which may be suggestive of the foundry, tallow-factory or stock yards, the would-be purchaser will get his eyes open when he finds out the difference between the spurious and the genuine, as the element of fraud and deception has constituted fully 75 per cent. of the force and power of this oleomargarine trade. Public opinion and the steadfast position taken by the dairymen of this country is beginning to crowd it back among its own true natural affiliations, where it will find an early grave. Now, let every honest man assist in hastening its quietus.

The *Practical Dairyman*, of Chatham, N. Y., is a standard publication which it is profitable to read. For \$1.25 you can have the KANSAS FARMER and the *Practical Dairyman*, both for one year.

Judge Wellhouse is quoted as saying that the present season is the worst for the apple business, yield and price considered, in the history of horticulture in Kansas, and as placing the returns at only about \$25 per acre. This beats every other kind of large farming except alfalfa-growing.

The United States Postoffice Department lacked about ten million dollars of paying expenses from its earnings during the last fiscal year. The service rendered free for the other departments of the government would, if paid for at regular rates, have made the Postoffice Department self-sustaining.

Many have ordered sheet music under our recent offer. We do not keep this music in stock at our office but forward the orders to Boston, so that a few days should be allowed after the order before expecting the music. If, however, more than ten days elapses and no music comes kindly drop us a postal card stating the facts, and the matter will receive immediate attention.

Alfalfa hay sells at \$6 per ton, delivered on the cars at Garden City. If we pass by the extravagant estimates of yields under irrigation, and allow that the four crops of hay which alfalfa yields in a season will aggregate only five tons, there appears an income of \$30 per acre for the season. If, now, an allowance of \$1.50 a ton be made for harvesting expenses, and another \$1.50 a ton for baling, there remains \$15 net for the use of the alfalfa land.

Agricultural Calendar for 1896.

A book of 300 pages, bound in flexible cover, with flap for protection of edges of leaves, has been prepared for the especial use and convenience of farmers who want a calendar, a diary, an account book and a reference book all in one. While not ample enough for an elaborate system of book-keeping, the account book department makes the keeping of accounts very simple and easy and will be a great improvement over the comparative absence of accounts on many farms. The tabular matter and other information which occupies most of the space in the book, is the finest collection that has ever been made of such matters as the farmer needs often to refer to. The book may well be called the intelligent or scientific farmer's hand-book. It is to the farmer what the engineer's

CURES CATARRH.

Dr. Hartman's Well-Tried Remedy--In Use Forty Years.

Catarrh can be cured. Catarrh is being cured—thousands of cases every month. Dr. Hartman's regular prescription, known as Pe-ru-na the world over, cures catarrh almost infallibly. Pe-ru-na is not a local application to give temporary relief, but an internal systemic remedy that cures permanently. Only a small number of the cures made are reported, as most people object to publicity. In spite of this, a multitude of letters are constantly received telling of cures. Here is a specimen:

C. R. Harden, Evansville, Wis., writes: "Pe-ru-na cured my wife of chronic catarrh, with which she had been troubled more than twenty-five years. Her breathing was so bad that she could not sleep on her back at all, but now she is able to do so with perfect ease. I was also troubled with catarrh for fifteen years, of which Pe-ru-na has entirely cured me. Some time ago my youngest son had the grip, and the disease seemed to settle in his lungs, producing hemorrhages from the lungs. We tried Pe-ru-na and his hemorrhages stopped, and he soon got up and is well and is hard at work."

This is what Pe-ru-na is doing in all parts of the United States continually. Free books and free correspondence strictly confidential. Ask your druggist for a Pe-ru-na almanac. Published by the Pe-ru-na Drug Manufacturing Co., Columbus, O.

hand-book is to him, a store of easily-found information which cannot be remembered but needs often to be used. The following summary of the contents of the book gives a faint idea of the scope of the work:

Calendar for 1896; Eclipses, 1896; Morning and Evening Stars; Movable Feasts, etc.; Interest Tables; Tables of Wages by the Week and the Day; Domestic and Foreign Postage; Gestation Calendar; Duration and Frequency of Heat in Farm Animals; Diary for 1896; Blank Pages for Memoranda, Bills Receivable, Cash Account for Every Month, Addresses, etc.

1. Feeding Stuffs, Embracing Composition of American Feeding Stuffs, With Tables, etc.

2. Farm Animals, Embracing Characteristics of Breeds of Live Stock, etc.

3. Crops, Embracing Table Showing Quantity of Seed Required to the Acre and Kindred Information.

4. Manures and Fertilizers.

5. Dairying, Yield of Milk and Fat From Dairy Cows, etc.

6. General Topics.

7. General Tables—Weights and Measures, Customary System; Weights and Measures, Metric System; Conversion of Customary System of Weights and Measures to Metric, and vice versa; Table for Converting Kilograms Into Pounds, and vice versa; Table for Converting Inches to Decimals of Foot; Table for Converting Ounces to Decimals of Pound; Tables for Converting Pounds of Milk Into Quarts, and vice versa; Comparison of Fahrenheit, Centigrade and Reaumur Thermometer Scales; To Measure Corn in the Crib; Government Land Measure; Legal Weights of Grain, Seeds, etc., in Different States; Specific Gravity of Various Substances; Value of Foreign Coins.

8. Agricultural Statistics.

9. Directory.

The publishers' price of the book is \$1, for which price the KANSAS FARMER CO. will furnish it, postpaid, to any address.

Corn Stalk Disease.

EDITOR KANSAS FARMER:—I am very anxious to find an outbreak of "corn stalk disease" to investigate for the Experiment Station. If any of your readers can notify me of an outbreak in time, I shall be greatly obliged.

N. S. MAYO,
Veterinarian Kansas Experiment Station, Manhattan, Kas.

Publishers' Paragraphs.

THE WHITE BANQUET.—Recently, at Chicago, at the celebrated Auditorium hotel, a good-will feast and banquet was given to the agricultural publishers and advertisers by the Frank B. White Company, an up-to-date advertising agency of Chicago and an enterprising firm which makes a specialty of handling agricultural advertising. This banquet hall of oriental splendor never before witnessed such a notable gathering of agricultural publishers and their leading advertisers as on this occasion of good fellowship. It was a royal spread, devoid of wine and "spike-tail" coats, consequently the FARMER man felt quite at home and voiced the unanimous sentiment of all present when he declared the White Company the brightest and whitest concern in Chicago.

Horticulture.

The Management of Grapes.

EDITOR KANSAS FARMER:—Grapes succeed so well in the warm, dry climate of central Kansas, where we have few insects and almost no disease to combat, that it is a pity every family has not a supply of this delicious and healthful fruit. Yet, on many farms are vines that produce nothing, for lack of the little attention necessary.

Grapes will not thrive in grass and weeds. They should be cultivated often during the growing season. Scalping off the weeds an inch deep with a hoe will not do. The ground must be stirred three or four inches—not much deeper, or roots will be injured. Cease cultivation by the middle of August, that the new wood may ripen before winter; but have the ground in good condition at that time. If the ground be kept loose enough during fruit time, the berries will not shrivel or drop, though drought be severe.

If you cannot spend time to cultivate, mulch, as you would potatoes; but, once begun, it must always be kept up, as it induces roots to put out near the surface, where they are easily harmed by cold or drought, unless protected by a good mulch. Cultivation is far better, except on hard gumbo soils, where mulching seems more successful.

Do not make the ground too rich; but if vines do not make shoots of six or eight feet in a season, apply some well-rotted manure. Wood ashes and soap-suds are excellent.

But one or two stems should be allowed to come from the ground. Others should be cut or pulled off, as they appear. If a dozen or twenty are allowed, as is often seen, they cannot get out to any length.

Keep the vines off the ground with stakes, or a wire trellis. The trellis is cheapest and best. Two wires are enough. Train an upright stem to the top of the wires, and a branch each way along each wire. In tying, allow room for the canes to swell and grow, or a weak place may be made which may break.

Prune any time after the leaves drop in the fall, before the sap starts in the spring. February is the best month. Pruning may also be done in spring, after the leaves are half grown.

The pruner must first learn to know "new wood" from "old wood"—that is, wood that grew the summer before, from wood that grew previously. It is easily distinguished after a little practice. Now any system of pruning which cuts out two-thirds to three-fourths of the new wood each year will answer. The simplest and best rule, perhaps, is to cut each new shoot back to within two or three buds of the old wood. Weak shoots may be cut out entirely, and strong shoots left a little longer; but do not leave too much wood. You will get just as much fruit and of far finer quality. Do not, in summer, pull off the leaves "to let sun and air to the fruit." It is ruinous.

Keep trees and vines apart. Cottonwood, walnut, Osage and box elder, four rods away, will injure your vineyard. A belt of peach trees, a rod or two distant, along the south, and another along the north, will help the vines very much. The peach is tall enough, and set in several rows, eight or ten feet apart, is thick enough to break the wind sufficiently. Its roots do not rob the ground; and seedlings will often give excellent fruit, if kept cultivated and the fruit thinned, while small, when too heavily set.

