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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeder's Directory for \$15 per year or \$2.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

HORSES.

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

CATTLE.

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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.

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SWINE.

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

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.

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, Liberty, Kas.

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SWINE.

MAPLE GROVE HERD OF FANCY BRED Poland-China swine. Also Light Brahma fowls. Owned by Wm. Plummer & Co., Osage City, Kas. Stock of all ages for sale at reasonable rates.

FOR SALE CHEAP—Choice Poland-China boar pigs, Cotswold and Merino bucks, fifteen varieties of pure-bred poultry. Prize-winners. No catalogue. Address with stamp, H. H. Hague & Son, Walton, Kas.

POLAND-CHINAS.—Dietrich & Gentry, Richmond, Kas., have a fine lot of fall boars and sows and two very fine young sows bred that they will sell cheap. Breeding choice. Quality guaranteed. Write or come and see us.

PIGS AND EGGS. WILL SELL TWO Poland-China sows and one boar pigs, bred from Wren's Medium 12387, whose sire has a large list to his credit that have sold for \$500 as any boar, living or dead. Eggs, 50 cents per thirteen. Zachary Taylor, Marion, Kas.

CATTLE AND SWINE.

ASHLAND STOCK FARM HERD OF THOROUGHbred Poland-China hogs, Short-horn cattle and Plymouth Rock chickens. Boars in service. Admiral Chip No. 7919 and Abbottsford No. 23351, full brother to second-prize yearling at Worlds Fair. Individual merit and gilt-edged pedigree my motto. Inspection of herd and correspondence solicited. M. C. Vansell, Muscotah, Atchison Co., Kas.

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17 Years Breeders of B. P. Rocks exclusively. Birds raised on four farms. We shipped 9,500 in 1893-94 into eighteen States and Canada. Eggs \$1 for 13; \$2 for 30; \$6 for 100. Eggs packed safe to ship any distance. Good hatch guaranteed. Send for circular. Joe Cunningham & Co., Loree, Miami Co., Ind.

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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.

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GEORGE TOPPING, Cedar Point, Kas. (CHASE CO.) Importer, breeder and shipper of

LARGE ENGLISH BERKSHIRE SWINE of best families and breeding. Choice pigs for sale at low prices. Also Single-combed Brown Leghorns and Mammoth Bronze turkeys. Eggs in season. Farm 6 miles south of Cedar Point. Mention K. F.

SWINE.

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Herd boars Graceful F. Sanders 13095 S., sire and dam prize-winners World's Fair, and Early Sisson 11938 S., that has one thousand descendants in a radius of fifteen miles. Fall and winter gilts bred for sale. Booking orders now. Write or come.

JOHN KEMP, North Topeka, Kas., breeder of improved Chester White Swine. Stock of both sexes for sale. Correspondence invited.

MAINS' HERD OF POLAND-CHINAS. JAS. MAINS, Oskaloosa, Kas. (Jefferson County.) A grand lot of sows bred to Monroe's Model, Excel, McWilkes Jr. and Storm Cloud 2d. Also all other classes and ages of stock for sale. I guarantee safe arrival and stock as represented or money refunded. Breeding stock recorded in Ohio P. C. R.

J. T. LAWTON, North Topeka, Kas., breeder of improved Chester White swine. Stock for sale. Pairs or trios not akin shipped. Correspondence invited.

Poland-China Hogs, Holstein Cattle and B. P. Rock chickens of the choicest strains. Butler's Darkness No. 6846 S. and Ideal U. S. Nemo at head of swine herd. Only choice stock shipped on order. Sows bred and a few extra good young boars for sale. Write your wants. Satisfaction guaranteed. Sixth Annual Clearance Sale, Sept. 17, 1895. BERT WISE, Reserve, Brown Co., Kas.

A. E. STALEY, Ottawa, Kansas. CHESTER WHITES AND POLAND-CHINAS. Light Brahma eggs \$1.50 for 15.

"WILDWOOD" POLAND-CHINAS. WILKES, FREE TRADE and U. S. BLOOD. Everything reserved for Public Sale, October 30, 1895. Catalogues ready in September. L. N. KENNEDY, Nevada, Mo.

W. S. ATTEBURY, Rossville, Kansas. BREEDER OF Chester Whites Exclusively. Young stock at all times. Satisfaction guaranteed.

E. E. AXLINE, OAK GROVE, JACKSON CO., MO. Breeder and shipper of POLAND-CHINAS of the best strains. Herd headed by Roy U. S. 24105 A. assisted by Western Wilkes 12846 S. Some extra fall pigs. Also winter pigs of both sexes at reasonable prices. Orders being booked for spring pigs. Write or come.

ELM BEACH STOCK FARM IRWIN & DUNCAN, Wichita, - Kansas, Sedgwick Co. Breed and have for sale Bates and Bates-topped Short-horns—Waterloo, Kirklevington and other fashionable families. Also breed and have for sale the best thoroughbred Poland-Chinas that can be obtained. Write or come and see.

CATTLE.

SUNNY SLOPE FARM, C. S. CROSS, Proprietor, Emporia, Kas.

Breeder of PURE-BRED HEREFORD CATTLE. Herd headed by Wild Tom 51592, a son of Benn Real 11055 and assisted by sons of Cherry Boy 26475, Archibald 1st 39258 and Washington 22615. 200 head, all ages, in herd. Strong in the blood of Lord Wilton, Anxiety and Horace. A choice lot of young heifers, fit for any company. Bulls all sold. Correspondence solicited, or, better still, a personal inspection invited.

SHANNON HILL STOCK FARM. G. W. GLICK, ATCHISON, KAS.

Breeds and has for sale Bates and Bates-topped SHORT-HORNS. Waterloo, Kirklevington, Filbert, Cragg, Princess, Gwynne, Lady Jane and other fashionable families. The grand Bates bulls Winsome Duke 11th 115137 and Grand Duke of North Oaks 11th 115735 at head of the herd. Choice young bulls for sale now. Visitors welcome. Address W. L. CHAFFEE, Manager.

SWINE.

TOWER HILL HERD PEDIGREED POLAND-CHINAS. B. K. ADAMSON, Prop., Ft. Scott, Kas.

25 highly-bred brood sows of best strains, headed by Black Dandy 8809 S., Black Star 10550 S. and Joker Wilkes 12682 S. About 100 selected individuals sold this season. 25 youngsters coming on now for choice. Write or come and visit my herd.

Quality Herd Poland-Chinas. For first choice pigs from stock producing winners of seven prizes World's Fair. Darkness Quality 2d and Ideal U. S. by Ideal Black U. S. head the herd. Both first-prize winners Kansas State fair 1894. Come or write your wants. Willis E. Gresham, Burrton, Kas. Secretary Kansas Swine Breeders' Association

PLEASANT VIEW STOCK FARM. J. A. WORLEY, Sabetha, Kansas.

Poland-China Swine, Short-horn Cattle, Light Brahmas and G. L. Wyandottes. Herd headed by Anxiety 20251 A., assisted by Combination U. S. 13408 and America's 12279. Have some choice fall pigs, both sexes, for sale, and a few Light Brahma cockerels. Eggs \$1 and \$1.50 per setting. Write. [Mention KANSAS FARMER.]

Evergreen Herd Poland-Chinas. Winterscheidt Bros., Prop's, Horton, Kas. Headquarters for Admiral Chip pigs. The great \$250 boar, Admiral Chip 7919, heads the herd, assisted by Kansas Chief 13676, Winterscheidt Victor 13294, Geo. Wilkes Jr. 11893. Also pigs from Orient's Success 27229 and Banner Chief 12714. Sows of following strains: Tecumseh, None Such, Wilkes Admiral Chip, etc. Prices reasonable. Write or come

J. R. KILLOUGH & SONS, Richmond, Franklin Co., Kansas, POLAND-CHINA SWINE.

Headed by Upright Wilkes 13246 and assisted by J. H. Sanders Jr. 13739. Our brood sows are all richly bred and high-class individuals. A fine lot of fall pigs, both sexes, ready to go at reasonable prices.

HILLHURST STOCK FARM GARNETT, KAS., (Anderson Co.) Walter Latimer, Prop'r.

POLAND-CHINA SWINE of the Tom Corwin and I. X. L. strain. None better. Public sale, Friday, Sept. 8, 10 a.m. Send and have your name recorded for a catalogue at once. Stock grown by Latimer are sure winners. Col. Sawyer, auc.

STANDARD POLAND-CHINA HERD. CHAS. A. CANNON, Proprietor, HARRISONVILLE, CASS COUNTY, MISSOURI

Breeder and shipper of registered Poland-China swine of the best strains. Herd headed by Chow Chow 9903 S., assisted by a Black U. S. son of Imitation 27185 O., also a son of Tecumseh Jr. 10207 O. 220 head in herd. Young boars and gilts yet on farm. Write or come and visit me.

SUNNY SLOPE FARM, EMPORIA, KANSAS.

200 head of Poland-China hogs, headed by Longfellow 29085 O. (who has the best Columbian record west of the Mississippi). J. H. Sanders Jr., Hadley Jr. 27505, Sir Charles Corwin. We also combine the blood of Black U. S., Ideal U. S. and Wilkes. 100 head of brood sows. Also 100 head of Berkshires, headed by the well-known boar, Major Lee 31139. We have 25 gilts bred by him to General Lee of Gentry breeding and Royal Peerless the Great. We have one of the largest herds of hogs in the United States. Why not come to the fountain head for brood sows? 200 head of fashionable bred Herefords. H. L. LEIBFRIED, Manager.

(Breeder's Directory continued on page 16.)

The Stock Interest.

THOROUGHbred STOCK SALES.

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

SEPTEMBER 5—Walter Latimer, Garnett, Kas., Poland-China swine.
SEPTEMBER 18—Martin Melsenheimer, Hiawatha, Kas., Poland-China swine.
OCTOBER 4—Winterscheidt Bros., Horton, Kas., Poland-China swine.
OCTOBER 9—Geo. W. Null, Odessa, Mo., Poland-China swine.
OCTOBER 10—J.R. Killough & Sons, Richmond, Kas., Poland-China swine.
OCTOBER 22—F. M. Lall, Marshall, Mo., Poland-China swine.
OCTOBER 23—C. G. Sparks, Mt. Leonard, Mo., and G. L. Davis, Elmwood, Mo., Poland-China swine.
OCTOBER 29—Chas. Cannon, Harrisonville, Mo., Poland-China swine.
OCTOBER 30—L. N. Kennedy, Nevada, Mo., Poland-China swine.

THE FEEDING OF FARM ANIMALS.

[From Farmers' Bulletin No. 22, United States Department of Agriculture.]

(Continued from last week.)

WHEAT AS A FOOD FOR ANIMALS.

The low price of wheat which has recently prevailed has led to its use to a considerable extent as a food for growing and fattening animals. Until recently there has been little or no literature on wheat feeding, because the price of wheat has usually been such as to discourage its use as an animal food. But the experience of the last two years has furnished abundant evidence of the high value of wheat as a feed for all kinds of stock. Farmers in the West have fed it extensively and with almost universal satisfaction, financially and otherwise. It is estimated that up to November 1, 1894, upward of 46,000,000 bushels of wheat had been fed by the farmers of the United States. In Kansas alone over 4,059,000 bushels, or 16 1/2 per cent. of the total crop of 1893, were fed to farm animals. It has been fed satisfactorily to pigs from the weaning stage until they were fattened for the market; to colts, to work horses and trotters, to calves, to steers, to lambs and sheep, and to milch cows. It has proved itself to be the best single grain for stock, all things considered, and the cheapest at current prices. There is good reason for this, for its composition shows it to be the richest of all the cereal grains. One hundred pounds of wheat furnishes more real nutriment than a similar amount of any other grain. The table on page 7 shows that 100 pounds of corn contains about 8 pounds of digestible protein, barley 8.69 pounds, oats 9.25 pounds and rye 9.12 pounds, while 100 pounds of wheat contains 10.23 pounds of digestible protein. The amounts of digestible nutrients in a bushel of fifty-six pounds of corn and in one of sixty pounds of wheat are shown in the following table:

Nutrients in a bushel of corn and of wheat.

	Dry matter.	Digestible protein.	Digestible carbohydrates.	Digestible fat.	Fuel value.
56 pounds of corn.....	Pounds. 49.90	Pounds. 4.44	Pounds. 37.31	Pounds. 2.40	Calories. 87,827
60 pounds of wheat.....	Pounds. 53.70	Pounds. 6.14	Pounds. 41.53	Pounds. 1.01	Calories. 92,909

At equal prices the wheat is considerably the cheaper feed. When, as recently, sixty pounds of wheat sells for less than fifty-six pounds of corn the economy of wheat is apparent. Wheat is especially adapted to young growing animals which have muscle and bone to form, owing to its richness in protein. It also contains more ash than corn. Prof. Henry places the value of wheat for growing animals at from a tenth to a quarter more than corn, and this is borne out by the above figures.

As to the effect of wheat on the health of animals, Dr. Salmon says:

"There are certain points to be borne in mind when one is commencing to feed wheat. Our domesticated animals are all very fond of it, but are not accustomed to eating it. Precautions should consequently be observed to prevent accidents and disease from its use. It is a matter of common observation that when full-fed horses are changed from old to new oats they are liable to attacks of indigestion, colic and founder. If such results follow the change from old to new oats, how much more likely are they to follow a radical change, such as that from oats to wheat? For this reason wheat should at first be fed in small quantities. It should, when possible, be mixed with

some other grain, and care should be taken to prevent any one animal from getting more than the quantity intended for it.

"These precautions are especially necessary when wheat is fed to horses, as these animals are peculiarly liable to colic and other disturbances of the digestive organs, accompanied or followed by laminitis. Cattle, sheep and hogs frequently crowd each other from the feeding troughs, in which case some individuals obtain more than their share, and may bring on serious or fatal attacks of indigestion."

To guard against danger from indigestion, and to utilize wheat to the best advantage, it should be fed with other grains. The hard husk inclosing the oat kernel helps to lighten it up in the stomach and make it one of the safest grains for feeding. With wheat, on the other hand, more precaution is necessary. For horses, cattle and pigs wheat should be coarsely ground or soaked for twelve to sixteen hours, perhaps more, or boiled; for sheep it may be fed whole. An English authority on feeding has found whole wheat the cheapest feed for sheep. He estimates wheat fed to lambs about ten months old as worth about 76 cents per bushel. The Indiana station realized 77 cents per bushel for wheat fed to sheep.

A Western farmer who has fed about 2,000 bushels of wheat the past two years, and is still continuing its use, reports that he never feeds wheat alone, but mixes equal parts (by bulk) of coarsely ground wheat and bran, or of wheat, bran and oats. These mixtures he feeds to horses, milch cows, lambs, calves and pigs with perfect success. They are fed dry to all except the pigs, for which they are soaked for forty-eight hours.

For young pigs wheat may be fed with a little corn with good results, increasing the proportion of corn as the pigs grow, the corn predominating during the final fattening period. One farmer reports feeding young pigs still with the sow on soaked wheat during weaning with excellent gains. It would be difficult to find a better food for young pigs and shoats than two parts (by weight) of wheat, two parts of corn and one of shorts, or equal parts of wheat, corn and shorts. These mixtures will prove more satisfactory than wheat alone, although hogs on clover pasture have been fed whole wheat dry without injury and made a gain of fourteen pounds per bushel of wheat. In feeding whole wheat either dry or soaked to pigs there is danger that considerable will pass through the animal undigested.

that made on corn and superior to that made on either whole wheat, field peas, or mixed food. The pigs had access to salt and hard-wood ashes at all times. The Wisconsin station has fed wheat, corn, and a mixture of the two, ground, to hogs with good results, the mixture of corn and meal and ground wheat showing the best gains for the food eaten.

In Canada Professor Robertson found that frozen wheat fed to pigs, between sixty-one and 145 pounds in weight, gave an average increase of 15.46 pounds per bushel. With heavier fattening hogs, from nine to eleven pounds of gain was made per bushel of wheat. With pigs bringing 5 cents per pound, 73 cents per bushel was realized for the frozen wheat in the first case, and 43 cents in the last. He recommends that when wheat is fed unground it be soaked for twenty-four hours.

If care is exercised steers can be fed almost exclusively on wheat. In that case it should be rolled or crushed and fed with a little bran or on moistened cut hay. But here, as elsewhere, it is more advisable to feed wheat with some other grain. Fed ground and mixed with corn it has given good results. The experimental farm at Manitoba reports a trial of feeding frozen wheat to two-year-old steers. The wheat was cracked and fed with wheat straw or straw and turnips. The wheat was No. 3 quality, but it gave a return of 56 cents per bushel with beef at 4 cents.

For horses wheat should be coarsely ground and fed on moistened hay alone or with bran.

For cows it is recommended to crush or coarsely grind wheat and feed it mixed with bran. A ration often recommended is six to eight pounds of bran and six pounds of wheat. Such a ration, with coarse fodders, would give:

Ration per cow daily.

	Dry matter.	Digestible protein.	Fuel value.
	Pounds.	Pounds.	Calories.
10 pounds rowen hay (second cut).....	8.34	0.72	9,604
20 pounds silage.....	4.18	0.11	5,943
6 pounds bran.....	5.31	0.72	6,668
6 pounds wheat.....	5.37	0.62	9,291
Total.....	23.20	2.17	31,506
Standard ration.....	24.00	2.50	29,538

The substitution of one pound of linseed meal for one pound of the wheat would bring this ration nearer the standard. Farmers have reported good results with a mixture of equal parts of bran and wheat. It gave good results at the Ontario Agricultural college, and better than wheat alone. If the coarse fodders mentioned above are not at hand, the ration may be varied by feeding five pounds of mixed hay, ten pounds of dry corn fodder, the amounts of bran and wheat mentioned above, and two pounds of cottonseed meal or three pounds of gluten meal.

Low-grade wheat flour is often a cheaper cattle food than wheat. This flour contains the germ of the wheat, which makes it turn dark colored, but also enriches it considerably. It should be used in much the same way as ground or crushed wheat.

With the present low price of wheat the farmer is advised to keep for feeding all wheat which will not bring the price of first-class grain, and sell only the first-quality wheat. If possible the wheat should be graded rather than sold at an inferior price.

He Lacked the Nerve to Make Her Happy.

Upon receipt of your address we will mail free a package of beautifully illustrated transparent cards, picturing and explaining just how and why men frequently suffer from nervous troubles that prevent their doing the right thing at the right time. Edition limited. Address, mentioning this paper, Sterling Remedy Co., New York city or Chicago.

"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 3,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks and will prove of great value, not only to fruit-growers, but to every farmer and home-seeker looking for a farm and a home. Mailed free. Address,

J. E. LOCKWOOD, Kansas City, Mo.

The Only One To Stand the Test.

Rev. William Copp, whose father was a physician for over fifty years, in New Jersey, and who himself spent many years preparing for the practice of medicine, but subsequently entered the ministry of the M. E. Church, writes: "I am glad to testify that I have had analyzed all the sarsaparilla preparations known in the trade, but



AYER'S

is the only one of them that I could recommend as a blood-purifier. I have given away hundreds of bottles of it, as I consider it the safest as well as the best to be had."—WM. COPP, Pastor M. E. Church, Jackson, Minn.

