

KANSAS FARMER



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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeders' Directory for \$15 per year or \$8 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.

HORSES.

PROSPECT FARM.—CLYDESDALE STALLIONS, SHORT-HORN CATTLE, POLAND-CHINA HOGS.
Write for prices of finest animals in Kansas.
H. W. MCAFEE, Topeka, Kas.

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T. H. PUGH, Maple Grove, Jasper Co., Mo., breeder of HEREFORD CATTLE. Stock for sale.

VALLEY GROVE HERD OF SHORT-HORNS.—For sale, choice young bulls and heifers at reasonable prices. Call on or address Thos. P. Babst, Dover, Kas.

FAIRVIEW STOCK FARM.—Registered Short-horn cattle. 7th Earl of Valley Grove 111907 at head of herd. Young stock for sale. E. H. Littlefield, Newkirk, Oklahoma.

ENGLISH RED PELLER CATTLE AND COTS.—I would sheep. Young stock for sale, pure-bloods and grades. Your orders solicited. Address L. K. Haseltine, Dorchester, Green Co., Mo.

NEOSHO VALLEY HERD OF SHORT-HORNS.—Imported Buccaneer 106658 at head of herd. Registered bulls, heifers and cows at bed-rock prices. Address D. P. Norton, Council Grove, Kas.

SWINE.

Holstein-Friesians. M. H. ALBERTY, Cherokee, Duroc-Jersey swine. Kansas.

TEN POLAND-CHINA BOARS—\$10 to \$20 apiece. J. H. Taylor, Pearl, Kas.

PRINCETON HERD OF POLAND-CHINA SWINE contains the most noted strains and popular pedigrees in the U. S. Choice animals for sale. Address H. Davidson & Son, Princeton, Franklin Co., Kas.

K. N. FRIESEN, ALTA, KAS.—Proprietor of the K. Garden Valley Herd of Thoroughbred Poland-China swine. Selected from best strains. Stock for sale at all times. Write me. Mention FARMER.

V. B. HOWEY, Box 103, Topeka, Kas., breeder and shipper of thoroughbred Poland-China and English Berkshire swine and Silver-Laced Wyandotte chickens.

CENTRAL KANSAS HERD OF THOROUGHbred Poland-China hogs. C. S. Snodgrass, Galt, Rice county, Kansas, breeds the best. Stock for sale now. Come or write.

OHIO IMPROVED CHESTER SWINE—Pure-bred and registered. One hundred spring pigs at hard times prices. Also a few boars ready for service. H. S. DAY, Dwight, Morris Co., Kas.

POLAND-CHINAS FOR SALE.—Twenty-five top spring pigs, gilts and boars. A few rams of each of the following breeds: Cotswold, Shropshire and American Merinos. Also Scotch Collie pups. Address H. H. Hague & Son, Walton, Kas.

D. TROTT, ABILENE, KAS., headquarters for POLAND-CHINAS and the famous Duroc-Jerseys. Mated to produce the best in all particulars. Choice breeders cheap. Write.

SWINE.

W. M. PLUMMER & CO., Osage City, Kas., breeders of Poland-Chinas of the best families. Also fine poultry. Pigs for the season's trade sired by five different boars.

FOR SALE—Duroc-Jersey pigs; also Poland-China. Bronze turkeys, Toulouse geese, Pekin ducks, Barred Plymouth Rock and Brown Leghorn chickens. Ready to ship out. J. M. Young, Colfax, Kas.

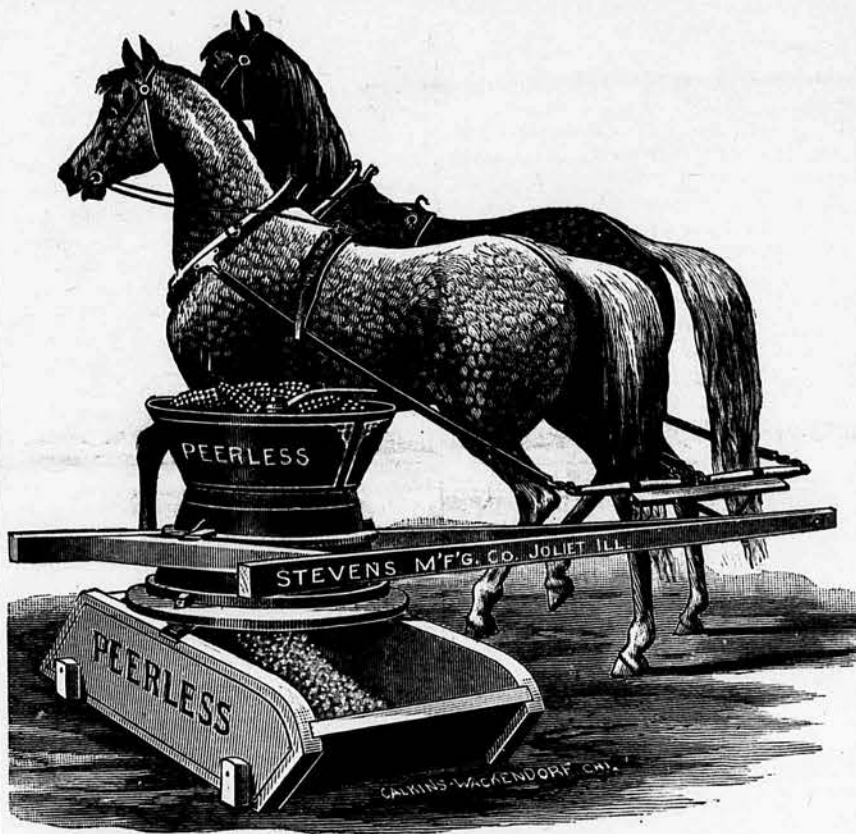
ASHLAND STOCK FARM—Will sell for the next thirty days, thoroughbred Poland-China boars and B. P. Rock cockerels at greatly reduced prices. No boom prices here. Give me a trial and I will surprise you with prices for quality of stock. Yours for business, M. C. Vansell, Muscotah, Atchison Co., Kas.

SWINE.

J. T. LAWTON (successor to John Kemp), NORTH TOPEKA, KAS., breeder of Improved Chester White swine. Young stock for sale. Also Light Brahma fowls.

BELMONT STOCK FARM

Geo. Topping, Cedar Point, Kansas.
Breeder of English Berkshire and Poland-China swine, S. C. Brown Leghorns, B. Plymouth Rocks, Mammoth Bronze turkeys and Imperial Pekin ducks. Write for prices. Farm six miles south of Cedar Point, Chase county, Kansas.



THE PEERLESS FEED GRINDER.

The above cut gives a very good idea of the Peerless Feed Grinder, manufactured by the Stevens Manufacturing Co., of Joliet, Ill., whose advertisement appears elsewhere in these columns. This machine has been before the public for a number of years and has given the best of satisfaction. It has the advantage of some other machines in being less complicated in construction, and having a power within itself, thus obviating the necessity of purchasing a separate power. The manufacturers challenge all sweep mills as to construction, quality of work, capacity, etc., and declare that if the farmer does not find their mill to be both the best and cheapest they will refund the purchase price. This mill is adapted to a wide range of uses, and will crush and grind corn and cob and all small grain, shelled corn, barley, oats, milo maize, cotton seed, etc., either singly or mixed in any desired proportion. Another advantage claimed for this mill is that it will crush and grind damp or newly-husked corn without choking. Its construction and durability are such that under ordinary conditions it should last a lifetime. The capacity differs under different conditions, but James McLaughlin, of Pennington's Point, Ill., says that he can grind twenty-five bushels of corn per hour. For circulars, testimonials and prices, address as above.

SWINE.

BOURBON COUNTY HERD BERKSHIRES.
J. S. Magers, Proprietor, Arcadia, Kas.
Correspondence invited. Satisfaction guaranteed

E. LISTON, Virgil City, Cedar Co., Mo., wants to sell Berkshires at lower than gold basis prices. Try me for best quality and low prices. Mention KANSAS FARMER.

T. A. HUBBARD
Rome, Kansas,
Breeder of POLAND-CHINAS and LARGE ENGLISH BERKSHIRES. Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

SELECT HERD OF BERKSHIRES

For ten years winners at leading fairs in competition with the best herds in the world. Visitors say: "Your hogs have such fine heads, good backs and hams, strong bone, and are so large and smooth." If you want a boar or pair of pigs, write. I ship from Topeka. G. W. Berry, Berryton, Shawnee Co., Kas.

WYNDALE FARM HERD.

Registered Berkshires and B. P. Rock Chickens. Only the best stock for sale. Eggs in season. Correspondence solicited.
M. S. KOHL, Furley, Sedgwick Co., Kansas.

SWINE.

BERKSHIRES.
We offer choice selections from our grand herd, headed by a great imported boar. New blood for Kansas breeders.
WM. B. SUTTON & SON, Russell, Kansas.

BLUE MOUND HERD BERKSHIRE SWINE.
Herd boars Barkis 30040, Victor Hugo 41799. One hundred head. Young sows, boars and gilts for sale. Allen Thomas, Blue Mound, Linn Co., Kas.

LARGE ENGLISH BERKSHIRES.
Twenty boars, fifty sows for sale.

Largest herd of registered Berkshires in Kansas. The 1,025-pound boar Longfellow W. 33611 at head of herd who, with his get, won more first premiums at Kansas State fair this year than any boar of any breed. Five herds Berkshires competing, won six first and three second premiums. Prices reasonable. Write for what you want. Also breed HEREFORD CATTLE.
C. A. STANNARD, HOPE, KAS.

Franklin County Herd Poland-Chinas.
Twenty boars ready for service, also twenty sows for ready sale at prices to suit the times. Inspection and correspondence invited.
E. T. Warner, Owner, Princeton, Kas.

SWINE.

BERKSHIRES. H. B. COWLES Topeka, Kas.

PLEASANT VALLEY HERD REGISTERED POLAND-CHINA SWINE

Westphalia, Anderson Co., Kas.
Breeder of high-class pedigreed Poland-China swine. Herd headed by Guy Wilkes 3411231 G. Guy Wilkes is now for sale, also fifty choice April pigs. Write.
E. A. BRICKER.

Standard Herd of Poland-Chinas.

L. NATION, Proprietor, Hutchinson, Kansas.
The breeding herd consists of the best strains of blood, properly mated to secure individual excellence. Stock for sale. Visitors welcome. Correspondence invited.

Kansas City Herd Poland-Chinas

The future villa of Hadley Jr. 13314 O., the greatest boar of his age. I have pigs for sale now by Hadley out of Tecumseh Mortgage Lifter 32649 S. Order quick and orders will be booked as received. Farm nine miles south of Kansas City, on Ft. Scott & Memphis R. R. Postoffice Lenexa, Kas.
W. P. GOODE, Proprietor, Lenexa, Kas.

TOWER HILL HERD Registered Poland-Chinas.

175 head, 30 brood sows. Herd boars are Black Stop 10550 S.; U. S. Butler 13388 S.; George Free Trade 21053 A., and a grandson of J. H. Sanders 27219 O. Young boars ready for service and bred gilts for sale.
B. R. Adamson, Fort Scott, Kas.

Farmington Herd Poland-Chinas

Twenty-five spring boars sired by Little Mc. 14992 S., he by Mc. Wilkes 9242 S.; Trinidad 30057 A., and Chief Kaulziska by Chief Tecumseh 2d 9115 S. All stock guaranteed as represented.
D. A. Kramer, Washington, Kas.

Clover Leaf Herd Poland-Chinas.

We Have the Best. Nothing Else.
J. H. Sanders Jr. 14953 S. 35089 O. heads our herd. Three of his get sold for \$805; entire get at sale averaged over \$200; get during his term of service exclusive of public sale brought over \$2,700. Thirty-eight pigs getting ready to go out. Among our 14 brood sows are Black Queen U. S. Corwin 28801 S., Silver Bar U. S. 30884 S., Black Queen Hadley 1st 30574 S., Annie Black Stop 38831 S. and Ruby Rustler 4th 36355 S. Write, or, better, visit the herd.
G. HORNADAY & CO., Fort Scott, Kas.

ROYAL HERD

POLAND-CHINAS and B. P. Rock chicks. Cunningham's Choice 13731 S., second premium State fair, 1895; his grandsire Victor M. First premium State fair, 1895, on Plymouth Rocks. Fifteen eggs for \$2.
Ward A. Bailey, 1470 E. 15th St., Wichita, Kas.

LAWN RIDGE HERD

Poland-Chinas.

130 head, all ages. 100 spring pigs, sired by Young Competition 15082 S., Kansas Chip 15083 S. and a grandson of J. H. Sanders. Write or come.
J. E. Hoagland, Whiting, Jackson Co., Kas.

DIETRICH & SPAULDING,

Richmond, Kansas.

Home of the Poland-China

Prize-Winners.
We still have some choice boars for herd-headers. Send us your order for a young sow bred to Silver Chief, winner of two first premiums and two sweepstakes; never beaten. We raise and sell winners. Prices right.

J. R. KILLOUGH & SONS,

Richmond, Franklin Co., Kansas,

POLAND-CHINA SWINE.

Herd headed by Upright Wilkes 13246 S. and J. H. Sanders Jr. 13730 S. 25 brood sows, 100 spring pigs; 10 young boars, 6 Sanders and 4 Wilkes, ready for service. Orders for youngsters being booked. Write or come.

WILLIS E. GRESHAM,

Quality Herd Poland-Chinas, HUTCHINSON, KAS.

Seven prizes World's Fair. Three on litter under 6 months. More than any breeder west of Ohio. Ten prizes Kansas State, twelve Oklahoma State, and four out of six in Texas in 1896. More than any single breeder this season. Darkness F. 73222 and sensational sweepstakes, Bessie Wilkes 36837, and the 1896. Bessie U. S. (Vol. 11 S. R.), first class winner of sows living to-day. Darkness Quality 14961, Guy Unfortunate 22255, Darkness Wilkes (Vol. 11 S. R.), first in class in Kansas and Oklahoma and in herd in three States. Some good ones for sale, both sexes. Write me.
WILLIS E. GRESHAM, Hutchinson, Kas.
Box 14.

Agricultural Matters.

A NEW LABOR-SAVER.

EDITOR KANSAS FARMER:—In these times of low prices any plan that will help us to reduce the cost of production is regarded by the reader of your paper as of especial value to him.

I have had occasion to refer to a roller I have had made for me, and it is of this machine I now wish to speak. The makers of this "Superior" roller have written me that they will advertise their machines in the KANSAS FARMER about the middle of December, and any one wishing their address should keep up his subscription to the FARMER and scan its advertising columns closely.

My machine weighs 1,087 pounds, or about 1,200 pounds or more when mounted. The axle is solid turned steel and fifteen inches from the ground. The roller is in three sections, and they are composed of one-inch iron spokes and boiler steel drum. The middle pulley can be slipped out and corn, potatoes and other drilled stuff can be rolled until it is twenty to thirty inches tall. On the top of the frame there is attached two positive feed seeders that will sow any seed, from shelled corn to dry road dust. Each seeder is driven by a chain from a sprocket-wheel on either end of the axle, which is itself turned by one pulley, the other two being free to roll backwards in turning. The axle boxes are lined with babbit, and in the bottom of each box is a space filled with waste, making the boxes just the same as on a railroad car.

I have tried the machine thoroughly, and here are some of the things I can do: I can put dry commercial fertilizer in one seeder and timothy seed in the other, and go over my young clover in the stubble field, and when a thin spot is reached, I can kick it in gear and sow the bare spots to fertilizer and timothy seed, thus building up the poor spots and insuring a crop of hay for the next year. In sowing flax and clover, I have always used a hand seeder and sowed each seed separately, following each seeder with the harrow and then a cross-harrowing. Thus last spring I took a day to sow fifteen acres of flax, and my man and team followed with the harrow. The next day I sowed the field to clover seed and my man again followed, and the next day the field was cross-harrowed. Had there come a rain storm before I had completed the job, the loss would have been immense. I can now plow with two teams till 5 o'clock, then while one team runs the smoothing harrow, I can hitch the other team to the roller, and by quitting-time the day's plowing will be harrowed, sowed to flax and clover, rolled and harrowed again, as I shall draw a nine-foot harrow behind and attached to the roller.

Here is the difference in figures on fifteen acres:

OLD WAY.	
Harrowing.....	\$0.75
Sowing clover.....	.50
Harrowing.....	.75
Sowing flax.....	.50
Two harrowings.....	1.50
Total.....	\$4.00

NEW WAY.	
Harrowing.....	\$0.75
Rolling, seeding and covering.....	.75
Total.....	\$1.50

Difference in favor of the new way equals \$2.50 on fifteen acres, or nearly 20 cents per acre, which will pay the cost of the machine for cutting the flax crop. I estimate that the rolling of the field is of great value to the crop, and every one knows the immense advantage of always being completely done when the team stops at night, or is checked by a rain storm.

By drilling my potatoes forty to forty-four inches between the rows, I can slip out one pulley of the roller, take off the two seeders and attach my weeder behind the roller, can ride, roll and weed all at once. The weeder can be easily raised up with my weight, by the aid of a V-shaped lever that is bolted to the weeder head and run over the frame of the roller. Listed corn can be rolled and harrowed all at once with one team, and level culture corn can also be treated the same way. With my boy to drive and my man and

myself holding two Planet Jr. cultivators, I can roll and cultivate two rows of potatoes at once.

I have the honor of having made for me the first machine with two seeders attached, as the firm only advertise one seeder. Since then, Prof. Voorhees, of the New Jersey Experiment Station, has ordered a roller with two seeders and he wants to sow wet, chemical fertilizer and grass seed all at once. CLARENCE J. NORTON.
Morantown, K s.

How Grow Wild Grasses?

EDITOR KANSAS FARMER:—If you are able to do so, you would confer a great favor upon many if you would give some instructions as to how to propagate wild prairie grasses—particularly grama, buffalo and blue-stem.

The question of paramount importance to this Territory, as well as to central and western Kansas, is how to cultivate meadows and pastures. The future value of these sections depends upon it. The tame grasses of the East will not endure the suns and droughts. A great number of farmers have plowed up the prairie sod in the hope of raising corn and wheat profitably, who realize now that they made a mistake and are anxious to get their lands seeded back to grass. But they cannot do so, or at least they don't understand how.

It would seem as if some of the wild grasses that have endured the hard conditions of western Kansas and Oklahoma might be developed into something useful. In their wild state they seem adapted to these sections, and proof against all the adverse conditions to be encountered. The common clovers and tame grasses won't do it. Is not the experiment of cultivating the wild grasses worth trying? There is certainly enough at stake.

Why is it that our agricultural experiment stations have given no attention to this matter? Is it because it is too practical, and they have no time to spare from searching out botanical names of useless things? The Oklahoma station recently issued a bulletin on the "Weeds of Oklahoma," giving us their scientific names and telling us where they came from, etc., all of which was quite interesting but of little practical value. But they have never had a word to say as to our native grasses, and have given no information as to whether they are susceptible of propagation, or if so, how it may be done.

The Kansas station has been equally industrious in its scientific investigations, and hurls Latin terms and botanical names at the farmers of Kansas with equal force. But the question of more importance to one-half of that State than all others combined is practically ignored. I believe both of these stations have told the farmers that the tame grasses will not flourish, and that is all. No effort whatever has been devoted to determining whether anything else will.

It may be that the valuable prairie grass known as grama cannot be propagated nor made useful as a cultivated grass in its native soil and climate. If so, why is the fact not determined by trial? What are the experiment stations for? A little practical work in the field I have suggested would make them more useful, and the more learned results of scientific studies would cheerfully be dispensed with for a brief period.

I write this in the hope that you may be able to give some information—some hint or suggestion upon a subject about which thousands are inquiring and get no reply. Whoever can or will solve the problem successfully of developing or discovering a variety or varieties of grasses that can be profitably cultivated in the droughty sections of Oklahoma and Kansas will make himself a benefactor of tens of thousands. The experiment stations are not likely to bother themselves with it. Would it not pay a great newspaper like yours to devote some attention to it and give your readers the benefit of it.
Enid, Okla. WM. JENKINS.

People with hair that is continually falling out, or those that are bald, can stop the falling, and get a good growth of hair by using Hall's Hair Renewer.

Results of Subsoiling.

The following from a letter written to the Perine Plow Works, by Nicolas Mayrath, Dodge City, Kas., gives information such as many farmers have asked:

"I will give you the result of a twenty-acre field that was subsoiled in summer of 1895 by one of your plows, after wheat was harvested. The field was subsoiled about sixteen inches deep, and about two feet apart. Two patches of one acre each were subsoiled twice, that is, both ways. These two patches were to be test patches for alfalfa. The whole farm contained 150 acres, of which about 140 acres were in wheat in 1895. All, except this twenty acres subsoiled, was drilled to wheat again fall of 1895. The twenty acres subsoiled was to be used for other crops, but when spring came, this twenty acres not seeded showed a better stand of volunteer wheat than that properly drilled in. I notified the owner of the land and advised him to let the wheat alone, which he did. I was to plant the two test acres to alfalfa in spring of 1896, but sowed only one patch. Now I watched this field of wheat all this summer and had I the power I should have made the men harvesting it keep this twenty, or rather only nineteen acres, separate, and show exact result, but I am confident these nineteen acres of subsoiled wheat, and volunteer at that, yielded more bushels of wheat than the balance of the whole field. Men passing this wheat, told me that they could tell the difference when two miles away, and between that part subsoiled and that part subsoiled twice, or not at all.

"The owner of this farm was so well pleased with the results that he bought three of your subsoil plows and sent them here to be used on his two farms. His intentions are to subsoil all both ways and keep on until the whole farms will be subsoiled to a depth of twenty-four inches. If he does, he is sure to be well paid for the expense by the increase in yield of any crop he may decide to raise.

"I am living here on a farm since 1879, and have been more successful in farming than nine-tenths of the farmers have, and I attribute my success largely to deep plowing and subsoiling. For years I wanted a subsoiler, but saw none advertised, so I used two teams and two plows, one following the other in the same furrow. This is not as good as your subsoiler, but it beats no subsoiling, ten to one. I have, to a large extent, followed market gardening until lately, and know that one-third acre of carrots yielded me 300 bushels, having been subsoiled to a depth of sixteen to eighteen inches, while one and one-quarter acres along side of it, not subsoiled, yielded 270 bushels carrots. On subsoiled land I raised beets, parsnips, carrots and salify from thirty to thirty-six inches long, while on unsubsoiled ground they would be short, knotty and out of shape.