Fifty Concord and ten each of Early Victor, Lindley, Niagara, Elvira and Catawba, for succession and variety of flavor, are needed for a good supply for an ordinary family.

Salina, Kas.

F. E. HALE.

Thayer's Berry Bulletin for December.

Any intelligent farmer can grow ripe, luscious strawberries, ready for picking, at 2 cents per quart. With good cultivation, at least 100 bushels per acre should be grown. Two hundred bushels per acre is not an unusual yield, and 300 is often produced. Fruit

that can be grown so cheaply and will yield so much should be considered a necessity in every family. No one can so well afford to have berries every day in the season as the farmer. No one can have them so fresh from the vines, so ripe, so delicious, and at so little cost as the farmer, and yet as a class, none have so few.

The cost of placing berries on the market depends somewhat on location and the manner in which it is done. For good berries, carefully picked, in clean, new boxes, well packed and honestly measured, it may be estimated by the quart as follows: Cost of growing ready for picking, 2 cents; picking, 1½; boxes, 1; cases, packing and delivery, 1; freight or express charges, 1½; commission for selling, 1; actual cost on market, 8 cents per quart. The commercial grower must receive his profit after all these expenses are paid. The farmer may have his berries at first cost. He saves expense of picking and provides a pleasure for wife and children. He saves boxes, cases, packing, freight, express and commission.

Every farmer in the country and every owner of a house in the village should grow big berries and lots of them for family use. He may thus have them fresh from the vines in summer, and canned, dried or preserved for winter.

There is no better food than ripe fruit. There is none more healthful, and at 2 or 3 cents per quart there is none cheaper. A berry garden for next season should be decided upon at once. The best preparation for it is the reading of good books and papers. Subscribe for them now and thus provide the greatest pleasure for long winter evenings.

Potatoes Again.

EDITOR KANSAS FARMER:—In response to the inquiry of N. O. Waymire, in FARMER of November 13, I will say that we first grew the Early Kansas potato, ten years ago, in Shawnee county. Liked them so well that we brought some with us to this county, in the spring of 1886, and planted them for two or three years; but we tried to grow too many varieties at the same time, with the result that they became badly mixed and were discarded for new stock. But not until last spring, when we noticed the advertisement of Clarence J. Norton, Morantown, Kas., did we have an opportunity of securing a fresh start of the Kansas potato, pure. Bought of Mr. Norton a bushel of seed, which was planted April 13, on ground that in years past has been well manured and clovered.

In planting, we used a Clark riding plow, set to cut a fourteen-inch furrow, running it about ten inches deep; plowing the patch all one way and driving back "empty." The Clark plow is made to use with or without a tongue, so I took tongue off and attached in its place a lever about three feet long, which extended back within easy reach of the driver as he sat upon the seat. By placing the hand upon this lever, one can turn the front wheel, and thus guide the plow to perfection, whether plowing or not. After plowing two furrows, we—in going back—let the middle horse take the furrow, and with the plow-guide kept the land wheel about on the center of the face of the overturned furrow, thus making a straight, narrow depression or track in which the seed—cut to two eyes—was dropped a foot apart and covered by the next furrow. After plowing three furrows, the marking and dropping were repeated, and so on. The patch was cultivated seven times, mostly with the "Daisy" spring-tooth, but were "laid by" with the four-shovel cultivator, which ridged the ground slightly. The vines made a great growth, meeting between the rows, and were green and rank when the Six Weeks, planted at same time, were "dead as a door nail," and—but I have strayed far from Mr. Waymire's questions. We had it very dry in this locality; crops are short. The yield on the patch referred to was at the rate of sixty bushels per acre, but the tubers are of good size, and in eating qualities excellent—No. 1. Under favorable conditions they yield well.

Some of your readers may remember

the old "Buckeye" potato, which was so popular East some years ago. Well, the Early Kansas resembles it in nearly every point. It is a good keeper, and I consider it and the Early Six Weeks a valuable pair for Kansas growers.

As I paid cash for the fine seed Mr. Norton sent me, I feel at perfect liberty to thus "pitch into" his favorite.

GEO. T. PETTIT.

Oneida, Nemaha Co., Kas.

Setting Strawberry Plants in the Fall.

EDITOR KANSAS FARMER:—Will you please tell me if I can set strawberry plants this fall, and by mulching them have them do all right? I got my plants from nurseries. They are green at the bulb but there are sometimes five or six plants hung together by runners, and the roots all look dry and black, except once in awhile one in the middle of a bunch the roots are yellow and fresh. Are they all right?

About seventy-five of my grapes are dead on the top; can break them like pipe-stems. The roots are alive, but the tops had not ought to be dead, had they? They are the Herbert and Worden. Are they a tender grape? Concord all right.

Chandler, Okla.

C. K. WHITNEY.

Replying to the above, I must say that the case looks rather badly. If the roots of strawberry plants are not fresh and bright there is little use in setting them. As to late fall setting, we have succeeded in our grounds very well as late as the middle of October, by following up with abundant watering, and the season in Oklahoma would admit of two or three weeks later planting, but I should have little faith in the success of plants not set in time to make some growth and take a firm foothold on the soil before winter sets in. Mulching of late-set plants, I should consider absolutely necessary to protect them from too much alternation of freezing and thawing.

S. C. MASON.

Kansas Agricultural College, Manhattan, November 16, 1895.

FREE

64-page Medical Reference Book for men and women who are afflicted with any form of private disease peculiar to their sex, contagious diseases, female troubles, etc. Send two 2 cent stamps to pay postage to the leading Specialists and Physicians in this country.

DR. HATHAWAY & CO.,
70 Dearborn St., Chicago, Ill.

Invited to send for my latest price list of small fruits. Half million strawberry plants 300,000 Progress, Kansas and Queen of West raspberry plants. B. F. Smith, Box 6, Lawrence, Kas. Mention this paper.

A. H. GRIESEA, Prop'r Kansas Home Nurseries, Lawrence, Kas., grows trees for commercial and family orchards—the Kansas Raspberry, Blackberries, standard and new Strawberries—also shade and evergreen trees adapted to the West.

ESTABLISHED IN 1873.

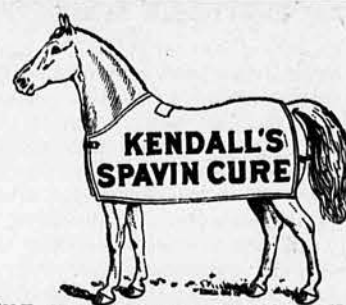
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Offers for fall of 1895 large stock, best assortment. Prices low. Stock and packing the best. We should be glad to employ a few reliable salesmen. Address: A. WILLIS, Ottawa, Kansas. [When writing mention KANSAS FARMER.]

EARLY KANSAS SEED POTATOES

345 bu. per acre. An enormous yield, a great keeper and a splendid table potato. Supply limited.

CLARENCE J. NORTON, Morantown, Kas.



THE MOST SUCCESSFUL REMEDY FOR MAN OR BEAST. Certain in its effects and never bilsters. Read proofs below.

KENDALL'S SPAVIN CURE

BLUEPOINT, L. I., N. Y., Jan. 15, 1894. Dr. B. J. KENDALL Co.—I bought a splendid bay horse some time ago with a Spavin. I got him for \$30. I used Kendall's Spavin Cure. The Spavin is gone now and I have been offered \$150 for the same horse. I only had him nine weeks, so I got \$120 for using \$2 worth of Kendall's Spavin Cure. W. S. MARSDEN.

KENDALL'S SPAVIN CURE

SHELBY, Mich., Dec. 16, 1893. Dr. B. J. KENDALL Co.—I have used your Kendall's Spavin Cure with good success for Curb on two horses and it is the best liniment I have ever used. AUGUST FREDRICK.

Price \$1 per Bottle. For sale by all Druggists, or address DR. B. J. KENDALL COMPANY, ENOSBURGH FALLS, VT.

My son was afflicted with catarrh. I induced him to try Ely's Cream Balm and the disagreeable catarrhal smell all left him. He appears as well as any one.—J. C. Olmstead, Arcola, Ill.

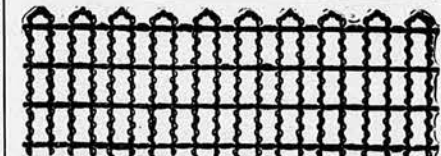


CATARRH

ELY'S CREAM BALM opens and cleanses the Nasal Passages, Allays Pain and Inflammation. Heals the Sores, Protects the Membrane from colds, Restores the Senses of Taste and Smell. The Balm is quickly absorbed and gives relief at once.