AYER'S
THE ONLY WORLD'S FAIR
Sarsaparilla

When in doubt, ask for Ayer's Pills

A Vacation Tour to the Rockies

Can be made cheaply this summer by taking advantage of the low rate of one fare plus \$2 for the round trip, offered by the Great Rock Island Route for the National Educational Meeting at Denver. Tickets will be on sale at all stations of the Great Rock Island Route, July 4, 5, 6 and 7, and will be

good returning until September 1. The very best of the Rock Island Route train equipment, comprising comfortable and free chair cars, luxurious Pullmans and the finest dining car service in the world, will be placed in service for this occasion. In selecting your route you should remember that after close of the Denver meeting no Colorado trip is complete without a visit to Colorado Springs, Pike's Peak and the Manitou region, and that as the Great Rock Island Route runs solid trains of perfect equipment directly east from Colorado Springs, your return trip can be most expeditiously and comfortably made from that point, without the necessity of returning to Denver, by having your tickets read over the C., R. I. & P. railway.

For full information concerning details of rates and tickets see local agent.

A beautiful souvenir called the "Tourist Teacher," describing the excursion and giving valuable information about mountain side trips, will be sent on application by letter or postal. Address

JNO. SEBASTIAN, G. P. A.,
Chicago, Ill.

The Nickel Plate's New Trains.

The new service on the Nickel Plate road, which went into effect Sunday, May 19, has met the approval of the traveling public. On all sides are heard expressions of universal satisfaction regarding the efforts which this popular road is making in the interests of its patrons. Three fast trains are now run in each direction daily. Superb dining car service. No change of cars for any class of passengers between Chicago, New York and Boston. Uniformed colored porters in charge of day coaches on through trains are constantly at the disposal of our patrons and are especially appreciated by ladies traveling alone. This extra service assures scrupulously clean cars en route. Lowest rates on all trains. For further information confer with your nearest ticket agent or address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill.

"The Farmer's Ready Reference, or Hand-Book of Diseases of Horses and Cattle." Descriptive circular free. Address S. C. Orr, V. S., Manhattan, Kas.

Ask your neighbor to subscribe for the KANSAS FARMER.

Agricultural Matters.

THE RISE OF WHEAT PRICES.

The *American*, an able paper published at Philadelphia, discusses the rise of wheat as follows:

"That a decreased supply of wheat, in other words, a short crop (other things being equal), will cause a rise in price, no sane man ever denied, and that an increased supply will result in a fall in price, is no less an axiom of economics. The result of the fall in the gold price of silver has been to increase the available area from which the gold-using countries of Europe can draw their supplies of food. With the increased competition the price of wheat has, of course, fallen. But, it is asked, how can a fall in silver increase the competition to sell wheat in the markets of Europe? The answer is plain: The premium on gold in the silver-using countries, caused by the fall in the gold price of silver, has the effect of a bounty on exports to gold-using nations. The value of an ounce of silver in Mexico, Argentine or India has not fallen. The same ounce will produce as much grain as ever. When silver was at a par with gold at the ratio of 15½ to 1, wheat sold in London at 7 shillings a bushel, and these 7 shillings, converted into Mexican exchange, were worth about \$1.71. The 7 shillings that our farmers obtained for their wheat in 1873, converted into exchange on New York, were also worth about \$1.71. Both the American and Mexican farmers received the same amount, namely, \$1.71 per bushel, from which they had, of course, to pay the transportation, insurance and storage charges, and also brokerage commissions.

"To-day, with silver depreciated 50 per cent. measured in gold, wheat sells in London at 3 shillings a bushel in gold. These 3 shillings, converted into Mexican exchange, are worth about \$1.50, and, inasmuch as transportation charges, etc., have much fallen in the last twenty years, the Mexican farmer receives almost as much silver to-day for a bushel of wheat as he did before the demonetization of silver; and, as we said before, this silver will produce as much wheat as ever. The farmer in the United States, on the other hand, competing with the Mexican and Indian farmer, must also sell his wheat to-day in London for about 3 shillings, which, converted into exchange on New York, amounts to about 73 cents. The American farmer receives only this amount less freight, insurance charges, etc.

"The great disadvantage under which the American farmer labors is very apparent, for it is well known that 73 cents in gold, the proceeds of a bushel of wheat sold in London (netting our farmers only about 50 cents in gold) will not raise as much wheat as the proceeds of a bushel of wheat sold in London at \$1.50 a bushel in silver (netting the Mexican farmer about \$1.25). While an ounce of silver will purchase a bushel of wheat in silver-using countries, the Englishman will not pay more than the gold cost of an ounce of silver for wheat raised in the United States.

"The price of silver is a controlling factor in the supply of wheat, and the fall in silver has given a great impetus to the growth of wheat in silver-using countries.

"But to return to the consideration of the recent and very sharp rise in wheat—a rise coincident with the rise of cotton and other farm products. Wheat sold around 53 cents a bushel in Chicago in the first part of March; last week it touched 80 cents, and last Wednesday it closed at 79½ cents. The prime cause for the rise in wheat is found in the rise of silver. Between March 1st and the last part of April silver rose from 60 to 67 cents an ounce, or about 12 per cent. The value of silver in Mexico and Argentine did not change; the same amount of silver was asked for a bushel of wheat as before, but this silver cost the Englishman 12 per cent. more on May 1 than on March 1. Of course the Englishman could afford to pay us 12 per cent. more in gold for our wheat than before, and wheat rose between March 1 and the last part

of April from 53 cents in Chicago to 80 cents.

"The rise in silver narrowed the supply to this extent, and inaugurated a legitimate rise. Then the professional gamblers, taking advantage of it, circulated reports of great damage done to the wheat crop by frosts and the Hessian fly—reports which seem to have had very little foundation, if any. There is an old saying that 'he who sells what isn't his'n, must buy it in or go to prison.' So as prices went up the gamblers who had sold wheat 'short,' being called on for the wheat sold, were forced to buy it in. The frantic endeavors of the 'shorts' to 'cover' drove prices skyward.

"If our wheat crop has been seriously damaged, and if the surplus of Argentine, Indian and Mexican wheat has been exhausted, then the present or even higher prices for wheat will be temporarily maintained. But the crop does not seem to have been seriously damaged; the English traders have been skeptical of the rise and have stopped their purchases of American grain, which goes to show that the surplus wheat of the silver-using countries has not been exhausted. It is therefore probable that wheat will soon fall again to the gold cost of the ounce or fraction of an ounce of silver necessary to purchase a bushel of wheat in India or Mexico.

"Should, however, the rise in prices be due to legitimate causes, such as a decreased supply, the incentive to increased production in silver countries would be so immense that while the price may be maintained for the present year, it will in the end fall to the cost of producing wheat in silver-using countries.

"The price of wheat, as well as of all other products, while subject to variations due to accidental increased or decreased production, manipulation, etc., is controlled by the price of money. The price of wheat can only rise permanently as silver rises, and our farmers can only enjoy prosperity when the parity between gold and silver is restored, for not until then will the bounty on exports from silver-using to gold-using countries be removed; and until that time our farmers will labor under a crushing disadvantage."

The Good of Subsoiling.

EDITOR KANSAS FARMER:—Not long ago you had a correspondent who asked for a "rest" about conservation of soil moisture, stating that there was no moisture in the subsoil, etc. He gave subsoiling an angry dab, intimating that the benefits were all imaginary, and originated in a city office and a well-sharpened pencil. The average Kansas farmer talks in the same strain, and it is only those who have the courage to test subsoiling that are being benefited by it.

There are at work about one thousand subsoil plows in Kansas, and how often do we hear a report from the owners? If it was a failure, they would report it at once and in positive terms, but if a success, they will keep still about it, as it is not to their interest to tell all the benefits, etc., of their trade. This same correspondent admits that he had a surplus of water and he had a pond prepared and caught it, but when he wished to use it, it had all dried up. Almost every farmer in Kansas can agree with him here. Now, why did he allow this water to run off his ground? Why did he not store it in his ground, under his crop? and then when he needed it it would have been just where he wanted it. Doesn't the very fact that he allowed water to run off into the pond, prove that subsoiling would have held it in the ground? Ground sub-broke in the fall will absorb lots of moisture, as the air will pass all through it, and as it is dry, it will take moisture from the air, and this moisture will freeze as deep as the sub-plow went and will reduce the temperature of the soil during the hot months the next year.

As we have had an uncommon dry spring, subsoiling has made me some nice money, and I ought to keep it to myself, but I am interested in the welfare of the whole of Kansas too much for that. Early Milan turnips had tap-roots as long as my arm, and so did

beets and radishes, and I suppose all other vegetables rooted in same manner, and of course did not suffer from drought, as the gumbo at a depth of twenty inches is always moist and cannot be dried out in a decade. I never before had to cut the roots off of garden stuff to market it, but had to this year.

I wish to go on record as making the statement that with deep subsoiling, in the proper kind of soil, accompanied with heavy fertilizing, will produce more than double ordinary farming or gardening, provided the crop is planted thick enough. Or, in other words, twice as much moisture, with liberal dressing of manure, will enable us to plant much closer, and, of course, a corresponding increase in the returns. For instance, turnips, beets and radishes can be successfully drilled only ten inches apart and an enormous yield secured, and the surface will be shaded by the top growth. Early Ohio potatoes can actually be made to produce as much to the hill by planting in drills 12x12 inches, instead of 14x30 or 36, as many use. Less land, highly enriched and deeply saturated with water, is the "way out" for the Kansas farmer. Altogether I have about six acres in garden stuff, and I make the statement that subsoiling in a dry season will actually double the crop.

I have just tested my early potatoes to see the size of the several varieties, and the following is the order they stand in, sixty days from planting: Early Kansas, first; Early Ohio, second; Bliss Triumph, third; Early Morn, fourth; Early Polaris, fifth; Early Freeman, sixth.

I wish all those who got Early Kansas seed of me would report any failures, as, if this potato is not a success, I do not want to push its introduction; but if it is a success, I desire to thoroughly push its introduction through the advertising space of the KANSAS FARMER. To stimulate a report, I will give \$10 for the best peck of them delivered here, free of expense to me, if accompanied by a full report of how raised, how it compares with other well-known varieties, the average per rod, or acre, etc., potatoes to be here by November 1, 1895.

CLARENCE J. NORTON.

Morantown, Allen Co., Kas.

Atlantic City, Cape May, Long Branch, and summer havens along the Atlantic are reached via Vandalia-Pennsylvania lines. Short route from St. Louis over cool Allegheny mountains. Daily trains without change to Philadelphia, connecting with frequent seashore trains. No transfer. Ask Brunner, 509 Chestnut street, St. Louis, for particulars.

Summer in the Alleghenies.

Tourist tickets to Cresson and Bedford Springs via St. Louis over Vandalia-Pennsylvania lines will be sold by connecting railways in West and Southwest during season commencing June 1. Through trains from St. Louis to Cresson over this short route to retreats in the Alleghenies. Brunner, 509 Chestnut street, St. Louis, for details.

Summer Tours.

You can get more for your money in the sure return of health and enjoyment at any of the many resorts on the Union Pacific System than anywhere else on this continent. See your nearest Union Pacific agent. Summer tour tickets on sale to September 30.

F. A. LEWIS,
City Ticket Agent, Union Pacific System,
525 Kansas avenue, Topeka, Kas.

Boston Excursions via St. Louis.

For National Christian Endeavor meeting excursion tickets to Boston will be sold via Vandalia-Pennsylvania lines July 5 to 9, inclusive. Return limit may be extended to August 3. For Knights Templar Conclave tickets will be sold August 19 to 25, inclusive, with privilege of extending limit to October 3. Railways in West and Southwest selling tickets via St. Louis will furnish them over these lines. Trains cross the Alleghenies at the highest point above sea level. Famous Horse Shoe Curve is on this route, which follows the Blue Juniata for miles amid pleasing scenes. Rock-balanced roadbed; no dust and dirt. Excursionists may enjoy stop-over privileges going, and may return direct or by circular route. From New York the trip may be made on palatial steamers of Fall River line through Long Island sound or by rail. Address Brunner, 509 Chestnut street, St. Louis, for details.

Prices of Wheat in England.

Several months ago we gave a table of prices of wheat in England for one hundred years. For the benefit of new readers the following is given, bringing quotations down to last year, as published recently by the United States Department of Agriculture. The quotations given in British money are from three sources. Those for the years from 1795 to 1824, inclusive, are from a table by Mr. Cornelius Walford, published in Vol. XLII of the "Journal of the Statistical Society of London." Those from 1825 to 1845 are from an article by Mr. J. H. Poynting, in Vol. XLVII of the same publication. The prices for the remaining years are those of Mr. Sauerbeck. All the quotations are reduced to their American equivalents, per Winchester bushel, the measure in use in the United States. The Winchester bushel is a little over 3 per cent. smaller than the Imperial bushel.

PRICES OF WHEAT FOR ONE HUNDRED YEARS.

Year.	Per quarter (Winchester measure).	Per bushel.
1795	75 2	\$2.286
1796	78 7	2.390
1797	53 9	1.635
1798	51 10	1.577
1799	69	2.099
1800	113 10	3.462
1801	119 6	3.635
1802	69 10	2.124
1803	58 10	1.789
1804	62 3	1.893
1805	89 9	2.730
1806	79 1	2.405
1807	75 4	2.291
1808	81 4	2.474
1809	97 4	2.960
1810	106 5	3.237
1811	95 3	2.897
1812	126 2	3.887
1813	109 9	3.338
1814	74 4	2.261
1815	65 7	1.965
1816	78 6	2.288
1817	96 11	2.948
1818	86 3	2.623
1819	74 6	2.266
1820	87 10	2.663
1821	56 1	1.746
1822	44 7	1.356
1823	53 4	1.622
1824	63 11	1.944
Imperial measure, Shillings.		
1825	68.5	2.020
1826	58.7	1.731
1827	58.5	1.725
1828	60.4	1.781
1829	66.3	1.955
1830	61.3	1.856
1831	66.3	1.955
1832	58.7	1.731
1833	52.9	1.560
1834	46.2	1.362
1835	39.3	1.179
1836	48.8	1.439
1837	48.8	1.445
1838	64.6	1.905
1839	70.7	2.085
1840	66.3	1.955
1841	64.3	1.896
1842	57.3	1.690
1843	50.1	1.477
1844	51.8	1.513
1845	50.8	1.498
1846	51.8	1.512
1847	69.9	2.067
1848	50.6	1.489
1849	44.3	1.305
1850	40.3	1.187
1851	38.6	1.135
1852	40.10	1.204
1853	53.3	1.570
1854	72.5	2.235
1855	74.8	2.202
1856	69.2	2.039
1857	56.4	1.661
1858	44.2	1.302
1859	43.9	1.290
1860	53.3	1.570
1861	55.4	1.632
1862	55.5	1.634
1863	44.9	1.320
1864	40.2	1.184
1865	41.10	1.234
1866	49.11	1.472
1867	64.5	1.899
1868	63.9	1.880
1869	48.2	1.420
1870	46.10	1.381
1871	56.8	1.671
1872	57.0	1.681
1873	58.8	1.780
1874	55.8	1.641
1875	45.2	1.332
1876	46.2	1.361
1877	56.9	1.673
1878	46.5	1.369
1879	43.10	1.292
1880	44.4	1.307
1881	45.4	1.337
1882	45.1	1.329
1883	41.7	1.226
1884	35.8	1.062
1885	32.10	.908
1886	31.0	.814
1887	32.6	.958
1888	31.10	.839
1889	29.9	.841
1890	31.11	.941
1891	37.0	1.091
1892	30.3	.892
1893	26.4	.776
1894	22.11	.676

Some statistical writers have assumed that, since this table shows a nearly uniformly progressive decrease of price since 1873 to 1894, such decrease will continue indefinitely. The recent course of the wheat market is sufficient answer to such assumption, especially when taken in connection with the prospects for further rise shown by any careful analysis of the position of wheat.

Irrigation.

Don't Like "Great Expectations."

EDITOR KANSAS FARMER:—In my paper this week I find in your editorial, under "Great Expectations," the following statement:

"It has been found that a fourteen-foot windmill with a suitable pump and reservoir will, where the lift is ten or twelve feet, raise water enough to enable a careful and experienced irrigator to supplement the western Kansas rainfall so as to make crops sure on about fifteen acres."

Now this is equally as misleading "as many of the statements made by over-enthusiastic writers and machinery men," for there is no means of determining the amount of land a given quantity of water will irrigate, unless with these figures are given the character of the soil and the kind of crops grown, and whether we are to have the assistance of the forty inches average rainfall in the eastern part of the State or the fifteen inches in the west.

If the problem of irrigation in Kansas was confined to the supply of water necessary to grow a crop, independent of the rainfall, hopeless indeed would be the outlook; but when we take into consideration the fact that often an inch of water, if supplied to the suffering crops, would tide over a period of drought, which would mean the difference between a full crop and almost total failure, the probabilities cannot be estimated. No experienced irrigator in Kansas expects to supply all the needed moisture for his crops, relying on nature for a greater part of it. With his irrigation plant he only hopes to bridge over the periods of drought, and thus at all times have perfect condition of moisture for plant growth. Therefore, while your statement that a fourteen-foot wheel on a ten or twelve-foot lift will irrigate about fifteen acres, may be true where the soil is sand and with little or no rainfall, but it certainly is misleading when applied to the conditions which generally exist over our State.

A fourteen-foot back-gear modern-made steel wheel, with suitable pump, will, on a ten-foot lift, pump at least 7,000 gallons per hour. Allowing that it will run half the time, and providing for loss by seepage and evaporation from reservoir and ditch, this plant will supply enough water to cover something over twenty acres one inch deep, every week, an amount of water more than sufficient to grow crops anywhere in Kansas, without a drop of rainfall, and properly stored and distributed, on the average soil of Kansas, enough to irrigate at least forty acres.

You further state:

"A windmill which will raise water enough to irrigate fifteen acres where the lift is ten feet will be capable of raising enough for only seven and one-half acres where the lift is twenty feet, enough for three and three-fourths acres where the lift is forty feet, and will do very well to provide for one and one-half acres 100 feet above water."

My answer to this is: I have on my place a sixteen-foot wheel which operates a pump in a well 180 feet deep and provides me the necessary water to irrigate at least ten acres this year, and I believe if properly handled will supply fifteen acres. On the opposite page of my paper I read:

"Have not had rain enough to germinate seed until last night, when we had a very good rain. Although we have had no rain we have had asparagus and pieplant since the middle of April, and peas, potatoes, radishes and other garden plants are as far along as usual in more favorable seasons. Yesterday I ate new potatoes at a neighbor's, which had been raised without rain. He has a well 130 feet to water and waters ninety head of cattle and has an acre of nice potatoes which have not been raised on until last night. Who says we are not onto our job?" "C. STIMSON."

"Chantilly, Kearney Co., May 30."

Now, I will wager you a barrel of potatoes against my next year's subscription that this neighbor does not have a fourteen-foot wheel. Quite likely only one of the ten-foot farm mills, yet at 130 feet he irrigates his acre of potatoes, doubtless a quarter more of other garden truck, and waters ninety head of cattle. There are hundreds of examples over the State where mills are developing power to irrigate from two to five times the amount of land your article would in-

dicade, and I feel it my duty to call your attention to these facts.