"Martin Mohler, of Topeka, once asked me what I thought of the steam plow they had in Garden City and which plowed five to six furrows at once. I told him I liked the steam plow all right, but that the plows were not set right. He wanted to know how I would set them. I told him I wanted one plow to follow the one ahead of it in the same furrow, and the last one so deep in the ground that the handles could hardly be seen, exactly what your subsoil plow does, and if our farmers would only use your subsoil plow more they could laugh at a dry spell. I don't claim that subsoiling alone will raise crops, but I do claim that three-fourths of our crop failures could be prevented by using the subsoiler.

"My first test on subsoiling I made with a spade in 1880. I spaded up a patch six feet wide, two to three feet deep, and about 150 feet long. The idea came to me that a pile of dirt from my dug-out remained damp and showed fresh and green while the whole country was parched and dry."

The demand for Ayer's Hair Vigor in such widely-separated regions as South America, Spain, Australia and India has kept pace with the home consumption, which goes to show that these people know a good thing when they try it.

SPECIFIC FOR SCROFULA.

"Since childhood, I have been afflicted with scrofulous boils and sores, which caused me terrible suffering. Physicians were unable to help me, and I only grew worse under their care. At length, I began to take



AYER'S

Sarsaparilla, and very soon grew better. After using half a dozen bottles I was completely cured, so that I have not had a boil or pimple on any part of my body for the last twelve years. I can cordially recommend Ayer's Sarsaparilla as the very best blood-purifier in existence."—G. T. REINHART, Myersville, Texas.

AYER'S

THE ONLY WORLD'S FAIR
Sarsaparilla

Ayer's Cherry Pectoral cures Coughs and Colds

Alfalfa Sowing.

EDITOR KANSAS FARMER:—I will try to answer Mr. Paton's inquiries about sowing alfalfa, by giving some later experience.

I plowed some wheat stubble early in July, plowed it as deeply as possible with three-horse fourteen-inch stirring plow, and planked it at once. This left the ground very smooth and free from clods. (Clods steal the moisture from subsoil if left exposed on the surface of the land in hot, windy or freezing weather.) At this time the soil was rather dry. A light shower fell in about a fortnight, when the land was thoroughly harrowed and planked again. On August 20 it was sowed broadcast to alfalfa, one bushel on two and a half acres, and harrowed again. The seed we grew here on the farm from sowing of May 20, 1895, first crop seed. The seed for this former sowing was procured from the Kansas Seed House. The weather was too dry for some two weeks, and we began to think it would "dry out," but when we got a good shower, the middle of September, it began to "show up," and October 29 we got a "soaker," and now it is "getting there," sure.

Yes, fall plow the ground—the deeper the better—then plank east and west; leave three feet between each passage of the plank, to prevent the drifting of the soil. Before the weeds start in spring, harrow. About May 10 to 20, disc harrow, to kill early weeds and grass, and drill with a fifteen-hoe drill, fifteen pounds or more of good clean seed to the acre. In about three or four weeks after that, write the KANSAS FARMER.

J. W. G. MCCORMICK.
Manager Black Hill Experimental Farm, Griffin, Kas.

Parties trying to introduce new cough remedies, should know that the people will have Dr. Bull's Cough Syrup.

Kalamazoo, Mich., is famous for celery—also as the home of Thos. Slater, whose advertisement appears on page 15.

Did You Ever See an Indian?

Expect not, so send a 2-cent stamp to the General Passenger Agent Colorado Midland Railroad, Denver, and he will send you a fine colored picture of one.

Unequaled Service

Denver to Chicago via Kansas City is given via the UNION PACIFIC and Chicago & Alton railways.

Through Pullman Sleepers, Pullman Dining Cars and Free Reclining Chair Cars leave Denver Daily. The Union Pacific is the great through car line of the West. Ask your nearest ticket agent for tickets via this line.

E. L. LOMAX,
Gen. Pass. and Ticket Agent,
Omaha, Neb.

The Stock Interest.

ACTIVITY IN HORSES.

Not for so long has there been any encouraging reports from the horse markets that it is with a good deal of pleasure that we write the above heading. This department of the KANSAS FARMER is necessarily prepared several days before going to press, so that the following brief reviews are based on the reports of Thursday, November 12.

Kansas City reported:

"Quotations for smooth, sound horses, fat and well-broken, single and double, are as follows:

Extra draft, 1,500@1,800 lbs.....	\$60.00@	75.00
Good draft, 1,300@1,500 lbs.....	40.00@	50.00
Good drivers.....	40.00@	60.00
Saddlers, common.....	27.50@	50.00
Saddlers, gaited, extra.....	75.00@	125.00
Southern mares and geldings.....	17.50@	37.50
Western range, unbroken.....	10.00@	20.00
Plugs.....	7.50@	17.50

"The market during the past week has been one of unusual activity, both in receipts and number of buyers present, and while the offerings were rather of the commoner grades, still the close of the week sees them all sold, no stock being left over in first hands. All the shippers who were fortunate enough to have good stuff made good money.

"There was an increased demand for nice drivers and more inquiry for pole teams than any time during the season. The Eastern trade has not opened up as yet very strong. Feeders who have this class will do well to keep them back for a week or so and get them in the best condition possible. Present indications are that the demand will be good and strong for top grades of Southerners. The Arkansas and Louisiana buyers are taking off the trash, but there is an over-supply of this and they go at very low figures. It is impossible to get them low enough in the country to ship to market. If dealers will take more time and select smooth stock they will reap greater rewards. There will be lots of Southern buyers on the market next week.

"The change from Tuesday to Monday as the first day of auction met with universal approval among both shippers and buyers. From now on the regular auction will begin on Monday morning at 10 o'clock sharp.

"Quotations for good, sound, smooth mules, fat and well-broken, are nominally as follows:

14 hands, 4 to 7 years.....	\$30@	30
15 hands, 4 to 7 years, good.....	35@	50
15 1/2 hands, 4 to 7 years.....	50@	65
15 1/2 hands, 4 to 7 years, extra.....	60@	70
16 to 16 1/2 hands, good to extra.....	70@	100

"There was unusual activity in the mule market, from seven to ten loads changing hands each day and absolutely no stock left over in first hands. There was some little sugar trade, but not much. Most of the trading was in good cotton mules, fourteen hands and one inch to fifteen hands. All the buyers want as much flesh and quality as possible. Rough, thin and ill-shaped mules have to be sold at a sacrifice, while the top grades find a ready sale at very fair figures."

St. Louis reported:

"Liberal receipts have marked the horse trade since the beginning of the week and supplies have been ample for the increased number of buyers who have been in attendance. Indications are that at the present rate the total receipts for the week will equal if not surpass any since the season commenced. Regardless of the heavy number of offerings the market maintains an active and satisfactory tone, more request than the uncertain market of last week, and a shade stronger than two weeks ago. A firm and quick demand prevails for thick, nicely proportioned little Southern chunks, 900 to 1,100 pounds, of quality and good age, at higher prices than were paid two weeks ago. There is not much improvement on the plainer Southern offerings, but the general tone shows more strength. The quality was generally good of the class offered."

Chicago reported:

"The quality of the arrivals in export chunks and drafters shows marked improvement, and more domestic buyers are in the market with urgent orders than at any time since the first of June last. Trade has shown as much strength as anticipated and the outlook

is hopeful for a permanent advance in prices. Drafters and drivers were especially in urgent demand to-day, both on export and domestic account. The former selling around \$100@182.50 and the latter at \$70@175. There was a good movement in Southern chunks at \$25 to \$50 and a large number of plain drivers at \$60@80. The tone of trade from all sources is much stronger, with a strong upward tendency in prices."

Galloway Breeders.

The annual meeting of the American Galloway Breeders' Association was held at Kansas City, at the Wisconsin Building, on Thursday, November 5. Considering the interest taken in the recent political campaign, the attendance was fairly good. Among those present were Robt. Craik, Ft. Wayne, Ind.; I. B. Thompson, Nashua, Mo.; I. C. Hamilton, of Rocheport, Mo.; A. B. Matthews, W. R. Platt and J. M. Lowe, of Kansas City, Mo.; D. C. Lorimer, of Nashua, Mo.; Philo Lasher, of Coffeysburg, Mo.; S. M. Winslow, of Oskaloosa, Mo.; S. R. Hill, of Kansas City, Mo.; F. B. Hearne, of Independence, Mo.

The reports show that the association is in good condition and the breed of Galloway cattle is pushing to the front. Breeders are taking more interest, and good cattle bring good prices.

The following officers were elected for the ensuing year: Philo Lasher, Coffeysburg, Mo., President; M. R. Platt, Kansas City, First Vice President; Robt. Craik, of Ft. Wayne, Ind., Second Vice President; S. M. Winslow, of Oskaloosa, Mo., Third Vice President; Frank B. Hearne, of Independence, Secretary and Treasurer. The Executive and Editing committee are J. M. Lowe, J. B. Thompson and S. M. Winslow. The Board of Directors are J. B. Thompson, Nashua; M. R. Platt, Kansas City, Philo Lasher, Coffeysburg, Mo.; I. C. Huntington, Rocheport; J. M. Lowe, Kansas City; Robt. Craik, Fort Wayne, Ind.; David McCrae, Guelph, Canada; Stephen M. Winslow, Oskaloosa, Mo.; S. B. Clarke, Dover, Ill. The next meeting will be held in Chicago during the fat stock show.

Against Rebates.

A case of importance to shippers of live stock to the Kansas City market was decided recently by United States Judge Phillips.

One of the rules of the Kansas City Live Stock Exchange is that no member should handle shipments of live stock for less than a specified commission. Several months ago it was concluded that certain members were evading the rules by giving a rebate to shippers. Detectives were employed to investigate the rumors, with the result that Greer, Mills & Co. were charged with giving rebates. A fine of \$1,000 was imposed. Greer, Mills & Co. refused to pay. They were posted by the exchange and all other members, under penalty of expulsion, were warned not to do business with the outlawed firm. The exchange went even further. It is necessary before live stock is sold at the stock yards that it be "docked" or examined by inspectors employed by the exchange. The inspectors were forbidden to "dock" hogs received by Greer, Mills & Co. This blockaded the business of Greer, Mills & Co., who at once secured a temporary injunction in the Jackson county Circuit court, forbidding the exchange to "post" the firm or to prevent the "docking" of its live stock. When the case was taken into the federal courts the attorneys for the exchange made a motion to have the injunction set aside on the ground that Director Hanna was a resident of Kansas and refused to be sued in Kansas City.

Judge Phillips also gave Greer, Mills & Co. no hope for relief through further litigation, and stated that it is a general rule of law, applicable to voluntary associations, that a member must either submit to its rules or surrender his membership.

You may eat cheap food and not be seriously hurt by it; but you cannot take cheap medicines without positive injury. If you use any substitute for Ayer's Sarsaparilla you do so at the peril of your health, perhaps of your life. Insist on having Ayer's and no other.

Who Has Tried Chufa for Hogs?

EDITOR KANSAS FARMER:—Can you give me any information as to the value of the chufa as a hog feed? I have seen it highly spoken of in a seed catalogue, and a bulletin of the Oklahoma Experiment Station two or three years ago gave it a recommendation equal to common corn. But I know of no one who has given it a practical trial. Perhaps you or some of your readers might give some information concerning it. WM. JENKINS. Enid, Okla.

H. Z. Martin, of Neponset, W. Va., writes for the *Farm Reporter* of chufa, or nut grass, as follows:

CHUFA, OR GRASS NUT.

The chufa is extensively grown in a number of the Southern and Eastern States, doing well as far north as southern New York. From many sections come reports of yields almost incredible, and, to the stock-raiser, a crop that has not an equal in more respects than one. Perhaps, to make a slight allowance for the zeal of the writers would not be unwise, yet from personal knowledge I believe the chufa, if introduced among West Virginia farmers, will be found a valuable crop for hogs and cattle—the nuts for the former and the foliage for the latter.

Some enthusiastic farmers, notably one in southern New York, claim to have grown 1,000 bushels to the acre, others ranging all the way from 200 to 800 bushels per acre—400 bushels thought to be a good yield.

I have some chufas growing this year, though I am not yet prepared to verify or contradict the above statements. In addition to the nuts, as above, it is claimed that the yield of hay is from one and a half to three tons to the acre. The hay is nutritious and highly relished by cattle. I believe this claim to be within bounds; as the foliage is a nice, medium fine, long-bladed grass, thickly covering the ground, averaging about two feet high. The chufa is about the size of the kernel of the peanut. It has no hull, and the skin is very thin and close like the bran on wheat. In color it is a light brown on the outside, and the flesh of a creamy color, rich and somewhat oily when dry, and in taste somewhat like the walnut. The nuts grow just under the surface of the ground, usually in only one layer, but sometimes in two or more. Most people, especially children, are very fond of the nuts when dried.

The chufa is planted about the first April, or as soon thereafter as they are out of the way of frost, and mature in about five months. The seeds should be soaked for two or three days before planting. When this is done they will "come up" in about one week, thereby being less liable to be choked out by weeds and grass. The nuts can be either strewn broadcast, or planted about eight inches apart in rows two and one-half feet apart and worked one time. The ground should be loose, and the richer the better, but no strong or coarse fertilizer should be directly applied. To attempt to dig more chufas than are wanted for seed and chewing is not best, as the harvesting is very tedious. After cutting the hay and gathering the few desired, hogs should be turned on the remaining, as they enjoy the rooting them up, and as long as they remain in the ground they are the more easily masticated.

A peck of seed will plant an acre, and a half bushel will broadcast an acre. J. E. Bass, of Mississippi, is authority for part of this information. He says he this year has three acres planted. On part of this he expects to have 200 to 300 bushels to the acre, and on the remainder about 600 bushels per acre. The difference is, in the main, in the soil. Some difference in the time and method of planting and cultivating. Seedmen ask from \$2.50 to \$3.50 per bushel for seed.

BLOOD IS LIFE, and upon the purity and vitality of the blood depends the health of the whole system. Experience proves Hood's Sarsaparilla to be the best blood purifier.

HOOD'S PILLS act easily and promptly on the liver and bowels. Cure sick headache.

Merit

Is what gives Hood's Sarsaparilla its great popularity, increasing sales and wonderful cures. The combination, proportion and process in preparing Hood's Sarsaparilla are unknown to other medicines, and make it peculiar to itself. It acts directly and positively upon the blood, and as the blood reaches every nook and corner of the human system, all the nerves, muscles, bones and tissues come under the beneficent influence of

Hood's Sarsaparilla

The One True Blood Purifier. All druggists. \$1.

Hood's Pills cure Liver Ills; easy to take, easy to operate. 25c.

Plan of Steer-Feeding Experiment.

In speaking of the sixth experiment in steer-feeding, Prof. C. C. Georgeson says, in the *Industrialist*:

"We have been making preparations for another series of steer-feeding experiments for some weeks past. Fifteen three-year-old steers, which are to be used in the experiment, were purchased a month ago and have been on preliminary feed since, in pasture and yard. Ten of them were dehorned when bought, and the remaining five have been dehorned here. They are all natives raised within a dozen miles of Manhattan, though not on the same farm. In breeding, twelve of them are grade Short-horns and three grade Herefords, and run fairly even in size and quality.

"The experiment is planned with a view to test the value of red and black-hulled white Kaffir corn as beef-producing feeding stuffs in comparison with corn. To this end, the steers are divided into three lots of five head each, and each lot fed on one of the above-named grains, ground to meal, with Kaffir corn fodder of good quality for roughness. They will be fed in open yards, separated only by wire fencing, and in which each lot will have access to water and shelter of an open shed. They will not be subjected to any pampering, but in all respects handled as the ordinary feeder handles his stock in order to make the test thoroughly practical.

"During the first three weeks the manure will be collected and the grain voided undigested washed out to ascertain what per cent. of the feed is wasted. At the end of that time five shoats will be placed behind each lot of steers, and they will be given what extra feed they may require of the same kind the steers get.

"If the steers make moderate and steady gains on these feeds, they will get nothing else; but if the gain of any lot should be unsatisfactory, the ration will be enriched with bran and possibly a small amount of oil meal, sufficient to improve the gain.

"Kaffir corn is now an established crop in Kansas. The results of the last five or six years have not only proved that this foreign grain can be grown here with marked success, but that it is superior to corn, both in drought-resisting and in yielding qualities. The only unsettled point is in feeding value. Should it prove to be equal to corn also in this respect, or but slightly inferior to it, it is destined to grow still more in favor with our farmers, and in certain regions of the State surpass corn altogether. It is hoped that this experiment may go far toward settling the question."

Hog Cholera--Government Prescription.

Inquiries as to the best preventives for hog cholera suggest the re-publication, at this time, of the prescription recommended by Dr. Salmon, of the Bureau of Animal Industry. It is:

- 1 part wood charcoal.
- 1 part sulphur.
- 2 parts sodium chloride (salt).
- 2 parts sodium bicarbonate (soda).
- 2 parts sodium hyposulphite.
- 1 part sodium sulphate.
- 1 part antimony sulphide.

Pulverize and mix thoroughly. Dose, one tablespoonful for each 200 pounds weight of hog once a day.

Irrigation.

THE WATER SUPPLY OF WESTERN KANSAS.

Address of Judge D. M. Frost, President of the State Irrigation Commission.

The problem of a water supply for irrigation purposes on the western plain is the easiest thing in the world conceived of and the hardest to bring about. The student who has followed this special line of investigation finds many obstacles in his way that must be overcome, while at the same time he finds much to encourage him in continuing the work.

Kansas is a prolific field in this line of work, and I may also say that it is as large as it is prolific, embracing, as it does, nearly one-half of the entire State, or to be more exact, all that portion lying west of the 98th meridian, which is denominated as the arid or semi-arid portion of our State, upon which lands an artificial application of water to the growing crops would be most beneficial three years out of every five.

But it must not be assumed that all this vast expanse of country can be successfully irrigated with our present or future available water supply, as we cannot hope for this under the best possible conditions. Yet, when we recount what has been done, or is being done now, in the line of applying moisture by artificial means to our arid lands, we then may be better enabled to judge as to its success or failure, and whether or not it would be wise or unwise for our State and federal governments to continue to aid us in this direction. During the years 1879 and 1880 the first charters were filed with the Secretary of this State for the construction and operation of irrigating ditches or canals within the State of Kansas, by citizens of Finney county. Others followed in rapid succession. The work of construction was vigorously pressed until nearly 1,200 miles of irrigating ditches were put into operation within the borders of western Kansas, and water conveyed to 124,000 acres of land and successfully irrigated up to the year 1892. Hamilton, Kearney and Finney counties claim to possess 800 miles of ditches so constructed, which have been the means of bringing under a high state of productivity 90,000 acres of land in the three counties named, 70 per cent. of which was put into alfalfa. Since the shortage of a water supply to these irrigating ditches, from 1892 to date—the cause of which I will note further on—a new system was inaugurated, that of the individual pumping and reservoir system, which, although rather small in its earlier conception, has to-day become quite a factor in the reclamation of the arid belt and has made marked progress.

Before we had any such organization as we here represent—the State Irrigation Association, or the State Board of Irrigation, afterwards created by law, we possessed less than fifty individual pumping plants in our State, while at this time we have upwards of 3,000 such plants, irrigating all the way from one to ten acres of ground, 95 per cent. of which are reported as an absolute success, irrigating in the aggregate 22,000 acres. The power employed is chiefly wind power, although there are quite a number of plants within the State that are being operated by steam and gasoline power, which aim to supply water to larger areas than is possible by windmill power.

The third source of water supply is the artesian wells, or the development of the artesian waters on the western plains, which has been found to exist in ten or twelve counties in the west half of the State, and in but one (Meade) has there been any considerable development made, where to-day 200 flowing wells may be found, flowing all the way from a few gallons of water to sixty-five gallons per minute. These wells embrace within their circumference upwards of 80,000 acres of land capable of being supplied with water from this source. Although as yet in a primitive stage of development, it is to-day the most promising field we possess, and, in my judgment, most economically developed, a very fruitful

field for research. By this system of water supply we have an additional amount of land supplied with water for irrigation purposes, of 10,000 to 15,000 acres, giving us a total of lands under irrigation within the State of 161,000 acres, all of which lands under these several systems have brought up to a very high state of productivity, second to none within the State.

This brings us to the principal question at issue, and of which we are to speak, "The Water Supply of Western Kansas," what it is, its source and supply. Three sources from which we are supplied, i. e., by precipitation (rainfall and melted snow), surface flows of water through rivers and smaller streams, and the underground waters. Through precipitation from the clouds, our annual average rainfall for the east half of our arid and semi-arid belt of the State is twenty inches, and for the west half the annual average rainfall is fifteen inches, all of which is based on report and official data of rainfall for the plains country for eighteen years last past. The peculiar nature of our soil—on the uplands especially—does not seem to require a great excess of rain annually to mature a fair average crop of the diversified crops we are enabled to produce, as it does in the eastern portion of our own State, where the average annual rainfall is between thirty and forty inches. While the east half ranges from thirty-five to forty inches annually and the west half thirty inches, when the rainfall goes ten inches below the annual average rainfall in either one of these respective divisions, there is a great shortage in crops, and they speak of a drought.

While with us, if we add artificially but four inches of water to the territory that gives us but twenty inches annual rainfall, we are abundantly supplied and assured of an abundant harvest each and every year. So, also, for the territory where we have but fifteen inches of annual average rainfall, we are obliged to add nine inches by artificial means, bringing it up to the quota of water these lands must have to produce a bountiful crop. Or, in other words, to make our lands productive, for the east half we must apply annually four additional inches of water to that which we get through natural rainfall, while in the west half we must have nine inches. This, however, is all based on the assumption that we absorb into the soil all the water that falls upon the land, and is so absorbed by the soil upon which it falls. If allowed to run off, the difference between the absorbing and run-off process must be artificially supplied. This in many instances means nearly the entire quota of water needed, twenty-four inches, since none of the rain was absorbed by the soil upon which it fell. Perhaps one of the greatest factors for the retention of the rain in the soil upon which it falls, is the subsoling of the land from fifteen to eighteen inches in depth, thereby opening up the pores of the earth and allowing the rain to seek lodgment a foot or more beneath the earth's surface, and thereby form an underground storage reservoir beneath the very soil upon which it falls and to supply moisture to the plant over its immediate surface under which it finds lodgment.