A particle is applied into each nostril and is agreeable. Price 50 cents at Druggists or by mail. ELY BROTHERS, 55 Warren Street, New York.

\$3 A DAY SURE. Send us your address and we will show you how to make \$3 a day; absolutely sure; we furnish the work and teach you free; you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work; absolutely sure; write at once. ROYAL MANUFACTURING CO., BOX A B, DETROIT, MICH.



STEEL WEB Picket Lawn-Fence

Steel Posts, Steel Rails and Steel Gates; Steel Tree, Flower and Tomato Guards; Cabled Field and Hog Fence, 24 to 36 in. high; Poultry, Garden and Rabbit Fence; Steel Wire Fence Board, etc. Catalogue free. DEKALB FENCE CO., 23 High St., DeKalb, Ill.

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The Dr. Harvey Human Hand Truss.

JUST LIKE USING YOUR FINGERS—YOU KNOW HOW THAT IS!

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RHEUMATISM

Is often caused by a bad Liver. How is your Liver? Are your Kidneys all right? Does your sleep rest you? Does your back ache? Are you weak and thin? Are you dull and bilious? Marvelous success has attended the use of

Dr. J. H. McLean's Liver & Kidney Balm.

All who use it say it is the "PEERLESS REMEDY" for curing ailments of the Liver, Kidneys and Bladder, Female troubles, Rheumatism and Bright's Disease. For sale everywhere at \$1.00 per bottle.

THE DR. J. H. MCLEAN MEDICINE CO., ST. LOUIS, MO.



In the Dairy.

Conducted by A. E. JONES, of Oakland Dairy Farm. Address all communications Topeka, Kas.

A Pound of Butter.

EDITOR KANSAS FARMER:—Hard times? Yes. Farmers generally complaining of low prices of farm products; not without cause, either. Yet there is always a short supply of one farm product, at good paying prices compared with other farm products and the cost of manufacturing it, and today, when the prices of all others seem to have gone to pieces, the pound of butter pays its way and a handsome profit to the maker.

Let us see what a pound of butter will buy. It will buy more than one bushel of corn, more than one bushel of oats. It will buy three pounds of granulated sugar, three yards of calico or muslin; two pounds will buy a bushel of wheat or a bushel of potatoes. One pound will buy six pounds of beef or pork on foot, or it will buy three pounds of lard. Six pounds of butter will buy a good pair of shoes; twenty pounds will buy a good suit of clothes; one hundred pounds will pay for a good horse. It will pay taxes, pay doctor bills, and in the end pay our funeral expenses. If the above be true—and I believe it is—then there is a wonderful waste of opportunity on the majority of farms in this State.

On nearly every farm one finds cows—more or less in number—that do nothing in the summer time but play wet nurse for a calf that at weaning time brings from \$5 to \$7. The balance of the year these cows loaf at the expense of their owner, for every mouthful of feed they eat during the winter months is virtually thrown away. Can you stand this, dear reader of the FARMER? Can even a farmer afford to keep a cow twelve months for what her calf will bring at weaning time? Is this business? Is it economy? Is it even using very ordinary sense, to say nothing of good judgment? Then is it not a fact that on thousands of farms just such conditions prevail?

This is not the cow's fault, but the fault of her owner. She is bred to drop her calf in the spring, raise it until weaning time, then close up shop until next spring. She could just as well be bred to be fresh in early fall as in the spring, and she will not object to her owner playing wet nurse for her calf during the winter months when he can't do much else, while she spends her time manufacturing three pounds of butter out of one bushel of corn or oats.

I have spent the winter months of a good many years acting as nurse to fall-dropped calves, while their mothers were coining golden pounds of butter, which is eagerly bought by people who can afford to and are willing to pay a good price for a pound of butter. Then, too, it is satisfaction to me to see these calves grow nice and always thrifty, nothing like the scrubby, pot-bellied yearling that has run with the cow.

Some people think they can't raise a calf in the winter time on skim-milk, but I can raise a calf dropped in the fall by hand that will double discount a spring calf when handled as they generally are after weaning time. I am not simply guessing at this, but know it to be a fact. Then at six months old the calf is worth more money, and the cow has a credit of 150 to 200 pounds of butter. This is business.

There is too much money wrapped up in the hides of cows that are a dead loss to farmers. Think again what a pound of butter will pay for now, then consider that cows can be so bred and managed that at the end of the year there will be a much better calf, as well as from 250 to 300 pounds of butter to her credit.

The old way of doing business on the farm will not do now. There must be intensity of thought and action on business principles, and the sooner farmers realize this fact the better for all concerned.

M. E. KING.
Elm City, Kas.

A stimulant is often needed to nourish and strengthen the roots and to keep the hair a natural color. Hall's Hair Renewer is the best tonic for the hair.

Dairy Notes.

Frosty nights call for a little meal in the manger and a lot of straw on the floor.

Butter is gradually advancing in price. The best butter rarely falls below the cost of production.

Corn and cob ground together will make a good butter ration if fed with clover hay. Expensive bran need not be purchased.

Feeding cows is like manuring land, both require just so much to show best results; if a little more feed or manure is given, the loss is less than if a little less is given.

Do you know which are your best cows? If you do they are the ones from which to get the calves to improve the herd. By constantly selecting the best the herd is bound to improve in value.

The corn fodder this year will not be first-class in most parts of the country; a little more meal will have to be used to get the usual results from feeding fodder. Try some linseed meal with the fodder and corn meal. Linseed meal is a healthful food; it keeps the cows' systems in order.

Have you a feed-cutter? When forage is scarce the cutter will enable you to economize in feed. A feed-cutter is useful even when forage is plentiful and cheap; cut feed will help to make a variety in feeding. If the meal be sprinkled on cut hay it will prevent the cows from eating the meal too rapidly.

They have had an epidemic of hog butter in Bellaire, O., where some seventy-five or more of the grocers have been convicted of selling it for the genuine article. The United States revenue officers caught the scoundrels and they have been mulcted in fines aggregating about \$4,000. What has hog butter Armour and his confreres got to say about such conduct? If the dear people want his commodity, why is it thought desirable to lie about it and palm it off as the genuine article?

Out in Oregon butter is carried in firkins weighing from sixty to 200 pounds over the roads in the Cascade mountains to the nearest railroad, a distance of fifty miles, and from thence is shipped to Portland. The farm dairymen receive 25 cents per pound for it the year round, and cannot supply the demand. The cows thrive on the valley clover all summer; feed costs practically nothing; springs, at 33°, keep the milk cool, and, though the few dairymen have no fine butter breeds of cows, they make money on butter. What could they not do with proper advantages and fine cows?

Overhaul the cow stable and put in complete order for the winter feeding. Enlarge the feed bin if necessary, so that it will hold a big pile of meal. By buying ground feed at ton rates a saving will be made. And by having feed on hands in ton lots the cows will be surer to be well fed. When feed is bought a small quantity at a time, the natural result is that it is expected to last just as long and very often the cows are scrimped so as to make the feed "hold out." We don't want the feed "held out" but "held in" good cows. The best way to regulate the consumption of feed is to feed the cows all they require to do full work, and before the feed bin is near empty, fill it up.

A Pennsylvania dairyman publishes the doings of his herd for 1894. He had twenty-seven Jersey cows in milk. These produced 9,990 pounds of butter as the year's yield, the average per cow being 370 pounds. The average price he received was 30 cents per pound, or \$111 for the yield of each cow. Against this he states that the average cost of keep of each cow was \$50, which shows a profit of \$61 per cow on her butter yield. To this he adds \$10 per cow for skim-milk and butter-milk that he sold, thereby bringing the profit returns of each cow up to \$71. This favorable showing is further augmented by the sale of twenty calves at \$25 each, or a total of \$500. This last item makes the earnings of each cow \$89.50 over expenses. This is an excellent showing in financial results. It

The Improved United States Cream Separator

Sustains its former records of wonderful efficiency in Creameries in all parts of the country.

FULL RATED CAPACITY.

CLEANEST OF SKIMMING.

WILL SKIM 2,400 POUNDS DOWN TO A TRACE.

We have now run one of your Improved No. 1 United States Separators about a year. It will skim 2,400 lbs. per hour as closely as 2,000, doing it to a trace.

It requires less attention to operate than any machine we have. It takes less oil, and is a very clean machine in regard to throwing it. You have this point down to a nicety. We like your skim-milk and cream delivery too, as there is no unnecessary device to hold them down and no leakage at that point. Wishing you success in your business, we are,

LAMBERT & SCULAR.

PICKETT, Wis., Nov. 4, 1895.