If I had only theories of over-enthusiastic writers, or figures of machinery men, with which to answer this article, I would scarcely dare take issue with a journal of such deservedly high standing as the FARMER, but facts are facts, and when generally known, the present interest in irrigation will seem trifling to that which will engross the attention of the capitalist, the home-seeker, and the farmer who has so long neglected his opportunities.

M. B. TOMBLIN.

Goodland, Kas.

Endorses "Great Expectations."

EDITOR KANSAS FARMER:—I have read with a great deal of interest, yes, verily, with unusual interest, the exceedingly able editorial in your paper of June 5, under the caption, "Great Expectations."

According to such information as is in my possession, no one should rate the horse-power of the ordinary everyday horse equal to anything more than the equivalent of one-half of one mechanical horse-power, although it is none the less true, as you state, that for sudden outbursts or in occasional instances the animal horse-power will exceed the mechanical horse-power.

Friction is one of those things ever present, like the proverbial sore thumb. If a man has a sore thumb, the sore thumb is always on hand, so is friction always with you, and I would therefore suggest that instead of the formulas as given in your article you substitute those which are given herein. It is true that in the formulas given below I have made an exceedingly liberal allowance for friction, but it is always better for a person to get more than they expect than to not get what they expect, and therefore any one who will adopt and follow the formulas given below will be misled only in the right direction, and I therefore earnestly recommend to all persons who are contemplating the employing of mechanical power of any nature or description for the elevation of water that they adhere closely to the recommendations herein contained.

I shall be very glad indeed to respond to any inquiries from any source upon this subject or any other:

P=actual horse-power required.

G=gallons of water raised per minute.

H=total vertical elevation in feet, measured from source of supply to point of discharge.

C=constant, i. e., 33000 (one mechanical horse-power) divided by 8.33 (the weight of one gallon of water) divided by 2.64 to cover all friction—say 1500, which is substituted for C.

Then the actual mechanical horse-power necessary to purchase to surely and safely do the work is— $P = \frac{G \times H}{1500}$

and the total vertical height to which an engine or other power can raise a specified number of gallons of water per minute is readily determined by $H = \frac{P \times 1500}{G}$ and from the same formula

the quantity of water per minute that an engine, mill or other power will raise a given height is easily determined if you only know the rated horse-power, for $G = \frac{P \times 1500}{H}$ For animal

power substitute 750 for 1500.

IRA C. HUBBELL.

Kansas City, Mo.

Much for Rocks, Little for Water.

The Secretary of the Interior has approved the plan for operations for the coming fiscal year, submitted to him by Director Wolcott, of the geographical survey. Out of the total appropriation of \$515,490 for the survey, \$118,700 is to be devoted to geological purposes. In the New England region four parties will be employed. In the Appalachian region there will be seven parties. In the Atlantic coast region, some work will be done in New Jersey and Pennsylvania by one party and in the Florida phosphate beds by another. The interior of the Mississippi region will have four parties. C. K. Gilbert will investigate artesian well prospects in Colorado and Kansas and has \$6,500.

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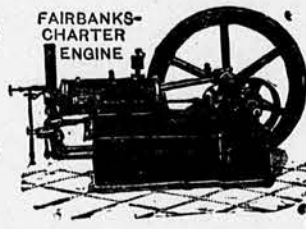
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FAIRBANKS, MORSE & CO., 1810 Union Ave. Kansas City, Mo.

R. T. Hill has \$6,000 for work in Texas. In the Rocky mountain region, the Aspen mines of Colorado will be studied and a preliminary survey made of the mining regions of New Mexico, Arizona, Colorado, Utah, Wyoming, Idaho and Montana. This will cost \$7,000.

In the division of hydrography there will be two parties, one in the East and another in the West, having respectively \$2,800 and \$10,000 to expend. The work consists in gauging streams and examining the water resources of the country.

Irrigation by Pumping in California.

Not being in the water district, and knowing the necessity of the article—for water is admitted to be king in California—I put in a pumping plant with a capacity of 10,000 gallons per hour. But with a limited amount of water I find it necessary to have a reservoir for satisfactory irrigation. Having to raise the water sixty-five feet, it takes fifteen gallons of gasoline to run my engine twenty-four hours. Figuring gasoline at from 13 to 15 cents per gallon, you can estimate what the water costs per inch. Even upon this calculation I think "irrigation by pumping" practicable, especially where the water is nearer the surface.

It is by comparison we arrive at conclusion, and one would think it possible to apply a power and pump to raise water from twenty to fifty feet as cheaply as conducting it in canals and water pipes for thirty-five miles. Then, again, there is a crumb of comfort in the individual ownership of an article that you can apply at will. To be so situated as to have water just when you need it amounts to a good deal sometimes, and in a measure is remunerative even if water raised by power costs more money per inch than water conveyed by gravitation and controlled by a company.

When electricity is more fully developed, I think we will have a cheaper power than gas, steam, or horse power, but with the necessary reservoir there is no cheaper power than the windmill, and in the wind there is no monopoly, it blowing alike on the rich and poor, if the exposure is the same.

Now, from the fact that the larger part of this valley is so wonderfully supplied with sheet and channel water, especially on the lower levels, I do think that water can be raised by power cheaper than by buying it from an irrigation district. There are those who have objections to well water for irrigation purposes, and their objections may be well founded in some cases, but as a general thing if the ground is thoroughly watered it will have a good effect, and by having a reservoir you can have the water nearly the same temperature as the land to be irrigated.—George C. Skinner, in Rural Californian.

Interesting circulars sent to farmers. Send name to Bureau of Immigration, Spokane, Wash.

Underflow of Rivers.

The Utah Experiment Station has issued a bulletin on "Seepage Waters and the Underflow of Rivers."

During the summer of 1894 many measurements were made of the canals and tributaries of Ogden and Weber rivers to determine, if possible, whether water could be diverted and applied to the surface of cultivated areas in the upper valleys without injury to the priority users in the lower valleys.

The preliminary investigation, which extended through July and August—a period much too brief on which to base accurate results—seem to demonstrate the accuracy of the following statements:

1. That the diversion of water from a stream and its application to the soil in the upper valleys in the early part of the irrigation season when water is abundant, increases the available supply to the irrigators of the lower valleys in the latter part of the season.
2. In most cases a time is reached, usually about midsummer, when no portion of the water diverted from the stream in the upper valleys reaches the lower irrigators in time to benefit them. Such diversion and use damage irrigators of the lower valleys.
3. In some instances the outflow from the upper valleys during July and August was much greater than the inflow, although a large part of the inflow was used for irrigation purposes.
4. The behavior of irrigation waters in any drainage system can be determined only after a series of carefully-made measurements extending over a period of years, and that much ill feeling, trouble and litigation would be avoided if the State would collect the necessary data.

We have received from Irrigation Commissioner Tomblin specific statements as to the amounts of land irrigated this season by several farmers in Sherman county. Other statements from other portions of Kansas are promised in a few days. It is hoped these will supply a long-felt want for definite information as to the amount of land which can be irrigated with specified appliances from wells of varying depths.

Ask your neighbor to subscribe for the KANSAS FARMER.

CASTINGS. MODELS.

MACHINE WORK.

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Cor. Jackson and Second Sts., TOPEKA, KAS.

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IRRIGATION.

POWER FROM GASOLINE? YES.

Its very Economical, Simple, Safe and Reliable, and WEBER GASOLINE ENGINES require no Engineer. His salary goes into your pocket. For information Weber Gas & Gasoline Engine Co., 459 Southwest Boulevard, Kansas City, Mo.



Gossip About Stock.

Bert Wise, of Reserve, Brown county, Kansas, makes some changes and refers to his sixth annual clearance sale of September 17, 1895, of which he says: "It will be held at my farm, on above date. Will sell about 100 head of as choice hogs, both in individuality and pedigree, as ever went under the salesman's hammer in the State of Kansas, representing all the leading families known to the breeding craft. A number of sows bred to the noted \$200 breeding boar, Butler's Darkness 6846, will be sold."

R. S. Cook, Wichita, Kas., reports the shipment to Nevada, Texas, this week, of tip-top Lawrence Perfection 27399, farrowed last September, and now showing the following measurements: Heart girth 48, flank 50, from butt of ear to root of tail 46, and circumference of small part of leg 8 inches. The herd is in good shape to furnish some real choice Poland-Chinas that are well marked and of good growth, also a few real choice fall pigs. A few extra fine males out of the greatest show sow in the West, Gem 73792, of last October farrow. They are large and growthy, extra fine backs and loin, nice heads and ears. Also a few choice sows bred for September farrow.

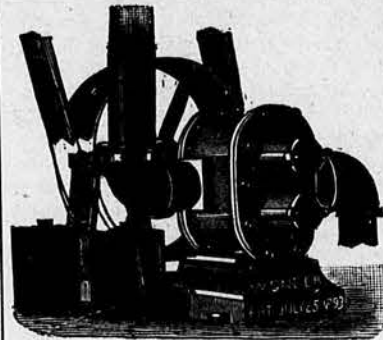
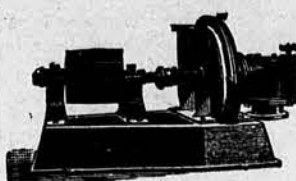
The La Veta Jersey Cattle Co., of Topeka, had recently a call from S. A. Searce, of Plattsburg, Mo., and sold him a fine bull, calved in October, 1893, with which he is well pleased. He is getting some fine calves, and from his breeding he could not do anything else. He was sired by Pass Stoke Pogis 10239, he by Lucy's Stoke Pogis, he by Stoke Pogis 3d, a fine specimen of the St. Lambert strain, both in size and appearance. All breeders are acquainted with the merits of the St. Lamberts. His dam, Nepper M. 45649, has a butter record of 21 pounds 8 ounces in seven days. Nepper M. is a half sister to Princess Chuck 45650, with a butter record of 24 pounds 14½ ounces in seven days. It is readily seen that his breeding and close connections with butter stock are hard to beat.

Among others lately visited by the writer, was the successful Bourbon county breeder, Mr. B. R. Adamson, proprietor of the Tower Hill herd of registered Poland-Chinas. The farm lies near the city of Fort Scott, and the herd was found to be in excellent condition. Three herd harem kings—Black Stop 10550 S., whose sire was the celebrated breeder and prize-winner Short Stop 6038 S.; dam Lady Nelson 24648 S. by Elected and out of King's Maid 24647 S. He is one of the best individuals in the State, weighs well, reaching 700 pounds in breeding condition. His get are uniformly good ones. His chief lieutenant is Black Dandy 8809 S., bred by Baldrige & Sons, sired by Jim Dandy 7831 S.; his dam was Kansas Beauty 4th 20184 S., by Grand Duke 514 S. and out of Kansas Beauty 12690 S. His sons and daughters are among the best, and especially is this true in some special cases when nicked with those of the roomy and vigorous sort of females. The young fellow, U. S. Butler 13388 S., that was bred by Rankin, of Illinois, sired by Last Look 2d 13389 S., he by Last Look 3044 S.; dam Bess Butler 31475 S., she by Bill Tecumseh 11202 S. and out of Black Bess 7635 S. The reader will at once recognize his breeding as the best and something extra fine in promise for the coming fall farrowings. Among the twenty-four brooders and gilts bred that have farrowed are four litters by Joker Wilkes 12682 S., that won first prize in class at the great swine show made at St. Louis last fall. He was by Roy Wilkes 12681 S., bred by Lambing & Son, of Iowa, and his grandsire, Guy Wilkes 2d 9561 S., that sold for \$950. His dam, Fanny Joker 4th 29838 S., one of the prize-winners at nearly half a score of State and district fairs. The visitor finds also two litters by Royal Perfection, a son of King Perfection 7013 S., that won sweepstakes at St. Louis in 1894. His dam was Moorish Maid 2d 15955. He is now in the hands of Mr. T. S. Martin, of Fort Scott, who is rapidly building up a very choice and select herd and will be heard from later on. In a "Gossip" note later on a more extended notice will be given of the females in the herd, and suffice it to say now that they are all royally bred and are coming on with a grand good lot of broad-backed, deep-hammed youngsters.

None of the boys belonging to the Missouri Poland-China breeders are coming on more successfully than is Mr. Chas. A. Cannon, proprietor of the Standard herd, near Harrisonville, the county seat of Cass county. The visitor finds about sixty head of spring pigs, belonging to the February and March farrowings, that are just hard to beat. Among them is a litter of seven by Chow Chow 9903 S. and out of Susan Jane 23152 S. Close up in rank is a litter of five by Lall's Hummer and out of Black Nerry. Another strong set of nine youngsters was sired by Elected Duke, the sweepstake Ohio boar in 1894, and out of a daughter of Lall's Victor. It may be said to be a very even litter, both as to growth and general Poland-China character. The very excellent brooder, Margaret, by Ex-

celstor 7664 and he by Gov. Rush 5630, (her dam, Mary L. Victor 15670), comes out for a special inspection with her one son and three daughters, whose promise now makes them sure future prize-winners. They were sired by Stockholder U. S., a son of the \$600 sire, Imitation. Another litter of ten by him is out of Victor 2d 29719 S. The very excellent female, Carrie Rush, presents a litter of six fine ones by Stockholder U. S. Well up in the short leet line is Julia Webster, a granddaughter of Stemwinder, that shows six youngsters by Chow Chow. Her strongest competitor, whose five little ones are by the same sire, is Ella Blaine 15494 S. The very successful string of April and May pigs increases the youngsters up to about 120, all of which are coming on in good form. The latter farrowings were sired mainly by Cannon's Tecumseh, a prize-winner in Ohio last year. Among them is a litter sired by Riley Medium 12306 S., the very excellent sire owned by E. T. Warner, of Princeton, Kas., one of Franklin county's most successful breeders. There are four extra good Black U. S. gilts that have litters by Cannon's Tecumseh. Some gilts are yet to farrow and if no mishap overtakes the Standard herd, something like 140 head will be ready to select the offerings from next October, when Mr. Cannon will hold his annual clearance sale.

Among others lately visited by the writer, in the capacity of a "field man," was Mr. A. W. Themanson, of Wathena, Kas., whose farm and herd of recorded Poland-China swine are situated within one mile of the railway stations on the Rock Island and the St. Joseph & Grand Island railways, in eastern Doniphan county, the most northeasterly county in the State. Thirty acres of the farm is out in orchard and small fruits, which bring annually a handsome little income. When one becomes acquainted with the people, the productions and soil of "old Doniphan," the visitor concludes that it is one of the best portions of the State and has but few equals and no superiors in the entire State. Mr. Themanson's shipping facilities are excellent, being able to route in the four cardinal directions, and he has accordingly arranged his swine breeding operations for an extended trade, based on actual worth and individual merit. In the selection of the foundation stock and the recruits that have from time to time been added he has endeavored to follow his rule, "individual merit by inheritance," without regard to cost. The herd now consists of about eighty head, all ages, headed by two harem kings, with first place accredited to Graceful F. Sanders 13095 S., bred by Shellenberger, of Ohio, sired by the noted World's Fair winner, J. H. Sanders 11205 S., that won first in class, first for boar and three sows over one year, first for boar and three sows bred by exhibitor, and sweepstakes boar, any age, bred by exhibitor. His dam was Graceful F. 63408 O. (30741), bred by Louis Frazee, another noted Buckeye breeder. She was sired by A. A. 19695 O. and he by Black U. S. Her World's Fair record shows that she stood first of the three sows that won first, boar and three sows over one year. The reader finds, on looking up the more extended pedigree of Graceful F. Sanders, that he is a line-bred Black U. S., whose ancestry, with both lines of their descendants, have records equal to any in Poland-China history. His full-dress make-up is black with white points, smooth and well out in all his conformation points. His coadjutor, Early Sisson 11993 S., was bred by the noted Illinois breeders, the Sissons, of Galesburg. He was farrowed April 14, 1891, sired by Jake G. 8837 S., he by Rome's G. 3640 S.; dam Helen's Beauty 6502 S. by Romeo 726 S. and out of Oxford Beauty 12th 6503 S. He has proven himself a great sire, and in proof of this it is safe to state that probably more than one thousand of his descendants may be found within a radius of fifteen miles of Mr. Themanson's farm. This leads one to believe that his worth is duly appreciated right where he is best known and that his progeny are sure "home sellers." The fact is, his character and conformation are combined with great size, while his get belong to the broad-backed, deep-hammed kind, possessing quality. He weighed, when in his eight-months form, 300 pounds, and in breeding condition over 650 pounds. Among others in the strong array of brooders is the two-year-old Elizabeth 28084 S., bred by Brown county's first registered Poland breeder, Eli Zimmerman, sired by Black Diamond 9348 S. and out of Pride 21512 S. She is raising a grand litter of seven by Sanders. Her breeding lines are of the best. One point that may be of note, and that is her granddam, Ohio M. 2d, was the dam of the noted Short Stop, that won first premium at the St. Louis fair of 1894. Close up in her company is the two-year-old Katrina, sired by the noted Commonwealth 15701 A.; dam Cora D. 6908 S., that won second in the Missouri State exhibit and ranked seventeenth in class array at the World's Fair. She, too, has a promising litter by Sanders. Her dam, Cora D., is by Give or Take 24 S., he by Tom Corwin 85 S.; dam Perfection



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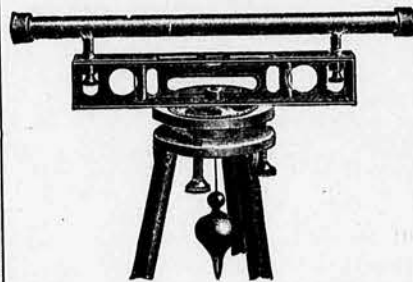
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Beauty 6009 S., she the dam of Victor M. 9645 O., that sired Claude 11007 C., that won first in class and sweepstakes boar, any age, at the World's Fair. This very highly-bred harem queen is raising four by Early Sisson, two sons and two daughters, that belong to the "best on earth." Another one, whose breeding and individual merit is sure to attract the visitor, is Mollie D. 21525 S., by Gilpin's Tecumseh 14323 A., a half brother of George Wilkes; dam Bess Graceful 21527, she by Tom Corwin 3d 23421 O., and out of Miss Seldom Seen 47628 O. Three of her fall of 1894 litter are extra good gilts and her late litter by Sisson are fine ones. Two show-yard queens, Ida 58246 A. and Black Nell 25276 S., are just what every hog-raiser hopes to have. The former was bred by Burkhardt & Foreman, of Ohio, sired by Sam Clark 18579 A., a line-bred King Butler 5577 O. She was bought by Bebout, bred to George Wilkes before coming West. She is raising a litter by Sanders. Black Nell was sired by Comet Chip 8743 S., dam Iowa Queen 20073 S. She is raising a litter by Admiral Chip 7919 S., the great prize-winner and breeding boar owned by the Winterscheidt Bros., of Brown county, and M. C. Vansell, of Atchison county. The litter is a good one and shows the worth of their sire and the excellent blood lines on the side of the dam. There are too many good ones for more than a brief notice at this writing, except it be to mention Chip's Inez (Vol. X), that is expected to farrow a litter by U. S. Wise, a son of the \$275 sow, Lizer's Nemo. Another one, Trilby, a daughter of Commonwealth, is raising a splendid litter by Sanders. Mary Ellen by Black Frank 3183 N. W., and out of Black Nannie 2d 2911 N. W., a good string of five by Sanders. A few good fall gilts that could go and a boar or two only are left. The sales during the past year have been very satisfactory, and among the late ones were two to Boston, Mass., one to McKinney, Texas, a choice boar to southern Colorado, a boar and two gilts to southwest Missouri. A bred sow went to Robt. I. Young, of St. Joseph, Mo., who, it will be remembered, made the crack closing-out sale of the West two years ago. More will be given concerning the coming offerings this fall.