We lack from four to nine inches of water that must be drawn from some other source and artificially applied to our lands under the system known as irrigation, and we have two sources of supply—water from our rivers and streams and our underground waters. The river service, so far as the Arkansas river is concerned, has failed us, not because there was any diminution in its flow at its source of supply, but from the fact that the water was withdrawn from the stream before it reached the Kansas line, and for the same purpose that we desired to use it—for irrigation purposes. We, perhaps, can make no serious objection to that fact, since we accorded Colorado that right when she was admitted into the sisterhood of States, but it leaves our ditch men in a very precarious condition on this side of the Colorado line, as also the farmers who they supplied with water, which was taken from the surface flow of the great Arkansas river, supplying water to 84,000 acres

of land annually, which for the past three years have had less than half service, and for the year 1896 no service to speak of. To supply these ditches with water, and in turn water the lands they cover, another system must be thought out and developed, and since the surface flow of water from this particular river cannot longer be depended upon, the sub-surface or the so-called underflow waters must be used, provided a sufficient amount of water can be found and made available. This has been and is now the all-absorbing problem that confronts us. If examinations and investigations made by the State Board of Irrigation relative to these underground waters prove anything, then I must say that our hidden or underground water supply is equal to or even greater than our water supply ever has been or will be through our streams, so far as the surface flow in our rivers and streams are concerned. In other words, we have in the water-bearing sands and gravel an ocean of water, much of which may be utilized for irrigation purposes. These water-bearing sands and gravel are very deep and broad along the courses of our plains rivers, and carry in their hidden bed a vast sea of water. An eminent irrigation engineer was asked the question as to whether or not he believed that the water-bearing sands and gravel in the Arkansas river was six miles in width and on the average forty feet in depth, and that one-fourth of the water-bearing sands was water, below the water surface? To which he answered, "Yes." If that is so, and I believe it to be, then we can boast of having a stream of water along the Arkansas river six miles in width and ten feet in depth, available as a water supply to be used along this great valley for irrigating our lands. If by utilizing two acre feet of this water and counting that we were to lose one-half of this supply in conveying it to our lands, by seepage and evaporation, we would have enough to irrigate a strip of land six miles in width the full length of this valley, from Wichita to the mountains, the principal source of supply, and still have eight feet of water left in our underground water supply, all of which can be had by a gravity flow or gravity system. Every other plains stream under like conditions can be utilized for the same purpose and made to serve the people in the same manner, and, to my mind, not alone reclaim a million acres of our vast domain, but three or four million acres out of the thirty million acres embraced in this territory.

The test and experiments made both by the Director of the Geological Survey and the corps of investigators in the field under the direction of the State Board of Irrigation, as also the investigations made by the several members of the board, which evidence, when compiled and printed, will, I feel assured, fully justify me in the claims I here make, and when so justified and verified, we want to lose no time in providing ways and means wherewith this water supply may be developed to its fullest extent and capacity, and to accomplish all this, we have a right to not only petition our State government to aid us, but the federal government as well. If the general government will return to our people \$2,000,000 out of the forty odd million that the people of this State have paid into the federal treasury, on public lands alone, we will then be enabled to make the lands so sold to our people agricultural lands in fact as well as in name, and build an empire on the great plains of western Kansas, which is the only territory left to us and our people out of which we must carve the future homes for the rising generation of our own State, to say nothing of the increase of population of the nation as a whole.

I suffered for two weeks with neuralgia, and Salvation Oil gave me immediate relief.—Mrs. Wm. C. Bald, Mosher street, Baltimore, Md.

Thos. Slater has a message for every man on page 15.

Remember that you can get the KANSAS FARMER and the Kansas City Daily Star, both for one year, for \$4, or the KANSAS FARMER and the Kansas City Weekly Star both for one year, for \$1.20.



A woman's happiest fancies may come true if they are not all destroyed by ill-health; sickness is the touch at which happiness bursts like a bubble. A sick woman cannot be a happy wife or mother. More marriages and homes are wrecked by the wife's physical weakness than by any other one cause.

Diseases incident to the delicate and intricate, feminine organism need the skilled treatment of an experienced specialist. Average doctors have not the opportunity to acquire the necessary special knowledge and skill. Dr. R. V. Pierce for nearly thirty years chief consulting physician at the Invalids' Hotel and Surgical Institute, Buffalo, N. Y., has devoted a lifetime to the treatment of these delicate complaints, and his "Favorite Prescription" is the most successful medicine ever devised for women.

James Caswell, Esq., of Ocheltree, Johnson Co., Kans., (P. O. Box 61), writes: "My wife was troubled with prolapsus or 'female weakness' for several years. She was not able to do her work, she had such bearing down pains, and pain in the back. Her periods were irregular varying all the way from two to six weeks. At those times she would have fainting spells so bad I thought she could not live. She was attended by the best doctors in the country. They did her no good, and she grew worse all the time. I picked up one of your advertisements and thought I would try your medicines. Before my wife had taken one bottle she seemed better; so I got her another. By the time she had taken four bottles of the 'Favorite Prescription' and two of the 'Golden Medical Discovery' and two of the 'Pleasant Pellets' she was completely cured. No more pain. Her monthly periods are regular now and she is stout and strong. She weighs 160."

Dr. Pierce's Pleasant Pellets regulate the liver, stomach and bowels. By druggists.

Artesian Water in Kansas.

Abstract of paper read at the Great Bend meeting of the Kansas State Irrigation Society, by Prof. Erasmus Haworth.

The artesian waters of Kansas may be divided into two classes, for convenience of discussion. In the first class may be placed the water found in the Meade artesian valley, water found at depths varying from fifty feet to 250 feet below the surface. The second class is represented by the water found at greater depths in the Dakota sandstone, which underlies a considerable portion of the western part of our State. Space will only permit a brief discussion of the two classes of water.

THE MEADE ARTESIAN AREA.

The area of productive artesian water in Meade county is confined to a valley of relatively low land, reaching from Wilburn on the northeast, to Meade Center on the southwest, covering about sixty square miles. The artesian water is reached in most parts of the valley at depths less than 200 feet, although in some places it is found only at a depth of from 200 to 250 feet. No special surface indications can be noticed indicative of the water. One seems almost as liable to find it at one place as another, although in general the best wells are along the western side of the valley.

It seems that water is found at every place where drilling has been done, but in many instances the flow is light, or almost nothing, on account of the well being choked up with sand. A number of instances are known in which a well did but little good for some days after being drilled, but in one way or another it would be caused to throw out large quantities of sand, after which a much greater flow of water was obtained.

In drilling the wells a small drill has always been used, simply because no large drill is owned in the county. The material passed through is entirely of a loose character, no rock whatever being passed excepting an occasional thin seam less than six inches in thickness and quite local in extent, and therefore does not belong to any important rock stratum known in that part of the State, but rather to be accounted for on the assumption that locally a thin layer of sand has been partially cemented, so that it has some of the properties of sandstone. Quite frequently a layer of sand will be passed

which is so loose that the weight of the drill is sufficient to sink it for six feet or more in less than half as many minutes.

Without entering here into a discussion of the reasons for thinking so, it may be said that there is but little room to doubt the proposition that the source of the artesian water in this valley is the ordinary underground water which exists farther to the west on higher ground. Within less than a dozen miles to the west the general level of the underground water is at least a hundred feet above the surface of the Meade valley. The water, which seems to be abundant here, is moving downhill to the east and naturally would flow out upon the surface of the valley did not the surface covering of clay hold it down to lower depths. When the drill has penetrated this covering of clay the water comes out, provided the hole is not choked up by the loose sand from below.

At present it would seem only a small portion of the available water is used. Some of the largest wells produce about forty-five gallons per minute, while others produce much less. No careful estimate has yet been made regarding the actual supply obtained at the present time, but in a rough way we may say that there is now flowing from the wells about 30,000 gallons of water per minute, an amount sufficient to cover 500 acres a foot deep per year. Every indication points to a greatly increased flow were the proper means employed in making the wells.

THE DAKOTA SANDSTONE WATER.

Mr. G. K. Gilbert has just published, in the Seventeenth Annual Report of the Director of the United States Geological Survey, a very important paper on the waters of eastern Colorado along the Arkansas river. A reprint of this article can probably be had by applying to the Director. In it is shown how the Dakota sandstone extends eastward over the greater part of the Arkansas river country in eastern Colorado, and how that water is generally obtained when a drill passes into the sandstone. The same sandstone extends eastward into Kansas, and comes to the surface in the middle part of the State, covering an area of not less than 6,000 square miles, reaching from Washington county southwestward to Pawnee county. West of this surface exposure it may be reached by the drill, and will always afford a large amount of water which in some places will rise to the surface, producing an artesian well. In other places it will rise only a part of the way to the surface, but can generally be pumped to advantage. The vicinity of Coolidge and in Morton county are the principal localities in Kansas where artesian wells now exist which draw their water from the Dakota sandstone, although it is quite probable that a flow can be had in many other localities. A well on the south side of the river at Coolidge flows fully fifty gallons per minute, making it the strongest flowing well in the State, so far as I know. In other places wells have reached the same sandstone and good water has been obtained, although usually it has not quite reached the surface.

The character of the Dakota water is variable. In some places it is quite highly mineralized, while elsewhere it is a good fresh water, well fitted for domestic uses. The water along the Arkansas valley in general is good, while farther north, beyond the Smoky, the few wells made have produced salty or at least brackish water. It is confidently believed that this source of water has not yet been appreciated to the tithe of its importance. It is hoped that within the near future we shall know more in detail on this subject about which our knowledge at present is principally of a general character.

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.

A Day at Rose Creek Farm.

The reader interested in high-class Jersey cattle, registered Poland-Chinas, Silver-laced Wyandottes and Mammoth Bronze turkeys, will find on a visit to the 240-acre farm, known as the Rose Creek farm and situated in Republic county, Kansas, ten miles north of Belleville, the county seat, and four miles south of Chester, Neb., an agreeable surprise. The work of putting the farm in order was begun early in 1895, and shortly thereafter supplied with the best foundation stock that experience could select and money buy. Mr. D. L. Bartlett, the owner, has left nothing undone to make the several foundations right, and under the careful and judicious oversight of the manager, Mr. John P. Tolford, and his estimable wife, the business operation of the farm has been a financial success from the start.

The fourteen head of Jerseys that first came to the farm and since recruited, now aggregate twenty-eight head, all ages, headed by the very excellent two-year-old harem master, Calvin S. Brice 37820, that was bred by the Ripley estate, at Westfield, N. J. His sire was Pedro's Royal Marjoram 28560 and out of Belle of Plainville 2d 98766 by Mistletoe's Carlo 12166 and out of Belle of Plainville 19503. His more extended pedigree within four removes shows that four sires and three dams were imported animals. Such was his great breeding and promise when in his calf form he won first premium at the New Jersey State fair in 1894. Space forbids an extended individual mention of the foundation cows, other than their names and record number, which are as follows: Queen Pashaw 109648, Gilberta La Gros 109649, Parlage 95659, Hazel Trut 109805, Laura Trut 81183, Countess de Costellame 102883, Mrs. Paran S. 84088, Andamora 76743, Emerald of Argyle 103704, Jersey Jo 85779, Audrey Bess 99263, Lena B. 98348, Zoranda 3d 89699, Piquant 68125, Mabel Blossom 114890 and Bliss of Argyle 92925. Among the very attractive youngsters is the eleven-months Grace Tolford 114831 by Andalusia's Pride 36152 and out of Indamora 76743. The six-months Lucia Trut 114882 by Calvin S. Brice 37820 and out of Hazel Trut 109805. The visitor finds two young fellows, each 12 months of age, the one Governor Bois out of Queen Pashaw and the other one Baron Romeo by Andalusia's Pride 36152 and out of Emerald of Argyle 103704. Enough, the writer thinks, has been given concerning the dairy stock, so that the up-to-date Jersey breeder can understand the merits of the dairy history associated with the representatives belonging to the top Jersey families whose representatives are found in the herd.

The improvements on the farm, constructed with a view of having the very latest in modern dairy machinery and methods, strikes the visitor with no small degree of surprise. A system of water-works, whose supply is inexhaustible, extends into all the various buildings, from the residence down to the quarters for swine. It is in the judgment of the writer the superior of any now in operation throughout the entire State. Such is the high quality and finish of the butter product that it commands the highest price in the Chicago and St. Joseph markets, ranking right up with the celebrated Elgin brands.

The swine herd is proving itself a valuable adjunct to the dairy operations. There are over 100 head, all ages and of the best blood that could be obtained, not "just pigs for the swill," but extra good ones, both in individuality and breeding. The fifteen original brood sows were selected from the best herds in four States and are presided over by the very excellent harem master, Kodaok 15086 S., a grandson of George Wilkes 5950 S. and out of Pride of Gage County 18563 S., she by Van Dee 6343 S., and out of Midnight 16564 S. Every Nebraskan and Kansan up in Poland-China history will readily recognize his wealth of ancestry and as an individual he is sure of a place in the competitive State fair show rings. About seventy of his sons and daughters belonging to the spring of 1896 farrow and out of the brood sows aforementioned are ready to go out to new masters.

Such has been the success the first year at Rose Creek farm that three recruits have lately come to do service in the prospective pig crop. Rosewood Medium 16453 S. bred by Woodford Bros., of Iowa, and sired by Woodburn Medium 12066 S., the \$1,000 hog, and out of Fantasy 28184 S. by One Price 4207 S. His dam, Fantasy, is a daughter of Courtney Medium 28182 S. As an individual he is as strong as is his ancestry. Then comes Tecumseh the Great, a son of Chief Tecumseh 2d and out of Moss Wilkes 22396 S., by George Wilkes 5950 S. His breeding is all "O. K." and individually "he's a sure good one." Domino 16734 S., the pig that won first at the late Nebraska State fair under 6 months, is here, and a right good one he is. He was sired by What's Wanted Jr. 10026 S. and out of Nancy B. 21662 S. Such is the promise of this young fellow and his high character he won first premium as above stated in a ring whose representatives came out from



PERSISTENT
Disorders in the
Stomach, Liver
and Bowels
accompanied by
BACKACHE
and changed
appearance of the
Urine are
indicative of
DISEASED KIDNEYS

To restore these vital organs of the body to perfect condition, and recover health and strength, use only the old reliable remedy

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LIVER AND KIDNEY BALM

We have testimonials from thousands who have been given up as beyond relief who have taken this medicine and been permanently cured

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

a list of thirty-six entries. None of these three are of the cheap \$15 to \$25 kind, but each cost over \$100, and nicked with the daughters of Kodaok there is great promise in the prospective pig crop.

The poultry department is under the immediate supervision of Mrs. Tolford and so far a decided success. A nice lot of young cockerels are ready to go and she invites inspection and correspondence. If you want the best of Silver-laced Wyandottes, you know where to find them.

Prospect Park Poland-China Sale.

On last Thursday, November 13, 1896, was held the first public sale from the Prospect Park herd of Poland-Chinas, owned by J. H. Taylor, formerly of Pearl, but now of Rhinehart, a new postoffice in Dickinson county, nearer to his well-improved farm of 800 acres than the old office.

The stranger who, for the first time, pays a visit to Prospect Park, is sure to be greatly surprised at what is to be seen in the way of extensive and substantial barns, sheds and all other conveniences that go with a modern breeding establishment, but more to the point is the grand lot of Poland-Chinas that are models of condition and excellence.

Col. S. A. Sawyer, the auctioneer of the day, after partaking of an elaborate banquet, greeted the prospective audience of buyers with a well-merited tribute to Mr. Taylor and his first public offering of stock, that were a credit to any breeder or to any State. The sale opened in good form, and while there were no sensational offerings at fancy prices, there was a typical offering of first-class hogs, the regular produce of the herd. The top price of the day was \$21.50, for a sow pig. Under the skillful and persuasive eloquence of Col. S. A. Sawyer, the bidding was lively from start to finish, and in less than two hours fifty-three pigs were sold for \$714.50, an average of \$13.50. Twenty-one boar pigs averaged \$10.33 and thirty-two females averaged \$15.55. Every one was favorably impressed with Prospect Park Poland-Chinas as well as with the young and unassuming proprietor, Mr. J. H. Taylor, who, for the past ten years, has quietly been breeding and building up a reliable and representative herd of the breed, regardless of sensational animals, until, to-day, he has one of the largest herds in Kansas, and, fortunately, has every convenience for the proper care of the same and a perfect system of management that keeps the record of every animal under perfect surveillance.

Every visitor at the sale was pleased with the stock offered and also impressed with the importance and profit of improved stock, as exemplified at Prospect Park herd, which has bright prospect ahead for the quiet and genial proprietor. The following is a list of the buyers at

this first public sale: John Taylor, Pearl; Joe Hollinger, Rhinehart; Wm. Dietrich, Chapman; S. C. Poor, Chapman; J. F. Voelpel, Chapman; W. H. Gatch, Woodbine; Wm. Hollinger, Rhinehart; Wm. Bick, Chapman; W. H. Wren, Marion; W. F. Gugler, Woodbine; E. J. Gallagher, Chapman; J. E. Pollard, Chapman; L. Westrop, Woodbine; Clarence Taylor, Pearl; T. F. Gorman, Chapman; Chas. Hollinger, Rhinehart; Edward Loy, Rhinehart; J. F. Clayton, Chapman; T. Cullom, Chapman.

Send \$1.35 to KANSAS FARMER office for one year's subscription to KANSAS FARMER and Chicago Weekly Inter-Ocean.

"Dairying for Profit, or the Poor Man's Cow," is practical, was written by a woman who knows what she is talking about, and is cheap—only 10 cents for a 25-cent book, to subscribers for the KANSAS FARMER. Send to this office.

Tours in the Rocky Mountains.

The "Scenic Line of the World," the Denver & Rio Grande railroad, offers to tourists in Colorado, Utah and New Mexico the choicest resorts, and to the trans-continental traveler the grandest scenery. The direct line to Cripple Creek, the greatest gold camp on earth. Double daily train service with through Pullman sleepers and tourists' cars between Denver and San Francisco and Los Angeles.

Write S. K. Hooper, G. P. & T. A., Denver, Col., for illustrated descriptive pamphlets.

To St. Paul and Minneapolis via Burlington Route.

Two splendid through trains each day from Missouri river points to the north via the old established Burlington Route and Sioux City line. Day train has handsome observation vestibuled sleepers, free chair cars, and dining cars (north of Council Bluffs). Night train has handsome sleepers to Omaha, Council Bluffs and Sioux City, and parlor cars Sioux City north. Consult ticket agent.

L. W. WAKELBY, Gen. Pass. Agt., St. Louis, Mo.

No Room for Doubt.

When the facts are before you, you must be convinced.

The facts are that the UNION PACIFIC is leading all competitors, is the acknowledged dining car route, and great through car line of the West.

The line via Denver and Kansas City to Chicago in connection with the Chicago & Alton railroad, with its excellent equipment of Free Reclining Chair Cars, Pullman Palace Sleepers and Pullman Dining, demands the attention of every traveler to the East. Ask your nearest agent for tickets via this route.

E. L. LOMAX, Gen. Pass. and Ticket Agent.

The Home Circle.

THE NEW FARMER.

And the fellers from the College of Agriculture they,
 Wuz thick as lightning bugs in June, and had
 a heap to say.
 There wuz one they called a chemist, and he
 kind a seemed to know
 All that wuz in the air above and in the
 ground below.
 He said we needed nitrogen, and showed how
 the stuff
 Wuz awful high and skeerce for crops, while
 in the air enuff
 Wuz found to make us 'tarnal rich if we
 could only git
 Some cheap and certain projek of hitchin' on
 to it.
 He says that peas and clover and other crops
 like them
 Wuz just the stuff to do it and store it in the
 stem.
 And the yearth is full of critters that eat this
 stuff, you see,
 And change it in a twinkle to ammonitee.
 Since I come back from the institoot, some-
 how it appears,
 Potash, nitrate, fosferous, wuz ringin' in my
 ears,
 And William, it seems perty tuff that you
 and Jim and me
 Hev went along so ign'rant of what we daily
 see.
 Jist hauled manure out on the pints and
 plowed and hoed and mowed
 And worked so hard for little pay, and never,
 never knowed
 That clover, peas and beans, and stch as the
 chemist mentioned there,
 Hev the highly useful knack of suckin' niter
 from the air.

—Dr. H. W. Wiley, Chemist United States Department of Agriculture.

WOMAN DOG TRAINER.

How a Bright Yankee Girl Is Earning a Good Income.

There is money in small dogs for any woman who will cultivate the fashionable and not too finely bred species, according to the simplest rules of canine hygiene. This is the opinion of a girl who has a small dog farm in her father's back yard, and is making it pay. She began three years ago by rescuing a batch of fat puppies from a watery grave, simply through tenderness of heart, and, when the orphans were thrown on her hands, volunteered to find them homes when they arrived at months of discretion.

"It was a big bar sinister somewhere in their pedigree that made them worthless to their original owner," she explained when telling about her experiment, "but I saw they were developing into very fair specimens of middle-class fox terrierhood, so I gave them the advantages of a decent education. I don't think their rearing cost me a cent. Some nice large dry goods boxes made suitable kennels; I fed them with milk and kitchen scraps, and because out of pure affection for their race I had them properly docked, collared and named, and gave them a plain, solid education in deportment suitable for house animals. At the end of three months I didn't give



TEACHING HIM TRICKS.

them away. I sold every one of the four at \$25 apiece to women who were willing to pay that price for dogs possessed of good habits, sound digestion, sweet temper and showing some pretty tricks like mine.