We have the best Separator for the factory. We have the best Separator for the dairy. Send for illustrated circular. We furnish everything for dairy and creamery. Agents wanted in every town and county where we have none.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

indicates that the right breed of cows had the services of the right breed of dairyman. This dairyman's method consists, during May, June, July and August, in feeding two quarts of bran as a ration twice a day, and good pasture. For the remainder of the year the ration consists of fifteen pounds bran, corn meal, cottonseed meal, and oil meal mixed together. In winter the cows are fed one and a half bushels of cut cornstalks, divided into three feeds, and are kept in warm stables. They are turned out for exercise on suitable days and their owner thinks they enjoy it and do better for the change. Here is the avenue by which the unsuccessful dairyman can reverse the loss his present methods imply. This man has no secret road to favorable results that are not open to every one. His success is due to good cows, good feed and good care, supplemented by a man who has brains enough to combine these things to bring about profitable results.—*Exchange.*

Farm Fun.

One of the Chicago waifs was spending "country week" with a dairy farmer. After watching the cows for some time as they peacefully chewed their cuds, he stepped up to the farmer with, "Say, mister, do you have to buy chewing gum for all those cows?"

A Simple Test.

An English method of testing butter to determine its purity is to smear a clean piece of white paper with the suspected article, roll it up and set it on fire. If the butter is good the paper will emit a decidedly pleasant odor, but if there is any animal fat in the product the smell will be unmistakably tallowy.

The Test Won.

September, a year ago, the Belle Springs Creamery Company, of Abilene, Kas., had on its pay-roll 640 patrons. Twenty-four per cent. of these had cows whose milk tested 4 per cent. butter fat and over. This year there are on its pay-roll 850 patrons, and 33 per cent. of this number received a test of 4 per cent. butter fat and over, showing that the test system has a tendency to bring in cows that produce a better quality of milk.

"Keep Your Eye on Kansas."

This was the advice given us recently by one of the scariest dealers in butter in this country, and an expert judge of the product. The dairy interest in that State is growing rapidly and they have a great advantage over the more northern States in having at least two months longer grass season. Dickinson county has shown what can be done, and all that is necessary is for other States to follow her example.—*Exchange.*

Creamery Business Profitable.

The Enterprise Creamery Company recently paid to the owners of cows in the county nearly \$10,000 for milk delivered at its five factories during the month of October. These creameries are located in the richest agricultural section of the county and farmers patronize them liberally. Milking is considered as paying well and milch cows can scarcely be had at any price.

The Belle Springs Creamery Company has just completed its pay roll for October and paid out \$11,500. They buy by the test system and paid patrons as follows: Sixteen patrons received under 80 cents per 100 pounds, forty-six from 80 to 85 cents, ninety-four from 85 to 90 cents, 253 from 90 cents to \$1, 242 from \$1 to \$1.15; thirty-five received \$1.15 and over. Payments were made at the rate of 23 cents per pound for butter fat.



FREE TO SUFFERING WOMEN.

I suffered for years with uterine troubles, painful periods, leucorrhoea, displacements, and other irregularities, and finally found a simple, safe home treatment, that cured me without the aid of medical attendance. This is no quack doctor's medicine; but nature's own remedy for women. It costs nothing to convince yourself of its merits, for I send it free with full instructions to every suffering woman. Address, MRS. L. HUDNUT, South Bend, Ind.

THEY'RE THE FASHION.

Iron Beds, varying styles, each a type of graceful strength \$4.35 up. Odd Dressers, in handsome woods or white enamel finish, harmonize happily, or contrive clever contrasts. Descriptive and illustrated catalogue will go to you, post haste, upon request. Montgomery Ward & Co., Chicago.

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Extension Rib
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Pistols, Sporting Goods, Fishing
Tackle, cheaper than elsewhere.
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SCIATICA

TO USE ST. JACOBS OIL.

DELAY, AND THOSE TWINGES MAY TWIST YOUR LEG OUT OF SHAPE.

A positive cure for headache, dyspepsia, nervous exhaustion, liver and kidney diseases, constipation, etc. It increases the appetite, promotes digestion, enriches the blood and gives new life and vigor to the whole body.

DR. KAY'S RENOVATOR.

Send address and name of this paper and we will send free Dr. Kay's Hand-book of Valuable Receipts and a Treatise on Diseases, said to be worth \$5.

DR. B. J. KAY MEDICAL CO., Western Office,

620 South Sixteenth St., OMAHA, NEB.

Dr. Kay's Renovator is sold in Topeka by the Swift & Holliday Drug Co.

The Apiary.

CRIMSON CLOVER.

Season of Honey Harvest May Be Lengthened by Its Introduction.

Much attention is being directed to this clover by agricultural papers. It has proven to be a great success east of the Mississippi, both as a forage plant and a honey source. Many claim its merits excel those of any other hay crop. If we can number this among our honey plants we may be enabled to lengthen out our season of honey harvest. Should this plant prove to be adapted to our soil and climate as it is to that of some parts of the east, we have noticed, it will receive as hearty a welcome as alfalfa, we feel sure.

Alsike, medium red clover and all the clover commonly used in farming are usually sown with grain in the spring. This whole matter is so well known that we need not take space for it here. Crimson clover is something new; and it has been proven in many localities that it may be sown say at about the time corn is cultivated for the last time, in the corn, and will then take root and come up and get sufficiently established to withstand the winter, blossoming some time in May, a little before white clover or any other clover comes out.—Farmer's Voice.

NOTES FOR BEEKEEPERS.

SEE that every colony has a laying queen.

RAISE a few good queens to take the place of the poorer ones.

ALL empty combs that are away from the bees should be looked after.

MAKE a general clean-up. Arrange everything in its place while there is time.

DISTURB the bees as little as possible now. Handling them now tends to make them consume their stores.

FEEDING in autumn is done for the purpose in part of stimulating brood-rearing and also for the purpose of supplying such colonies as lack food for winter.

A HIVE of bees, in order to be ready to occupy surplus boxes, must be full of bees—so full that they are crowded for space, so that when the boxes are put on they will crowd into them.

A CELLAR intended for bees should not be used for any other purpose, and it will be much better if it is away from a building that is occupied by a family, in order to lessen disturbance of the bees.—St. Louis Republic.

The Importance of Bee Keeping.

Few people in America realize the importance of the bee-keeping industry. It is estimated that Europe produces about \$18,000,000 worth of wax and honey, and that a similar sum results from the benefits conferred by the fertilizing habits of the bees. So highly is this industry esteemed abroad that Germany has 1,900,000 hives; Spain, 1,690,000; Austria, 1,550,000; France, 950,000; Holland, 240,000; Russia, 110,000; Denmark, 90,000; Belgium, 200,000; Greece, 30,000. These countries practically consume their own honey crop. There is no reason why our consumption should not be proportionately great. The chief obstacle is the general ignorance of the value of honey as food and the use of it only as an occasional treat instead of an article of daily food.

The Loss of a Queen.

Every beekeeper should understand how to detect the loss of the queen. The following morning after a loss of this kind has occurred, and occasionally in the evening, the bees may be seen running to and fro in wild consternation. Towards the middle of the day the confusion will be less marked, but the next morning will be again enacted, and, after the third or fourth day, will cease entirely, and apparently they become reconciled to their labors, although they do not manifest the energy or agility seen in a prosperous colony.—Farmer's Voice.

Old Mexico.

Modern Mexico is a beautifully illustrated monthly journal, published in the English language, and devoted to the interests of Mexico. Send 10 cents for sample copy. Address Modern Mexico Publishing Co., Topeka, Kas. Mention KANSAS FARMER.

WHY?

WHY are so many persons blind to their own interests? A little thought will often save great trouble.

WHY will women do so many imprudent things and then suffer when there is no need of it?

WHY will men become careless and overdo when by care they can avoid it all?

WHY will people permit headaches, lassitude, debility, strange and broken health when all can easily be escaped?

WHY, in fact, will men and women suffer when they can become healthy and prolong their lives by the use of Warner's Safe Cure?

WHY will people foolishly experiment with inferior things when this best known and only reliable remedy is so easily within their reach?

WHY, when you know these things, reader, do you delay? There is no time like the present.

DYEING THE BURGLARS.

Queer Punishment Inflicted on a Couple of Midnight Marauders.

A good story is told by a German paper of the way in which a dyer treated two burglars whom he caught in his establishment, as they were in the act of making off with some valuable dyes. Mr. S—, the owner of the color works, is often engaged in experiments late into the evening, and occasionally spends the night in the chemical laboratory, which opens into the room where the great dye vats are.

The thieves made their visit, as it chanced, on one of the nights when Mr. S— was sleeping at the laboratory. He is naturally a light sleeper, and a little past midnight he was aroused by the sound of voices in the vat-room. He saw the flash of a light, and suspecting thieves arose quietly from his sofa, took his revolver, and, concealed in the darkness, watched the movements of the two men. He saw that each bore a package of new and valuable dyes.

Thinking that matters had progressed far enough, he stepped forward, cocked his revolver, and said, quietly: "I have a use for those dyes. You'd better leave them alone."