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.

It should stand the dairyman well in hand to save all the heifer calves from his best milch cows.

That Berkshire Prize Essay.

EDITOR KANSAS FARMER:—I enclose the following clipping from Lowville (N. Y.) Times, in regard to the winner of the \$100 prize given for the best essay on the Berkshire:

THE BERRY PRIZE COMES TO LOWVILLE.

Lowville and Lewis county have great reason to be proud of C. F. Boshart. Mr. Boshart is a graduate of Cornell University of the class of 1894, and perhaps the youngest breeder of Berkshire swine to gain such marked distinction in the country. The first Berkshire essay prize was offered and competed for in 1874. The winner was the late Hon. A. B. Allen, of Buffalo, N. Y., and this, the second prize, comes to Mr. Boshart, of our own town. The prize is valued at \$100; is offered by the Hon. G. W. Berry, of Kansas, for the best essay on "The origin and characteristics of Berkshire swine, considered with special reference to the information contained concerning the early maturity, superior feeding and excellent pork-producing qualities of the breed." The following letter explains itself:

AMERICAN BERKSHIRE ASSOCIATION.

OFFICE OF SECRETARY.

SPRINGFIELD, ILL., May 31, 1895.

C. F. BOSHAUT, ESQ., LOWVILLE, N. Y.—My Dear Sir:—It is a great pleasure to inform you that the committee appointed to award the prize offered by Mr. Geo. W. Berry for the best essay on the Berkshires have unanimously voted in favor of your paper.

Enclosed you will find certificate of award for transmittal to Mr. Berry.

Your essay will be published in the near future and copies sent you. The breeders of Berkshires are under many obligations to you for the very creditable paper contributed by you for said prize. There has never been a time when the Berkshires have been in such great demand as at present.

Yours truly,
CHARLES F. MILLS.

The letter enclosed, from Col. Chas. F. Mills, Secretary American Berkshire Association, explains itself:

SPRINGFIELD, ILL., May 31, 1895.

GEO. W. BERRY, ESQ., BERRYTON, KAS.—My Dear Friend:—The report of the committee appointed to award your prize reached the office this a. m. The prize was awarded to C. F. Boshart, of Lowville, N. Y., who has been furnished with a certificate for the prize.

The premium essay is a very creditable paper and will do the Berkshire cause much good. You have rendered the breeders of Berkshires a great service in the offer of the very liberal premium for essays, and as you read extracts from the same from time to time you will have abundant reason for congratulation on the interest thereby developed for our favorite hog.

Yours truly,
CHARLES F. MILLS.

The Committee on Award consisted of the following gentlemen: Hon. F. D. Coburn, Topeka, Kas.; Prof. W. A. Henry, University of Wisconsin; Prof. C. F. Curtis, Iowa Agricultural college.

So much interest has been manifested in the contest for the prize, and there are so many inquiries in regard to the result, that it may be of sufficient interest to let your readers know the facts through the "Old Reliable" KANSAS FARMER.

Berryton, Kas. GEO. W. BERRY.

NOW! THE TIME TO MAKE MONEY.

Last month I cleared, after paying all expenses, \$235.38; the month before \$186.86 and have at the same time attended to my regular business. I believe any one, anywhere, can do as well, as I have not a particularly good location and not much experience. When you have an article that every family wants, it is very easy selling it. It seems strange that a good, cheap dish-washer was never before placed on the market. With the Perfection, which sells for \$5, you can wash and dry the dishes for a family in two minutes, without putting the hands in water. As soon as people see the washer work, they want one, and that is why so much money can be made so quickly. For full particulars address The Perfection Mfg. Co., 607 63d St., Englewood, Ill. I feel convinced that any lady or gentleman, in any location, can make \$5 to \$10 a day, as every family will very soon have a dish-washer. Try it and publish your experience for the benefit of others.

ALICE O.

One dollar and sixty-five cents will pay for the KANSAS FARMER and the twice-a-week New York World. Every body should read.

The Home Circle.

To Correspondents.

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

WHICH ARE YOU?

There are two kinds of people on earth to-day. Just two kinds of people, no more, I say.

Not the sinner and saint, for 'tis well understood The good are half bad, and the bad are half good.

Not the rich and the poor, for to count a man's wealth You must first know the state of his conscience and health.

Not the humble and proud, for in life's little span, Who puts on vain airs is not counted a man.

Not the happy and sad, for the swift flying years Bring each man his laughter and each man his tears.

No; the two kinds of people on earth I mean. Are the people who lift, and the people who lean.

Wherever you go, you will find the world's masses Are always divided in just these two classes.

And oddly enough, you will find, too, I wean, There is only one lifter to twenty who lean.

In which class are you? Are you easing the load Of overtaxed lifters who toil down the road?

Or are you a leaner, who lets others bear Your portion of labor and worry and care? —Ella Wheeler Wilcox, in Harper's Weekly.

WHAT'S THE USE?

What's the use o' mopin' ef the weather got a chill? Don't you know there's chunks o' heat remainin' fer us still? What's the use o' growlin' when you might as well to grin? Fer the days are comin' rapid when they'll fetch the melon in!

What's the use o' pinin' an' a-croakin' 'bout the times? Ef you'd work as hard as frettin', you could pick up lots o' dimes. So stretch your face fer smilin'—the good times ain't all bin—Fer the time is gettin' closer when they'll fetch the melon in!

What's the use o' huntin' fer the troubles in the road? Ever 'one you tackle adds another to your load—When you could go on happy, head up, face a-grin. Ef you'd only stop an' study 'bout the melon comin' in! —Atlanta Constitution.

FAVORS FOR LUNCHEON.

Novelties That Quick-Witted Hostesses May Bear in Mind.

In the way of novel favors for spring entertainments, these may be described: At a certain woman's club there will be a noon breakfast, at which will be seated seventy guests. An artist in favors has made for this social function some beautiful but inexpensive trifles for each cover, in which water color paper has lent its aid. These pretty painted affairs are of two kinds. One is in form of a napkin ring, with a band of liquid gold at each end and around the middle. Tied to the end is a bunch of daffodils, painted on the same material in natural colors and cut in outline, giving all the effect of a bunch of flowers. Instead of napkins pretty handkerchiefs will be thrust inside this clever device. Some



A BAG OF BONBONS.

are of linen, embroidered, some edged with lace, some of silk, with drawn-work borders, but all are of spotless white, and the whole plan is as spring-like as the flower season itself.

Another favor is a bon-bon bag, with silk cover. For the foundation there are some pieces of firm cardboard, cut out in different shapes, grouped together securely, so as to form an excellent stand for the silk receptacle. These pockets are in every tint of delicate silk, according to fancy, and are drawn up by ribbons. They are filled with chocolate sweets in every variety. The guest's card is tied to the ribbons, and as favors these certainly are unique and tasteful.

Another society hostess will give during the spring months a luncheon for her daughter. The invitations are in silver cardboard, the envelopes tied with pink ribbon, as dainty as possible.

The young debutante conceived a happy idea for the occasion. She is having photographs taken of herself in miniature size. When finished, they will be inclosed in French gilt frames and through the knot will be tied a bow of narrow ribbon. A pin on the under side will fasten these quaint conceits on the dress of each guest. For table decorations there will be wreaths of smilax set off by buds of the bridesmaid rose, so that flowers and favors will be happily combined. The napery will be pink and white. In the middle of the board will be an old-fashioned candelabrum, whose base will be covered with ivy. There will be rosettes of broad, pink satin ribbon, at each corner, the bands of ribbon running around the table. All the china will be pink, of course.

It is reported that the beautiful rose called the Baroness Rothschild will make its appearance as a dinner course. One florist suggested to a caterer that the center of this precious blossom be taken out and filled with Roman punch, the chill of the ice preserving



A NARCISSUS NAPKIN RING.

its radiant beauty. The petals, which are not needed for this extravagant plan, will be scattered over the napery, giving that blush tone to the cloth for which these flowers are so famous. The leaves will be added also to the scheme, and the whole affair, when ready to be served, will be a most delicate appetizer between the meat and the game.

WASHING BLANKETS.

The Only Hard Work Is to Get Them on the Line Properly.

A sunny, windy day should be selected, and only one pair washed in one day. First put the blankets on the line and shake the dust out of them. Cut one pound of good soap in small pieces and boil in two quarts of water till dissolved. Add a half pound of powdered borax. Fill a tub about half full of water and add the soap and borax. Be sure to have the temperature of the water the same as that of the outside air. This is not a difficult matter, as water is usually a little colder than the air in spring and summer, and only then should blankets be washed. Press the blankets down into the water and avoid rubbing; then let the soap and borax do the work—they certainly will. Let the blankets soak for two hours and rinse them thoroughly in several waters until the rinsing water looks clean, taking care to having the rinsing water the same temperature as the first water and the outside air.

Then, without wringing, put the blankets on the line. Do not stretch them, and be careful to hang them exactly even, then the color of the stripes will not run into the white. Although dripping wet, on a clear day they will dry in four or five hours and will be soft and clear. The water, not the washing, will show to a certain extent, although they will look more like new ones than they did before washing. Take in when perfectly dry. They should not be ironed nor pressed. They will be clean and will smell sweet. The only hard work is to get the blankets on the line properly, and if some one will "lend a hand," even this is not very laborious.—Good Housekeeping.

Byron used a great deal of hair dressing, but was very particular to have only the best to be found in the market. If Ayer's Hair Vigor had been obtainable then, doubtless he would have tested its merits, as so many distinguished and fashionable people are doing nowadays.

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

Royal Baking Powder

ABSOLUTELY PURE

FIRST-CLASS COFFEE.

An Ideal, Delicious Cup Can Be Made Only One Way.

An ideal cup of coffee can, it is said, be made only in one way. The coffee must be of the best quality and must be assorted, ground immediately and used as quickly as possible. Connoisseurs in coffee assure us that it is out of the question to make this beverage absolutely perfect out of factory roasted coffee that has been allowed to stand in the open air any number of hours, and, in addition, one might say that such a thing as a cup of good coffee from that which is purchased ready ground is quite an impossibility. The fine aroma of the berry evaporates in a very short time. Given the freshly roasted and ground coffee, an earthen coffepot heated very hot by being filled with boiling water, which must be poured out again, and a coffee bag strainer. Then put in the coffee, ground very fine, almost to a powder. Pour upon it boiling water—not merely hot—cover tightly and allow the coffee to filter through. Have ready the cups heated by pouring boiling water in them, put in the required quantity of cream and sugar, then fill up with the distilled nectar from the coffepot, and one has a beverage that an exchange calls a revelation. Never expect good results from poor coffee or lukewarm water and half cold utensils.

Their Favorite Jewels.

A woman reporter has interviewed several notable women as to their preferences in gems. Mme. Patti declared for diamonds, though she added that the opal with its bluish tint exercised a great charm for her. Mrs. Frederick Vanderbilt put diamonds above all others, and admitted that she greatly admired moonstones. Mrs. John D. Rockefeller favored diamonds, pearls and amethysts, these three, but believed if she were forced to a choice she would declare for pearls. Mrs. William K. Vanderbilt said that pearls were her favorite gems, while Mrs. William Astor thought that of all stones the diamond was certainly the most beautiful.

Teeth of Men and Animals.

A horse has 40 teeth, and a mare only 36, wanting the tusks, or so-called "wolf teeth." The ox and sheep family have 32, each lacking the eight incisors of the upper jaw. The hog has 44 teeth and the dog 42. Where the dental formula is perfect in all varieties of the human species it is found to show 32 teeth.

To Test Face Powder.

Some face powders are harmless, others are very injurious. To test a face powder drop a pinch into a wine glass of clear water. If it dissolves it can be used with impunity; if it shows an insoluble residuum avoid it, as it will clog the pores and in time ruin the complexion.

Easy When You Know How.

Some women never acquire the knack of tying a bow knot. In fact, many women do not, judging from the strange, upside-down, wrong-side-out affairs one sees in ribbons and sashes and bonnet strings. The process is simplicity itself after it is once learned. Always to put the upper string over the under, and never the reverse, is the whole thing in a nutshell. If this same upper string is again brought through the middle loop before pulling it smartly into place it will make the unloosable knot which is necessary in shoe laces, for instance.

Machine for Putting Up Pins.

One of the cleverest inventions ever patented is the machine for sticking common pins in the papers in which they are sold. The contrivance brings up the pins in rows, draws the paper into position, crimps it in two lines, then at a single push passes the pins through the paper and sets them in position.

Some people are constantly troubled with pimples and boils, especially about the face and neck. The best remedy is a thorough course of Ayer's Sarsaparilla, which expels all humors through the proper channels, and so makes the skin become soft, healthy and fair.

Union Pacific Route.

What you want is the through car service offered between Denver and Chicago via the Union Pacific and Chicago & Alton railroads, which is unexcelled by any other line. Magnificent Pullman sleepers, dining cars and chair cars, run through daily without change, Denver to Chicago via Kansas City.

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 homeseekers.

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.

That Trip East

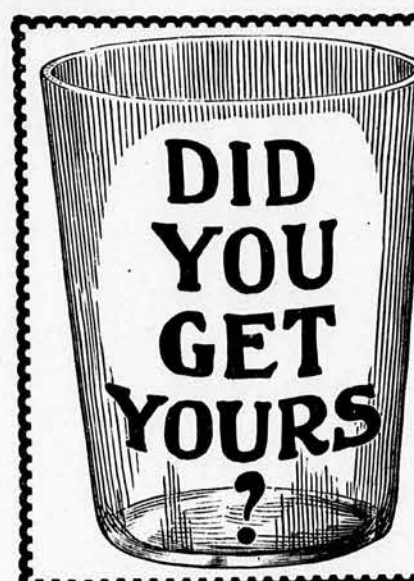
May be for business or pleasure, or both; but pleasure comes by making a business of traveling East over the Santa Fe Route as far as Chicago.

Thirty miles the shortest line between Missouri river and Chicago; that means quick time and sure connections.

Track is straight, rock-ballasted, with very few crossings at grade.

No prettier, cozier, or more comfortable trains enter Chicago than those over the Santa Fe. They are vestibuled limited expresses, with latest pattern Pullmans and free chair cars. Meals in dining cars served on plan of paying for what is ordered.

Inquire of nearest agent, or address G. T. Nicholson, G. P. A. Santa Fe Route Monadnock building, Chicago, or W. J. Black, A. G. P. A., Topeka, Kas.



3 Million, 134 Thousand, 9 Hundred and Thirty-four Packages sold in 1894, which made 15 Million, 674 Thousand, 7 Hundred and Thirty-five Gallons of

HIRE'S Rootbeer

or 313 Million, 494 Thousand, 7 Hundred glasses, sufficient to give every man, woman and child in the United States, five glasses each—Did you get yours? Be sure and get some this year? The whole family will enjoy it. A 25 cent package makes 5 gallons. Sold everywhere. Made only by

The Chas. E. Hires Co., Philada.

The Young Folks.

THE LAND OF THE LAZY.

The land of the lazy is "Sometime" land.
Its boundaries all are "After a while,"
Its citizens wear the "Mean-to" brand,
And "Going-to" garments are all the style.

In the land of the lazy little is done,
For the dwellers crowd to the "County Shirk,"
And they moan like martyrs every one
At the very sound of the name of work.

In the land of the lazy they want to get
Just as much as the toilers do,
And then, if they don't, they fume and fret,
And grumble about "Fate's favored few."

In the land of the lazy Ambition dies,
For it cannot live in untended soil,
And its bright twin, Progress, straightway flies
Away, away, to the town of toil.

In the land of the lazy you and I,
As a matter of course, have never been;
But I tell you what, we had best look spry,
Or, before we know it, we'll enter in.
—Susie M. Best.

THE LATEST LULLABY.

Rock a bye, baby, my sweet little man,
Go to sleep, darling, as fast as you can;
For mother must hasten to don a new gown,
And put in her vote for the good of the town.

Your mother's a voter; now, man-child, be still,
And hush up your screaming, so piercing and shrill;
For be it known, man-child, the time has come
When your mother can vote with the meanest of men.

Now lie where I put you all safe in your bed,
And don't you dare wriggle a hand or a head,
While I go with my new silk and stylish capote,
Oh, man-child, the rapture to cast my first vote.

Mammy is a voter,
A voter proud is she,
And she will cast her ballot
With the foremost of the free,
And a brave and honest voter
Forever she will be!
—New York Sun

THE WOLF SPIDER.

A Very Large Black Insect Which Is Both Ugly and Venomous.

A bumble-bee sometimes gets into a spider's web, but the web will not hold him. When the spider sees what big game he has caught, he runs away to a place of safety, and looks on and sees his net destroyed. After the bee has escaped the spider repairs the damage.

Some spiders do not have webs. The wolf spider does not. This is a large black spider that goes prowling about over the ground seeking something to devour. One day, in my walk, I met



THE WOLF SPIDER.

one of these spiders in the path, a large, hairy, black fellow, that had an ugly look. I stooped down and touched him with my pencil, when he sat up on his hind legs, opened his jaws and was ready to fight. I touched him again, when he seized the pencil with his fangs and left two minute drops of poison where they had touched it. His bite would, no doubt, have been a very painful one. The spider springs upon his prey, like a wolf, drags it to some cover, and devours it. I have seen one kill and drag away a very small toad. I think it is the wolf spider that digs a hole or gallery in the ground eight or ten inches deep, from which he sallies forth in search of victims. The top of his hole is lined with silk to keep the earth from caving in. One day, while walking through a field, I chanced to see one of these holes in the ground. I looked into it and saw two bright, gleaming points in the darkness at the bottom. They were the eyes of the spider. A few days later I walked that way again. I stopped and looked in the hole, but saw no gleaming eyes. Looking closely on the ground about the entrance, I saw fragments of the dismembered body of the spider. Some enemy, some fiercer wolf, had caught the spider at his door, or had dragged him forth from his cave, and devoured him by his own doorstep.

The most pleasing spider to contemplate is the little spider that rides upon the wind, the flying spider. It mounts

some post or other object, shoots out a filament from its body, which floats out upon the air, till presently it is buoyant enough to lift the little spinner



WOLF SPIDER DEFENDING ITSELF.

and bear her away. Away she goes over fields, across valleys, wherever the breeze drifts her. It is the only creature that I know of that makes its own wings as the occasion requires.—John Burroughs, in Chicago Inter Ocean.

SOME HISTORIC DOGS.

Their Deeds Live in the Memory of Men of All Nations.

There have appeared in history a number of famous dogs. The memory of "the dog of Marathon" lives with the memory of the Greek heroes who fell with it in that famous battle against the Persian hosts. The Greeks raised statues to their dogs. Socrates swore by his dogs, and Alexander the Great honored his by building a city with magnificent temples, which he dedicated to its memory. There was a dog named Soter, so noted among the Corinthians for his fidelity that he was voted a silver collar, on which was the inscription: "Corinth's Defender and Deliverer."