"That stroke of luck put ideas into my head especially when my front door bell was besieged by women anxious to buy up any more 'darling little beauties' like those I had just disposed of. I merely increased my row of dry goods boxes, picked up here and there any likely looking puppies I could lay hands on and find I can sell them, directly their educations are finished, at a very large profit on my original investment.

"First of all I select for my dogs capital names, cultivate stout constitutions, sweet, cheerful tempers, carefully break them to the leash, inculcate

perfect house habits, train them to understand children and strangers and teach every one a few pretty tricks. Of course it takes time and patience and a genuine love of the dog itself to cultivate these excellent habits and varied accomplishments, but really the outlay is small and every dog I sell turns up at his future mistress' door in collar and ribbon neck bow, but all of them are not fox terriers.

"I both breed and raise Yorkshire and Scotch terriers, dandie dinmons, water cocker and King Charles spaniels, a few pugs, an occasional poodle and a great many dachshunds. These are what I call the standard small dogs, easy to raised, readily trained and always in fashion. The big dogs are too expensive to board, and are not nearly so clever or so salable as their smaller brethren, while the dogs of purely aristocratic strain and rarities I never invest in. Now and then I will take a high born puppy and raise and educate him for his owner, and since my dog experiment is proving so profitable I am trying my hands on cultivating cats for the same market.

"Just now I am testing a litter of charming Maltese kittens, bringing them up with my puppies. I got the whole batch for a song, as an ordinary cat is not greatly sought after these days, and the average fine Maltese Tabby or Tommy does not command at most more than eight or ten dollars. Still I expect to be repaid for my efforts at training them as mousers, gay pets and dainty house companions, and any woman with a proper love of animals can do all that I have done. The capital invested need not be over \$25, any good veterinary's book will give her all the technical information wanted, and patience with personal attention are the other requisites to success in this interesting little industry. As to disposing of the animals when old enough and properly trained I can only say I never knew the clever, lovable small dog born into the world that there was not always some feminine heart, hearth and purse open to him."—Boston Globe.

ENGAGEMENT RINGS.

Rubies Are Taking the Place of Diamonds as "the Correct Thing."

The most correct engagement ring to give the dearest girl in the world is no longer a diamond solitaire but a ruby. This will be an unwelcome news for the impecunious bridegroom, but the jewelers declare it is a fact.

Theruby is supposed to be or all stones the most lucky—a pretty legend connected with the gem is that Noah was supposed to have had a ruby of marvelous brilliancy in the ark, and that the roseate light which it emitted was sufficient to illuminate the wonderful boat until all danger was past.

Many of the oldest betrothal rings were set with rubies, these stones being the acknowledged love token of long ago.

And, speaking of ancient love tokens, the British museum contains a love letter which was written 3,500 years ago. This is no doubt the oldest love letter in existence, and it is also the most substantial, as it was written on a brick. The letter was a proposal of marriage for the hand of an Egyptian princess.—N. Y. Journal.

Worn at an English Wedding.

A gown which was worn by the aunt of young Mr. Irving on the occasion of his marriage to Miss Dorothea Baird, is described as a "dream" in apricot yellow. It is a glace silk with white sleeves; the skirt, veiled by an overdress of white chiffon, has three narrow frill flounces at the foot, edged with black velvet bebe ribbon. The bodice is trimmed in the same way with a fichu and full shoulder frills of the silk at the top of the sleeve.

Decoration of the Pier Glass.

On the occasion of some social function the old-fashioned pier glass is often the most difficult object of artistic decoration. A useful hint may be found in the following direction: Bank up the lower part with palms, so that you may have a good foundation of green to work upon. Then tack four thin wires from the top of the mirror to both ends. Twine some vines in thick profusion up each wire, and on top of the glass festoon greens to the ceiling.

GARLAND STOVES AND RANGES

The World's Best

MICHIGAN STOVES AND RANGES

A full and complete line of Cooking and Heating goods for all kinds of fuel, made by the same mechanics and of the same material as "Garlands." "Michigans" are the peer of ANY other line EXCEPT "Garlands."

THE MICHIGAN STOVE COMPANY, Largest Makers of Stoves and Ranges in the World.

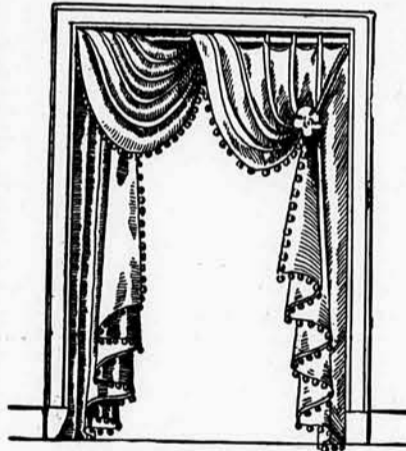
LADIES I Make Big Wager At Home—
 and want all to have same opportunity. The work is very pleasant and will easily pay \$15 weekly. This is no deception. I want no money and will gladly send full particulars to all sending 2c. stamp. Miss M. E. Stebbins, Lawrence, Mich.

BEFORE BUYING A NEW HARNESS
 Send your address with 2c stamp for illus. Catalog, giving full description of Single and Double Custom Hand-Made Oak Leather Harness. Sold direct to consumer, at wholesale prices. King Harness Co., No. 87 Church St., Owego, N. Y.

DOORWAY DRAPERY.

Its Chief Beauty Should Lie in the Simplicity of Its Folds.

The chief beauty of any drapery should be looked for in the folds into which it naturally falls, and to bring this result simplicity should be the principal object in selecting designs for home adornment. This should be considered also in the selection of material. Provided these harmonize with the prevailing tones of your room, and also that you have a material which falls naturally into soft, artistic folds, your



DOORWAY DRAPERY.

curtains, be they simple or expensive material, are sure to look well, and no number of other good characteristics, such as beauty of design or pattern, will compensate for the loss of this quality.

In the matter of linings it is well to match the principal shade of your drapery with some soft material, such as armure or the silk-faced goods so plentiful in the market nowadays, and to be found in every conceivable color and shade, from 25 cents per yard and upward. An immense step has been taken lately in the production of fabrics suitable for household draperies, and it is safe to say that it is the purchaser's own fault if the materials chosen should not suit even the most fastidious taste.—Chicago Chronicle.

To Stop Hiccoughs.

A new method of stopping hiccoughs is said to have been accidentally discovered in a French hospital. It consists in thrusting the tongue out of the mouth and holding it thus for a short time.

Toilet Set for Girl's Room.

A dainty bureau set for a young girl's room, consisting of cover, a set of mats, and a stand cloth to match, is of white linen, embroidered with a morning glory design, showing leaves, flowers, the long, slender buds and tendrils. The edges are in scallops, buttonholed with white silk. The flowers are in pale pink, veined both with the white and dark garnet, and the leaves are in shades of olive. As the design is worked either one of the heart-shaped leaves or a flower alternates with the scallops in the border, making a very pretty effect.

MEDICAL WISDOM.

The Dreaded Consumption Can Be Cured.

T. A. Slocum, M. C., the Great Chemist and Scientist, Offers to Send Free, to the Afflicted, Three Bottles of His Newly Discovered Remedies to Cure Consumption and All Lung Troubles.

Nothing could be fairer, more philanthropic, or carry more joy in its wake than the offer of T. A. Slocum, M. C., of 188 Pearl street, New York city.

Confident that he has discovered an absolute cure for consumption and all pulmonary complaints, and to make its great merits known, he will send, free, three bottles to any reader of KANSAS FARMER who is suffering from chest, bronchial, throat and lung troubles, or consumption.

Already this "new scientific course of medicine" has permanently cured thousands of apparently hopeless cases.

The Doctor considers it his religious duty—a duty which he owes to humanity—to donate his infallible cure.

Offered freely, apart from its inherent strength, is enough to commend it, and more so is the perfect confidence of the great chemist making the proposition.

He has proved consumption to be a curable disease beyond any doubt.

There will be no mistake in sending—the mistake will be in overlooking the generous invitation. He has on file in his American and European laboratories testimonials of experience from those cured in all parts of the world.

Delays are dangerous. Address T. A. Slocum, M. C., 188 Pearl street, New York, and when writing the Doctor, please give express and postoffice address, and mention reading this article in the KANSAS FARMER.

The Young Folks.

A SCHOLAR'S THOUGHTS ON ESSAYS.

Oh, dear! How I hate to write essays;
They give me the awfulest blues;
It's just like a boy who wears "sixes,"
Trying to get into "twos."

I just love to play ball and tennis—
It makes a fellow's heart light—
But, just when I want to play hardest,
I'm ordered an essay to write.

And, then, with a pencil and paper,
I sit down at the window to write,
But hardly a word can I think of,
Though trying with all of my might.

At last, after thinking and writing,
Till I am nearly tired to death,
I've managed to finish my essay,
And then I draw one great long breath.

All written so slowly and careful,
With commas and periods right,
And capitals heading each sentence,
And neatly signed, "Thomas J. White."

And, then, the next morning the teacher,
With a face quite unusual to see,
Is reading my essay, between times,
Of laughing and looking at me.

And then, to my desk he comes slowly,
As he says (and he's laughing again),
"I hardly know which wrote this essay,
The boy who plays ball, or the pen."

"Oh, Tommy! How oft have I told you,
That periods at the end should be?
And an exclamation here, Tommy?
Why! I hardly see how that can be."

And that is the way it goes always;
Whenever an essay I write
There's always a word or a sentence
Or a period that isn't just right.

Pa talks of my going to college,
When my schooling I've finished here quite,
But I hope if I ever do get there,
There'll be no more essays to write.

Tom.

BRUTUS WAS SMART.

Knew When the Conversation Touched on His Battle with Bruin.

A writer in the American Field tells of a fight between a black bear and a mongrel cur that could boast not of lineage or personal appearance. He put up a game fight, however, only to be worsted in the end by a powerful stroke of bruin's paw. When the bear was dispatched by the dog's master it was found that Brutus, the dog, was very badly used up, and he presented a sorry appearance. He was carefully nursed back to health and strength again, and proved useful in many a hunting expedition. Some time after the dog's adventure with the bear, one of the party—Col. B.—left home and remained away for several years. When he returned he found Brutus an old dog, bearing his honorable scars with the sedate dignity of a worthy pensioner. At first the dog did not recognize the colonel; the memory of old association seemed blotted out. One day, after having been home about a week, Col. B. and his brothers were sitting together talking of old times, while Brutus lay near by, apparently dozing. During the conversation the incident wherein Brutus was so badly used up by the bear was brought up; that memorable hunting exploit was gone over, and the courageous conduct of the dog extolled as it had been years before. The old dog remained quiet while the events of the first bear hunt were being discussed, until his fight with bruin was reached. At this point Brutus jumped up and sprang toward Col. B. in demonstrative recognition, showing that he had heard the conversation, and that his memory had been awakened by the recounting of the unfortunate experience with the bear.

The Largest Snake Ever Seen.

People who think they know something about snakes in this country, may be interested in hearing about the largest one ever seen by man—Speke, in his narrative of the journey to the source of the Nile. "I shuddered," he says, "as I looked upon the effects of his tremendous dying strength. For yards around where he lay, branches and saplings—in fact, everything except good-sized trees—were cut clean off, as if with an immense scythe. The monster, when measured, was fifty-one feet two and a half inches in extreme length, while around the thickest portions of his body the girth was four feet." Fancy meeting that snake while taking a ramble!

SINGERS AND ARTISTS GENERALLY are users of "Brown's Bronchial Troches" for Hoarseness and Throat Troubles. They afford instant relief.

FIRE-BALL PLAYING.

A Splendid Sport of Which the Boys of Texas Are Very Fond.

About the time every year that the negroes begin cotton-picking the boys of Texas have rare sport playing with fire-balls. Just at evening they gather from the field a pile of cotton-pods and take them to a near-by common or field. As soon as it is dark they go out in force, carrying with them a can of coal oil, or kerosene. Several of the cotton balls are wadded together in a solid mass and saturated with the oil. Then the boys separate in a big circle, standing 15 or 20 feet apart.

"All ready!" shouts the boy who holds the dripping ball of cotton. "Ready, ready," comes the word from the other players.

A match is lighted and in a moment the coal oil in the cotton ball is blaz-



PLAYING WITH FIRE-BALLS.

ing. Of course the boy who set it afire cannot hold it more than a second, so he throws it swiftly to the boy next to him. This boy sees the flaming ball coming and he must catch it in his hands and throw it before it burns him. He may take any boy in the ring by surprise, and if that boy drops it he is not only out of the game but he must pay a heavy forfeit for his carelessness. This forfeit usually consists in making the "fumbler" stoop over and allow himself to be struck once with a hat or knotted handkerchief by each of the other players.

When one ball is used up another is lighted and the game continues merrily. Of course the players become well blackened and sometimes just a little scorched, but the intense excitement of the game makes up for all that.

Not only is this game played in the south, but the boys of the north also have a hand at it. Instead of cotton they use the fluffy head of the marsh flag, commonly known as the cat-tail, which, as you know, falls apart when dry in a cottony mass. This makes just as good a fire-ball as cotton. Where cat-tails cannot be obtained sometimes cotton batting is used.

Right in this connection many boys would doubtless be glad to know that dried cat-tails make excellent torches. The stalks should be cut as long as possible and the heads of the cat-tails well saturated with kerosene oil. When lighted they will burn for a long time with a flare that will outdo most ready-made torches. No doubt there are companies of boys who would like to march in the political parades of the present campaign. If they do they will find cat-tail torches a very great attraction and they can be supplied at little or no expense.—Chicago Record.

TRAINED CHAMELEONS.

What a Girl Accomplished with Two of These Reptiles.

Much has been written about the beauty, the stupidity and the viciousness of the lizard tribe, and I want to say a word about the intelligence of the chameleon, a little reptile belonging to the great lizard family, and in size the antipodes of the alligator, its big brother.

The incident I now relate came under my personal observation and demonstrates that the chameleon is susceptible to education and can be ranked with animals classed much higher in the scale of intellectual development.

Miss Henrietta Keene, a little lady of 12 years, living in Philadelphia, was presented with two Florida chameleons, and she at once began instructing and educating her pets. By continued gentleness and kindness she won their con-

fidence, and at her call they would raise their heads, listen, and then come running quickly. Soon they responded to their names—Brinton and Baby—and nodded their little heads knowingly.

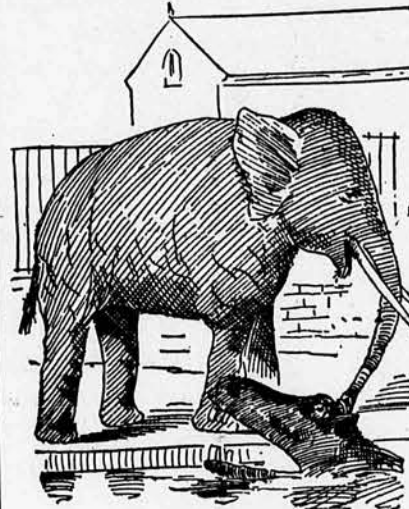
She then taught them to stand up on their hind legs and put their little forepaws together and stand in the attitude of prayer, looking solemn and closing their eyes; at a signal they would quickly prostrate themselves, roll over on their backs and pretend to be dead, lying without motion, until told to rise and embrace, which they would do with every sign of joy and pleasure.—Washington Star.

ELEPHANT'S PRANKS.

Being Full of Life He Likes to Have Fun with the Hippopotamus.

The sense of the humorous was unusually well developed in an elephant in the Jardin des Plantes in Paris. He was kept in the great inclosure out in the open air, so that he had plenty of room to roam about. In the same inclosure was a very large hippopotamus, for whose comfort and amusement a great stone basin had been built and filled with water, and the hippopotamus in turn furnished amusement for the elephant. I was quite early one morning—before the hour for admitting the public to the garden—when I noticed the elephant walking around on the stone edge of the basin curiously watching the hippopotamus.

Just as soon as the ears of the hippopotamus came into view the elephant quickly seized one of them with his



LIFTED ITS PONDEROUS HEAD.

trunk and gave it a sudden pull. The enraged hippopotamus lifted its ponderous head clear of the water and snorted and blew, but every time he rose to take breath the elephant would recommence his antics. Around and around the beast would go, keeping a sharp lookout for the little ears of the hippopotamus, which he would seize the moment they appeared. His evident delight in teasing his huge neighbor was very comical, and there could be no doubt that he thoroughly enjoyed it.

Again, one day, the keeper placed some food for the hippopotamus in a corner of the inclosure and at once the hippopotamus began to leave the water to get it, but the elephant slowly ambled to the same corner, and, arriving there first, he placed his four feet over the favorite food in such a way that the hippopotamus could not get at it, gently swayed his trunk back and forth, and acted altogether as though he were there quite accidentally, until the garden was thrown open to the



REV.
T. DE WITT
TALMAGE

In one of his wonderful sermons very truthfully said, "My brother, your trouble is not with the heart; it is a gastric disorder or a rebellious liver. It is not sin that blots out your hope of heaven, but bile that not only yellows your eyeballs and furs your tongue and makes your head ache but swoops upon your soul in dejection and forebodings,"—and

Talmage is right! All this trouble can be removed! You can be cured!

How? By using

Warner's Safe Cure

We can give you incontrovertible proof from men and women, former sufferers,

But to-day well, and stay so.

There is no doubt of this. Twenty years experience proves our words true.

Write to-day for free treatment blank. Warner's Safe Cure Co., Rochester, N. Y.

public and he went forward to receive the daily contributions of bread, cake, pie, etc., which were always offered him by his host of admirers.

Boy's Joke on a Bishop.

A good story is told on the venerable Bishop Whipple, of St. Paul. One evening in the fall, as he was walking along the street, he noticed a little fellow trying to ring the doorbell of a fine residence. He was so short that he could barely reach it on his tiptoes, and the good bishop, in his kindness, said: "Shall I help you, my little man?" The boy intimated that he would be much obliged, and the bishop rang the bell. Thereupon the little fellow remarked: "Now we'd better both run like sixty!" and decamped as rapidly as possible. It took the bishop just a moment to remember that it was Hallowe'en, and it is said that he got around the corner as rapidly as the small boy.

THE BEST Place for young people to go for a superior Business, Shorthand or Penmanship course is to the EMPORIA BUSINESS COLLEGE of Kansas. No out-of-date text-books from start to finish. Nothing else like it. Graduates successful. Board \$1.50 per week. Write for particulars to C. E. D. PARKER, Pres't., Emporia, Kansas.

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THE FALL TERM begins Wednesday, September 16, 1896.

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We make a specialty of preparing persons for Civil Service Positions. Instruction thorough. Students can enter at any time. Positions secured for graduates. For further particulars address

JOHN W. FARR, Principal, 628-630 Kansas Ave., Topeka, Kansas.

KANSAS FARMER.

ESTABLISHED IN 1863.

Published every Thursday 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 Breeders' 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.**

If our friends whose subscriptions will expire January 1 will bear in mind that the labors of our subscription department at that time may be lightened by early renewals, and take the first opportunity to send in their dollar bills, they will confer favors which will be greatly appreciated.

KANSAS FARMER and the *Advocate*, both one year, for \$1.50.

English papers are anxiously discussing the effect of the rise in wheat upon the price of bread.

The Director of the Mint estimates the world's production of gold for 1896 at \$220,000,000, against \$203,000,000 in 1895.

Remember, you can get the KANSAS FARMER and the Topeka Semi-Weekly *Capital*, both one year for \$1.50, sent to this office.

There is noted a considerable falling off in the supply of hogs going forward to market, compared with the movement last year at this time.

There is a rather steady and very persistent rise in the price of corn at Chicago, in sympathy with the rise in wheat. This may be expected to continue.

Prices for wool have been so low in the American markets that it has paid to ship it abroad. It is said that the recent rise still leaves a margin of profit on exports of wool.

The National Farmers' Congress, at its recent meeting, at Indianapolis, resolved in favor of tariff protection for such products of the farm as meet competition in our own markets from foreign productions.

No. 2 red winter wheat for immediate delivery sold in Chicago last week as high as 90 cents per bushel. This is a higher figure than has been realized since the early days of 1892, when prices were still feeling the effects of the great famine in the old world.

Henry Clews thinks that it would be a moderate estimate to say that the securities represented on the New York Stock Exchange have increased in value by \$100,000,000 within the last two weeks. He expects still further advances in the selling prices of these securities and attributes all to the effects of the election.

This is the time of year to make up your list of periodicals for next year's reading. Every family should have at least one home county paper, one agricultural paper and one magazine. Many will add one State political paper and one of the great city papers. Others will want a more extended list. Whatever your wants, we can save you money on the purchase. We have wholesale rates on everything published and will give the advantage to every subscriber to KANSAS FARMER. Send in your list and get our estimate.

EXPORTS AND IMPORTS.

The "Monthly Summary of Finance and Commerce of the United States" for September, 1896, just out, shows that for the first nine months of the year our foreign trade was:

Exports.....\$650,036,354
Imports.....522,093,577

Balance in our favor.....\$128,935,777

Of the exports nearly 64 per cent. were agricultural products, over 28 per cent. were products of manufacture, with the remainder distributed to mining, forest, fisheries and miscellaneous. Considerable change is to be noted in the relative values of the exports of the agricultural and the manufactured products. For the year 1894 agricultural products constituted 71 per cent. and products of manufacture 22 per cent. of our exports. These figures were changed to 67.56 and 24.90, respectively, for 1895, and as above shown they are 64 and 28 thus far this year.

The falling off in the relative value of agricultural products exported results not entirely from the fact that manufacturing is now having a greater proportional development than farming, but partly from the great depreciation in the value of farm products. The fact that the strong foreign demand is now creating a better market for our food supplies will doubtless tend to equalize the future growth of the two leading classes of exports by adding to the value and possibly to the volume of farm products exported, greatly to the advantage of the farmer—especially the Western farmer—whose surplus consists largely of the class of staples exported.

But it is to be expected that our exports of articles of manufacture will increase, in volume while we have perhaps about reached our maximum as to agricultural exports. The limits of our lands cannot be extended, while there are practically no limits to our ability to extend manufacturing operations. Already we have passed the point of supplying the home demand, and it is stated that the factories now in existence can, in a few months operation, produce supplies for our own people for a whole year. We exported \$177,800,969 worth from our factories in 1894, \$201,152,771 in 1895, and in nine months of 1896 have exported \$184,792,443 worth, which it has been estimated will be swelled to \$240,000,000 by the close of the year. The time is coming when this will be a great manufacturing as well as a great agricultural nation. It is a matter of congratulation that our manufacturers are able to sell in the open markets of the world so large a sum of products.