The thieves, taken completely by surprise, dropped their plunder and started to run, leaping from the side of one vat to the next. In the darkness one of them miscalculated the distance, and fell headlong into an indigo vat; and his companion, hearing the splash, glanced back to see what had occurred, lost his balance, and toppled into the same vat.

"That's all right," said Mr. S—, half-jocosely, as he stepped to the edge of the vat and covered the thieves with his revolver. "I won't grudge you enough of that indigo to dye your clothes and your skin. You needn't hurry about getting out. We must give the dye a chance to take effect."

For 15 minutes or more he kept the two men in the vat, where they several times plunged beneath the surface of the liquid, and came up spluttering and choking, and finally begged for mercy.

"Well," remarked Mr. S—, good-naturedly, "I think you probably are as blue outside as you feel inside, so I won't detain you longer. And now," changing his tone to one of stern command, "if you don't want the police on your tracks, you'll make yourselves scarce in this town. Out now, and be off!"

Without a word the two men climbed out of the vat and hastened away.

A few days later a friend from an adjoining town called on Mr. S—, and mentioned incidentally that two men came to him and offered him five dollars to tell him what would remove indigo stains from the skin. "They were the bluest-looking fellows you ever saw," he added. "They said they got to fooling in the dye-house, and fell into the vat."

Ask your neighbor to subscribe for the KANSAS FARMER.

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This great sheet music offer is without the least doubt the greatest value for the least money ever offered by any newspaper.

4 PIECES

It is printed on regular sheet music paper, from new plates made from large, clear type, and is in every way first-class, and worthy a place in your home.

PIANO OR ORGAN.

No.	Usual Price.
1. Catharine Waltzes.....D. W. Roth.	40
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3. Silvery Waves. Variations.....A. P. Wyman.	50
4. Visions of Light Waltzes.....S. G. Cook	35
5. Our Little Agnes Waltzes.....G. W. Gregoire.	35
6. American Liberty March.....S. G. Cook	35
7. General Smith's March.....J. T. Martin.	40
8. The Old Oaken Bucket. Variations.....O. W. Durkee.	40
9. Impassioned Dream Waltzes.....J. Rosas.	50
10. Boston Commandery March.....T. H. Carter	35
11. Frolic of the Frigs Waltzes.....J. J. Watson.	35
12. In Hoc Igno Vincas. Knights Templar March. H. M. Dow.	40
13. Over the Waves Waltzes.....J. Rosas.	45
14. Village Parade Quickstep.....T. F. Allen.	40

VOICE AND PIANO OR ORGAN.

No.	Usual Price.
1. Annie's Love. Duet.....Jos. Winters.	30
2. Esther's Lullaby. Slumber Song.....G. Mosher.	35
3. The King of Home and Mother.....A. M. Cohen.	30
4. Frolic Waltz Song.....A. M. Cohen.	35
5. The Sweetest Song.....L. Denza.	35
6. The Bride. Words by Longfellow.....Curry.	45
7. An Outcast. Character Song.....J. J. Fritz.	35
8. Ben Bol, of "Tri by" fame.....N. Kneass.	30
9. 'E Dunno Where 'E Are. Comic.....F. Epitt.	35
10. Keep the Horse hoe Over the Door.....J. P. Skilly.	25
11. Ro led in the Cradle of the Deep.....J. P. Knight.	30
12. Lullaby. Do You Think of Me Now?.....H. M. Estabrooke.	35
13. Ave Maria. From Cavalleria Rusticana.....P. Mascagni.	35

Special Offer: Any subscriber, old or new, sending a dollar to this office for KANSAS FARMER one year, may have any four of the above named pieces of music. State your choice by numbers. Address

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We will send any of the following books, postage paid, on receipt of price, or we will present any one free to any one sending us one new subscriber and \$1:

The ABC of Potato Culture. Paper, 220 pages 4x6. Illustrated. This is T. B. Terry's first and most masterly work. The book has had a large sale, and has been reprinted in foreign languages. The second edition, reset and almost entirely rewritten, is just issued. When we are thoroughly conversant with the Terry's system of raising potatoes, we shall be ready to handle almost any farm crop successfully. Price 40 cents, postpaid.

The ABC of Strawberry Culture. Paper, 150 pages, fully illustrated. This is Terry's latest small book, and has received some very high words of praise. Who among rural people does not have a little garden patch? If you would learn to raise in it that most luscious of all fruit, the strawberry, with the best results, you cannot be without this little book. Even if you don't grow strawberries you will be better for reading it. Price 40 cents.

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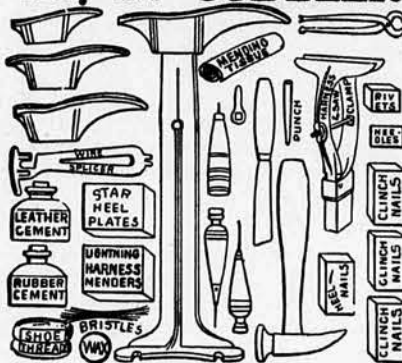
Winter Care of Horses and Cattle. This is Terry's second book in regard to farm matters; but it is so intimately connected with his potato book that it reads almost like a sequel to it. If you have only a horse or a cow, we think it will pay you to invest in the book. It has 44 pages, 7x9, illustrated. Price 40 cents, postpaid.

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1 Horse hammer..... 25	1 Harnessawl..... 10
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1 Poking awl..... 70	ness mende s..... 20
1 Pair of shoe nails..... 40	1 Box rubber cement..... 25
6 Pair heel plates..... 30	1 Box leather cement..... 25
1 Ball shoe thread..... 05	1 Ball shoe wax..... 05
1 Dozen bristles..... 05	4 Harness and l's, astd..... 05
1 Harness and saw clamp..... 75	1 Leather punch..... 20
1 Box rivets..... 20	1 Wire splitter..... 25
1 Pair pliers..... 25	1 Pig mend'g tissue..... 25
4 Iron standard..... 50	

36 Articles, Retail Value, \$6.50. We furnish the KANSAS FARMER for one year and the above outfit, express prepaid to any express office in Kansas, for \$3.30. Address KANSAS FARMER CO., Topeka, Kas.

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. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one dollar. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, DR. S. C. ORR, Manhattan, Kas.

LUMP ON JAW.—My Hereford bull had a lump come on his jaw last winter. It has become raw and offensive. What can I do for it? D. S. G. Bigelow, Kas.

Answer.—See advice to J. W., in issue of November 20.

PIGS WHEEZING.—Some of my pigs have commenced wheezing, and it seems very hard for them to breathe. They will neither eat nor drink. Some get over it and some die. Adrian, Kas.

Answer.—You do not give symptoms enough to enable any one to say what ails your pigs. Change them to clean quarters or turn them out for a few weeks.

NASAL DISCHARGE.—I have a horse, 10 years old, that has had something like catarrh for the last four years. He has a rattling in his nostrils when he breathes and he coughs some. What ails him? W. B. A. Homewood, Kas.

Answer.—Any chronic discharge from the nose is too liable to be of a serious nature to admit of an opinion without an examination. Call the State authorities and have it investigated.

SORE EYES—BLINDNESS.—(1) My horse has a bad eye at certain times of the moon or when there is a storm. His eye turns white and gets sore. (2) Many cows went blind here during the summer. Some recovered their sight and some are still blind. What is the trouble? J. B. Belleville, Kas.

Answer.—(1) The moon has nothing to do with your horse's eyes. He has specific ophthalmia and will eventually go blind. When his eyes are sore, bathe them twice a day with hot water. (2) Your cattle had a disease of the eyes which has prevailed in some localities for several years past. It is an inflammatory condition of the eyes and is contagious. Those animals that have gone blind will be likely to remain so. When the disease was in the acute stage, bathing with cold water might have relieved the eyes, but no treatment will save them now.

How's This!

We offer One Hundred Dollars Reward for any case of Catarrh that cannot be cured by Hall's Catarrh Cure.

F. J. CHENEY & CO., Props., Toledo, O. We, the undersigned, have known F. J. Cheney for the last fifteen years, and believe him perfectly honorable in all business transactions and financially able to carry out all obligations made by their firm.

WEST & TRUAX, Wholesale Druggists, Toledo, O. WALKING, KINNAN & MARVIN, Wholesale Druggists, Toledo, O.

Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price, 75 cents per bottle. Sold by all Druggists. Testimonials free.

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the Land of Big Red Apples, is an attractive and interesting book, handsomely illustrated with views of south Missouri scenery, including the famous Olden fruit farm of 3,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks, and will prove of great value, not only to fruit-growers, but to every farmer and home-seeker looking for a farm and a home. Mailed free. Address, J. E. LOCKWOOD, Kansas City, Mo.

Notice to Farmers.