Plutarch mentions a sagacious dog that King Pyrrhus found beside the murdered body of his master. Afterward it sprang fiercely upon two of the king's soldiers, pointing them out as his murderers. A monument was built over the remains of the dog owned by Xantippus, the father of Pericles. Denied admission upon his master's ship, he swam alongside of it from Athens to Salamis, and fell dead of exhaustion at the feet of Xantippus the moment he stepped upon shore.

Homer erected a beautiful memorial to Argos, the dog owned by Ulysses—not out of marble, but in a verse that is more enduring. When Ulysses, after his long wanderings, returned to his home, disguised as a beggar, his dog, then twenty years old and blind, was the first to recognize him.

De Montdidier, an officer under Charles V. of France, was murdered. His dog met Macaire, a brother officer, and sprang at his throat. The king suspected that Macaire was the murderer, and ordered dog and man to do battle. The man was allowed a club and shield and the dog a cask, into which he might retreat when hard pressed. The dog fastened his teeth into his antagonist's throat, and Macaire confessed his guilt, and was executed.—Golden Days.

A Beverage for Wheelmen.

Next to being lost at sea there is nothing that brings on the pangs of thirst quicker than bicycle riding. The hot sun and the constant inhalation of dust quickly parches the throat and makes the biker long for the next stop for refreshments. The wise rider avoids ice water, well knowing its danger. Alcoholic beverages are likewise tabooed because of their heating propensities, and there is little satisfaction in wishy-washy stuff sold under the broad classification of "soft drinks." A well-known wheelman, in speaking of this, said: "What to drink is no easy problem to a man on a long, hot run. The only drink I know really fit for a bicycle rider is Hires' Rootbeer, carbonated. There are but few places now at which it cannot be had, and I tell you it braces one right up, seems to go right down to the bottom of your pedal workers. It is cooling and refreshing, quickly lowering your temperature and fully satisfying your thirst. I tell you there's nothing like it, and I've sworn off all other drinks when on the road." Hires' Rootbeer, carbonated, is made from the famous Hires' Rootbeer extract by the same formula, without adulteration of any kind. Besides being delicious it possesses many medicinal qualities, making it as popular with wheelmen and pedestrians as the good home-made Hires' Rootbeer is with the folks at home.

JAPANESE WAR STORY.

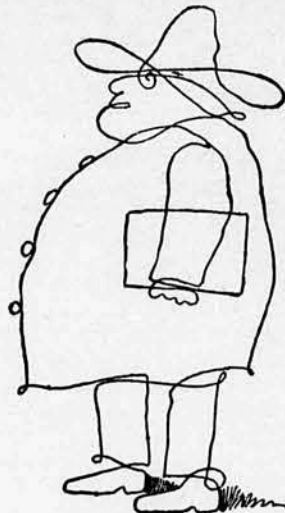
How a Brave Little Bugler Rallied His Flying Comrades.

Every war brings out stories of heroism that last long after many other incidents of the conflict are forgotten. Boyish bravery in the heat and smoke of battle in particular is always told of, and seems to have more distinction than that of the older soldier who is trained to do his duty under all circumstances, as the New York Times says. Already from the Japan-China war has come a story of a brave little bugler that is likely to be told over and over again. It was on one of the battlefields, which have not been frequent in this war, when the Japanese troops were somewhat panic-stricken and were retreating before the Chinese, that the little bugler was mortally wounded. Stricken and dying as he was, the brave lad did not forget his duty. He saw the brave troops flying, and knew that the Chinese were gaining a victory. With splendid courage he raised himself, and grasping his bugle sounded a loud and stirring "charge." The troops heard and rallied under its message, charged valiantly in obedience to it, and the day was theirs. But the little bugler had died as they fought, and did not even know that his effort had been successful. His comrades knew, however, what he had done, and they bore him from the field in triumph, and already the "uta," a poem of honor, has been written in his memory, while his mother has arrayed herself in robes of state and honor, and wound her hair with flowers, the proudest woman in the empire, that her only son should have thus distinguished himself.

THE FAT OLD MAN.

How to Make One Without Taking the Pencil from the Paper.

Here is another outline picture which may be made without taking the pencil from the paper and without retracing



any of the lines, provided you begin right. Start with the eye and trace the lines with a pin. Then take a pencil and another piece of paper and see if you can draw the figure.—Young Men's Era.

Rather Painful Introduction.

The happy faculty of smooth, impromptu speaking is not possessed by many. The lack of it often places speaker and subject at a disadvantage. A well-known lecturer, who had been invited to serve as a substitute, felt some nervousness, knowing he was to

Shoe- and

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

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

fill the place of a more noted man: This feeling was not diminished when he heard himself thus announced by the long-limbed, keen-eyed western farmer: "This 'ere is our substitute. I don't know what he can do. Time was short, an' we hed to take what we could git."

How Tommy Tells Time.

"My father," said the small boy to the woman who was calling on his mother, "is a great man. He knows what time it is without even looking at his watch."

"What do you mean, Tommy?" asked the visitor.

"Oh, when I holler out and ask him what time it is in the morning, he always says it's time to get up. And when I ask him what time it is in the evening, he always says: 'Time to go to bed, Tommy.'"—The Waterbury.

Thin or gray hair and bald heads, so displeasing to many people as marks of age, may be averted for a long time by using Hall's Hair Renewer.

Agents wanted for Gearhart's Family Knitter. For particulars address J. E. Gearhart, Clearfield, Pa.

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

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

Prof. Haworth, of the State University and a member of the Irrigation Board, has started two expeditions to investigate the geological aspects of the water supply.

Any of our subscribers who are about to renew subscription will find something interesting by reading the advertisement of "Samantha at Saratoga." If you have already renewed your subscription it will tell you how to get the book at the reduced rate.

"Dairying for Profit, or the Poor Man's Cow," by Mrs. E. M. Jones, is a most valuable book for every farmer's wife, that has had a large sale at 25 cents per copy. We have a number on hand which we will close out at a very low price to our readers, viz., 10 cents, or five 2-cent stamps. First come, first served. Order quick.

The *Western Swine Breeder* is authority for the statement that the Northwestern Poland-China Record Association, with headquarters at Washington, Kas., has passed out of existence. Its members have attached themselves to one of the other record associations. The Northwestern was organized early in the eighties, issued four volumes, but the older and stronger associations were too much for it. However, we understand that the affairs of the Northwestern were settled to the entire satisfaction of all before going out of business.

The commencement exercises of the Kansas State Agricultural college occurred one week ago to-day. Fifty-seven graduates completed the four years course and received their diplomas. Three others received higher degrees in token of having continued their work successfully in special lines since graduation. The KANSAS FARMER will begin next week the publication of the brief addresses of the graduates, and thereby give a better idea of the development of the young men and women who pursue the course at Manhattan than can be given by any mere description.

The State irrigation plant at Goodland, Sherman county, was started last Saturday and pumped 100 gallons per minute for three hours, without any apparent diminution of the supply of water. The determination of the question of available water supply is the most important one in the irrigation problem. Means of raising it will be found if only the water is to be had. The success of the Goodland well is encouraging. It is also reported that abundance of water has been found at a depth of 250 feet in Dakota sandstone at Ness City. This water rises 200 feet, or to within fifty feet of the surface.

WASTED WEALTH.

For several days the Kansas river has been a great stream, pouring immense volumes of water into the Missouri and out of Kansas, insomuch that for some distance below the junction of these rivers there is seen two streams in one bed. On the one side is the yellow, clay-colored water of the Missouri and on the other the rich dark humus-mixed current of the Kaw. The latter is distinctively a Kansas stream, its 56,354 square miles of drainage area lying almost entirely within this State. At low water during a dry year it carries past Topeka 2,100 cubic feet per second and discharges at Kansas City probably not less than 2,500 cubic feet every second. At the present stage this river is discharging probably 120,000 to 150,000 cubic feet of water per second. This water will be sorely needed by Kansas crops during the next twelve months—probably within the next six weeks. Any acre of Kansas corn which can have applied to it properly and seasonably, before the end of July, 12,000 cubic feet of water in addition to the rains which it will receive, is sure to make a full crop. This river is carrying out of the State enough of this water for ten to twelve acres of land each second; enough for 600 to 700 acres each minute; enough for 36,000 to 42,000 acres every hour; enough for 860,000 to 1,000,000 every day.

Placing the Kansas corn crop at 7,000,000 acres, it will be seen that this one river has carried out of the State during the last few days enough water, if it could have been saved and applied at the proper time, to constitute an insurance policy on our entire corn crop. In the discussions of irrigation which have occurred, the question of the supply of water has been often raised. It is true that the wasted wealth here considered has been within the reach of only a fraction of the State's area. It is also true that it constitutes only a fraction of the wealth of water which a kind Providence has poured out over Kansas. Water enough goes out in one week through one stream and from one drainage system to make a sure thing of our principal crop on the area now devoted to it. Another week will send out enough to have insured a wheat crop twice over, and before the present high water subsides we shall have contributed to the waters beyond our borders through this stream water which, if it could be added to that which we now utilize, would make sure full crops on all the land now cultivated in Kansas.

The question, then, is one of saving this waste of water. The discovery of practicable means of storing it in the subsoil and in reservoirs and of utilizing it as needed is the most important problem now to be met by the intelligence and the enterprise of Kansans.

THE LAMBS FLEECED.

The speculators are just now having their innings on a slump of the wheat market. While prices were bowling upward and playing about 80 cents for No. 2 in Chicago, the daily reports frequently mentioned "heavy buying from the country." It is a fact well known to professional grain gamblers that the non-professional is usually a buyer, when he is a customer, and is seldom a seller, of his own choice. The "trade" had become the owner of many millions of bushels of actual wheat, and, as the market had for a long time been a falling one, there were no interests except those of the "operators." There was little trading for there were no "lambs" to fleece. Conditions were favorable for a rise and there is now no prospect of a repetition of the exceedingly low prices of the early part of this year. Country buyers came with the rise. The professionals sold at round profits. They sold immense quantities—much more than all the wheat now in existence in the country.

The buyers did not have to pay down the full price of the wheat, but only sufficient margin to make sure the contract in case there should be a downward turn in the market. When the market dropped the buyers were required to "put up" more margins or forfeit their former investments. The

greater the fall the more margins must be put up. The buyer expected, of course, that the market would again take an upward turn and make him rich. The professionals, who, while the rise was in progress, appeared to be nearly all bulls, were found, on the decline, to be nearly all bears and ready to sell the country buyer all the wheat he might choose to "carry" at a very much less price than he had agreed to pay. Tiring of this, the country buyer withdraws from the market a sadder but often not a wiser man than a few days ago, when he thought he was piling up a fortune by the rapid advances in wheat. His margins have been absorbed; he has been fleeced as surely as if he had bet on a three-card game. Where the market will go during the next few days cannot be guessed. Whenever the lambs shall have been pretty much all fleeced and the wheat shall be owned by the professionals other advances may be expected. The position of the crop portends better prices than now prevail. It will be well, however, for the country buyer to leave the game of "buying" and "selling" "futures" to the professional gamblers.

TRAPPING CHINCH BUGS.

The following interesting and valuable letter from Altoona, Wilson county, is given to the readers of the KANSAS FARMER through the courtesy of Director Jennings, of the United States Weather Service, at Topeka:

T. B. Jennings, Director, Topeka, Kas.:

DEAR SIR:—I wish to report some information, in connection with this week's report, in regard to the chinch bug pest. I have observed to-day a method of trapping them that beats Snow's remedies a thousand to one. On the farm of Mr. Edwin Lloyd, near this town, his corn field joins onto his wheat field for a distance of at least forty rods. The wheat is in shock and the bugs attacked the corn by untold millions.

Now, the method of trapping is this: First, he strewed a line of salt (I think sawdust would be better) along the corn field next to the wheat field; then he saturated the line of salt with crude petroleum; next he set fourteen one-gallon jars along the line of salt on the side next the wheat, putting them a little below the surface of the ground. The ground was heaped up two or three inches above the top of the jars and made funnel-shape. The bugs struck the line of salt and petroleum and turned along the line, and what seemed strange, they all seemed to go in the same direction. They crowded up till they were crawling over each other, and coming to the jars, fell in by millions. About a quart of oil had been put in each jar. I saw a pile of dead bugs which he told me contained fifteen jars full, or about two bushels. I watched the operation for about two hours, and am satisfied that if the farmers could all adopt the plan, that the bugs would be exterminated. They have been trapping three days. Very few bugs get across the line. I know of two other men who are fighting them the same way and report great success. Any information cheerfully given. WM. CHEETHAM.

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

Some of the old Kansas friends of Henry Wallace, formerly editor of the *Iowa Homestead*, will doubtless like an opportunity to continue to read the emanations from his able pen. He is now editing *Wallace's Farm and Dairy*. By special arrangement we are able to send KANSAS FARMER and *Farm and Dairy* for one year for \$1.25.

Some excellent letters as to the crop situation in Kansas have reached us too late to be printed in full in this week's KANSAS FARMER. They present a less gloomy prospect than prevailed a few weeks, or even a few days, ago. Wheat in western Kansas has improved wonderfully since the rains, which came about a week earlier in the western than in the eastern part of the State. Yields of six to ten bushels per acre are spoken of where next to nothing was expected a month ago. The corn prospect is now universally good. Fruit is also doing well. The grass crop has made a small growth and a deficient hay crop is in prospect. Large sowings of the forage crops are being made and will continue to be made after the wheat crop shall have been harvested.

GOVERNMENT CROP REPORT FOR JUNE.

Wheat.—The report of June 1, consolidated from the returns of the correspondents of the Agricultural Department, makes the acreage of winter wheat at present growing, after allowing for abandonments, 96.1 per cent. of the area harvested in 1894.

The percentages of winter wheat acreage, upon the basis indicated, of the principal States are as follows: Ohio, 95; Michigan, 90; Indiana, 93; Illinois, 95; Kansas, 87, and California, 115. The percentage of spring wheat area for the entire country is 99.5 per cent., being but a slight reduction from last year's area. The percentages of spring wheat acreage of the principal States are: Wisconsin, 107; Minnesota, 100; Nebraska, 101; North Dakota, 100; South Dakota, 100.

The condition of winter wheat has fallen decidedly since last report, being 71.1 per cent. against 82.9 on May 1. The condition reported June 1, 1894, was 83.2 per cent. The percentages of the principal States are as follows: Ohio, 70; Michigan, 77; Indiana, 56; Illinois, 51; Missouri, 70; Kansas, 37; Nebraska, 37; California, 102.

The condition of spring wheat shows an average for the whole country of 97.8 per cent., and for the principal spring wheat States as follows: Minnesota, 109; Wisconsin, 97; Iowa, 101; Nebraska, 60; South Dakota, 98; North Dakota, 99; Washington, 96; Oregon, 99. The average percentage of all wheat is 97.1, and the condition of same is 78.6 per cent.

Oats.—The preliminary report places the acreage of oats at 103.2 of last year's area. The returns make the condition 84.3 against 87 last June.

Barley.—The returns as to barley make the acreage 104 per cent. of last year's breadth. The average condition of the crop June 1 was 90.3 per cent., against 82.2 last year.

Rye.—The acreage in rye is 96.7 of that of last year. Average condition June 1, 85.7 per cent.

Rice.—The acreage of rice is 100.2 per cent. of that of last year, and the condition 89.2.

Cotton.—The result of the special investigation made by the Department in 720 cotton-growing counties shows that in 88 there will be little or no change in acreage as compared with last year; 5 report an increase of 10 per cent. and less; 2 an increase of from 11 to 20 per cent.; 3 an increase of from 21 to 30 per cent., and 3 an increase of over 30 per cent.; 127 a decrease of 10 per cent. and less; 250 a decrease of from 11 to 20 per cent.; 158 a decrease of from 21 to 30 per cent.; 44 a decrease of from 31 to 40 per cent.; 7 a decrease of from 41 to 50 per cent., and 33 a decrease of over 50 per cent.

The consolidated returns of reports to the Statistical Division for the month of June show the State percentages of acreage as compared with last year as follows: North Carolina, 81; South Carolina, 84; Georgia, 85; Florida, 95; Alabama, 89; Mississippi, 88; Louisiana, 87; Texas, 85; Arkansas, 80; Tennessee, 81; Missouri, 75; Indian Territory, 91; Oklahoma, 90; Virginia, 73. The average for the United States, 85.2; a reduction of 14.8 per cent. upon the revised acreage given out in May. The average condition of the crop for June 1 is as follows: North Carolina, 61; South Carolina, 72; Georgia, 82; Florida, 92; Alabama, 85; Mississippi, 88; Louisiana, 85; Texas, 79; Arkansas, 89; Tennessee, 87; Missouri, 89; Indian Territory and Oklahoma, 70; Virginia, 67. The general average for the country, 81; against 88.3 last year, and 85.6 in 1893.

Fruit.—Heavy and repeated frosts during May did much injury to fruit, but it is too early to determine the extent of damage. The conditions on June 1, taking the country through, were, nevertheless, better than on the same date last year. In many of the States of commercial importance, however, the condition is still low, with the prospect of being much reduced before the time of next report. Fruit is dropping badly in many sections, as is usually the case in seasons of severe frosts at or soon after blossoming time.

Clover.—The area under clover is only 92.5 per cent. of that of 1894, the

largest reduction being in the northern half of the Mississippi valley from Ohio and Kentucky westward to Nebraska. The general average of condition is only 82.8, a lower figure than any recorded within the last decade. The great drought of 1894 has been a prominent cause of both the reduced area and the low condition. Other causes contributing to the latter are spring frosts, continued cold weather, recent drought, and cut-worms. The chief complaints as to these last come from Kentucky and Indiana.

Spring Pasture.—The general average for the condition of spring pasture is 88.1, a reduction of 3.9 points as compared with June 1, 1894. The lowest figures are found in the Mississippi valley, from Ohio westward to Kansas, Nebraska and the Territory of Oklahoma. In this region Minnesota is the only State whose figures (102) rise above 100. Ohio (71), Indiana (73), Kansas (69), and Nebraska (71) are the only States whose averages fall below 80, but the average for Oklahoma is only 60. Drought, frosts, and in some localities the ravages of worms, are among the chief causes of reduced condition.

Changes Recent and Changes Coming.

EDITOR KANSAS FARMER:—Deliverance has come to Kansas in a most extraordinary way. The redemptive power of water appears more and more striking each day. Even wheat which appeared utterly ruined shows evidence of vitality sufficient to warrant, in some cases, a half crop, and oats, which would have burned freely two weeks ago, is as green and fresh and beautiful as though nothing had happened to it. This marvelous transformation from an apparent desert into a glory land is calculated to make us forget the bad which Kansas has done in the past two years or more. But however persuasive even bewitching Kansas may be, there is one thing she cannot do—she cannot stop the irrigation movement. That has come to stay this time. While I believe we are on the threshold of a series of good crop years, such as we had from 1875 to 1879, and again from 1882 to 1886, yet were this known to be absolutely true, it would help and not retard this movement. The money necessary to carry it forward must be made during good crop years.