Of these exports for the first three-quarters of 1896, \$4,227,495 worth were agricultural implements, \$2,082,648 were carriages and vehicles, \$34,534,726 were "iron and steel and manufactures of," \$745,396 were "wool and manufactures of," and \$12,217,536 were "manufactures of cotton."

DEMAND WILL BE FOR GOOD HORSES.

In an address at the opening of a great horse sale at Chicago, a few days ago, Mr. F. J. Berry predicted a good advance in horses for the next year, and suggested that breeders and producers have everything now to encourage them. Continuing he said:

"There has been but very few colts foaled throughout all this great country for the last two or three years. Still the consumption has been going on. Although the prices have been very low, farmers have been obliged to sell their horses. So at the present day there can be no over-supply of horses in the country, and as they have not the colts coming on, there is sure to be a shortage in the supply of horses for a number of years to come, and as the law of supply and demand governs all values, the great increase in business should nearly double the demand for good horses, and this being the case, if farmers and breeders are not producing horses, where will the supply come from? The great demand will necessarily make good horses, including high-class drivers, business and draft horses very high. From one to two, and three years at the outside, all of these classes of horses will be

scarce and dearer in our markets than they ever have been. Let me say to breeders, there are only two kinds of horses that it is profitable to breed at the present day, that is high-class light harness horses with size, shape, quality and color, and the highest class heavy draft horses. These are the kinds that are going to be in the greatest demand and bring the best prices."

TO THE STATE SWINE BREEDERS' ASSOCIATION.

At the regular meeting of our association, held at Wichita, Kas., September 24, 1896, it was unanimously agreed that we should hold a breeders' combination public sale of hogs at our annual meeting in January, at Topeka. In furtherance thereof, a committee was appointed to receive entries, tabulate the pedigrees and prepare the sale catalogue, of which Mr. H. A. Heath, Topeka, Kas., is chairman. Any member desiring to be represented in this sale must send their entries *at once*. Breeders who would like to sell at this sale can do so by becoming members of our association. The membership fee is \$1. Let us have a representative sale, that will consist only of "tops." Every member send in his entry *quick*, and do his share towards establishing an "annual breeders' sale."

O. P. UPDEGRAFF, Secretary.
Topeka, Kas.

A GREAT DAIRY COUNTY.

Dickinson county, Kansas, as the leading dairy county in Kansas, is this week properly favored with the annual meeting of the Kansas State Dairy Association, at Abilene.

The county has fifteen creameries in actual operation, located at the following places: Belle Springs, Abilene, Dillon, Holland, Talmadge, Navarre, Enterprise, Woodbine, Aroma, Ramona, Hope, Manchester, Industry, Chapman and Solomon City.

In addition to the creameries in Dickinson county there are several cheese factories operated and owned by the Rhinehart Cheese Co., which have factories at Rhinehart and Herington and is now putting in another plant at Dillon. The newer factories are each to have three vats. This company is quite successful with their "Oriole" brand of full cream cheese, and have no difficulty in disposing of their product at fair prices. At present they are paying 19 cents per pound of butter fat, which averages 3.8 to 4.2 pounds per 100 pounds of milk. For the month of October the variation for 100 pounds of milk was from 8.42 to 12.64 pounds of cheese.

The few foregoing facts show something of the possibilities of the dairy industry in Kansas and is especially creditable in making a good showing for Dickinson county.

KANSAS FARMER and Leavenworth Weekly *Times* both for one year for \$1.25. KANSAS FARMER and Leavenworth Daily *Times* both for one year for \$3. Send to this office.

Remember that \$1.85 sent to this office will pay for one year's subscription to the "old reliable" KANSAS FARMER and the *Cosmopolitan Magazine*, one of the brightest, best and most artistic magazines published.

Leslie's Illustrated Weekly has always been and is now a \$4 paper, and worth the money if any illustrated paper is worth \$4 per year. But in order to accommodate our subscribers we have made arrangements with the publishing company whereby we are able to offer *Leslie's Weekly* and KANSAS FARMER both for one year for \$3.

During the last few months we have sent out a large number of KANSAS FARMER sewing machines. Not a single complaint has been made and we are probably justified in assuming that every machine has been found fully up to the very broad warranty given. We desire, however, to be a little more certain, and shall be pleased to have our friends write by postal card or otherwise, telling us how they are pleased with their machines. Such information will be of value to others who may like to get a first-class machine at a reasonable price.

Why Wheat Goes Up.

Speaking of the rise in wheat, the *Millers' Gazette*, of London, England, of date November 4, says:

"It is of course obvious that the trade on this side of the Atlantic has had no special information which has not also been at the disposal of America; all we have done is to act with promptitude in face of an extraordinary combination of circumstances. It was, first of all, common knowledge that stocks in the United Kingdom had been allowed to run down to an unusually low point; then, three months ago, it was clearly indicated in these columns that the world's crop, or at least that in Europe, was considerably less than last year. Afterwards the disturbance in the political world helped the market, and finally the probable failure of the Indian and Australian crop gave the finishing touches to the picture. The excitement of a fortnight ago was brought about partly by the action of a well-known Indian house buying Californian wheat for India, of which indeed seven cargoes have been bought at prices ranging from 30s. 6d. to 32s. 6d.; but the mad movements in the American markets were also partly responsible for that undue excitement, from which there has been a natural reaction.

"It is quite erroneous to suppose, as the *Millers' Review* does, that there was any serious shortage in the Russian crop which was unknown to America; as long ago as August 23 we showed that indications pointed to that crop being 9,000,000 quarters less than last year, and this is probably still the true state of the case. It is likewise idle to speak of there being no shipments available from Russia, as some papers have done, for since August 1 no less than 244,000 quarters per week of wheat have been shipped from Russia, against 284,000 quarters last year in the same period. It may be taken for granted that Russia will be able to ship as much as she did last season if prices are attractive; and this sums up the whole position. Wheat is no longer abundant, in the same sense as it was in the years 1891 to 1894, and in order to attract the necessary supplies a higher level of values is necessary."

The Supreme court of the United States has just handed down a decision sustaining the constitutionality of a California law, known as the "Wright Irrigation law." This law authorizes the formation of irrigation districts and gives a district the power to issue bonds for the development of its irrigation resources. The law has been through all the lower courts, in which it has been variously held to be constitutional and unconstitutional. This decision of the court of last resort finally settles the case. The question will now be raised as to the expediency of a similar law for western Kansas, and it will doubtless be strongly advocated and strongly opposed. The subject is yet too new in Kansas to admit of forecast as to whether the coming session of the Legislature will seriously consider the enactment of a similar law. That western Kansas is practically arid, that it must be irrigated to become populous and prosperous, is as true as of California. An examination of the Wright law with reference to its adoption for western Kansas, is well worth making. A commendable feature is that it does not propose taxes for other than the lands benefited by the development made.

Farmers' Institutes.

The following dates and appointments for farmers' institutes in this State, under the auspices of and to be attended by representatives from the Agricultural college, have so far been made:

Oneida, Nemaha county—December 10 and 11; Profs. Hitchcock and Willard.

Nortonville, Jefferson county—December 17 and 18; Prof. Olin and Mrs. Kedzie.

Hiawatha, Brown county—December 30; Dr. Mayo.

Abilene, Dickinson county—State dairy meeting, November 19; Profs. Graham and Georgeron.

Some others are under consideration but the dates have not yet been fixed.

Young men or old should not fail to read Thos. Slater's advertisement on page 15.

A Brighter Day.

The reports of the great mercantile agency of R. G. Dun & Co., of New York, are made with the evident purpose of presenting the exact truth of the matters considered. If the facts harmonize with the previously expressed views of the agency, there is no crowding; if the facts differ from what the agency had expected, the facts are given just as faithfully as in the other case. It is, therefore, with considerable confidence that we reproduce the following from *Dun's Review* of last Saturday:

"No one doubts that the brighter day is dawning and it is a common remark that never before has business shown so great a change for the better within a single week. Dispatches telling of about 500 establishments which have opened or have materially enlarged their force, though they fill many columns, give only part of the fact, for throughout the country the gain has been surprising even to the most hopeful.

"It is not mere speculation of hope which lights the fires and starts the wheels, for orders which have been accumulating for months with the necessary replenishment of dealers' stocks now greatly reduced would employ the whole producing force for a time and increase in number of hands at work means increase in purchases for consumption.

"Foreign need of American wheat continues an important factor and the price has advanced to 88 cents, gaining 6 cents for one week, 10 cents for the two weeks, and 24 cents since early in September. The price is the highest since June, 1892. Western receipts were only 4,494,033 bushels against 8,202,864 last year, but the election cut off much work during the days in which these receipts were started to market. Atlantic exports, in spite of scanty freight room, were for two weeks 4,717,231 bushels, flour included, against 3,260,384 last year, and Pacific shipments were also heavy to India, South Africa and Australia.

"Many textile works have been starting or are increasing force, mostly on orders booked a week ago. But there has not been much gain in the demand as yet. After purchases of 46,000,000 pounds of wool in five weeks the transactions fell to 6,243,700 pounds last week, but prices were strong and in some grades 1 cent higher, and even greater advance is demanded at the West, while foreign markets are higher, Australia fully 1 cent per pound. There is slightly better demand for light weight men's goods and for dress goods, but not enough as yet to start most of the waiting mills. The cotton goods market is not yet active, but more liberal estimates of cotton crop are generally credited, causing an eighth decline to 8 cents.

"The output of iron furnaces in blast November 1, was 124,077 tons weekly, having been increased 11,295 tons or 10.6 per cent. in the latter part of October by confidence in the future. All the markets were stronger although the enormous purchases of pig iron in advance of needs caused comparative inactivity at present. Plates and steel bars are \$1 to \$3 per ton higher and sheets in better demand. Anthracite and Bessemer pig have advanced a shade and the average of prices is 2½ per cent. higher.

"The billet pool is in protracted meeting here this week to decide upon its course and is still undersold. The beam, bar, rail and wire nail associations met this week and the under-selling of wire nails by outsiders has gone so far that a decline of 45 cents is openly quoted. It is noteworthy that the prevailing expectations, notwithstanding the general improvement in business, is that some, if not all these combinations will decide to reduce prices. The coke combine, it now appears, has not prevented large contracts for future delivery at less than \$2, its fixed price, and even less than \$1.75, but the output last week decreased. A heavy sale of copper to foreigners to cover ten million pounds has raised the price to 11½ cents, and tin actually sells at 13 cents, though less is quoted.

"Failures for the week have been 276

in the United States against 283 last year, and 46 in Canada against 49 last year."

Curing Meats.

Hog-killing time used to be even more important than now. But the great packing-houses and the trusts have not yet made it impossible for the farmer to produce and cure his own meat. It is of the utmost importance that this meat be so cured as to make it palatable and valuable. In a well-considered article, the *Indicator* says:

"Probably one reason why so much cured meat is purchased by farmers is that much of the home curing is improperly done. But this need not be so. In the first place, the farmer who proposes to cure his own meats can specially feed the animals so as to start with a really superior meat for curing. The work of curing it is not difficult nor hard to learn. It only needs a little careful attention to details, and nowhere in life are good results obtained without this attention. In the first place, it must be remembered that meat is not fit for salting until it is entirely free from animal heat, and yet it should not be frozen or penetration by the salt will be prevented. For pork, cover the bottom of the barrel with salt to the depth of three inches, then pack the strips of pork in circles, the rind facing the staves, but with a deposit of salt intervening. Put a layer of salt between each layer of the pork. When the middlings have been packed in this way, prepare a brine sufficient to cover the pork, using all that the water will take up. In other words, make it what is called 'a saturated solution.' Bring the brine to a boil, skim it, and when it is cold, pour it over the pork. A good cover is a necessary part of a pork barrel, and the pork should be weighted down so that it is always covered with the brine.

"Trim the hams and shoulders and rub them with salt to extract the blood. Pack as before, and put on a pickle consisting of a pound and a half of salt to a pound of brown sugar to each gallon of water, with an ounce of saltpetre to one hundred pounds of meat. Bring the pickle to a boil, skim it and pour it over when cold. Hams should remain in the pickle from four to six weeks. Care should be taken not to let the hams press against each other, as 'bone spoil' is then likely to set in before the hams are thoroughly salted. Those who cure carefully remove the hams from one barrel to another as often as twice a week until the curing is well toward completion. This prevents the taint at the bone.

"The value of hams, shoulders and bacon largely depends upon the smoking. Salt-cured hams and shoulders should be made perfectly clean and sprinkled with fine black pepper, or with equal parts of black and red pepper, which is preferred by some. Loops for hanging should be inserted in each piece. The smoke-house should be so arranged as to guard against fire, and should have a brick or earthen floor. Moderate quantities of meat may be smoked in an inverted barrel. The fire should be started with dry stuff, and then smothered with green, hardwood chips, preferably hickory. Sometimes the chips are too dry and they should then be wet. The point to be sought for is a carefully-regulated fire that will not go to heat nor make a blaze and yet will keep smoking all the time. A very good practice is to use hardwood sawdust and fire it in a large iron kettle. This is safe; the sawdust never makes any blaze and always gives a good volume of smoke. Wet corn cobs are used by many with success, but, after all, there is nothing like hickory chips. Wood that gives off a disagreeable odor must be especially avoided. Slow smoking is preferable to quick, and smoking at intervals of say half a day twice a week is preferable to continuous smoking. The longer the smoking is carried on, the better will be the color and the better the protection against the bacon bug. In smoking in a smoke-house, the meat should be changed, that nearest the fire moved toward the wall, and that nearest the wall brought toward the center in order to secure uniformity. In the spring the hams can, if necessary, be sewed up in coarse

muslin and then dipped in lime white-wash to which a little yellow ochre has been added. If the process be carried on with care, the meats will be as good as any that the farmer can buy or better, and look as tempting and appetizing."

Free to Our Readers.—The New Cure for Kidney and Bladder Diseases, Rheumatism, Etc.

As stated in our last issue, the new botanical discovery, Alkavis, from the wonderful Kava-Kava shrub, is proving a wonderful curative in all diseases caused by uric acid in the blood, or disordered action of the kidneys and urinary organs. The *New York World* publishes the remarkable case of Rev. A. C. Darling, minister of the gospel at North Constantia, N. Y., cured by Alkavis, when, as he says himself, he had lost faith in man and medicine, and was preparing himself for certain death. Following is his letter in full:

NORTH CONSTANTIA, Oswego Co., N. Y.
GENTLEMEN:—I have been troubled with kidney and kindred diseases for sixteen years and tried all I could get without relief. Two and a half years ago I was taken with a severe attack of la grippe, which turned to pneumonia. At that time my liver, kidneys, heart and urinary organs all combined in what to me seemed their last attack. My confidence in man and medicine had gone. My hope had vanished and all that was left to me was a dreary life and certain death. At last I heard of Alkavis, and as a last resort I commenced taking it. At this time I was using the vessel as often as sixteen times in one night, without sleep or rest. In a short time, to my astonishment, I could sleep all night as soundly as a baby, which I had not done in sixteen years before. What I know it has done for me I firmly believe it will do for all who will give Alkavis a fair trial. I most gladly recommend Alkavis to all. Sincerely yours,

(REV.) A. C. DARLING.

Similar testimony to this wonderful new remedy comes from others, including many ladies. Mrs. Mary A. Layman, of Neel, W. Va., twenty years a sufferer; Mrs. Sarah Vunk, Edinboro, Pa.; Mrs. L. E. Copeland, Elk River, Minn., and many others join in testifying to the wonderful curative powers of Alkavis in various forms of kidney and allied diseases, and of other troublesome afflictions peculiar to womanhood.

So far the Church Kidney Cure Co., of No. 420 Fourth avenue, New York, are its only importers, and they are so anxious to prove its value that for the sake of introduction they will send a free treatment of Alkavis prepaid by mail to every reader of *KANSAS FARMER* who is a sufferer from any form of kidney or bladder disorder, Bright's disease, Rheumatism, dropsy, gravel, pain in back, female complaints, or other affliction due to improper action of the kidneys or urinary organs. We advise all sufferers to send their names and address to the company and receive the Alkavis free. To prove its wonderful curative powers it is sent to you entirely free.

Great Rock Island Route Playing Cards.

Send 12 cents in stamps to John Sebastian, General Passenger Agent C., R. I. & P. railway, Chicago, for the slickest pack of playing cards you ever handled, and on receipt of such remittance for one or more packs they will be sent you postpaid. Orders containing 60 cents in stamps or postal note for same amount will secure five packs by express, charges paid.

"Among the Ozarks."

"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 8,000 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.

Half Rates Plus \$2.

Burlington Route to the West and Northwest, November 3, 17, December 1 and 15, round trip, twenty days limit, to Nebraska, Kansas, Wyoming, Utah, Black Hills, and certain parts of Colorado. Splendid through trains of chair cars (seats free), and handsome compartment observation vestibule sleepers. Only dining car line to Denver via St. Louis and Kansas City, cafe plan (pay only for what you order). The Burlington Route is the original Harvest Excursion line. See the magnificent corn crops of Nebraska. Send to the undersigned for pamphlets on Missouri and Nebraska, and consult local agent for rates and train service. L. W. WAKELBY, General Passenger Agent, St. Louis, Mo.

Publishers' Paragraphs.

For valuable information about the poultry business, especially the modern methods, by the aid of incubators and brooders, everybody ought to have the eleventh annual catalogue of the Reliable Incubator Co., of Quincy, Ill. It is a treatise on not only the appliances manufactured by this company, but also on poultry houses, on breeds, and on management. Send for a copy.

The *New York World*, thrice-a-week edition. Eighteen pages a week, 156 papers a year. It stands first among "weekly" papers in size, frequency of publication and freshness, and variety of contents. It is splendidly illustrated and among its special features are a humor page, exhaustive market reports, all the latest fashions for women and a long series of stories by the greatest living American and English authors, Conan Doyle, Jerome K. Jerome, Stanley Weyman, Mary E. Wilkins, Anthony Hope, Bret Harte, Brander Matthews, etc. We offer this great newspaper and *KANSAS FARMER* together, one year for \$1.65.

Gibson to Illustrate Dickens.

C. D. Gibson and Edward W. Bok were chatting together in the former's studio one day, when the editor of *The Ladies' Home Journal* said:

"Why don't you drop the American girl, Gibson, and try something entirely new?"

"What is there new?" asked Gibson.

"Illustrate Dickens," laconically answered the editor.

"Illustrate Dickens!" repeated Gibson. "Why, man alive —" Just then the artist's mother came into the studio. "Mother," he said, "what have I always told you I would rather do in the way of illustration than anything else?"

"Well, I don't know, Dana, unless it is to illustrate Dickens."

"Exactly, and Bok walks in just now and asks me to do it."

Gibson went to London on his wedding trip and remained in Europe six months. There he worked away at his Dickens sketches. Upon his return a few weeks ago he delivered the first drawings of the series to *The Ladies' Home Journal* and the initial one will be printed in the Christmas issue. The finished drawings are said to be remarkable portrayals. The characters chosen are Pickwick; Pecksniff and his two daughters; David Copperfield; Dick Swiveller and the Marchioness; Old Scrooge, from "A Christmas Carol;" Caleb Plummer and his blind daughters, and other characters from Dickens. The *Journal* will present the entire series during 1897.

A Look Through South Missouri for Four Cents.

The Kansas City, Fort Scott & Memphis Railroad Company has just issued a magnificent book of sixty or more photo-engraved views of varied scenery in south Missouri. From these views an accurate knowledge can be obtained as to the productions and general topography of that highly-favored section that is now attracting the attention of home-seekers and investors the country over.

The title of the book is "Snap Shots in South Missouri." It will be mailed upon receipt of postage, 4 cents. Address, J. E. LOCKWOOD, Kansas City, Mo.

Meals on the "Order" Plan

are now served in the dining cars run by the Great Rock Island Route between Kansas City and Chicago. This change has been made to suit the convenience of the traveling public, and with the belief that such an arrangement will better please our patrons.

All meals will be served a la carte, and at reasonable prices.

While the system of serving meals has been changed, the traveler may still rely upon the excellence of cuisine and perfection of service that have earned for the Rock Island the reputation of maintaining the best dining car service in the world.

JOHN SEBASTIAN, G. P. & T. A., Chicago, Ill.

Popular Low-Price California Excursions.

The Santa Fe Route personally conducted weekly excursions to California are deservedly popular. About one-third saved in price of railroad and sleeper tickets as compared with first-class passage.

The improved Pullmans occupied by these parties are of 1896 pattern and afford every necessary convenience. A porter goes with each car and an experienced agent of the company is in charge.

The Santa Fe's California line is remarkably picturesque, and its middle course across the continent avoids the discomforts of extreme heat or cold.

Daily service, same as above, except as regards agent in charge.

For descriptive literature and other information address G. T. Nicholson, G. P. A., A., T. & S. F. Ry., Chicago.

Remember, you can get *KANSAS FARMER* and *Breeder's Gazette* both for one year for \$2, saving \$1 by the combination.

Horticulture.

THE BARREL CULTURE OF STRAWBERRIES.

Many people living in villages and cities who have no land for a garden, would appreciate having a strawberry bed of their own, so that they could pick fresh berries at any time for the table, which would be of a better quality than those usually offered in the market. I am going to tell them that every one can have his own strawberry bed who has a space three feet in diameter to set a barrel. The idea is probably a novelty to most people, but it has been tried and proved successful.

I will try to describe the barrel method in detail, so that an amateur can do the work. Any strongly-bound hard-wood barrel will do, but a linseed oil barrel is preferable. A kerosene oil barrel is liable to impart some of the kerosene taste to the fruit, but perhaps this might be avoided by burning out the barrel before using it. Lay off the outside of the barrel in four-inch squares, as you would a checker-board. Begin at the bottom of the barrel and bore a row of inch holes in each square horizontally around the barrel. In this way bore five rows of holes around the barrel eight inches apart, or in each alternate row of squares, boring the second row of holes from the bottom on the perpendicular lines instead of in the squares, and so on alternately to the top. Five rows of holes, with twenty-seven in a row, will give you 135 plants to the barrel. The barrel is filled with soil level with the first row of holes, using rich garden soil with a little well-rotted stable manure thoroughly mixed with it.