The farmers of Kansas, by sending their application, plainly written, name and post-office address, to G. V. Bartlett, Commissioner of Forestry, Dodge City, Kas., will receive by return mail a blank to be filled out by the applicant for a share of seedling forest trees, which will be shipped free of charge, except for freight, which must be guaranteed by the applicant. Delivery will be made in the spring of 1896.

G. V. BARTLETT, Commissioner of Forestry, Dodge City, Ford Co., Kas.

KANSAS FARMER and Semi-Weekly World (N. Y.), you can have for \$1.65 one year.

MARKET REPORTS.

Kansas City Live Stock.

KANSAS CITY, Nov. 25.—Cattle—Receipts since Saturday, 6,234; calves, 190; shipped Saturday, 979 cattle, no calves. The market was slow, but generally steady. The following are representative sales:

No.	Ave. Price.	No.	Ave. Price.
100.....	1,287 \$4.15	20.....	1,312 \$4.03
87.....	1,492 4.00	40.....	1,433 3.93
19.....	1,423 3.93	40.....	1,383 3.90
30.....	1,548 3.90	40.....	1,333 3.85
60.....	1,179 3.70	25.....	1,211 3.65
6.....	1,083 3.55	45.....	1,384 3.55
4.....	1,192 3.55	24.....	1,136 3.50
25.....	1,073 3.45	1.....	1,090 3.10

TEXAS AND INDIAN STEERS.

07.....	1,013 \$3.23 1/2		
20.....	1,169 \$3.35	12.....	1,221 \$2.70

NEW MEXICO STEERS.

15.....	810 \$2.20		
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COLORADO COWS.

80 can.....	810 \$2.15		
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WESTERN STEERS.

03.....	1,186 \$3.40	21.....	1,176 \$3.40
26.....	940 2.55		

TEXAS AND INDIAN COWS.

26.....	850 \$2.50		
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COWS AND HEIFERS.

1.....	1,000 \$3.50	1.....	1,110 \$3.25
26.....	791 3.15	50.....	982 3.15
52.....	1,020 3.10	1.....	710 3.10
5.....	866 2.80	1.....	1,270 2.75
4.....	410 2.75	1.....	570 2.60
2.....	725 2.50	1.....	1,000 2.40
1.....	1,160 2.40	35.....	982 2.35
1.....	980 2.00	1.....	581 2.00
1.....	1,040 2.00	1.....	800 1.90
1.....	670 1.65	1.....	581 1.55

STOCKERS AND FEEDERS.

21.....	1,208 \$3.47 1/2	21.....	1,081 \$3.47 1/2
18.....	1,061 3.40	45.....	973 3.35
1.....	980 2.75	1.....	940 2.50
1.....	880 2.50	1.....	940 2.50

Hogs—Receipts since Saturday, 5,066; shipped Saturday, 223. The market was active and strong to 5c higher. The following are representative sales:

60.....	338 \$3.57 1/2	87.....	306 \$3.57 1/2	68.....	310 \$3.55
74.....	291 3.55	74.....	280 3.55	66.....	317 3.55
88.....	232 3.55	68.....	272 3.52 1/2	70.....	278 3.52 1/2
70.....	241 3.52 1/2	73.....	236 3.52 1/2	85.....	245 3.52 1/2
70.....	265 3.52 1/2	39.....	258 3.50	80.....	220 3.50
75.....	217 3.50	59.....	233 3.50	51.....	274 3.50
59.....	236 3.50	40.....	205 3.50	98.....	202 3.50
33.....	243 3.50	77.....	245 3.50	70.....	261 3.50
70.....	250 3.50	82.....	271 3.50	88.....	210 3.50
65.....	242 3.50	74.....	209 3.50	72.....	237 3.50
84.....	226 3.47 1/2	51.....	226 3.47 1/2	59.....	211 3.47 1/2
75.....	227 3.47 1/2	53.....	223 3.45	43.....	266 3.45
40.....	190 3.45	71.....	237 3.45	32.....	264 3.45
88.....	226 3.42 1/2	29.....	213 3.40	45.....	200 3.40
11.....	143 3.40	7.....	157 3.37 1/2	58.....	185 3.37 1/2
34.....	107 3.35	91.....	147 3.35	15.....	140 3.35
8.....	150 3.30	7.....	82 3.30	50.....	123 3.30
1.....	300 3.25	32.....	111 3.25	8.....	112 3.15

Sheep—Receipts since Saturday, 581; shipped Saturday, none. The market was steady. The following are representative sales:

200 N M 1.....	59 \$3.35	121 Col 1.....	60 \$3.15
200 sheep.....	83 2.85	1006 Ariz.....	86 2.31

Horses—Receipts since Saturday, 186; shipped Saturday, 89. There was very little trading going on at the horse and mule market to-day. A fair supply was on sale. There was some inquiry for the best draft horses. A good demand for southern horses to-morrow is expected.

Chicago Live Stock.

CHICAGO, Nov. 25.—Cattle—Receipts, 18,000; market steady closing weaker; fair to best beefs, \$3.20@4.55; stockers and feeders, \$2.35@3.75; mixed cows and bulls, \$1.35@2.50; Texas, \$3.00@3.50; western, \$2.90@3.75.

Hogs—Receipts, 48,000; market steady to a shade higher; light, \$3.40@3.65; rough packing, \$3.40@3.50; mixed and butchers, \$3.45@3.67 1/2; heavy packing and shipping, \$3.55@3.70; pigs, \$2.25@3.60.

Sheep—Receipts, 14,000; market strong; native, \$1.75@3.40; western, \$2.00@3.10; Texas, \$1.75@2.70; lambs, \$3.00@4.30.

St. Louis Live Stock.

ST. LOUIS, Nov. 25.—Cattle—Receipts, 2,207; market active and a shade higher; native steers, \$3.40@4.05; Texas steers, \$3.25@4.00.

Hogs—Easy market, 5c higher; heavy, \$3.25@3.60; mixed, \$3.00@3.55; light, \$3.25@3.35.

Sheep—Receipts, 6,000; market steady.

Chicago Grain and Provisions.

	Nov. 25.	Opened	High'st	Low'st	Closing
Wht.—Nov.....	56 1/2	56 1/2	56 1/2	56 1/2	56 1/2
Dec.....	56 1/4	57	56 1/4	56 1/4	56 1/4
May.....	60 1/4	61 1/4	60 1/4	60 1/4	61 1/4
Corn—Nov.....	27 1/2	27 1/2	27	27 1/2	27 1/2
Dec.....	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2
May.....	29 1/2	29 1/2	29 1/2	29 1/2	29 1/2
Oats—Nov.....	17 1/2	17 1/2	17 1/2	17 1/2	17 1/2
Dec.....	17 1/2	18	17 1/2	18	18
May.....	20 1/2	20 1/2	20 1/2	20 1/2	20 1/2
Pork—Dec.....	7 7/8	8 0 1/2	7 7/8	8 0 1/2	8 0 1/2
Jan.....	8 90	9 05	8 87 1/2	9 00	9 00
May.....	9 27 1/2	9 40	9 25	9 37 1/2	9 37 1/2
Lard—Nov.....	5 40	5 40	5 40	5 40	5 40
Jan.....	5 50	5 55	5 50	5 52 1/2	5 52 1/2
May.....	5 75	5 77 1/2	5 75	5 77 1/2	5 77 1/2
Ribs—Nov.....	4 35	4 35	4 35	4 35	4 35
Jan.....	4 47 1/2	4 45	4 37 1/2	4 52 1/2	4 52 1/2
May.....	4 72 1/2	4 80	4 72 1/2	4 77 1/2	4 77 1/2

Kansas City Grain.

KANSAS CITY, Nov. 25.—Wheat was very hard to sell here to-day, and the low grades seemed to be lower than Saturday, though that may have been because the average quality was lower. There was not much demand for good samples, except for soft wheat.

Receipts of wheat to-day, 92 cars; a year ago, 46 cars.

Sale of car lot by sample on track, Kansas City: No. 2 hard, 2 cars 57 1/4, 1 car 57c; No. 3, 1 car choice 55c, 1 car 53c, 2 cars 52c, 3 cars 51c, 4 cars 50c, 3 cars 49c, 3 cars 48c (late Saturday); No. 4 hard, 1 car 45c, 4 cars 43 1/4, 2 cars 43c; rejected, 1 car 35c; no grade, nominally 30@35c. Soft, No. 2 red, 2 cars choice 60 1/4; No. 3 red, 2 cars good 62c; No. 4 red, 1 car 57c, 1 car 56c, 1 car 55c, 1 car 54c; rejected, 2 cars 50c; no grade, nominally 35@40c. Spring, No. 2, 11 cars 56c; No. 3, nominally 53@54c; rejected, nominally 40@47c; white spring, No. 2, 3 cars 54c; No. 3, nominally 50@52c.

Corn sold on scattering orders at about Saturday's prices. The trade was rather slow.