In my travels through the Solomon valley counties, I noticed that orchards of twelve years or more standing, were dying from the lack of sufficient moisture, and the fruit, I was informed, for some years was lost from the same cause. What sane man will be at the expense in care and money to grow a beautiful orchard and then neglect the means necessary to sustain life during the fiery ordeal through which that orchard will in time be obliged to pass?

Mr. G. A. Gould, near Solomon, said to me, yesterday morning, that he saved his apple crop this year by a liberal supply of water when needed. His garden and potato ground were treated in the same way with most satisfactory results. Next year, he says, he intends to irrigate forty acres or more, taking the water from wells.

In Ottawa county I also found many who were experimenting this year and who mean to extend their operations by another year very largely.

At Abilene, Dickinson county, I visited two plants—Mr. N. C. Dyer's, who has a private dairy, and F. Whitlaw's. The former gets his water from a spring and has water sufficient to irrigate thirty to forty acres. At present he irrigates only about ten acres. Started this year. Mr. Whitlaw, who runs a grocery in Abilene, has an irrigation plant on his farm, three miles from town, on the Smoky river. He has a link elevator pump, capacity 1,000 gallons per minute; power, traction engine, ten horse. Gets water from river. He irrigates twenty-six acres. Grows potatoes, to be followed by cabbage. Two applications of water, even without rain, is all that is necessary. One good wetting before planting, the other when potatoes are about setting. Each application of water on fifteen acres costs the labor of four men for three days, or the labor of four men for six days for the two applications. That is, the labor of four men for six days,

with the cost of running the engine, is the cost of guaranteeing a full crop of potatoes on fifteen acres of land. This guarantee, remember, holds, whether it rains or don't rain.

Colorado must look elsewhere for a market for her thousands of tons of potatoes she has been drawing gold dollars for in Kansas. Kansas will soon grow her own and to spare.

Closely allied to irrigation is subsoiling, and it is surprising how this has taken hold of farmers. Every farmer, it seems, either has subsoiled or is going to. In Mitchell county, Mr. E. E. Mooney (postoffice Elmira), last year subsoiled 300 acres, with traction engine, twenty-four inches deep. Farmers generally are coming to the conclusion that subsoiling is an effective means of storing water against a time of drought, and the only reason why hundreds of them are not subsoiling and irrigating now is because they have not the means. Let Kansas give them overflowing granaries and cribs for several years and the water will flow and the soil will break as it never did before.

M. MOHLER.

Abilene, Kas., June 15, 1895.

Weekly Weather-Crop Bulletin.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending June 17, 1895—T. B. Jennings, Observer Weather Bureau, Director:

CONDITIONS.

The temperature has been about normal this week, with more cloudiness than usual, and excess of rainfall except in Hamilton, where the rainfall is below normal. The heaviest rains extended from Kingman northeast into Pottawatomie, being from four to five

well, but be short in straw; corn doing finely.

Greenwood.—Growing conditions; corn and grass doing well; fruit making rapidly.

Jackson.—All crops doing well; early potatoes never better; weather favorable for rusting oats.

Johnson.—All kinds of vegetation in fine condition.

Labette.—Wheat harvest about done; oats turning; corn fine; potatoes good; gardens fine; tame grass poor, native grass good.

Linn.—Corn splendid; flax fair; oats much improved, also tame hay; early potatoes good.

Montgomery.—Almost too wet for harvesting; early corn tasseling; fruit of all kinds doing nicely; oats harvest has commenced.

Morris.—Marked improvement in crops all around.

Osage.—Great improvement in crops, and stock water plentiful.

Pottawatomie.—Wheat nearly harvested, some not cut, too wet; oats fair. (On the 9th at Blaine 1.15 inches rain fell in fifteen minutes). All crops fine.

Riley.—Rains heavy, rivers high; corn fine; oats heading, late-sown fair crop; raspberries, blackberries and late cherries being marketed.

Wilson.—Early wheat in stack, late in shock, turned out better than expected; everything booming but the streams; corn clean and growing fast; flax very uneven; pasture plentiful.

Woodson.—Another good week for crops; everything growing finely.

MIDDLE DIVISION.

This is the first week this season that the southern counties have had any show, and though too late for wheat, it has vastly improved the condition of all other crops. In Barton some of the dead wheat fields are turning green. Oats have greatly im-

proved, flax in fair condition and pastures good. Corn is in fine condition. The ground generally is now in better condition, with more water in it than for two or three years back.

Barber.—All crops doing finely.

Barton.—Some wheat fields turning green again; corn up, uneven; barley and oats look splendid; pasture good.

Butler.—Corn growing more rapidly than any time this season; oats improved; flax well; pastures good.

Clay.—Fruit, grass, wheat and oats continuing to improve; corn doing well; potatoes—sweet and white—quite promising.

Cowley.—Corn, sorghum and millet have made a vigorous growth this week.

Dickinson.—All crops improving and growing rapidly; wheat harvest begins next week; more moisture now in ground than for three years.

Harvey.—Wheat badly damaged by bugs but nearly ready to harvest; oats fair; corn splendid; grass and fodder crops fine.

Jewell.—Prospects good for oats, millet and corn.

Kingman.—All crops are getting over the drought; even wheat is benefited some; corn prospects never better.

Kiowa.—Splendid growing week; corn doing finely; fodder crops still being planted; fruit good; new potatoes and turnips on market.

Marion.—Wheat very poor; oats improving; corn growing nice; pastures good.

Mitchell.—All kinds of vegetation advancing rapidly; oats improving well; the great acreage of corn in splendid condition; the second crop of alfalfa more promising than the first.

Osborne.—Very favorable for all crops; cattle doing exceptionally well.

Ottawa.—All growing crops doing their best; pastures best this spring.

Phillips.—Wheat and oats coming out more than was expected; corn looks well.

Reno.—Best of growing weather; oats have come out surprisingly; corn never looked better.

Rice.—Crops in excellent condition.

Rooks.—Oats, barley and early potatoes assured; corn growing fast; prospect for wild hay best in years; all garden vegetables now on market from our home gardens.

Rush.—Wheat fields improved beyond all expectations; corn making rapid growth; blue-stem grass promises an abundance of hay.

Russell.—Corn and other grains doing well; ground in good shape.

Saline.—An ideal growing week for everything.

Sedgwick.—Everything greatly improved; wheat filling with a good berry; oats will make an average crop; corn growing very fast, good stand and clean; pastures good.

Stafford.—Very favorable week for all kinds of crops; oat fields considered worthless June 1 will make half a crop now.

Sumner.—Rains have changed appearance of everything; oats improving; corn never looked better.

WESTERN DIVISION.

The fine conditions of the past two weeks have been much improved by the warm, humid nights of this week, and all vegetation has made rapid growth, with brighter prospects at close of week.

Clark.—Buffalo grass greening up; fine weather for breaking sod.

Decatur.—Wheat will make from two-thirds to three-fourths crop; corn a perfect stand, growing rapidly; much alfalfa sown this spring, is generally a good stand, older alfalfa a good crop.

Ford.—Wheat will average ten to fifteen bushels per acre; oats and barley fine; corn coming on all right; fruit prospects bright.

Gove.—Wheat, oats and barley looking better; corn and sorghum much improved.

Grant.—Great activity in planting crops, which are making unusual growth; oats and barley good; wheat poor; grazing splendid.

Hamilton.—Grass growing finely; sorghum and small grains doing well.

Meade.—Crops of all kinds doing well; fine prospect for corn and late barley.

Morton.—Crops coming on all right.

Ness.—Crop prospects excellent.

Norton.—Corn never better; all crops doing well.

Sheridan.—Fall wheat heading well; early-sown spring grain not good as late; early-planted corn fine; broom-corn planting about done; pastures never better; gardens excellent.

Sherman.—Crops of all kinds growing fine; small grains heading out with prospects of two-thirds crop; grass good.

Thomas.—A fine growing week and everything doing nicely.

Trego.—Late crops are coming forward rapidly.

Wallace.—Fine growing week; barley heading; gardens doing splendid; wheat crop will be light.

How Do You Kill Corn Worms?

EDITOR KANSAS FARMER:—I would like to hear from some one in regard to practical experience destroying the corn worm. And if other insects, such as squash bugs, especially the large, angular ones, also the bugs and worms that trouble the ground cherry, can be destroyed with insecticides. R.

Henry, Kas.

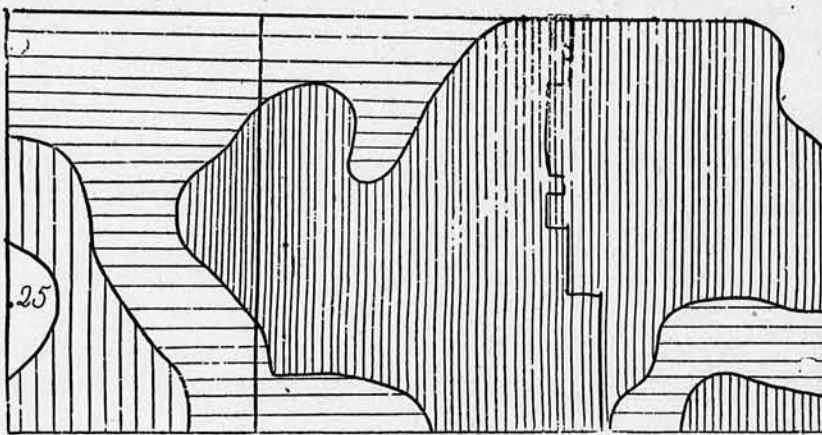
An Accomplished Fact.

May 19 the Nickel Plate road inaugurated a new train service. The new summer schedule affords the same number of trains as before, including through service between Chicago, Cleveland, Buffalo, New York and Boston. The improvements also embrace the shortening of time of trains between all of the above cities. Colored porters in uniforms in charge of day coaches to attend to both first and second-class passengers. Rates always the lowest. For further information address your nearest ticket agent or J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill.

Ottawa Chautauqua Assembly.

On June 16 to 28, inclusive, the Missouri Pacific will sell tickets to Ottawa and return for \$1.59, tickets being good for return passage until June 30. From all other stations in Kansas tickets will be sold June 16 to 20, with same limit for return passage, at one fare for the round trip. On June 27, tickets will be sold from Topeka and intermediate stations to school children, between 5 and 12 years of age, for 50 cents for the round trip, limited for return passage to the following day.

F. E. NIPPS, Ticket Agent,
Topeka, Kas.



ACTUAL RAINFALL FOR WEEK ENDING JUNE 15.

inches in Reno and northwest Sedgwick and in southern part of Pottawatomie and southeastern part of Riley. With these favorable conditions the air has been quite humid.

RESULTS.

EASTERN DIVISION.

The fine rains of the past two weeks in the western counties spread over into the eastern division this week and have given a new impetus to the crops. Corn, grass, potatoes and gardens are growing finely; oats and flax greatly improved and fruit in fine condition. Wheat harvest done in the south and has commenced in the north. Oats harvest is progressing south.

Allen county.—Everything has made a phenomenal growth; oats are ripening and prospects are now good.

Anderson.—Crops growing fine.

Atchison.—All crops in fine condition.

Brown.—Harvest commenced; some fields poor, others very good; oats are turning and are improving; corn and potatoes fine; tame hay light; pastures improving.

Chase.—Corn and grass fine; wheat and oats improved.

Chautauqua.—Wheat harvest over; oats harvest commenced; wheat is good quality; oats well filled; fine for corn and grass.

Cherokee.—Fine growing week; wheat harvest nearly over.

Crawford.—Good growing weather; fruit and vegetables thriving; chinch bugs flourishing; corn much damaged.

Doniphan.—Favorable for all crops; wheat harvest began on the 13th, straw short and thin, berry good; fruit prospects good; potatoes and gardens doing well.

Douglas.—Crops of all kinds growing nicely, though chinch bugs are hurting the corn near wheat fields; harvest ready but ground too wet.

Geary.—Condition markedly improved by recent rains; oats will fill

proved, flax in fair condition and pastures good. Corn is in fine condition. The ground generally is now in better condition, with more water in it than for two or three years back.

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Horticulture.

THE WALNUT.

By H. Tennent Donaldson, J. P., in *Australian Agriculture*.

NAME AND HABITAT.

The walnut tree (*Juglans regia*) is a native of Persia and China, and according to Baron von Mueller, is indigenous also to Hungary and Greece. The prefix *wal* is another form of the word *Welsh*, and in early English signified *foreign*, and was applied to this nut to designate it as having been introduced from abroad. The Greeks called it *Persicon* (the Persian tree), and *Basilikon* (the Regal tree), and the Romans gave it the name of *Nux* (the nut), or *Juglans* (Jove's nut). Varro wrote "Hoc glans, optima et maxima, ab Jove et glande, juglans appellata est," and the English poet, Cowley, calls it Jove's acorn.

"The walnut then approached, more large and tall,
Her fruit which we a nut, the gods an acorn call,
Jove's acorn, which does no small praise confess,
To have called it man's ambrosia had been less."

In addition to the above, which is the common kind, there are at least thirty different species, of which most are indigenous to North America, the most important, and the one most resembling the *Juglans regia*, being the *Juglans nigra* or black walnut. The *Carya alba*, which produces the hickory nuts, so much eaten in America, is another species, as is also the *Carya olivacea*, which yields what are there known as pinyon nuts. An almost huskless variety occurs in north China. Walnut trees have been naturalized over a large portion of Asia and Europe, as far north as Norway, and have been introduced to most parts of Australia, and, as they succeed admirably in all but the warmest portions, should be much more extensively planted, since they are very productive and remunerative, and possess many valuable commercial properties, as will be shown later on. Josephus informs us that in his day they were very numerous round the Lake of Gennesaret, and travelers speak of them growing luxuriantly at Mount Sinai, Nazareth and Lebanon. Near the valley of Balaklava, in the Crimea, there stood a few years ago, and probably it is there now, a huge walnut tree, supposed to be over a thousand years old, which yielded annually from eighty to one hundred thousand nuts. In some parts of the north of Italy, Switzerland and the south of France, the roads are lined on either side for miles with these trees, and there is an unwritten law in Burgundy that whoever cuts down a walnut tree must plant another in its stead. The number grown in England is diminishing, as they are being gradually cut down because the dense shade thrown by them is injurious to adjacent trees and crops.

PROPAGATION AND CULTURE.

Like the almond, described by the writer in the previous issues of the *Agriculturist*, the walnut is best grown from the nut, but it can also be propagated by budding, grafting and layering. Fresh gathered nuts should be selected, and they can be sown in nurseries in drills two feet apart, or better where it is intended for them to remain, as this tree makes a very strong tap-root, which, if the tree be left too long before removal, may be injured in the transplantation. A deep and preferentially a calcareous soil should be chosen, with a dry bottom. The young tree is somewhat delicate and is apt to be injured by the spring frosts. In cold districts therefore it must be protected for a year or two. Plenty of room must be allowed, as it is a vigorous grower, and making fully twenty feet in height in ten years, at which date it usually begins to bear a crop. Once established little or no attention is required, and except to remove unsightly growths no pruning is necessary. It will attain quite 100 feet in height, and lives to a great age, its productiveness increasing with its years. It is very suitable for avenue planting or as a roadside tree when evergreens are not preferred. As previously mentioned, neither crops, grass nor trees

will thrive close to it, as its thick foliage deprives them of light. This explains the reference of an English poet: The walnut—whose malignant touch impairs All generous fruit.

THE WOOD.

As much as £600 has been paid for a single tree. The timber is light as well as tough, does not twist or crack, and is not liable to be attacked by worms. None is more in request for gunstocks, the exteriors of pianos, and by cabinet-makers for all kinds of furniture, both on account of its durability and its beautiful veining and rich dark color. It is extensively used for veneering commoner woods. An Italian architect mentions having seen a single plank of walnut wood at St. Nicholas in Lorraine, upon which a banquet, given by the Emperor Frederick III., had been spread. Extensive natural forests of black walnuts were, in the early days of settlement in America, ruthlessly burnt off, their value not then being recognized, just as in Australia we have destroyed tens of thousands of acres of our most valuable Eucalypti.

THE FRUIT.

The outer covering of the fruit is astringent, and dyes the fingers black during the process of peeling, and it, as also the leaves when bruised, exhales a strong aromatic odor. As a dessert fruit it is much in request when green fruits are not in season, and "over the walnuts and wine" has become a proverb. For pickles no fruit or vegetable is superior. For this purpose the nuts should be gathered some time before they are ripe, so as the shells may be easily softened by the vinegar. It also makes an admirable catsup. The fruit is usually knocked off the tree by thrashing the extremities of the branches, where alone it is produced, with long poles. The nuts are then gently beaten till the husks separate. By burying them in dry sand or soil out of the reach of rain and frost, or by placing them in cellars covered with straw, they can be kept fresh a very long time.

OTHER USES.

An oil can be expressed from the nuts which, as it is a very slow drier, forms an excellent medium for artists to blend their colors. Van Eyck and Correggio and several of the Venetian masters used no other. It is also used for making the finer kinds of printer's ink, and it has the reputation of being efficacious in cases of poisoning, and was the chief ingredient in the famous antidote used by Mithridates, King of Pontus. The oil is in some countries burnt in lamps. Baron von Mueller, in his "Select Extra-Tropical Plants," says: "The shells of the nuts yield a black pigment; the leaves also serve for dye purposes, and have come further into external medical use." The sap is in some countries used as a substitute for sugar. Its different uses have been summed up by Cowley in the following lines:

"She nourishes the hair, remembering how
Herself deformed without her leaves does show,
Her timber is for various uses good,
The carver she supplies with useful wood,
She makes the painter's fading colors last,
A table she affords us, and repast,
E'en while we feast her oil our lamp supplies,
The rankest poison by her virtue dies,
Yet envious fates, that still with merit strive,
And men, ungrateful, from the orchard drive
This sovereign plant, excluded from the field
Unless some useless nook a station yield."

SUPERSTITIONS ABOUT WALNUTS.

The ancients associated the walnut tree with Proserpine and the denizens of the nether regions, and in modern times it has been deemed the tree of ill omen. The Germans look upon it as a funeral tree, and say that death lurks in its shadow. At Bologna the peasants say that, on the vigil of St. John's day, witches hold their meetings under these trees; but at Glastonbury, in England, very different associations were attached to a walnut tree that used to grow in the church yard of St. Joseph's chapel. This tree was held in great reverence, as it was said never to bud before the feast of St. Barnabas, June 11. In some parts of England an old custom is preserved for children to throw walnuts at the bridegroom at a wedding. Referring to this Herrick wrote:

"Now bar the door—the bridegroom puts
The eager boys to gather nuts."

The custom is a very ancient one, and is mentioned by several Latin poets, one of whom (Ovid) wrote some

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lines, "De Nuce," and from the title of this poem the French have derived their word for nuptials, *des noces*. It is, or was, a common belief that "whipping" a walnut tree increased the crop of nuts and improved their flavor. It has been said:

"A woman, a dog and a walnut tree,
The more you whip them the better they be."

The writer cannot speak as to the efficacy of whippings in any of these cases, but if any of his readers like to follow in its entirety the advice given in the foregoing couplet he will be pleased to hear their experiences.

The importance of variety tests, carefully conducted, is again emphasized by the recent publication of Bulletin No. 22 of the Wyoming Experiment Station. The yields of onions mentioned were obtained under irrigation, but the lesson of the superiority of suitable varieties is none the less important. While some varieties yielded almost nothing, others gave very heavy yields, the White Bermudas leading with forty-six tons, 90 per cent. of which were fit for market. These were also the largest onions grown, the best bulbs averaging a little over a pound each.