Ordinary bedded plants may be used, of any variety desired, mixing the pistillates and bisexuals, as in garden culture. The Sharpless with a small mixture of Crescents give very large berries when grown in this way; also the Bubach and Marshall; but for quality of fruit I have found none better than the Cumberland, Triumph and the old Charles Downing. The latter two are bisexual and need no other varieties to fertilize them. The plants are inserted through the holes, with the roots a little higher than the stems, to allow for settling. The roots are well spread apart, and more soil is put in and firmly packed over them. Then they are sprinkled with water, and the process continued until the barrel is filled, when it is covered to prevent escape of moisture.

In watering, care should be taken not to keep the soil too wet, and the better way is to make a few holes down through the barrel with a stick and pour in water or liquid manure according to the needs of the plants.

It is well to set the barrel on a box or something to elevate it from the ground, to prevent insects from getting to the berries, and also occasionally to sprinkle the foliage on the outside of the barrel.

The advantages of this method of growing strawberries are that no runners grow, and the whole strength of the plant is directed to growing fruit. The berries are perfectly clean, and all cultivation and weeding are dispensed with, and economy of space secured. If the same number of plants were spread out as in garden culture they would occupy nearly a square rod of ground.

The plants may be put in either in the spring or fall. If in August or September, they will yield a fair crop the next year, and will continue in bearing four or five years without renewal. Five bushels is the maximum crop, and perhaps three or four the average to a barrel, but the yield will depend on the variety and management.

The barrel should be placed with a good exposure to the sun when convenient, but the berries will do fairly well in a partial shade. In the winter, in localities where there is very low temperature, a light covering of straw should be thrown over the barrel. I recently met a gentleman who, in connection with his nursery business, has been selling barrels furnished with plants to people for eight years, and

has sold more than 1,000 to people in this State, many of them in Brooklyn, and he says there is no doubt about the success of the plan.

Another feature of the barrel culture of strawberries is the ornamental. When the plants are in full growth the foliage completely covers the barrel, and when in blossom presents the appearance of a huge bouquet, and make a very pretty ornament for the lawn.

People who have had experience in growing house plants know that a large plant may be grown in a small pot of soil. If the soil should be weighed or analyzed before and after the plant is grown, it would be found that only part, probably less than 10 per cent., has been absorbed by the plant. From this it will be understood how a barrel will hold sufficient soil for so many plants, and how they will grow in the same soil for four or five years; for by far the greater part of the plant food is in the water which is absorbed by the roots, and the carbon in the atmosphere. This plan, or some modification of it, may be of use in forcing strawberries, in hot-house culture, or in placing sash around the barrel to forward them for home use, and I should think it worth a trial.

The commercial grower will want to know if there is any profit in growing strawberries in this way for market, and if it will pay him to use barrels on a large scale. I believe that a few persons are making the trial, but I have heard no report from them. Its advantages may be learned by experimenting first in a small way. If it is found profitable, there is a new strawberry culture to be developed, which will do away with much of the labor of field culture, and food for the plants easily supplied in liquid form. Something cheaper and more convenient devised to hold the plants, and many modifications and improvements might be evolved from this plan.—*W. H. Jenkins, in Country Gentleman.*

My Asparagus Bed.

Asparagus is a pretty good thing, and a great many people like it but are deterred from having a bed by the supposed care that it takes, and the difficulty of managing it. For the benefit of such, let me tell how I worked mine. The soil is a slaty, clayey and altogether forbidding piece of ground, but I had a thick coat of stable manure spread on it and plowed in. Then I set out year old roots in the spring, just the same as I would set out cabbage plants, that is, there was no digging of holes or anything of that kind, and all the time-honored traditions were ignored. Some of the directions in the books are most discouraging, and as I had noticed how a plant here and there by the roadside, where a bird dropped a seed, grew and thrived, I simply had a man thrust a spade in the ground while I stuffed the roots in the opening and covered them over, about two inches deep, two feet in the row, and the rows wide enough for a horse to go between them with a cultivator.

It will be seen that all the cultural directions were given the go-by, and the roots simply stuck into well-manured ground. As to the variety, I have forgotten, but it really makes no difference, for I do not believe that there are any varieties of asparagus other than what variation is brought about by manuring and cultivation. I know that this will be disputed, but the proof of the asparagus is like that of the pudding, in the eating thereof, and I have found mine as good, or better, than any I have ever had served me at the best hotels.

My bed was made fifteen years ago, and for the past twelve years there has been all the asparagus our family wanted, and it was not the tough, stringy stuff that is so often found neatly tied up in bunches in the markets. We go down to the bed and with the hands break off the young shoots till we get a bucketful, and we repeat this day after day till everybody is good and tired of it. All the care the bed gets is to keep the weeds down and to put a great deal of stable manure on it in the autumn. I believe that this is the whole secret of good asparagus, and if I wanted to put out another bed, I would prepare the ground thoroughly and simply plant the

Scott's Emulsion

Of Cod-Liver Oil,
with Hypophosphites

is the best known preventive to serious lung trouble. It supplies just the kind of needed fat, prevents useless waste of tissue, makes rich blood, and fortifies the body against attack. You should take it at once if you feel weak, have no appetite, or are losing flesh. 50c. and \$1.00 at all druggists.

seed like corn, three in a hill, and let it alone, keeping the weeds down, of course, and putting a lot of manure on thickly in the fall.

Does the beetle come around our way? It does, and lots of him, but before he gets too many for comfort, we have had all the asparagus we want.

With our method we have had asparagus nearly as big around as a broom handle, and so much of it that the house dog gets tired of the left-over share that falls to him. The whole secret is in the application of manure, and spread it on six inches thick and it has never yet failed us, and the bed is apparently good for twenty years to come.

A well-established bed of asparagus, could the roots be washed out in their places, would be a sight. If you were to spread about three inches of lead pencils helter-skelter over a floor, they would be a very good illustration of what an asparagus bed looks like under ground. All this means that it wants no end of manure, and to my mind, and as a result of my experience, that is all there is to success.—*Howard Miller, in American Gardening.*

The Virtues of the Apple.

The apple is such a common fruit that very few persons are familiar with its remarkable efficacious medicinal properties. Everybody ought to know that the very best thing they can do is to eat apples just before retiring for the night. Persons uninitiated in the mysteries of the fruit are liable to throw up their hands in horror at the visions of dyspepsia which such a suggestion may summon up; but no harm can come to even a delicate system by the eating of ripe and juicy apples just before going to bed. The apple is excellent brain food, because it has more phosphoric acid in easily digested shape than other fruits. It excites the action of the liver, promotes sound and healthy sleep, and thoroughly disinfects the mouth. This is not all. The apple helps the kidney secretions and prevents calculus growths, while

it obviates indigestion and is one of the best known preventives of diseases of the throat. Everybody should be familiar with such knowledge.—*Dr. G. R. Searles, in Detroit Bulletin of Pharmacy.*

How Make Sheep Fence and Jumbo Windmill?

EDITOR KANSAS FARMER:—I would like to ask your readers the following questions: (1) Can a pasture be fenced so as to hold sheep without too great a cost? (2) Would like plain directions for building a "Jumbo" windmill for pumping from a fifteen-foot well. I think answer to these questions would interest quite a number of your eastern Kansas readers. WILLIAM JONES. Emporia, Kas.

How to Raise the Calf Without Milk.

EDITOR KANSAS FARMER:—Would like to inquire, through your columns, by what means or method, if any, young calves can be made to live and carried along until they are old enough to live on pasture without milk. Have heard of its being done with gruel made from linseed meal, or perhaps cottonseed meal or something of that kind. If any of your readers know how it can satisfactorily be done, would like to hear from them and know their methods and the nature of their results. F. L. TILLINGHAST. Clearwater, Kas.

KANSAS HOME NURSERY now offers choice berries and orchard fruits of all kinds in their season. Fresh shipments daily by express. Prices to applicants. A. H. Griesa, Box J, Lawrence, Kas.

SMITH'S SMALL FRUITS FOR SPRING 1897

100 varieties old and new Strawberries, including Wm. Belt, Brandywine, Paris King, Bissel, Isabel, Barton, Marshall, New Raspberries—Egyptian, Miller, Bishop, Columbian. If you want plants I have two millions for sale. B. F. SMITH, Box 6, LAWRENCE, KAS.

Carnahan's Tree Wash and Insect Destroyer

Destroys the bore worm and apple root louse, protects the plum from the sting of the curculio and the fruit trees from rabbits. It fertilizes all fruit trees and vines, greatly increasing the quality and quantity of the fruit. Agents wanted everywhere to sell the manufactured article. Address all orders to John Wiswell, Sole Mfr., Columbus, Kas., and Cleveland, Ohio.

Plant Trees and Orchards in 1896.



The old reliable Hart Pioneer Nurseries, of Fort Scott, Kas., have large supplies of choice stock for sale at special prices. 600 acres in nursery, 240 acres in orchard. Extensive growers for the wholesale trade. Write and obtain prices before placing your orders elsewhere. No transfer or exposure of stock. We take up, pack and ship from the same grounds. Send for our

Illustrated Planter's Catalogue and Price List.

We solicit your correspondence and invite inspection of our stock.

Reliable Salesmen Wanted.

ADDRESS

HART PIONEER NURSERIES,

FORT SCOTT, KANSAS.

Early Ohio Grape, Six Weeks Earlier Than Concord.

In the Dairy.

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

Pure Water on the Farm.

Hardly second in importance to plenty of good feed is an abundant supply of pure water on the farm where dairying is a leading engagement. Be the rations ever so plentiful and the supply of water scant or filthy, the cows cannot do what is expected of them. Cows giving milk need a large amount of water, as any farmer will notice when undertaking to furnish a supply when from any cause there is a scarcity. It is needed in the pasture in warm weather and at the barn or feed lot in winter. It is bad to be short in supply in summer, but much worse in cold weather, when it is usually so much more difficult repairing water mains and tanks or obtaining a fresh supply. It will pay the farmer to make some extra outlay in order to obtain an abundance of never-failing water, good for all parts of the year. In wet seasons ponds and creeks furnish all that is needed for cattle, but in dry times windmills must be put in operation to meet all the requirements, as much loss comes to the dairyman and stock-raiser when the water reserve falls short. By all means have a plentiful supply of water for winter. The nearer to the barn this can be located the better it will be, especially in blustering weather. Whether it shall be in the stables will best be determined by the owner. Since the tuberculosis scare in other States it is thought best by many to be safer and better to have it outside the stables, but if out of doors, it should be well protected from storms. Dairy cows in particular should have as comfortable a place in which to drink in bad weather as is possible to furnish. It may sometimes be necessary to drive quite a little distance for water, but if the drinking place is well protected and provided with plenty of good water, not too cold, there will be little trouble or loss, but to be obliged to go a long way and then drink from an icy creek in a bleak place, any one can see would be injurious for milch cows and must materially diminish their profitability, and the same rule would apply in a lesser degree to fattening animals. Half watered and half fed stock give no returns, besides being inhuman.

A Fairy Milkman.

Among the humorous articles in *Pearson's Magazine*, written by Mr. W. L. Alden, is one on milk crying in our streets. He says:

"There was once an honest and benevolent milkman. Having said this I need hardly add, by way of explanation, that he was a sort of fairy milkman, and dwelt in a flourishing city of fairyland. This good man wanted to sell milk, and yet he was far too good to be willing to yell. He therefore had a large number of cards printed with the single letter 'M.' These he distributed to every house in his part of the city, and requested the householder who might wish for milk to place the card in the window, just as the Londoner who desires the services of Patter Cartison or other carrier, to that effect places a card with 'P. C.' in his window.

"The public hailed this new method of obtaining milk with enthusiasm. In the morning every house displayed the magic card, and the good milkman thereupon stopped and supplied his customers with pure milk as silently as if he were a mere gentleman making an early call. The rival milkmen yelled themselves hoarse for a few days, but, finding they could not sell a single pint of milk, they presently gave up the struggle, and drowned themselves in their own cisterns. Meanwhile the good and silent milkman grew fabulously rich, and when, after a long and well spent life, he was finally removed to paradise, his grateful customers erected to his memory a monument higher than the Eiffel Tower, bearing the inscription: 'To the First Milkman Who Ever Sold Milk Without a Yell.' Of course, it will be said that no merely human milkman can ever be expected to emulate this noble example, but I am by no means sure that at some fu-

ture day, there may not be such a person as an intelligent milkman, even if he is not a good milkman. This intelligent man will possibly grasp the idea that the public would rather buy the milk of a silent man than of a yelling fiend, and if he puts this idea into practice, nothing is more certain than that he will speedily bankrupt his yelling rivals."

Dairy Notes.

W. H. Carter, of Nashville, Tenn., has applied for a patent for a butter-tester, which will instantaneously point out suet from cream and consequently stop oleo frauds.

The Beloit (Kansas) creamery paid out to farmers in September, \$4,617.50 for milk. Jensen Bros., the proprietors, have been notified that their butter was awarded second prize at the St. Louis exposition, in competition open to the world.

In 1850 there were 275 milch cows to every 1,000 of population, while in 1890 there were only 264. The consumption of butter rapidly increased until the great shrinkage in values came upon us. There is also a smaller percentage of poor butter made, which encourages consumption. The number of cows required for the milk supply of our large cities is constantly increasing. As a rule these cows are crowded for a year or two to their utmost capacity and then slaughtered in the prime of life. The constantly increasing difference of the price of feed between the East and West is rapidly driving the farmers of the New England and Eastern States out of the dairy business, because the States west of the Mississippi can, with a highly profitable margin, deliver butter in the New York and other Eastern markets at prices less than it will cost the Eastern dairyman to produce it.

If you milk at 6 o'clock, morning and evening, do so every day as nearly as you can. If you feed before milking, do so always, for the cow expects it, and is disappointed if she does not get it before being milked, and the chances are that she will not give down freely and fully. When you commence to milk do not stop until you have finished to the last drop. Many cows will withhold their milk in whole or in part if the milker is not ready to take the milk when she is ready to give it. Any unusual excitement at milking will cause the cow, many times, to withhold her milk. Let each milker have his special cows to milk, and never change milkers unless obliged to do so. If from any cause or neglect a cow is made to shrink her flow of milk, you probably will not get her back again to her normal flow until she has her next calf. Remember, if you excite or ill treat a cow you pay for it at the expense of impoverished milk.

Tainted Milk.

Dr. Gerber, the Swiss scientist, classifies the causes of tainted milk as follows:

1. Poor fodder.
2. Poor, dirty water, used not only for watering cows, but also for washing cans.
3. Foul air in cow stables.
4. Uncleanliness in milking.
5. Keeping the milk too long in too warm and poorly ventilated places.
6. Neglecting to cool the milk quickly after milking.
7. Lack of cleanliness in the care of milk.
8. Poor transportation facilities.
9. Sick cows.
10. The cows being in heat.

This is Your Opportunity.

On receipt of 10 cents, cash or stamps, a generous sample will be mailed of the most popular Catarrh and Hay Fever Cure (Ely's Cream Balm) sufficient to demonstrate the great merits of the remedy.

ELY BROTHERS,

56 Warren St., New York City.

Rev. John Reid, Jr., of Great Falls, Mont., recommended Ely's Cream Balm to me. I can emphasize his statement, "It is a positive cure for catarrh if used as directed."—Rev. Francis W. Poole, Pastor Central Presbyterian church, Helena, Mont.

Ely's Cream Balm is the acknowledged cure for catarrh and contains no mercury nor any injurious drug. Price, 50 cents.

PUTTERING 'ROUND.

Man's Mistake About Woman's Work and Trials.

THE MOTHER MAKES THE MAN.

Men are sometimes inclined to smile when "woman's work" is mentioned, and underrate its value and its hardships. "Woman's work," they say. "Nonsense; you don't call puttering 'round the house all day work, do you?" And yet woman's work is the noblest work of all. One of her works is motherhood. The mother makes the man. That one sentence tells the grandest



feature of woman's work. In woman is bound up the destiny of the race.

As for that part of woman's work which man describes as "puttering 'round the house," there is a story to tell about that as well. If a man will stop to think he will realize it. Any man who knows anything knows that it is the little troubles that are hardest to bear. The little "stings and arrows" of misfortune are the ones to nag one on to madness. Man faces the big misfortunes of life; the misfortunes that he flatters himself it takes heroic qualities to meet and overcome. Take the big business troubles that most men meet sooner or later. Men pride themselves upon the fortitude and determination with which they face and overcome them. And yet the big, blustering man who faces bankruptcy without flinching would be transformed into a petulant and whining child by the little "stings and arrows" that tend to aggravate woman in the daily performance of her household duties, or as man scornfully calls it, of "puttering 'round the house."

It takes a strong, healthy woman, well-balanced in mind and body, to cheerfully and successfully withstand the innumerable little trials of house-keeping and still meet her husband at evening with a smiling face. This is especially true when the big, blustering hero of the business world comes home at night like a big baby, full of complainings and bemoanings and fault-findings, and adds many more to the long list of "stings and arrows" that the day has brought.

If it takes a strong, healthy woman to successfully perform the duties of wife and housekeeper; it takes one doubly strong to bear capably and successfully the burdens of maternity. Motherhood is the noblest of woman's duties and privileges. Every woman should be fitted for its performance for with her rest the destinies of the race.

Too many women are unfitted by ill-health for the duties of wifehood and motherhood. Because of ignorance or reckless neglect they do not take proper care of their womanly health. No woman is fitted for wifehood or motherhood who suffers from weakness and disease of the delicate organs that bear the burdens of maternity. A woman who suffers in this way cannot well be a good housekeeper. She is sure, in time, to become sickly, nervous, fretful and neglectful of her duties. She becomes that most trying

of companions in wedded life, an invalid wife, and maternity holds in store for her either death or most agonizing suffering.

Any woman may be strong and healthy in a womanly way if she will take proper care of herself and at the least premonition of weakness and disease resort to the right remedy. Dr. Pierce's Favorite Prescription is the best of all known medicine for weak and suffering women. It is the discovery of an eminent and skillful specialist, Dr. R. V. Pierce, for thirty years chief consulting physician to the Invalids' Hotel and Surgical Institute, at Buffalo, N. Y., one of the leading medical institutions of the world.

The "Favorite Prescription" acts directly upon the organs that make wifehood and motherhood possible. It makes them strong and healthy. It imparts to them the tone, vigor and elasticity necessary to safe and successful motherhood. Taken during the period preceding motherhood it does away with the usual discomforts and makes the coming of baby easy and comparatively painless. It insures a healthy child.

As a result of functional or organic disorders of the organs distinctly feminine many women suffer from nervous irritability, nervous exhaustion, nervous prostration, hysteria, spasms, chorea and St. Vitus' dance. The "Favorite Prescription" allays inflammation of the delicate organs concerned, heals ulceration and soothes pain, and gives the tortured nerves a rest. With the cause removed the nervous troubles also promptly disappear. Thousands of women have testified to the marvelous merits of this wonderful medicine for women. Those who wish to know more of it should write personally to Dr. Pierce. All good druggists sell it, and those who offer something else as "just as good" are dishonest and think more of a few pennies added profit than of the purchaser's welfare.

A little home medical knowledge will sometimes save a life, and always save many dollars in doctor's bills. Dr. Pierce's Common Sense Medical Adviser teaches women how to give temporary relief while awaiting a physician's arrival in case of serious illness, and how to treat minor ills and accidents without calling in a doctor. It saves a life sometimes, it saves dollars always. It contains 1,008 pages and 300 illustrations. Several chapters are devoted to the reproductive physiology of women. It is written in plain, every-day language that any one may understand and doesn't need a Latin scholar to translate it. Over 680,000 copies were sold at the original price of \$1.50 each. A new edition has just been printed and will be given away, absolutely FREE. If you want a copy in heavy manilla cover, send twenty-one 1-cent stamps, to cover cost of mailing, only, to the World's Dispensary Medical Association, Buffalo, N. Y. If you prefer a fine French-cloth binding, embossed, send 10 cents extra, 31 cents in all.

Every man should read the advertisement of Thos. Slater on page 15 of this paper.

To Colorado, Montana, Hot Springs, Puget Sound and Pacific Coast via Burlington Route.

Take the shortest and most desirable line to the far West; complete trains from the Missouri river. Daily train leaves Kansas City at 10:40 a. m., arrives Billings, Montana, 1,050 miles distant, 6:45 next evening; free chair cars Kansas City to Billings; sleepers Kansas City to Lincoln; through sleepers Lincoln to Billings. Connects with fast train beyond to Montana and Puget Sound. Ten to twenty-five hours shorter than other lines from Kansas City.

Through sleepers and chair cars Missouri river to Denver; Rio Grande scenic line beyond to Colorado, Utah and California.

Ask agent for tickets over the established through lines of the Burlington Route.

L. W. WAKELEY, Gen. Pass. Agt., St. Louis, Mo.

Rose Registered Jersey Cattle and Poland-China Swine

are unrivaled. JERSEYS are rich in the blood of Coomassie and Stoke Pogis. Service bull, Calvin S. Price 37820—grandson of Pedro and Marjoram 2d—won first premium New Jersey State fair, 1894, when a calf. Herd boars fashionably bred and high-class individuals. Head herd boar Rosewood Medium 16453 by Woodburn Medium, he by Happy Medium; dam Fantasy by One Price. Assisted by Tecumseh the Great by Chief Tecumseh 2d; dam Moss Wilkes by Geo. Wilkes. Second assistant Domino 16734 by What's Wanted Jr.; dam Bonnie Z. by Gold Coin, he by Short Stop. Domino won first, pig under 6 months, Nebraska State fair, 1896. Our SILVER WYANDOTTES are high scorers. We have the best equipped dairy farm and most complete breeding establishment in northern Kansas. Farm in Republic county, near Nebraska State line. Take U. P. or Rock Island railroad to Belleville, or write. JOHN P. TOLFORD, Manager, Chester, Neb.