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SUMMERS, MORRISON & CO., Commission Merchants,
174 South Water Street, CHICAGO, ILL.
References: Metropolitan National Bank, Chicago, and this paper.

Receipts of corn to-day, 60 cars; a year ago, 97 cars.

Sales by sample on track, Kansas City: No. 2 mixed, 2 cars, 10c billing to Memphis, 23 1/4, 4 cars 23c, 7 cars 22 1/4, 9 cars 22 1/4, 2 cars 22 1/4; No. 3 mixed, 1 car 21 1/4; No. 4 mixed, nominally 21c; no grade, nominally 20c; white corn sold at the same price as mixed corn.

Oats sold slowly at about steady prices. Receipts were larger, but the offerings by sample showed no increase.

Receipts of oats to-day, 27 cars; a year ago, 10 cars.

Sales by sample on track, Kansas City: No. 2 mixed, 2 cars 18c; No. 3, 2 cars 15c; No. 4, nominally 14c; no grade, nominally 13 1/4; No. 2 white, 3 cars 19c, 1 car 18 1/4; No. 3 white, 1 car 18c, 2 cars 17 1/4.

Hay—Receipts, 128 cars; market weak; timothy—Choice, \$10.00@11.00; No. 1, \$8.50@9.50; No. 2, \$7.50@8.50; fancy prairie, \$7.00@7.50; choice \$6.00@6.50; No. 1, \$5.25@5.75; No. 2, \$4.50@5.00; packing hay, \$3.00@4.00.

St. Louis Grain.

ST. LOUIS, Nov. 25.—Receipts, wheat, 65,853 bu.; last year, 22,072 bu.; corn, 72,156 bu.; last year, 101,141 bu.; oats, 71,500 bu.; last year, 56,000 bu.; shipments, wheat, 12,710 bu.; corn, 11,920 bu.; oats, 10,000 bu. Closing prices: Wheat—Cash, 60 1/4 bid; November, 55 1/4; December, 56 1/4; May, 61 1/4. Corn—Cash, 24 1/4; November, 24 1/4; December, 24 1/4; May, 26 1/4. Oats—Cash, 17 1/4 bid; November, 17 1/4; December, 17 1/4; May, 20 1/4.

Kansas City Produce.

KANSAS CITY, Nov. 25.—Butter—Creamery, separator, 20c; firsts, 17@18c; dairy, fancy, 14@15c; store packed, fresh, 10@12c; off grades, 8c; country roll, fancy, 13@15c; choice, 10@12c.

Eggs—Strictly fresh candled stock, 18 1/4 per doz.; cold storage, 14 1/4.

Poultry—Hens, 5c; springs, 6@6 1/4; broilers, 7c; roosters, 15c; young, 20c; turkeys, 7c; ducks, 7c; geese, young, fat, 6c; old, 5c; pigeons, dull, 6c per doz.

Fruits—Apples—Fancy, \$2.25@2.50 per bbl.; choice, \$1.75@2.00; common to good, \$1.00@1.50 per bbl. Grapes—Pennsylvania, New York and Ohio Concord, fancy, scarce, 20@21c; poor stock, 10@15c. Cranberries, \$7.50@8.00 per bbl.

TRY US. We sell your Poultry, Veal, Fruits and all produce at highest prices. DAILY RETURNS. For stencils, prices and references, write F. I. SAGE & SONS, 183 Reade St., N. Y.

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J. W. T. GRAY, OFFICE.

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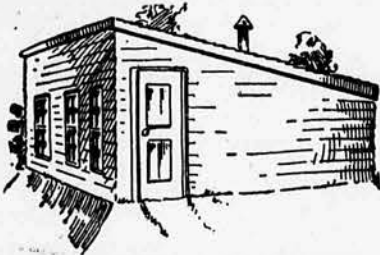
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WARM AND COMFORTABLE.

Diagram and Perspective View of a Winter Poultry House.

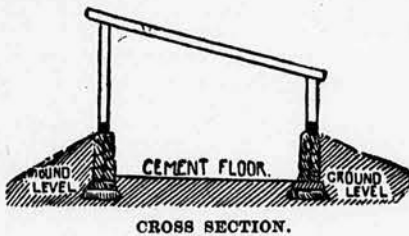
Now is the time to get in readiness for the poultry house that will keep fowls warm when the mercury is ranging below zero, and the price of eggs ranging from forty to fifty degrees above zero. It won't do to wait before thinking about that house. If a new one is to be built, it is worth while to plan very carefully to secure both econ-



WARM WINTER POULTRY HOUSE.

omy and warmth. An expensive poultry house is a great piece of folly, but a carefully built one is money in the end. Whether poultry pays depends largely on whether the fowls lay well in the winter. To secure winter laying, a warm house is absolutely necessary, together with good management as to feeding, exercise, etc.

The accompanying diagram shows a section through a winter poultry house, where fowls will be comfortable on the coldest days. A dry spot of ground is chosen and a foundation of rough stone laid below its level. A rough stone wall is then laid for two and a half or three feet above this and banked to the top on the other side with earth.



CROSS SECTION.

to the top on the outside with earth. get a good sod all about the house to prevent washing. The floor inside is cemented, the cement being carried up onto the wall rocks. If the woodwork above such a wall is covered with heavy sheathing paper, both on roof and walls, and then shingled, one may bid defiance to outside cold. The windows should be only in the higher wall, facing the south, or better, the southeast, for in this position the fowls get the sun quicker in the morning. The door should enter above the wall of stone, with steps down on the inside. If the door goes to the bottom, as in an ordinary house, the floor will not be as warm, as more or less air will come in about a door, make it as tight as one can. A perspective view of the house complete is also given herewith.—Webb Donnell, in N. Y. Tribune.

SHIPPING POULTRY.

The Kind of Coops Needed to Insure Satisfactory Results.

Country shippers ought to pay more attention to the condition of their coops before using. Considerable stock is lost by shipping in worn-out coops, which come apart in transit if roughly handled, as sometimes happens. Every coop should be carefully examined, and all bottoms and cleats securely nailed. The coops should be strong, but light; heavy wood is unnecessary if long nails are used. They should not be so large as to render handling difficult.

The coops should be high enough to allow the poultry to stand easily upright, and should not be overcrowded. Too close packing and too low coops are cruel and cause loss by suffocation. Hens and roosters should be shipped separately whenever possible. All poultry for the New York market should be well fattened, and should be fed lightly before being placed in the coop, if it reach its destination the day after shipping, as the New York law requires that the crop be entirely empty before killing. From more distant points provision must be made for feeding and watering in transit. At the beginning of their journey they should be fed lightly, as overfeeding at such time

makes the birds sick and dumpy and unfit for the fatigues of travel. After the first day or two, when the poultry have become accustomed to their new quarters, the supply of food should be increased. All these things should be considered and every care exercised to have the birds arrive in the best possible condition, so that they may sell readily at the highest prices. It is only good stock that really pays. The shipper who does not get the best market price for his stock should consider seriously where the fault really lies.—N. Y. World.

AMONG THE POULTRY.

POULTRY like apples and they are good for them.

THE house and fence about a poultry yard should be substantial, if not ornamental. Build both to stay.

ALMOST anybody can devote a portion of their time to the poultry business. The farmer should do it by all means.

ONE trouble experienced by beginners with incubators is that they have never given their poultry any attention and they practice this sort of negligence with the incubator.

Most people who sell eggs as a business, for setting, try to have them good. They must do that if they expect to continue in business. As a rule, therefore, when eggs fail to hatch, we should carefully investigate the conditions before blaming the man from whom we purchased them.—Farmers' Voice.

Treatment of Poultry Manure.

Poultry manure should be removed from the houses every day and should be kept under cover. Every time droppings are added to the pile, sprinkle on either land plaster or kainit. The latter is to be preferred because it contains potash, in which the poultry manures are deficient. The object of the addition is to prevent the escape of ammonia, and the nose will be a safe guide in determining the amount of kainit to use. The quantity necessary will vary with the degree of moisture of the manure and the temperature of the air. Add enough so that there is no odor of ammonia when the pile is stirred. The mixture of kainit with hen manure fits it for use for hoed crops. It should be made fine before application.—Prof. W. P. Brooks, Massachusetts Experiment Station.