Gophers.

[From Bulletin No. 5, United States Department of Agriculture, Department of Ornithology and Mammalogy.]

METHODS OF DESTRUCTION AND EXCLUSION.

Bisulphide of Carbon.—In most cases bisulphide of carbon is the simplest agent for the destruction of gophers. It may be used as follows: Open the gopher hole where one of the freshest hills has been thrown out. Pour two tablespoonfuls of bisulphide on a bunch of cotton, rags, tow, waste, or any such material, and push it well down into the hole; then close the opening. The bisulphide quickly forms a heavy suffocating gas that flows down the hole and along the galleries. Wherever it overtakes the gopher he is quickly killed. The whole operation is perfectly simple and easy. The only difficulty arises from the length of the tunnels, which is so great that the animals may be beyond the reach of the gas. Hence it is sometimes necessary to open the tunnel and introduce the bisulphide at two or more places.

The gas has a vile odor. It should be carefully kept from fire, as it is highly inflammable and explosive; otherwise no danger attends its use.

Fumigation.—Rude pumps, known as 'fumigators,' by means of which the fumes of burning sulphur may be forced into the burrows to suffocate the occupants, are extensively used in some parts of the West, particularly in California. They are, however, clumsy, expensive, and less effective than bisulphide of carbon.

Trapping.—Gophers are easily trapped, and once exterminated in a field, others do not soon come in. Their manner of traveling is so slow that only those near the edge of a field will work in during a summer. In the spring the males in their wanderings may settle down in a new place, but this does not often happen. The process of trapping is perfectly simple, although many farmers have assured me that pocket gophers can not be caught in traps. Hence a few directions may be useful. Having selected a fresh hill and observed from which direction the earth is pushed out, dig down on that side until the open hole is found. Enlarge the hole sufficiently to admit a No. 0 steel trap and remove

such loose earth as may have fallen in. The trap should be set very lightly, placed well down in the hole, sunk in loose earth to the level of the runway, and partly concealed by a sprinkling of fine earth. Finding its hole open the gopher proceeds to repair the breach, in doing which he steps on the trap and is caught. If loose earth is left in the burrow it will be pushed out in front of the animal, covering the trap, so that it will fall to spring.

Other methods of trapping gophers have been tried with varying success, and numerous kinds of traps have been devised for the purpose. Five of these are figured in a bulletin of the Oregon Agricultural Experiment Station (Bulletin No. 25, April, 1893). Many of them are clumsy and expensive, and few, if any, can compete with the common steel trap when the former is properly used.

Poisoning.—Poisoning is a simpler and more expeditious method of destroying gophers than trapping, but it is more laborious than the use of bisulphide of carbon. The use of poison is always attended with danger, for in spite of all precaution, other animals than those for which it was intended are liable to get it.

The usual method is to insert a small quantity of arsenic or floured strychnine into a piece of potato and push the potato as far as possible into a fresh gopher's hole and then close the opening securely. The Hon. J. Sterling Morton, Secretary of Agriculture, has found arsenic on white potatoes and apples efficacious in destroying pocket gophers at his home in eastern Nebraska.

Phosphorus has been used extensively in California, Washington and Oregon in destroying ground squirrels, and to a less extent for pocket gophers.

Mr. Allen Chatten, of Charter Oak, Iowa, states that he has entirely exterminated the gophers from his own and several neighboring farms by the use of phosphorus. His recipe is as follows:

Put a stick of phosphorus in a five-gallon can with a little cold water; next pour in hot water, not quite boiling, until the can is half full, and stir with a stick. When the phosphorus is melted, add, while the water is stirred constantly, two pounds of sugar, and immediately after the sugar is dissolved thicken to a stiff batter with corn meal and flour, half and half. Now add wheat and stir until stiff. While adding the wheat add also fifteen to twenty drops of oil of rhodium. The wheat will soak up all the water in the mass and it will become quite hard. Keep in a cool place. Small pieces may be chipped off as needed. Gophers may get too little strychnine to kill them, but no matter how small a piece of phosphorus they get it will finally prove fatal. Dig down to an open hole, drop in a small piece, put a clod to keep the hole from filling, and cover over with loose dirt to exclude the light.

It should be borne in mind that phosphorus is one of the most deadly poisons. I do not wish to be held responsible for recommending the use of this or any other poison on the farm.

Use of wire netting.—In Bulletin No. 5 of the Oregon Agricultural Experiment Station it is stated that young trees may be protected by a cylinder of wire netting two feet in diameter and two feet in length and placed around the roots when the tree is planted. The top of the cylinder should be four to six inches below the surface of the ground, and the bottom may be left open. Netting with a three-quarter inch mesh is recommended.

Trenches.—It has been asserted that a field may be protected by a trench at the bottom of which oil cans are sunk at intervals. The gophers in trying to enter the field are supposed to fall into the trench, along which they move until caught by the oil cans.

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In the Dairy.

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

Hints to Beginners in Dairying.

EDITOR KANSAS FARMER:—The man who is beginning in dairying at the present time has something to contend with. It will not be all clear sailing or clear profit. Old established dairies, whose products are well known and trade assured, are some of them having a rather up-hill job at getting good prices; therefore, the beginner must not get discouraged if, at first, he meets with small success.

The only way to succeed is to place only the very best grade of butter upon the market. By so doing gradually a satisfactory trade may be worked up, which, when once secured, will be easily held as long as the butter is all right. I firmly believe that a single shipment of poor butter will do more to hurt the reputation of an individual's output and really do him more harm than all the oleomargarine that is manufactured.

With every precaution it sometimes happens that a shipment of butter which has every appearance of being all right when first made will not keep in that condition for any length of time. Although it may leave the maker's hands in good condition, before it is consumed, if that is delayed a few weeks, it is decidedly off flavor. Let us look at this fact and see wherein the trouble lies. Nine times in ten the fault is in the ripening of the cream. More butter is injured at this point than any other. It is so apt to be deceiving. If, when churning, the proper temperature is observed and all surroundings favorable, an apparently good quality of butter will result. It will be granular, hard and nice, and if properly colored, will be the right shade of yellow to please the eye. Salted and worked as usual it may be shipped with the full expectation of its being perfectly satisfactory to the buyer, yet it may prove just the reverse.

Let us notice some of the faults in ripening cream. We will suppose the cream to have been drawn from the creamery cans, ice cold, and the time, winter. We will suppose that no patent ripening can is used, and that the cream is to be ripened in the kitchen. This is a poor place to ripen cream under ordinary circumstances, and in a pail, can, or crock, such as the average farmer's wife uses to keep cream in. The best thing after the air-tight ripening vats—which, by the way, every dairy should have—is a bright tin can with close-fitting cover. The cream must be warmed in order to bring it to a temperature where it will sour. The faulty way of doing this and one which is liable to produce results above noted, is to set the can or pail containing it upon the hot water tank or back part of the stove and leave until it has become too sour. I have seen it thus warmed until the bottom was only whey, the upper part being so thick that it was really almost cheese, and full of curd specks. The butter-maker, anxious to make every bit of cream count, may be tempted to churn this cream. It may be cooled to 58° or 60°, strained to remove curd, gathered in granules and treated ever so nicely, but it will never make first-class butter. That part of the work is best performed, if nothing better is at hand, by warming up slowly, and carefully stirring constantly until 62° or 64° is reached, then closely cover to exclude all odors and keep the temperature as near as possible at that point until slightly soured, stirring frequently to insure evenness of ripening. Warming cream up to 70° I believe to be deleterious to the quality of the butter, particularly as to its keeping qualities.

Another mistake that is frequently made when it is intended to keep butter for any length of time is in salting it too lightly. Of course, the customer's taste must be consulted as to this, but unless butter is partially worked to exclude the water left after washing, an ounce and a half of salt to the pound is none too much to use. Much of it works out and only sufficient will

be left to give it a pleasant taste and help to keep it in good condition. Carefully ripened to be just the right degree of sourness—and this is a hard matter to decide—churned at 60°, washed with water 45° or 50°, drained, and salted an ounce and a half to the pound, then taken out and worked until the salt is evenly distributed and the brine pretty well excluded, packed tightly in a new stone crock or other suitable package, covered with parchment paper well pressed down, and covered an inch with clean salt, butter ought to keep in an ordinary cool cellar for two months in perfect condition, and even longer. We do not care to have butter keep as long as that, ordinarily, as it is usually sent to the consumer in small quantity. This practice is a good one and ought to be encouraged. Butter is never better than when first made.

E. E. ROCKWOOD.
Genesee Co., Mich.

Holding Up the Milk.

Has the milker any remedy against the wilfulness of the cow in holding up the milk? Undoubtedly. All that is necessary is to refrain from exciting the natural obstinacy of the animal by any disturbing influence. Many persons have seen and noticed the sly, determined way in which the cow that has been ill-used—beaten, perhaps unjustly—looks back sideways at the milker, and understands the hard words he is using, and expecting the well-known hard knocks that follow the hard words. She shows by every action and the stolid determination of the set eye that she is refusing to "give down" her milk. But let a woman, well-known for her tenderness to the cows, and apt to speak pet words, and fondle the animal by a gentle touch, go to milk a cow, and there is no trouble. Or a good-natured man, who is ready with kind words and gentle touch to give the animal her due, and it will very rarely, or never, happen that there is any trouble of the kind. There may be possibly an exception with some inexperienced heifer at first milking, when she has been unwisely permitted to suckle the calf, and does not understand what is wanted of her. She must be taught by kind, gentle and patient training this unfamiliar part of her business, and then she will not hold up her milk.—Exchange.

Dairy Notes.

Brandt & Essley are putting in a new 2,500 pound De Laval Alpha separator at Lehi, Marion county.

The Hesston Creamery Co., at Newton, was last week putting 2,300 pounds of butter into one-pound prints for the Philadelphia market.

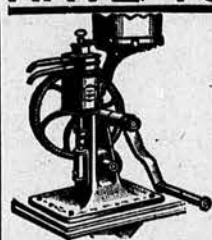
The old machine shop at Marion was last year converted into a creamery in which a couple of young Danes are separating 800 pounds of butter per day with an Alpha separator and getting good prices for it.

Tennessee is in line on oleomargarine legislation. An anti-color bill similar to that in force in Iowa was recently passed by the Legislature and signed by the Governor. Before this issue goes to press we hope to be able to announce that a similar bill which has been pending in the Illinois Legislature has become a law.

The Belle Springs Creamery Co., of Abilene, separated the cream from 2,444,000 pounds of milk during the month of May, 1895. For this the farmers around Abilene received between \$13,000 and \$14,000. This was separated in six factories. The new Holland plant, put in about the first of the year, with two new Alpha De Laval separators used, developed a saving of about 40 per cent. in fuel over other machines used by this company. This saving is a remarkable showing for the De Laval Alpha.

Every dairyman knows that garget is a serious matter in a herd. In a recent conversation with a dairyman with thirty-five years' experience, he told us he cured it without medicine. His method of treatment was that on the first appearance of the disorder to feed the cow a pint of cooked white beans that are pounded or mashed fine after cooking and to which about one-fourth ounce of saltpetre has been added. This is continued until the garget has entirely disappeared, which, our friend tells us, will occur in three to five days. He usually gives this dose with the morning fodder, and says that some cows refuse it unless mixed with a little corn meal. He states that he had never lost a cow from this cause and regards the remedy as an infallible one. Try it when your cows have garget.—Exchange.

HAVE YOU FIVE OR MORE COWS?



If so a "Baby" Cream Separator will earn its cost for you every year. Why continue an inferior system another year at so great a loss? Dairying is now the only profitable feature of Agriculture. Properly conducted it always pays well, and must pay you. You need a Separator, and you need the BEST—the "Baby." All styles and capacities. Prices, \$75 upward. Send for new 1895 Catalogue.

THE DE LAVAL SEPARATOR CO.,

Branch Offices:
ELGIN, ILL.

General Offices:
74 CORTLANDT ST., NEW YORK.



A dairy syndicate just formed at Sherman has purchased sixteen of the largest creameries in Chautauqua and Cattaraugus counties and the adjoining counties of northern Pennsylvania. The combination will control the milking of 9,000 cows, the annual yield of which will be 10,000,000 quarts of milk, from which 500,000 pounds of butter will be produced.

An exchange observes: "What a foolish lot of people we are to send to Europe every year over \$1,000,000 to buy foreign cheese. This money should be kept here, as our American cheese is fully as good as any that can be made in Europe." All quite correct, but a goodly portion of that money goes for fancy brands, some of which our own country is capable of producing. The wonder is that cheese factories do not give some attention to these cheeses in view of the high prices paid for them.

Baltimore Excursion via St. Louis.

Connecting lines in West and Southwest will sell excursion tickets to Baltimore via St. Louis over Vandalla-Pennsylvania lines, or they will be furnished by Brunner, 509 Chestnut street, St. Louis, July 16 and 17, good returning until August 5, inclusive, account Baptist Young People's Union convention. Tickets may also be obtained at 100 North Fourth and at Union Station, St. Louis. Ask for them over Vandalla-Pennsylvania lines. Three trains run daily to Baltimore from St. Louis Union Station over these lines, the shortest route. Ask Brunner, 509 Chestnut street, St. Louis, about the convenient, first-class service and the pleasure to be experienced crossing the cool Alleghenies and famous Horse Shoe Curve.

Facilities for Travelers.

The Nickel Plate road now offers better facilities to the traveling public than ever, the improved facilities having been inaugurated May 19. No change of cars between Chicago, New York and Boston in either direction. Superb dining cars between Chicago and Buffalo in both directions. Trains leave Chicago 8:05 a. m. daily except Sunday; 1:30 and 9:20 p. m. daily for Fort Wayne, Fostoria, Cleveland, Erie, Buffalo, New York and Boston; 1:30 p. m. train arrives New York 6:30 and Boston 9 o'clock the following evening. Uniformed colored porters in charge of day coaches. Lowest rates on all trains. If further information is desired call on your nearest ticket agent or address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill.

Excursions to the East.

Excursion tickets via St. Louis will be sold by connecting railways in West and Southwest good over Vandalla-Pennsylvania lines as follows:
To Baltimore, July 16 and 17, good returning until August 5, account B. Y. P. U. meeting.

To Boston, July 5 to 9, inclusive, extreme return limit August 3; account Christian Endeavor National Meeting. To Boston, August 19 to 25, inclusive, for Knights Templar Conclave; extreme return limit October 3.

Tickets may also be obtained on above dates at city ticket office, 100 North Fourth, and at Union Station, on Eighteenth and Market streets, St. Louis. For detailed information apply to BRUNNER, 509 Chestnut street, St. Louis, by letter, telegram or in person.

The Price Of Wheat Will Advance

If you decrease the cost of planting.

THE KENTUCKY SHOE DRILL

saves seed and does perfect work. Send for catalog. Kansas city freight. Brennan & Co., Louisville, Ky.

FRUIT EVAPORATORS and CIDER MILLS.

BEST, CHEAPEST and Most Reliable on the market. Catalogue free. WM. STAHL EVAPORATOR CO., QUINCY, ILL.

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

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

ESTABLISHED IN 1873.

WILLIS NURSERIES.

Contain a general assortment of choice fruit trees and other nursery stock, which we offer for sale in lots to suit. Our prices are low—stock and packing the very best. Write for free catalogue and always mention name of this paper. A special lot of choice well-grown two-year-old apple trees for sale. Address A. WILLIS, Ottawa, Kansas.

CHEESE APPARATUS

Cheese-Making is More Profitable Than Butter-Making. The process is easy. Machines are complete and substantial. A ten-pound cheese made at each operation. Nothing like it on the market. Simple directions sent with each apparatus.
No. 1, 10 Gal., with 1 press and 1 hoop, \$15.00
No. 2, 20 " " " " " " " " 25.00
No. 3, 30 " " " " " " " " 32.00
Further information cheerfully sent by manufacturers. H. McK. WILSON & CO., St. Louis, Mo.



DAVIS CREAM SEPARATORS

A Peerless Leader. Successful. Meritorious. Pamphlet Mailed Free. AGENTS WANTED. DAVIS & RANKIN BLDG. & MFG. CO. Sole Manufacturers, 240-254 W. Lake St. Chicago, Ill.

HIGH GRADE BUTTER

Cannot be made without a SEPARATOR!

Look to your Dairy for Profit.

There is more money in Butter than Wheat. Send for Catalogues.

C. E. HILL & CO., 8th and Mulberry St. KANSAS CITY, MO. Sharples Separators. We are headquarters for Ventilated Chicken Coops and Farmers' Egg Cases.

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

We will send you the marvelous French Preparation CALTHOS free, and a legal guarantee that CALTHOS will Restore your Health, Strength and Vigor. Use it and pay if satisfied. Address VON MOHL CO., Sole American Agents, Cincinnati, Ohio.

Creamery and Dairy

Apparatus and Supplies.

BUTTER PACKAGES of every kind.

HAND SEPARATORS

For Small Dairy Farmers.

Every farmer having six or more milk cows should have one of these machines—the saving of butter alone in a single year will pay for it. For information, prices, etc., address

Creamery Package M'g Co.,
Department B. Kansas City, Mo.

The Family Doctor.

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

Answers to Correspondents.

DEAR FAMILY DOCTOR:—I am 47 years old. Have been stout, healthy and robust all my days. My weight is in the neighborhood of 200 pounds. Have chewed tobacco for thirty years. About fourteen months ago I was taken all of a sudden with an awful hurting in the extreme upper part of the stomach. It lasted about four hours and wore away and left me terribly sore and stiff-like all through the body and bowels, and became very costive for two or three days. Six months later I had another attack similar to the first. I then consulted our family doctor and he gave it the name of "tubulent colic" and prescribed for it with simply a "pain relief" which did me no good, and for the last six months the attacks have been oftener but not quite so hard. I have had three attacks this week; two of them were light. When I take "pain relief" internally the attack always winds up with vomiting of a greenish bile or phlegm. Some say it is caused by something I eat and others say it is the water we use, and still others hint at the tobacco. Please prescribe through the KANSAS FARMER. J. J. ROBINSON.

Council Grove, Kas.

Take arsenicum 3x and nux vomica 3x in three-drop doses, alternately, every two hours for two or three weeks, and if the colic comes on again take the doses five to fifteen minutes apart, according to the severity of the pain, until the paroxysm passes off. And don't forget that last "hint" about the tobacco. Let it grow in your mind like a sunflower in your garden, from a mere suggestion to a sixteen-foot reality, and let its broad, smiling face reflect the light over your benighted habits of thirty years duration until you see how worse than useless it is for any man to eat so many years of a poison weed that his hogs will not touch. If your stomach happened to be a man with lungs and a voice and kicking apparatus, instead of a poor dumb servant, how long do you think he would stand the abuse of a dose of poison every few hours? Would he wait thirty years before lifting up his voice in protest and his foot in emphasis against the imposition? Tobacco is a rank poison, and like "bug juice," it gets in its work sooner or later.

To All Friends of Law and Order in Kansas.