Gossip About Stock.

A. D. & H. L. Perrin, breeders of Duroc-Jersey swine, Prescott, Kas., have thirty-eight head of fall pigs coming on nicely. They will be ready to ship in December.

The public sale of Short-horn cattle held at Kansas City, on November 12, 1896, from the herds of W. T. Clay and H. C. Duncan, resulted in twelve bulls averaging \$111.65 and thirty-five females \$80 each.

The public sale of Tauey Creek herd of Poland-Chinas, owned by J. N. Kirkpatrick, Ottawa, Kas., was held on November 10, and thirty-seven pigs sold at an average of \$8.50. It was rather disappointing in the matter of price, and hereafter stock will only be sold at private sale.

L. K. Haseltine, breeder of Red Polled cattle, Dorchester, Mo., reports that he has been having fine sales all the season and the demand evidently on the increase all the time. Sales have been made in five different States during the past few days. The herd bull, Jumbo 18th, now weighs nearly 2,500 pounds and withal is an excellent sire.

A new departure in selling poultry has been adopted by one of our advertisers, P. C. Bowen & Son, Cherryvale, Kas., this season, in having all of his poultry scored by the renowned expert judge, the President of the American Poultry Association. Each bird sold by them to our readers will be accompanied by a reliable score-card, showing the number of honest points the bird will actually score.

While in Hope, Kas., recently the FARMER representative met Dr. A. M. Farnham, who, after experimenting with other breeds of swine, has finally adopted the Poland-China breed as the one best suited his fancy, and from an inspection of his foundation stock, it is quite evident that he will make a marked success with this breed, and Kansas breeders will certainly hear more about him when his herd is larger and older.

H. H. Hague & Son, of Walton, who hold a public sale of Poland-China swine and other stock on Wednesday, November 25, will meet all who come to the sale at either Elbing or Walton. Those who cannot be present and desire to bid on something can send their bids to Col. S. A. Sawyer, the auctioneer, and rest assured of getting honorable treatment. Last week attention was called to the breeding of certain animals in the offering, and in addition thereto there are a number of choice boars and gilts out of such animals as Model, Wren's Beauty, Black Bess 2d, Corwin Quality and May Gold Dust. There will also be sold a number of fine sheep and poultry offered at the same time.

On Tuesday, November 24, 1896, Geo. Channon, of Hope, Kas., proposes to sell at public sale 100 Poland-China hogs, including three herd boars—Duke of Weston, Corwin King and Hadley Chip, twenty yearling sows bred to them, twenty March and April farrow sows, twelve two-year-old sows, ten fall boars and fifteen spring boars, the remainder summer and fall pigs. In addition to this large offering of hogs, fifteen head of Short-horn bulls will be sold and thirty Barred Plymouth Rock cockerels. A FARMER representative called, last week, and looked over the stock and found it all in fine form and it will be a big bargain day for buyers to have so much stock sold in a single day. The pigs are uniform and almost without exception are of individual excellence, such as will please the breeder and farmer. The Short-horns are an all-around good lot, both as to breeding and individual quality. It is a big day's sale and the buyer's opportunity.

Our readers will be surprised at the sudden announcement of O. P. Updegraff, Secretary of the Kansas Swine Breeders' Association, to hold a public sale of seventy pure-bred Poland-Chinas and Berkshires at his Riverside stock farm, two miles west of North Topeka, on Wednesday, November 25, 1896. Everybody, of course, is especially invited to be present. In regard to the offering, the Berkshires to be sold represent the blood of Snowflake 26653, King William 22253, Imported Western Prince 32202, Longfellow 16835, Volunteer 18514, Stumpy Duchess 16828, Warwick Hope 31741 (an imported boar), Bismarck 29257, Onward 25383, Royal Champion 19802, Rome Joker 27897, Director, Royal Windsor, the greatest prize-winning blood of two continents. In Poland-Chinas the blood lines are in the extreme fashion, being that of Hadley Jr., J. H. Sanders Jr., Longfellow, Clay Dee, Tecumseh Duke, Onward, Lawrence Perfection, Nancy Hanks, Gem, Corwin Index, I. X. L. 3d, Black Tom, Samboline 8th, Hebe, Ideal U. S. and others of equal merit.

C. S. Cross, proprietor of Sunny Slope farm, Emporia, Kas., was last week elected Vice President of the American Hereford Cattle Breeders' Association, although he was not present at the meeting. This was a well-merited recognition of a Kansas man and a Kansas herd that is second to none other anywhere, as a visit to the farm will demonstrate to the entire satisfaction of

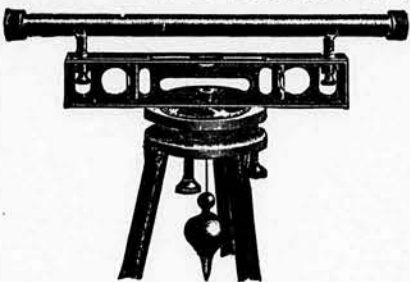
any visitor interested in this famous beef breed of cattle. Sunny Slope farm herd is conceded to be one of the largest and best herds in America, and the breeder in quest of Herefords of either sex, of any of the desirable strains of blood can always be accommodated, whether he wants a calf, a yearling, or a mature animal. Either a single animal or a car lot order can be filled with promptness and dispatch and at prices that are reasonable. No expense or pains is spared to keep the breeding and individual excellence of the herd strictly up-to-date. Mr. Cross has ample capital, and his manager, H. L. Leibfried, has the requisite skill for maintaining the splendid reputation already achieved by Sunny Slope farm, and any one interested in the purchase or breeding of Hereford cattle cannot afford to miss a visit to this great Kansas breeding establishment.

PUBLIC SALE OF SHORT-HORNS.—The demand for improved beef cattle is gradually increasing, and among the beef breeds the Short-horn is keeping pace with the demand. A major portion of the young bulls scattered throughout the country that are old enough for service have already changed ownership and the inquiry for young females is on the increase, thus demonstrating that the better class of beef cattle is in demand. Among the pioneer herds of Missouri is the herd that was founded in 1865 by Mr. Harned, senior, and now owned by his successor, Mr. W. P. Harned, of Bunceon, Cooper county. The herd has since been recruited with imported and American-bred animals and is now mainly made up of Cruickshank or Cruickshank-topped out of the best Short-horn families. On reference elsewhere in this issue the reader will find that a draft of thirty bulls old enough for service and twenty heifers will be offered at public sale. Consult the advertisement and write for a copy of sale catalogue, that gives full and complete details.

Last week the FARMER representative called at the breeding establishment of C. A. Stannard, of Hope, Dickinson county, where he found one of the largest and best herds of Berkshire swine in the State, also a splendid herd of Hereford cattle. It has taken five years to bring these herds up to their present state of excellence, and both classes of stock are highly creditable. FARMER readers will remember that Mr. Stannard was one of the leading and successful exhibitors at the Wichita State fair this year, where his 1,000-pound Berkshire boar attracted unusual attention. Mr. Stannard's Berkshires consist of thirty-seven very fine brood sows and the herd boars, Longfellow W. 33611 and Garfield 2d 35983, he sired by Majestic Lad, now at the head of Geo. W. Berry's herd and formerly in use in the Bourbon County herd, owned by J. S. Magers, of Arcadia, Kas. The Hereford herd is not so large as the Berkshire division, yet consists of the right sort, of eighteen breeding cows headed by the bull, Stone Mason 13th 42397, he by Stone Mason by Beau Real. This bull won first in class and sweepstakes at the Wichita State fair, and the three show cows, Sunrise, Maple Hill Mary and Charmer 2d, were also winners. Mr. Stannard has wisely concluded to advertise for sale some Berkshires, consisting of twenty boars old enough for service and fifty gilts that will surely please. Mr. Stannard is a reliable and conservative breeder that deserves a large and liberal patronage.

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.

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

Special Want Column.

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

SUNFLOWER HERD DUROC-JERSEY SWINE. Choice pure-bred pigs for sale, September farrow. Address A. D. & H. L. Perrin, Prescott, Kas.

FOR SALE—One Large English Berkshire boar, Clay Dee 11204; ought to make a 900-pound hog. Also Royal Medium by Wren's Medium. Jam Rose Nell 3d 29107; one year old, good individual and breeder. Would take a good gilt as part pay. Prices to suit the times. F. W. Baker, Council Grove, Morris Co., Kas.

FOR SHORT-HORN BULLS—Reds and roans, first-class, and Poland-China boars, address D. P. Norton, Council Grove, Kas.

WANTED—To trade, house and lot in Henrietta, Texas, for stock horses or good jack and French Coach horse. B. L. Wilson, Haddam, Kas.

JOHN HOWAT, BREEDER OF THOROUGHBRED Poland-China hogs of the choicest strains, Haven, Kas.

BARRED PLYMOUTH ROCKS AND MAMMOTH Bronze turkeys, cheap for one month. Also an Ohio Improved Chester boar. D. Trost, Abilene, Kas.

WOULD LIKE—To correspond with some one who would furnish 200 cows next spring, for half the increase. Nat G. Bennett, Belvidere, Kas.

BIG MARRIAGE PAPER—Six months and nice present, 10c. in silver. Box 478, Auburn, N. Y.

QUICK!—Send 75 cents for a pair of Armadillo bucking armor. Fits on any glove. Will outwear ten pairs of bucking gloves. Bonanza Park Manufacturing Co., Vesper, Kas.

FOR SALE—Recorded Duroc-Jersey pigs, February and June farrow; ready for use; sired by son of a 900-pound hog; good quality; cheap. M. H. Alberty, Cherokee, Kas.

WANTED—To serve you in buying, selling, renting and exchanging real estate and live stock, and in making extension and collection of loans. Long experience and best facilities. Fidelity Agency Co., Room 21 Columbian Bldg., Topeka, Kas.

FOR SALE—One yearling O. I. C. boar and one yearling Poland-China. Extra breeders. J. A. Hargrave, Richmond, Kas.

FOR SALE OR TRADE—Creamery building, with engine, separators and all machinery for running a first-class creamery, at Alpha, Ill. Cheap for cash, or will trade for land or stock in Illinois or Kansas. Address W. J. Armstrong, Burlington, Kas.

WHITE PLYMOUTH ROCK COCKERELS UNTIL surplus stock is disposed of, at 50 cents, 75 cents and \$1. All are good, healthy stock, well bred, of sufficient age for spring use. Less than \$1 order, cash. E. K. Terry, Sunny Slope Poultry Yards, Burlingame, Kas.

FOR SALE—One hundred and sixty acre farm, one and a half miles from Bushong station, Lyon county, Kansas. Good spring. Price \$8 per acre. J. B. McAfee, Topeka, Kas.

EXCHANGE—Lands in southwest Missouri for young horses. C. S. Calhoun, Pratt, Kas.

WE MAKE A GOOD FARMER'S SPRING WAGON, two lazy backs and let-down end-gate, for \$55. Warranted. Kinley & Lanman, 424-426 Jackson street, Topeka

WANTED—Buyers for Large English Berkshire gilts, bred or ready to breed to son of imported boar. Bargains! O. P. Updegraff, North Topeka, Kas.

SHAWNEE COUNTY CIDER MILL.—Bring your apples to my cider mill, three miles west of Kansas Ave., on Sixth street road. My mill will be in operation every Tuesday, Thursday and Saturday till November. Henry McAfee Topeka.

WANTED—Buyers for Large English Berkshires and improved types of Poland-Chinas, from prize-winners, at farmers' prices. Riverside Stock Farm, North Topeka, Kas.

FOR SALE AT SPECIAL PRICES—Hay outfits, carriers, forks, etc. Inquire at the store of P. W. Griggs & Co., 208 W. Sixth St., Topeka, Kas.

SHORT-HORN BULLS—Cruickshank-topped, for sale. Choice animals of splendid breeding. Address Peter Sim, Wakarusa, Shawnee Co., Kas.

EGGS FOR HATCHING.—See advertisement elsewhere. Belmont Stock Farm.

FOR SALE OR TRADE—One hundred and sixty acre farm in Graham county, Kansas. Nice, smooth land. No incumbrance. Also 160 acre farm in Scott county, Kansas. Smooth land. No incumbrance. I will sell cheap. Address Thomas Brown, Box 55, Palmer, Kas.

ALFALFA SEED—Crop of 1896. Pure and fresh. Write for prices. McBeth & Kinulson, Garden City, Kas.

MOESER ICE AND COLD STORAGE CO.—Topeka, have just completed their new cold storage building, on the latest modern plan, and now have the best facilities for storing all kinds of fruits, butter, eggs, etc. Railroad switch to storage building. Car-load lots unloaded free of charge. Write for prices.

WANTED—Sale bills, horse bills, catalogues and other printing. A specialty at the Matt job printing rooms, 909 North Kansas Ave., North Topeka.

FOR SALE—Eighty-eight acres of the best bottom land in Missouri and in the best stock range; well improved; about fifty acres in cultivation, balance in good timber. Price \$1,350. Address John O'Toole, Fisk, Stoddard Co., Mo.

THOROUGHBRED POLAND-CHINAS.—For sale, twenty young males, Black U. S., Corwin, Wilkes and King Butler strains. Wm. Maguire, Haven, Kas.

FOR SALE—One hundred high-grade Shropshire ewes, choice ones. Also some choice high-grade Jersey cows. E. W. Melville, Eudora, Kas.

FOR SALE—Farms in Morris, Osage, Lyon, Bourbon, Cherokee, Labette, Neosho, Anderson, Montgomery, Coffey, Woodson and many other counties for sale on eight years' time. No interest asked or added in. Write for new circulars with descriptions and prices. Hal W. Neiswanger & Co., Topeka, Kas.

A View of Irrigators.

During the Kansas Irrigation Congress at Great Bend, last week, F. W. Litchfield, manager of the Wichita View Co., made a very fine photograph of the Congress, which he will mail to any one interested for only 50 cents]

THE STRAY LIST.

FOR WEEK ENDING NOV'R 5, 1896.

Wallace county—W. E. Ward, clerk. MARE—Taken up by C. C. Halsey, of Sharon Springs, September 11, 1896, one bay mare, white spot in forehead; valued at \$10. COLT—By same, one bay colt, white spot in forehead, no marks or brands; valued at \$5. MARE—Taken up by M. Kelley, of Sharon Springs June 22, 1896, one black mare, white in forehead, white on front and hind foot, white on left side from fetlock to within inch of hoof; valued at \$10. Wabausee county—J. R. Henderson, clerk. HORSE—Taken up by E. O. Place, (P. O. Eskridge), September, 1896, one black horse, white spot in forehead, 10 years old; valued at \$10. MARE—By same, one bay mare, white hind foot, 11 years old; valued at \$10. MARE—By same, one sorrel mare, 5 years old, hind feet white; valued at \$10. Marion county—W. V. Church, clerk. COW—Taken up by E. F. Dutcher, in Center tp. October 17, 1896, one red and white cow, about 1 years old, weight about 800 pounds, unknown brand on left side. Doniphan county—W. H. Forncrook, clerk. PONY—Taken up by H. B. Morgan, in Washington tp. (P. C. Wathena), September 7, 1896, one black mare pony, 6 or 7 years old, left fore foot crippled. TWO MULES—By same, one bay horse mule, 10 or 12 years old, and one black horse mule, 10 or 12 years old; valued at \$115.

FOR WEEK ENDING NOV'R 12, 1896.

Cowley county—S. J. Neer, clerk. FOUR MARES—Taken up by S. S. Hoard, in Windsor tp. (P. O. Grand Summit), October 20, 1896, one bay mare, 7 years old, white hind feet and collar marks, valued at \$12; one black mare, 10 years old, blazed face, valued at \$10; one bay mare, 8 years old, white hind feet and star in forehead, valued at \$18; one bay mare, 8 years old, white hind feet and star in forehead, valued at \$12. FOUR GELDINGS—By same, one brown gelding, 6 years old, branded on right shoulder with diamond under a bar, valued at \$14; one bay gelding, 9 years old, star in forehead, valued at \$12; one brown gelding, 8 years old, star in forehead, valued at \$12; one gray gelding, 5 years old, slit in front of left ear, valued at \$10. COLT—By same, one sorrel yearling horse colt, flaxen mane and tail; valued at \$10.

FOR WEEK ENDING NOV'R 19, 1896.

Edwards county—A. G. Aderhold, clerk. MULE—Taken up by J. M. McCarter, in Franklin tp. (P. O. Fallsburg), October 14, 1896, one mouse-colored male mule, line on back, fifteen hands high; valued at \$15.

VETERINARY SURGEON.

D. R. U. B. MCCURDY, Veterinary Surgeon. Graduate Ontario Veterinary college, Toronto, Canada. Can be consulted on all diseases of domestic animals at office or by mail. Office: 114 West Fifth Street, Topeka, Kas.

Who can think of some simple thing to patent? Protect your ideas; they may bring you wealth. Write John Wedderburn & Co. Patent Attorneys, Washington, D. C., for their \$1,500 prize offer and list of 200 inventions wanted.

ORGANS FREE on trial. High-grade, popular priced Organs, such as never were offered before. Unequaled for sweetness of tone and beauty of design. We have a large assortment at lowest prices. Send for Our Mammoth Catalogue. H. R. EAGLE & CO., 68 and 70 Wabash Ave., Chicago, Ill.

DIRECT-UM BIT!

Best Combination Bit made. Severe or Easy as you want it. Sample mailed, XC \$1.00. Nickel..... 1.50.

RACINE MALLEABLE IRON CO., Racine, Wis.

The Baldrige Transplanter.

Soil, roots and plants taken up together, preventing stunting or injury. Vegetables, flowers, strawberries, tobacco, small nursery trees, etc., can be moved at all seasons. Invaluable for filling vacancies. Transplanter with blade 2 inches in diameter. \$1 25; same with 3-inch blade, \$1.50. SPECIAL PRICE with KANSAS FARMER: By a special arrangement with the manufacturers we are able to offer the Transplanter and KANSAS FARMER one year for price of Transplanter alone. Send \$1.25 and we will mail KANSAS FARMER to you and send you the Transplanter by express. Or call at FARMER office and get the Transplanter and save 25c. express charges. Address KANSAS FARMER CO., Topeka, Kas.

THE FAMILY MONEY MAKER!

Worth \$100 a year and more to all who own land, a garden, orchard or conservatory; covers, in plain language, by practical men, the care and cultivation of flowers, fruits, plants, trees, shrubs, bulbs, etc., and tells how to make home grounds attractive.

3 AMERICAN GARDENING 10

America's brightest and most reliable gardening and family paper. Established fifty years. Illus. Weekly. \$1.00 a year, WITH HANDSOME PREMIUM.

To introduce it to new readers we will send AMERICAN GARDENING 3 months (12 numbers) to any address on receipt of 10 cents, in stamps or coin. Sample free.

AMERICAN GARDENING, P. O. Box 1697, N. Y.

We can furnish you KANSAS FARMER and Peterson's Magazine, each one year, for \$1.75. Or KANSAS FARMER and Arthur's Home Magazine for \$1.65. Send to this office amounts above named.

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, DR. N. S. MAYO, Professor of Veterinary Science, Kansas State Agricultural College, Manhattan, Kas.

Fistulous Withers.

A correspondent asks for the causes, symptoms and treatment for fistulous withers.

The term "fistula," is applied to a running sore, wherever located, and fistulous withers is applied to a running sore situated somewhere in the region of the withers, the sore often being at the top of the neck, about where a collar would come. When such a running sore occurs on top of a horse's head it is called a poll-evil.

A fistula or poll-evil belongs to a class of abscesses popularly known as "cold abscesses," there being but slight inflammation attending their formation. It was formerly supposed that fistulous withers resulted from a blow or injury. While this may account for some, others occur without apparent injury, and it is believed that they are caused by germs which the animal may take in with the food or water.

The first symptom noticed is a puffy enlargement, often quite sensitive. If the enlargement is opened in the early stages it is found to contain a nearly transparent sticky fluid. If left without interference, it increases in size and the fluid becomes like pus (matter), the abscess breaks and a running sore results. The inside of the cavity is lined with a false membrane that secretes the pus, and in order to heal up the fistula this must be destroyed. If any of this false membrane is left the abscess will break out again.

Treatment.—When the swelling is first noticed and before pus has formed, the abscess can often be "scattered," by bathing the part with hot water twice daily for fifteen minutes at a time, wipe dry and apply iodine ointment, rubbing it well in. After pus has formed in the abscess it should be opened freely, the false membrane destroyed, and healing remedies applied. In many cases injecting pure turpentine into the abscess once daily will destroy the membrane and heal the abscess. Swabbing out the inside of the fistula with pure carbolic acid once or twice and then using dilute carbolic acid (one part of carbolic acid to twenty parts of rainwater), once daily, will often heal them. Arsenic and corrosive sublimate are often used, but on account of their poisonous character they should be used only by persons familiar with their action. The hair around the fistula should be kept greased with lard, so that the discharge will not blister the skin. Do not let the opening close until the cavity has healed from the bottom.

SWINE PLAGUE.—My pigs, about seven months old, are troubled with a dry, hacking cough, especially noticeable on getting out of their nest. They are not doing well. J. M. A. Salina, Kas.

Answer.—Your hogs appear to have a chronic pneumonia called swine plague. Give them dry but not dusty quarters, a variety of food and some of the hog cholera remedy recommended on page 681 of KANSAS FARMER, October 22, (also in this week's issue).

Ho! for Cripple Creek.

Remember that the Chicago, Rock Island & Pacific is the only line running directly from the East to Colorado Springs, the natural gateway to the Cripple Creek District. Colorado Springs lies at the foot of Pike's Peak at its eastern base, and Cripple Creek is part way down the southwest slope of Pike's Peak and near its western base. Two all rail routes from Colorado Springs are offered you. One by the Midland railway up Ute Pass, via Summit, to Cripple Creek. Another over the Denver & Rio Grande, via Pueblo and Florence, to Cripple Creek. Take the great Rock Island Route to this wonderful gold mining camp. Maps, folders and rates on application. Address

JNO. SEBASTIAN, Gen'l. Pass. Ag't., Chicago.