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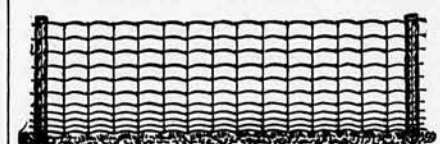
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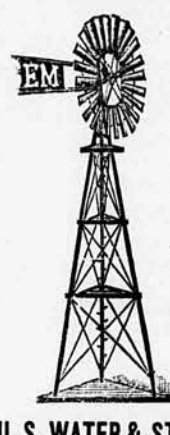
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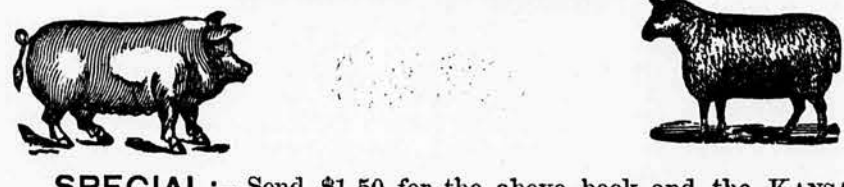
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Ninety spring pigs, twenty-four brood sows. Boars in service, Souvenir 9421 S., Magnet 18537 S. and Duke of Bayfield 14327 S. Write for particulars, or better, come and make selections. J. S. MACHIE, Linwood, Leavenworth Co., Kas.

The Union Stock Yards, Chicago.

(Consolidated in 1865.) The largest live stock market in the world. The center of the business system from which the food products and manufactures of every department of the live stock industry is distributed.

Accommodating capacity: 50,000 cattle, 200,000 hogs, 30,000 sheep, 5,000 horses. The entire railway system of Middle and Western America center here, rendering the Union Stock Yards the most accessible point in the country. The capacity of the yards, the facilities for unloading, feeding and reshipping are unlimited. Packing houses located here, together with a large bank capital and some one hundred different commission firms, who have had years of experience in the business also an army of Eastern buyers, insure this to be the best market in the whole country. This is strictly a cash market. Each shipper or owner is furnished with a separate yard or pen for the safe keeping, feeding and watering of his stock, with but one charge of yardage during the entire time his stock remains on the market. Buyers from all parts of the country are continually in this market for the purchase of stock cattle, stock hogs and sheep. Shipper should ask commission firms for direct information concerning Chicago markets.

The Greatest Horse Market in America, the Dexter Park Horse Exchange.
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The Kansas City Stock Yards

are the most complete and commodious in the West,

and second largest in the world! The entire railroad system of the West and Southwest centering at Kansas City has direct rail connection with these yards, with ample facilities for receiving and reshipping stock.

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts, 1894.....	1,772,545	2,547,077	589,555	44,237	107,494
Slaughtered in Kansas City.....	969,646	2,060,784	387,570		
Sold to feeders.....	308,181	11,496	69,816		
Sold to shippers.....	409,965	468,616	45,780		
Total sold in Kansas City, 1894.....	1,677,792	2,530,896	503,116	28,903	

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, \$1 per 100 lbs.; BRAN, \$1 per 100 lbs.; CORN, \$1 per bushel.

NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.

C. F. MORSE, V. Pres. and Gen. Manager.
E. E. RICHARDSON, Secretary and Treasurer.
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TWO-CENT COLUMN-CONTINUED.

FOR SALE.—Red Polled cattle, both sexes. Seventy-five head to select from. D. F. VanBuskirk, Blue Mound, Kas.

FOR SALE.—Hereford bulls sired by a son of Mr. Funkhouser's celebrated Hesiod. Apply to Peter Elm, Wakarusa, Kas.

WANTED.—Sale bills, horse bills, catalogues and other printing. A specialty at the Mail job printing rooms, 900 North Kansas Ave., North Topeka.

Salesmen Wanted!

\$100 to \$125 per month and expenses. Staple line; position permanent, pleasant and desirable. Address, with stamp, King Mfg. Co., P. 22, Chicago, Ill.

Harper's Magazine

IN 1896.

Brisels, a new novel by WILLIAM BLACK, written with all the author's well-known charm of manner, will begin in the December Number, 1895, and continue until May. A new novel by GEORGE DU MAURIER, entitled The Martian, will also begin during the year. It is not too much to say that no novel has ever been awaited with such great expectation as the successor to Trilby. The Personal Recollections of Joan of Arc will continue and will relate the story of the failure and martyrdom of the Maid of Orleans. Other important fiction of the year will be a novelette by MARK TWAIN, under the title, Tom Sawyer, Detective; a humorous three-part tale called Two Mormons from Muddlety, by LANGDON ELWYN MITCHELL; and short stories by OCTAVE THANET, RICHARD HARDING DAVIS, MARY E. WILKINS, JULIAN RALPH, BRANDER MATTHEWS, OWEN WISTER and other well-known writers.

Prof. WOODROW WILSON will contribute six papers on George Washington and his times, with illustrations by HOWARD PYLE. POULNEY BIGLOW's history of The German Struggle for Liberty, illustrated by R. CATON WOODVILLE, will be continued through the winter. Two papers on St. Clair's defeat and Mad Anthony Wayne's victory, by THEODORE ROOSEVELT, with graphic illustrations will be printed during the year.

A noteworthy feature of the MAGAZINE during 1896 will be a series of articles by CASPAR W. WHITNEY, describing his trip of 2,600 miles on snow-shoes and with dog-sledge trains into the unexplored Barren Grounds of British North America in pursuit of wood-bison and musk-oxen. Mr. WHITNEY's series will have the added interest of being illustrated from photographs taken by himself.

The Volumes of the MAGAZINE begin with the Numbers for June and December of each year. When no time is mentioned, subscriptions will begin with the Number current at the time of receipt of order.

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THE STRAY LIST.

FOR WEEK ENDING NOV. 13, 1895.

Rush county—W. J. Hayes, clerk.

MULE.—Taken up by F. U. Mills, in Brookdale tp., October 26, 1895, one brown mare mule, about 2½ years old, fourteen and a half hands high, no marks or brands; valued at \$25.

Pratt county.

HORSE.—Taken up by W. S. Harrouff, in Elm tp. (P. O. Sawyer), October 13, 1895, one roan horse, 5 years old, weight 700 pounds, white in face, both right feet white; valued at \$10.

Osage county—E. C. Murphy, clerk.

FOUR HORSES.—Taken up by L. B. Hogle, in Burlingame tp., October 21, 1895, four bay geldings; valued at \$12.50 each.

MARE.—By same, one bay mare; valued at \$8.

MARE.—By same, one gray mare, wire cut scar on left fore foot; valued at \$8.

MARE.—By same, one gray mare; valued at \$8.

COLT.—Taken up by James Wray, in Burlingame tp., October 26, 1895, one bay horse colt, white star in forehead; valued at \$8.

COLT.—By same, one bay horse colt, white star in forehead and left fore foot white; valued at \$12.

Cherokee county—P. M. Humphrey, clerk.

MARE.—Taken up by Tylor Hicks, in Pleasant View tp., October 21, 1895, one bay mare, fourteen hands high, bob-tail, foretop clipped, branded 22 on left hip, saddle and harness marks; valued at \$20.

HORSE.—By same, one bay horse, seventeen and a half hands high, saddle marks; valued at \$30.

FOR WEEK ENDING NOV. 20, 1895.

Franklin county—J. K. Bailey, clerk.

FILLY.—Taken up by Sam Saintabine, six miles southwest of Williamsburg, one sorrel filly, about 3 years old, white spot in forehead, no marks or brands.

Cherokee county—P. M. Humphrey, clerk.

MARE.—Taken up by C. E. Gray, in Shawnee tp. (P. O. Crestline), one black mare, fourteen hands high, 10 years old, star in face; valued at \$10.

MARE.—By same, one brown mare, fourteen hands high, 8 years old, had on halter; valued at \$15.

Meade county—J. F. Armstrong, clerk.

HORSE.—Taken up by Viridian Peoples, in Cimarron tp. (P. O. Byers), September 17, 1895, one strawberry roan horse with sorrel mane and tail, branded V1, right hind foot white to pastern joint, lump on right hind leg on outside of knee joint valued at \$10.

Woodson county—H. H. McCormick, clerk.

HORSE.—Taken up by D. Upton, in Eminence tp. (P. O. Rose), November 20, 1895, one sorrel horse, small white spot in forehead, shod on front feet; valued at \$20.

STEER.—Taken up by George Bell, in Everett tp., November 16, 1895, one red and white steer, 2 years old, branded R on right hip; valued at \$20.

FOR WEEK ENDING NOV. 27, 1895.

Atchison county—Chas. H. Krebs, clerk.

MARE.—Taken up by W. M. Ham, in Grasshopper tp. (Muscatoh P. O.), November 1, 1895, one brown mare, star in forehead, fifteen hands high, shoes on front feet, works well, about 5 years old; valued at \$18.

Hamilton county—John Wensinger, clerk.

MARE.—Taken up by W. Sawyer, in Bear Creek tp., three miles northeast of Hutton P. O., October 18, 1895, one bay mare, fourteen and a half hands high, 3 years old, branded thus—on left shoulder; valued at \$30.

Washington county—August Soller, clerk.

STEER.—Taken up by Fred Ostricker, in Linn tp. (P. O. Linn), one black and white steer, 2 years old, four feet six inches high, black on shoulders, white body and white feet.

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