Horse Owners! Use



GOMBAULT'S Caustic Balsam

A Safe Speedy and Positive Cure
The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes Bunches or Blenches from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blentch. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland O.

MARKET REPORTS.

Kansas City Live Stock.
KANSAS CITY, Nov. 16.—Cattle—Receipts since Saturday, 13,749; calves, 415; shipped Saturday, 593 cattle, 84 calves. The market was 5¢ lower. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.			
No.	Ave. Price.	No.	Ave. Price.
18	1.471 \$4.40	41	1.351 \$4.25
40	1.100 3.80	1	1.570 3.00

TEXAS AND INDIAN STEERS.			
No.	Ave. Price.	No.	Ave. Price.
48	1.032 \$3.00	47	1.035 \$3.50
25	781 3.00	18	784 2.85
1	755 2.60	7	1.071 2.50
1	780 2.00		

NATIVE HEIFERS.			
No.	Ave. Price.	No.	Ave. Price.
15	848 \$3.60	1	867 \$3.50
3	878 3.10	9	911 3.10
9	900 2.75	2	745 3.00

NATIVE COWS.			
No.	Ave. Price.	No.	Ave. Price.
22	939 \$3.10	2	1.330 \$3.00
45	1.047 2.75	5	810 2.00
1	1.133 2.80	2	1.013 2.25
2	915 2.10	1	963 1.75

NATIVE FEEDERS.			
No.	Ave. Price.	No.	Ave. Price.
1	1.070 \$3.70	1	970 \$3.40
16	900 3.50	2	1.140 3.20
1	1.210 3.25	2	930 2.90

NATIVE STOCKERS.			
No.	Ave. Price.	No.	Ave. Price.
20	81 \$3.70	31	868 \$3.65
8	377 3.40	33	815 3.40
1	640 3.20	3	873 3.05
1	500 2.90		

Hogs—Receipts since Saturday, 8,134; shipped Saturday, 925. The market was 5 to 10¢ lower. The following are representative sales:

6	191 \$3.30	61	152 \$3.30	97	124 \$3.30
19	270 3.30	16	211 3.30	70	196 3.30
98	168 3.30	66	240 3.27½	87	194 3.27½
78	238 3.27½	57	216 3.27½	63	290 3.27½
116	245 3.25	71	236 3.25	6	223 3.25
4	262 3.25	16	220 3.25	73	227 3.25
178	227 3.25	71	246 3.25	59	175 3.25
37	251 3.25	113	341 3.25	73	242 3.25
74	237 3.25	19	191 3.25	40	165 3.25
63	209 3.25	76	223 3.25	80	231 3.25
76	211 3.25	70	224 3.25	68	263 3.25
84	207 3.22½	70	215 3.22½	63	314 3.22½
61	268 3.22½	66	236 3.22½	70	269 3.22½
48	244 3.22½	3	190 3.22½	107	260 3.22½
44	267 3.22½	83	229 3.22½	62	240 3.22½
4	237 3.22½	26	199 3.22½	89	175 3.20
69	246 3.20	2	295 3.20	52	270 3.20
29	241 3.20	59	63 3.20	57	328 3.20

Sheep—Receipts since Saturday, 5,480; shipped Saturday, 1,309. The market was 15 to 25¢ lower. The following are representative sales:

429 sw	102 \$2.85	151 sw	59 \$3.10
892 N. M.	75 2.65		

Horses—Receipts since Saturday, 357; shipped Saturday, 73. The market was rather quiet this morning for the reason that the buyers prefer to wait for the opening of the regular market to-morrow. The receipts are fairly heavy, and a good supply will be on hand when the regular auction sales begin. Quite a number of buyers are in the city looking around, and a strong demand for southern mares, geldings and mules is looked for this week. Prices are firm.

Chicago Live Stock.

CHICAGO, Nov. 16.—Cattle—Market 10 to 15¢ lower; fair to best beefs, \$3.50 to 10; stockers and feeders, \$2.75 to 4.00; mixed cows and bulls, \$1.60 to \$2.00; Texas, \$3.00 to \$4.25.

Hogs—Receipts, 58,000; market generally 10¢ lower; light \$3.15 to \$3.45; rough packing, \$3.00 to \$3.10; mixed and butchers, \$3.15 to \$3.50; heavy packing and shipping, \$3.15 to \$3.45; pigs, \$2.50 to \$3.40.

Sheep—Receipts, 30,000; market for sheep 10 to 15¢ lower for lambs 40 to 50¢ lower; native, \$1.75 to \$3.40; western, \$2.25 to \$3.25; lambs, \$3.00 to \$4.60.

St. Louis Live Stock.

ST. LOUIS, Nov. 16.—Cattle—Receipts, 5,070; common grades 20¢ lower, others 10¢ lower.

Hogs—Receipts, 9,000; market, 10 to 15¢ lower; light, \$2.25 to \$3.30; packers, \$3.00 to \$3.30; heavy, \$2.20 to \$3.30.

Sheep—Receipts, 2,500; market 10¢ lower.

Chicago Grain and Produce.

	Nov. 16	Opened	High'st	Low'st	Closing
Wh't—Nov	.....	.....	.....	.....	77½
Dec	78½	78½	78½	78½	78½
May	81½	81½	81	81	82½
Corn—Nov	.....	.....	.....	.....	21½
Dec	21½	21½	21½	21½	21
May	28¼	28¼	28¼	28¼	28¼
Oats—Nov	.....	.....	.....	.....	18½
Dec	19	19½	18½	19	19
May	22½	22½	22½	22½	22½
Pork—Nov	.....	.....	.....	.....	6 7/8
Dec	3 9/24	3 9/24	3 87/8	3 9/8	3 9/8
Jan.	4 15	4 15	4 07/8	4 10	4 10
Lard—Nov	.....	.....	.....	.....	3 90
Dec	3 9/24	3 9/24	3 90	3 91	3 91
Jan.	4 15	4 15	4 10	4 10	4 10
Ribs—Nov	.....	.....	.....	.....	3 72 1/2
Dec	3 70	3 72 1/2	3 70	3 72 1/2	3 72 1/2
Jan.	3 85	3 85	3 82 1/2	3 85	3 85

Kansas City Grain.

KANSAS CITY, Nov. 16.—Receipts of wheat here were larger to-day than for some time past and there was a very unsatisfactory trade, with prices 2 to 4¢ lower than on Saturday. Buyers showed little disposition to do business and a good many samples were carried over.

Receipts of wheat here to-day, 107 cars; a year ago, 67 cars.

BROOMCORN ESTABLISH'D 1873

ON CONSIGNMENT OR SOLD DIRECT.
We carry the largest stock of Broom Manufacturers' Supplies in the United States. Correspondence solicited.
J. P. GROSS & CO., 239-241 Kinzie St., Chicago, Ill.

BROOMCORN F. JELKE & SON

Established 1850.
53 Walnut St., Cincinnati, O.
Commission Merchants and Dealers in Broomcorn and all kinds of Broom Materials and Machinery.

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 for 1895	1,689,652	2,457,697	864,713	52,607	103,368
Slaughtered in Kansas City	222,167	2,170,827	567,016		
Sold to feeders	592,363	1,376	111,445		
Sold to shippers	218,505	278,999	69,784		
Total Sold in Kansas City, 1895	1,533,234	2,446,202	748,244	41,588	

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, E. E. RICHARDSON, H. F. OHILD, EUGENE RUST, V. Pres. and Gen. Manager. Secretary and Treasurer. Assistant Gen. Manager. Gen. Superintendent.
W. S. TOUGH & SON, Managers HORSE AND MULE DEPARTMENT.

LIGHTNING HAY PRESS
STEEL
Special prices.
Kansas City Hay Press Co., 129 Mill St. Kans. City Mo.

A SMALL THRESHING MACHINE:
Something new for the farmer, who can now do his own threshing, with less help and power than ever before. We also make a full line of Sweep Powers, Tread Powers, etc.
THE COLUMBIA THRESHER has great capacity, and can be run by light power. Send for illustrated Catalogue, giving testimonials.
Belle City Feed and Ensilage Cutters
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BELLE CITY MFG. CO. BOX 88, Racine, Wis.

Sales were as follows on track: Hard, No. 2, 1 car choice 70c, 2 cars 75½c, 2 cars 76c; No. 3, 4 cars 74½c, 3 cars 74c, 3 cars 73c, 2 cars 72c; No. 4, 2 cars 65c, 6 cars 61c, 4 cars 63c, 2 cars 62c, 3 cars 60c, 1 car 56c; rejected, 1 car 56c, 6 cars 55c, 2 cars 54c, 1 car 53c, 5 cars 52c, 2 cars 50c, 1 car 45c, 1 car 40c; no grade, nominally 4½c. Soft, No. 2 red, 87c bid; No. 3 red, nominally 84½c, 1 car fancy 87c; No. 4 red, nominally 85½c, 1 car 75c; rejected, nominally 55½c. Spring, No. 2, nominally 75½c; No. 3, nominally 71½c.

Offerings of corn were larger and the trade was rather slow, with mixed corn ¼ to ½c lower and white corn ¼ to 1c lower.
Receipts of corn to-day, 138 cars; a year ago, 62 cars.
Sales by sample on track: No. 2 mixed, 3 cars yellow 20c, 8 cars 19½c; No. 3 mixed, 3 yellow cars 19½c, 7 cars 19c; No. 4 mixed, 1 car 18½c, 1 car 18c, 1 car 17½c; no grade, nominally 16½c; No. 2 white, 2 cars 20½c, 1 car 20½c, 1 car 20c; No. 3 white, 6 cars 20c. No. 4, 2 cars 19½c, 4 cars 18½c, 1 car 17c.
Oats sold rather slowly at steady prices.
Receipts of oats to-day, 20 cars; a year ago, 12 cars.
Sales by sample on track, Kansas City: No. 2 mixed, nominally 18c; No. 3 mixed, 1 car 15½c; No. 4 mixed, nominally 14c; No. 2 white, old, nominally 23c; new, nominally 21c; No. 3, 1 car 18½c, 2 cars 18½c, 2 cars 17½c, 1 car 17½c; No. 4, nominally 15½c to 16c.
Hay—Receipts, 86 cars; the market is steady. Choice timothy, \$8.00 to \$8.50; No. 1, \$7.00 to \$7.50; No. 2, \$5.50 to \$6.00; clover, mixed, No. 1, \$6.00 to \$6.50; No. 2, \$5.00 to \$5.50; choice prairie, \$5.00 to \$5.50; No. 1, \$4.50 to \$5.00; No. 2, \$4.00 to \$4.50; No. 3, \$2.00 to \$3.00.

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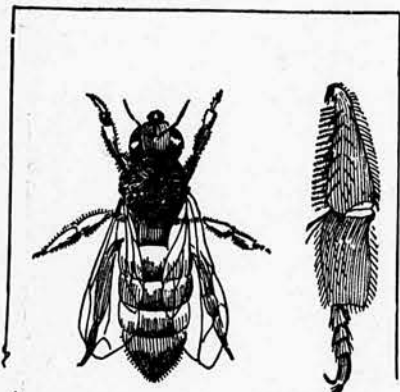
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WORKERS IN THE HIVE.

Description and History of the Bee That Makes the Honey.

Prof. A. J. Cook, in Rural Californian: We have now described the queen bee, the most important member of the bee community, as she lays all the eggs, and so is necessary to preserve the population and life of colony. The drone has also been considered, and, as we have seen, has no use except the procreative function; hence is wanting in the hive except when the bees are looking forward, because of over-population in the colony, to swarming. The worker bee is shorter than either the drone or queen, much shorter than the queen and much smaller than the drone. The worker bee is really an undeveloped female. She has rudimentary ovaries, and occasionally a worker is seen that can lay a few eggs. Such bees are known as "fertile workers," and, as they never mate, the eggs are, of course, not fecundated and only produce males—hence such bees are worse than worthless. The wings of the workers reach to the tip of the body. On the outer side of the hind pair of legs are



WORKER BEE AND OUTSIDE OF HIND LEGS, LARGELY MAGNIFIED.

the deep pollen baskets, made deeper by a rim of coarse hairs. These curious dinner pails are an important adjunct in the bee's structure furnishings, for the young of all bees live wholly or in large part on pollen, and thus these busy gleaners need external dinner pails in which to carry pollen no less than internal ones in which to carry the nectar. These hind legs also bear on the inner face opposite the pollen baskets rows of bright yellow hairs, which are fashioned to comb off the pollen that so abundantly lodges in the branched hairs. Another most curious arrangement of these hind legs is the wax jaws, which remind us of a steel trap, and are admirably adapted to their function of removing the wax scales from beneath the body where they are formed to the mouth, where they are fashioned to form the immaculate comb. The front pair of legs have the curious antennae cleaners to remove the pollen from the antennae. Thus these antennae cleaners, with delicate brush and membrane, are really the bee's pocket-handkerchief to be used to wipe the bee's nose—the antennae. Thus the antennae are kept clean and so the bees can smell the scent of bloom from afar. The eyes of the workers are like those of the queen; but the jaws and tongue are greatly different from those of either drone or queen. The jaws are gouge-like, and, no doubt, admirably fitted to fashion the comb, or to cut away disturbing cloth, paper or even wood. The tongue is long, slender and very complex. With it they can sip slowly from long tubular flowers, lap or wipe thick honey from board or glass, and take nectar rapidly from loaded flowers. A colony of bees have been known to take 20 pounds of honey in a day, and a single colony in southern California have taken 600 pounds in a season. The worker bees do all the work of the hive. The younger bees digest the food for larvae queen and drones, fashion the wax, nurse the young, construct the comb—though in some respects all the bees are comb builders—in short, do all the work of the hive. The older bees gather the nectar, pollen and glue, and may aid to build comb and secrete wax. The worker bees are reared in the small horizontal cells and are 21 days from eggs to maturity, in-

stead of 16, as in the case of the queen, or 24 as in the case of the drone. The quantity of food fed to the larvae is what controls the development of either queen or worker. If the food is abundant and rich, the impregnated egg produces a queen; but if it is scant and of poor quality then a worker results. Here is a case where enforced lack of nutrition has become natural and produces important structural changes that modify greatly the life functions.

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A solar wax extractor is needed in every apiary; several are kept running in many large apiaries. Extractors which render wax by steam are also used. To the latter class belongs the improved Swiss wax extractor. This implement, invented in Switzerland and improved in America, consists of a tin or copper vessel with a circle of perforations in the bottom near the sides to let in steam from a boiler below and within this upper vessel another receptacle—the comb receiver—made of perforated zinc. Within a few years wax extractors employing the heat of the sun and known as solar wax extractors have come into general use. The essential features in all the forms that have been devised are a metal tank with a glass cover and usually a wire cloth strainer, below which is placed the receptacle for the wax, the whole so arranged as to enable one to tilt it at such an angle as will catch the direct rays of the sun. The effectiveness of the solar wax extractor is increased by having the glass doubled and adding also a reflector, such as a mirror or a sheet of bright metal.

An important advantage of the solar wax extractor is the ease with which small quantities of comb can be rendered. By having this machine much is therefore saved that might be ruined by wax moth larva if allowed to accumulate, besides serving at the same time to decrease these pests about the apiary. The wax obtained by solar heat is also of superior quality, being clean, never water-soaked nor scorched, and also light in color, owing to the bleaching action of the sunlight. The cost of a medium-sized solar extractor does not exceed that of the larger Swiss steam extractors, yet of the two the former is likely to prove by far the more valuable, even though it can be used only during the warmer months. —Farm and Home.

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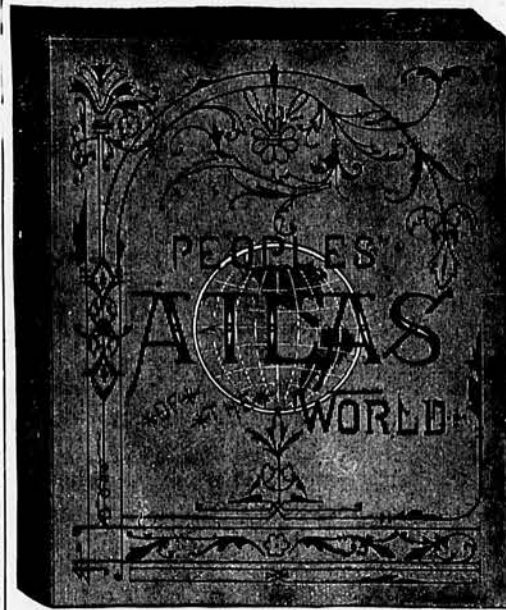
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(Continued from page 1.)

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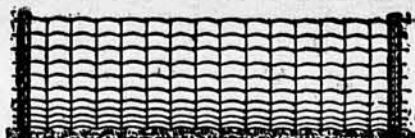
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COBURN No. 1.—A new seedling of great vigor; pinkish; short but very bushy vines; white bloom; extra early; eyes shallow; very prolific, indeed; good table potato and a good keeper. Price \$1.25 per bushel, or three bushels for \$3.

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Three pecks of each of the above four kinds, \$2.50; packed in lined barrels and delivered at depot free. Write your name, postoffice, county and express office very plainly, and send money with order. I can furnish most all of the leading new kinds.
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Hope, Dickinson Co., Kas.,

Tuesday, November 24, 1896.

100 POLAND-CHINA HOGS

consisting of my three herd boars, Duke of Weston, Corwin King and Hadley Clip; twenty yearling sows bred to above boars; twenty March and April farrow sows; twelve two-year-old sows, bred; ten 1895 fall boars; fifteen 1896 spring boars; balance summer and fall pigs. All early pigs mostly sired by Corwin King, summer pigs by Hadley Clip, fall pigs mostly by Duke of Weston. All breeders recorded. The foundation for this herd was laid fifteen years ago by the purchase of the best stock obtainable, and has been added to from year to year until I believe I am offering as fine a lot of hogs as have ever been seen together. I will also sell

15 Short-horn Spring Bull Calves

These are well-bred and recorded stock. Also 30 Barred Plymouth Rock Cockerels.
TERMS—Under \$10, cash; sums over \$10, eight months' time; 4 per cent. off for cash.
Free entertainment for customers from a distance.

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The Prize-winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District fair, 1893; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 28441, Black Joe 28603, World Beater and King Hadley. For sale an extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly bred sows. Inspection or correspondence invited.

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The home of the great breeding boar, SIR CHARLES CORWIN 33095. Our 1896 crop of pigs are by six different boars and out of fashionably bred sows, including such grand individuals as the prize-winning \$500 Lady Longfellow 34099 (S.), that has eight pigs by the prize boar, King Hadley. STOCK FOR SALE at all times and at very reasonable prices. We also breed Short-horn cattle. Write or come and see us.
IRWIN & DUNCAN, Wichita, Sedgwick Co., Kas.

BERKSHIRES AND POLAND-CHINAS SEVENTY HOGS!

On WEDNESDAY, NOVEMBER 25, 1896, at Riverside Stock Farm (two miles west of NORTH TOPEKA, KAS., on the lower Silver Lake road), I will sell to the highest bidder seventy head of pure-bred Berkshire and Poland-China hogs—brood sows bred or ready to breed, spring gilts and boars, the tops of 300 head. Sale at 10 a. m., rain or shine. Lunch at noon, wet or dry. Come.
O. P. UPDEGRAFF, Topeka, Kas.

PUBLIC SALE OF 90==Head of Poland-Chinas==90

to be held at our farm, 5 miles southeast of WALTON, HARVEY COUNTY, KANSAS, or 6 miles northwest of ELBING, BUTLER COUNTY, KANSAS, ON WEDNESDAY, NOVEMBER 25th, 1896.

The offering consists of 15 boars, including our 4 herd boars, 26 sows (yearlings, two-year-olds, some three-year-olds), and 14 spring gilts, all will be bred by day of sale, the balance summer and fall pigs. Good individuals and breeding.
We will offer 10 head of high-grade Holstein cows, some pure-bred Cotswold ewes safe in lamb, and a few pens of our pure-bred poultry.
Will meet parties at Walton or Elbing if notified.
Terms: All sums of \$20 and under cash in hand; over \$20 a credit of six months at 8 per cent. interest will be given upon approved security; 4 per cent. off for cash. Parties from a distance and unknown to us will be obliged to furnish bankable references.

H. H. HAGUE & SON.
COL. S. A. SAWYER, Auctioneer.

PUBLIC SALE OF SHORT-HORN CATTLE!

AT BUNCETON, COOPER CO., MO., DECEMBER 10, 1896.
30 BULLS—20 HEIFERS—MAINLY YEARLINGS.

A choice selection from my herd of over one hundred and fifty head of high-class Short-horns, containing Cruickshanks, Butterflies, Victorias, Aconites, Wood Violets, Scotch-topped Young Marys, Young Phillips and other standard families, sired principally by Ambassador 110811, Col. Aberdeen 79503 and Britisher 106627. This is not a cull sale, but contains all the bulls on the farm old enough for early service and about all the yearling heifers. I wish to call special attention to the nicely-bred Scotch yearling, Golden Knight, by the great Godoy 115675 and out of Golden Violet; the robust Silverheel by Col. Aberdeen 79502; the thick, stylish Orange Duke by Col. Aberdeen; the red, massive Howard, by Red Buttery and out of Kate Sharon by Imp. Burkomaster 90813. Of the more attractive heifers is Philippa by Prince Byron 159513 and out of Phillis, a massive 1,700-pound cow; Lady Goodness by Golden Prince 115698, and Angelica 2d by the old premier bull, Britisher 106627. You will not be disappointed when you see the stock.
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Sunny Slope Farm is one of the largest breeding establishments in the United States. Three sweepstakes bulls in service—Wild Tom 51592, Climax 60942, Archibald VI. 60921, also the great breeding bull, Archibald V. 54433, who was the sire of two sweepstakes animals (Archibald VI., sweepstakes under one year of age, and Miss Wellington 5th, sweepstakes heifer over all beef breeds when twelve months and twenty days old. We have thirteen serviceable bulls for sale, ranging from eight to twenty months old. We also have forty bulls for sale, ranging from five to eight months old. Also a choice lot of heifers and cows. We combine the blood of Anxiety, Lord Wilton and Grove 3d. Breeders are invited to inspect our herd.

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