The Executive committee of the State Temperance Union asks your most serious attention to the condition of affairs in this State. In defiance of law the saloon has returned to many of our cities, and in not a few it exists with the corrupt connivance of the officials. Almost everywhere there is danger of a renewal of the liquor traffic unless the friends of prohibition vigorously bestir themselves.

Shall the saloon, with all its attendant evils, be re-established in Kansas? is the practical question that confronts us to-day. It is useless to close our eyes to the fact that the prohibitory law is in danger, not of repeal, possibly, but of being widely disregarded. The situation is made worse by the unwillingness of many officials to perform their sworn duty, and by a lax public sentiment which permits violations of law without determined protest from the people.

To inaugurate a temperance revival is the duty of the hour. Means must be devised to awaken and maintain a sound public opinion concerning both the use and sale of intoxicants. Therefore we urgently request all local temperance organizations, churches, Sabbath schools, Christian Endeavor societies, Epworth Leagues and other young people's associations interested in good citizenship to elect delegates to a convention to meet in Hamilton hall, Topeka, July 4, at 10 a. m. All citizens, irrespective of church relations or political affiliations, who desire such an enforcement of law as will exclude the liquor traffic from the State, whatever may be the local sentiment in the neighborhood of the saloons, are invited to participate in the deliberations of the convention. We

believe that at the present time Independence day cannot be more appropriately observed than by an effort to secure entire and permanent freedom from the saloon. Let us have a general rally of the friends of prohibition.

Pastors of churches and officials of the various organizations referred to in this call will please take immediate steps to secure the election of delegates who can and will be in attendance, and notify the undersigned at an early date.

Signed in behalf of State Temperance Union. J. B. MCAFEE, President.
R. WAKE, Secretary pro tem.
116 West Sixth street, Topeka, Kas.

How's This!

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

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

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

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

Publishers' Paragraphs.

FARM RECORD.—Our "Farm Records" have been such a splendid seller because of their practical value that our supply is now quite limited. We have a number of the best binding only, which the KANSAS FARMER will deliver to any address for only one dollar.

Mary M. Davidson, formerly silk culturist, of Junction City, Kas., now of Wichita, has invented a dustpan which is *par excellence* the greatest invention in that line of domestic convenience to housekeepers, securely holding the dust and not breaking the back by stooping to sweep it into the pan. It will be on the market as soon as the patent is completed.

DR. ORR'S BOOK.—Readers of the KANSAS FARMER will be pleased to know that arrangements have been made whereby they can obtain this concise and well nigh invaluable "Farmer's Ready Reference or Handbook of Diseases of Horses and Cattle" in combination with this paper at a slight saving in cost.

The separate prices of these are:

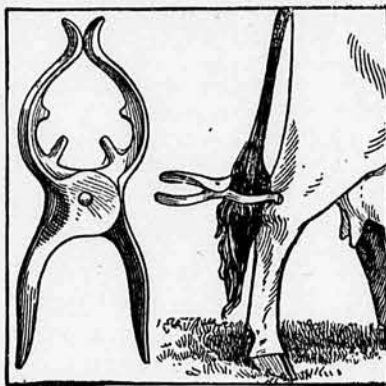
Dr. Orr's Book.....\$1.25
KANSAS FARMER, one year.....1.00

Total.....\$2.25

Two dollars sent either to the Kansas Farmer Co., Topeka, or to Dr. S. C. Orr, Manhattan, will secure both, making a saving of 25 cents.

The Victor Cow Clip.

We wish to call the attention of our readers to the Victor Cow Clip, an ingenious and eminently useful little invention shown



in the above cut, and the advertisement of which appears in another column of this paper. This little device prevents the cow from soiling the milk with her tail or lashing the milker in the face. It avoids the provocation to abuse the cow, it promotes kindness of disposition, an increased flow of milk, and pays for itself quickly. To attach, it is grasped with one hand enclosing the tail at the bush, is allowed to spring together so as to clasp the large cord of the cow's leg at the gambrel joint, thus securely holding the tail to the leg. Write immediately to the Victor Novelty Works, 832 Austin avenue, Chicago, for circulars or any further information.

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.

Enclose a stamp to any agent of the Nickel Plate Road for an elaborately illustrated Art Souvenir, entitled "Summer Outings." Address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 70



CARRIAGES, BUGGIES, HARNESS

and Bicycles at Factory Prices. Work guaranteed and 20 to 40 per cent saved. Our goods received the highest awards at the World's Fair. Our 1896 Mammoth Illustrated Catalogue is free to all. It shows all the latest styles and improvements and reduced prices. It has 200 pages and is the largest and most complete catalogue ever issued. Send for it. It's free. Alliance Carriage Co., Cincinnati, Ohio. Write to-day.



Special Service to Cleveland.

The fast train on the Nickel Plate Road, leaving Chicago at 1:30 p. m., arriving Cleveland 11:30 p. m., is the best day train between Chicago and Cleveland. Give it a trial and be convinced. Uniformed colored porters in charge of day coaches. Lowest rates to all points. For further information address J. Y. Calahan, General Agent, 111 Adams St., Chicago. 77

No Change to Chicago.

The through service offered the traveling public by the Union Pacific system and Chicago & Alton railroad is unsurpassed. The Perfect Passenger Service" of the C. & A. with the well-known excellence of the service of the Union Pacific assures the traveling public that they "are in it" when they patronize this popular joint line from Denver to Chicago and intermediate points. Pullman Palace sleeping cars, dining cars and free reclining chair cars without change.

For all information apply at 525 Kansas Avenue. F. A. LEWIS, City Agent, Topeka.

Low Rates to Boston.

The B. & O. R. R. Co. will sell round trip tickets from all points on its lines west of the Ohio river, to Boston and return, for all trains July 5 to 9, inclusive; valid for return passage until July 22, with privilege of an additional extension until July 31, if desired. Tickets will also be placed on sale at all prominent points in the North and Northwest. The rate from Chicago will be \$32, and correspondingly low rates from other points.

A double daily service of fast express trains is maintained from Chicago to all points in the East. Tourists will bear in mind that all B. & O. trains between the East and West run via Washington. For full particulars write L. S. Allen, A. G. P. Agent, Chicago.

Reduced Rates to Baltimore.

On account of the meeting of the Baptist Young People's Union at Baltimore, July 18 to 21, the Baltimore & Ohio railroad company will place on sale at all ticket stations on its lines west of the Ohio river excursion tickets at one fare for the round trip. These tickets will be sold July 16 to 17, valid for return passage until August 5. The rate from Chicago will be \$17.50 and proportionately low rates from other points. Tickets will also be placed on sale at all coupon offices west of Chicago.

Whatever point you start from be sure your ticket reads via B. & O. In addition to the historic country through which the B. & O. runs, the B. & O. is the only line from Chicago to Baltimore running via Washington, a double daily service of fast express trains run between the West and East.

For full particulars address L. S. Allen, A. G. P. A., Grand Central Station, Chicago.

Valuable Books Cheap.

By a special arrangement with the publishers, we are able to offer to subscribers any of the following named books at 10 per cent. less than the list price. These are new, fresh books, right up to the time, as is sufficiently guaranteed when it is known that they are put out by W. Atlee Burpee & Co., the famous Philadelphia seedsmen. Here is the list:

	Price, postpaid.
"The Beautiful Flower Garden." A delightful book by an artist.....	.50
"Injurious Insects." A valuable book.....	.50
"Selection in Seed Growing".....	.10
"Onions for Profit." A hand-book based on modern methods.....	.50
"Manures: How to Make and How to Use Them".....	.50
"Celery for Profit." An expose of modern methods in growing Celery.....	.30
"All About Sweet Peas." Revised and enlarged edition.....	.20
"How and What to Grow in a Kitchen Garden of One Acre".....	.50
"The Poultry Yard: How to Furnish and Manage It".....	.50
"How to Grow Cabbages and Cauliflowers".....	.30
"Root Crops for Stock Feeding, and How to Grow Them".....	.30
"How to Grow Melons for Market." Compiled from Prize Essays.....	.30
"How to Grow Onions." With a chapter on Growing by Irrigation.....	.30
"Pansies, Poppies, and Sweet Peas." A bright booklet.....	.10

Every farmer in Kansas, and especially the breeders and stock-raisers, should have the greatest live stock journal in the world, the *Breeder's Gazette*, of Chicago, price \$2 a year. We make a special offer of it and the KANSAS FARMER, both papers one year, for only \$2. Subscribe now through this office.

Milk and roots fed to hogs are believed by packers to make soft pork. Perhaps a mixture of cottonseed meal with the above would be an effective remedy.

We want our readers to secure for us thousands of new subscribers for the KANSAS FARMER and we will pay well for such work. If you will get up a list, write this office for liberal terms.

A wise old dairyman in speaking of the vexation of teaching some calves to drink, gives this good advice: "If you find you are getting out of patience, stop and think how little you knew at that calf's age."

It is Not Paradise, But—

If you have some cash to spare and are willing to work, financial independence cannot be more surely secured than by buying a few acres of irrigated land in Salt River Valley.

This valley is in Southern Arizona, and is noted for its fine semi-tropical fruits and superior climate. Horticulturists say that greater profits can be realized here from oranges and grapes than in Florida or California. Physicians assert that the warm, dry, bracing climate excels in healing qualities Italy's balmy air. The great blizzard of 1895 did not blight the tenderest leaf in this protected spot.

To get there, take Santa Fe Route to Phoenix, A. T., via Prescott and the new line, S. F., P. & P. Ry. Address G. T. Nicholson, G. P. A., Monadnock Building, Chicago, for illustrated folders. They tersely tell the story of a remarkable country. Actual results are given—no guess-work or hear-say.

It is the Salt River Valley.

5 FACTS.

THE Great Rock Island Route Cheap Outing Excursions.

FIRST.—For the National Educational Meeting at Denver, opening July 5, the rate will be one fare plus \$2 for round trip. Tickets good to return any time up to and including September 1.

SECOND.—The regular Tourist Car to California via Kansas City runs once a week and leaves Chicago every Thursday at 6 p. m. Kansas City at 10:50 a. m. every Friday. Tickets based on second class rate, and car runs on fastest trains, and known as the Phillips-Rock Island Tourist Excursions. Car arrives at Colorado Springs, Saturday, 7:35 a. m.

THIRD.—Home-Seekers' Excursions to Texas and New Mexico. Rate, one fare for round trip. Tickets good twenty days.

FOURTH.—For Mexico City the Rock Island runs a Through Sleeper from Kansas City daily at 8:40 p. m., via Topeka, McFarland, Wichita and Fort Worth and Austin to San Antonio. Two Routes from there are—International R. R. to Laredo, and Mexican National to the City of Mexico; Southern Pacific and Mexican International via Spofford and Eagle Pass to City of Mexico. Connections are also made at Fort Worth via the Texas Pacific to El Paso, and over the Mexican Central to City of Mexico.

FIFTH.—Send to address below for a Souvenir called "The Tourist Teacher," that gives much information to tourists. Sent free.

JOHN SEBASTIAN, G. P. A., Chicago.

WELL MACHINERY

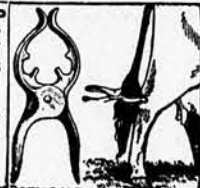
Illustrated catalogue showing WELL AUGERS, ROCK DRILLS, HYDRAULIC AND JETTING MACHINERY, etc. SENT FREE. Have been tested and all warranted.

SIoux CITY ENGINE & IRON WORKS.
(Successors to Pech Mfg. Co.)
SIoux CITY, IOWA.

1144 West 11th St., Kansas City, Mo.

VICTOR COW CLIP

Holds cow's tail to her leg and keeps it out of the milk and milker's face. All dealers sell it. 30c. Single; Four \$1. Sent by mail free on receipt of price by manufacturers, Victor Novelty Works, 832 Austin Av. Chicago



The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one dollar. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, Dr. S. C. Orr, Manhattan, Kas.

Dribbling Urine.—I have a mare that lost a colt, two years ago, and ever since her urine runs from her at times, and for the last month it has been so strong that it makes her legs sore where it strikes them. She also throws off a yellow matter. K. S. Edgerton, Kas.

Answer.—The dribbling of the urine is due to a paralyzed condition of the muscle which closes the neck of the bladder. The discharge of matter is due to an irritation inside of the womb, and must be treated by injecting remedies into the womb. This can only be done by passing a catheter or a rubber tube through the opening in the neck of the womb and injecting the medicines through it. The womb should be washed out twice a day with tepid water and each time inject a little of the following: Sugar of lead, 1 ounce; sulphate of zinc, 1 ounce; carbolic acid, 2 drachms; water, 3 pints. At the same time the mare should have, twice a day, a dose composed of 1 drachm each of sulphate of iron and powdered nux vomica. You had better put her in the hands of a veterinarian if you can.

As a rule, good and well-kept milch cows reach their teens before they begin to lose their usefulness.

If the farmers of the Northwest knew the truth about Alabama's climate and the possibilities of her soil, there would not be enough land to go 'round. Write D. H. ROGAN, Colonization Agent, Q. & C. R. R., Birmingham, Ala.

The Christian Endeavor Convention for 1895 will be held at Boston, Mass., in July, and the Nickel Plate Road has effected arrangements by which the lowest rates will be offered, either going or returning, by direct lines or returning by different routes. The following points of interest may be visited without extra charge: Chautauqua Lake, Niagara Falls, Thousand Islands, Rapids of the St. Lawrence, Saratoga, Palisades of the Hudson and the Hoosac Tunnel. For further information address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 71

The Knights Templar Conclave will be held at Boston, Mass., during August, and it will be of interest to Sir Knights and their friends to note that arrangements have already been successfully accomplished by the Nickel Plate Road, providing for the sale of excursion tickets over direct lines going and returning or by circuitous routes, viz., going one line and returning by another. By so doing many of the following notable resorts may be visited without additional expense: Chautauqua Lake, Niagara Falls, Thousand Islands, Rapids of the St. Lawrence, Saratoga, Palisades of the Hudson and the Hoosac Tunnel. The above arrangements will no doubt make the low-rate excursion tickets offered by the Nickel Plate Road very popular. Call on or address J. Y. Calahan, General Agent, 111 Adams St., Chicago. 76

Wool Market Notes.

Our advertisers, Silberman Bros., wool merchants, Chicago, say that their former prediction, "that wool will do better later on," is verified by the present improvement. They also believe that the Chicago market will realize the grower from 1 to 1½ cents more than any other market, because the product does not have to compete with foreign stock. They also think the best prices will prevail during July. Present Chicago quotations for Kansas and Nebraska wools are as follows: Fine (heavy), 7 to 8 cents; fine (choice), 8 to 9; fine medium, 9 to 11; medium, 10 to 12; low medium, 11 to 13; coarse, 10 to 11; cotted, etc., 8 to 10; black, 10 to 12.

The Nickel Plate Road has published a map of Boston, Mass., showing the location of the Christian Endeavor Convention hall and State headquarters of the fourteenth International convention, July 10th to 15th, and presenting the merits of their through Drawing Room Sleeping Car Line between Chicago and Boston. Write for a copy to any agent of the Nickel Plate Road or J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 72

MARKET REPORTS.

Kansas City Live Stock.
KANSAS CITY, June 17.—Cattle—Receipts since Saturday, 5,814; calves, 144; shipped Saturday, 382 cattle; 2 calves. The market was steady to strong. The following are representative sales:

live sales:

DRESSED BEEF AND SHIPPING STEERS.					
24.....	1,480	\$5.45	43.....	1,480	\$5.35
21.....	1,230	4.75	22.....	1,205	4.85
102.....	1,170	5.17½	42.....	1,337	5.10
6.....	1,221	5.01	113.....	1,180	4.81
41.....	1,178	4.60		1,090	4.50
22.....	1,127	4.50	4.....	1,092	4.50
39.....	1,177	4.45		795	4.40
37.....	1,107	4.00	20.....	1,143	4.15
TEXAS AND INDIAN STEERS.					
53.....	1,110	\$3.90	34.....	1,102	\$3.90
35.....	1,083	3.93	45.....	1,096	3.90
52.....	1,088	3.90	57.....	889	3.40
80.....	1,015	3.20	82.....	976	3.20

ARIZONA COWS.					
20.....	1,226	\$3.50		2.....	1,250 \$2.50
TEXAS AND INDIAN COWS.					
10 Ind.....	761	\$3.00		51 Ind.....	753 2.32½
24 Ind.....	786	2.32½		34 Ind.....	769 2.60
15.....	813	2.50		14.....	687 2.25
8 Ind.....	882	2.00		39.....	691 2.65

COWS AND HEIFERS.					
5.....	820	\$4.20	1.....	1,060	\$3.75
1.....	1,060	3.50	68.....	698	3.50
7.....	705	3.25	2.....	710	3.25
2.....	600	3.25	12.....	661	3.25
4.....	982	3.15	30.....	765	3.00
1.....	930	3.00	9.....	563	3.00
1.....	1,080	2.90	3.....	993	2.90
1.....	1,150	2.90	1.....	943	2.90
6.....	1,040	2.75	10.....	987	2.65
2.....	1,070	2.60	2.....	1,531	2.60

STOCKERS AND FEEDERS.					
20.....	996	\$3.85	24.....	519	\$2.42½
21.....	940	3.70	1.....	331	2.15
2.....	985	3.50	6.....	1,046	3.05
1.....	470	2.50	1.....	511	2.50

Hogs—Receipts since Saturday, 4,203; shipped Saturday, 641. The market was strong to 50 higher. The following are representative sales:

68.....	290	\$4.65	51.....	332	\$1.60	97.....	261	\$4.57½
70.....	200	4.57½	258.....	233	4.55	67.....	283	4.55
57.....	217	4.55	85.....	302	4.53	26.....	281	4.55
54.....	395	4.55	56.....	220	4.55	68.....	249	4.55
128.....	349	4.52½	58.....	220	4.50	61.....	243	4.52½
70.....	248	4.50	74.....	220	4.50	64.....	226	4.45
64.....	232	4.45	72.....	214	4.42½	63.....	222	4.42½
49.....	226	4.42½	61.....	202	4.42½	84.....	212	4.40
64.....	214	4.40	79.....	203	4.40	70.....	206	4.40
54.....	212	4.40	88.....	213	4.40	68.....	197	4.37½
76.....	201	4.37½	37.....	203	4.37½	50.....	199	4.37½
66.....	204	4.35	54.....	184	4.35	58.....	203	4.35
5.....	256	4.35	59.....	187	4.32½	76.....	187	4.30
69.....	193	4.25	86.....	164	4.20	4.....	204	4.20
55.....	172	4.15	2.....	161	4.15	4.....	147	4.10
10.....	131	4.00	36.....	136	4.00	23.....	132	4.00
21.....	155	3.95	52.....	125	3.85	7.....	118	3.75

Sheep—Receipts since Saturday, 2,647; shipped Saturday, none. The market was slow, but steady. The following are representative sales:

1.....	110	\$3.90	5.....	132	\$3.90
17.....	50	3.25	5.....	105	2.00

Horses—Receipts since Saturday, 13; shipped Saturday, none. The outlook at the horse and mule market this week is anything but bright. The dull season of the year is coming on and, with the discouraging eastern and southern markets, buyers do not feel disposed to buy.

Chicago Live Stock.
CHICAGO, June 17.—Cattle—Receipts, 10,500;

including 1,500 Texans; official Saturday, 136; shipments, 228; market steady to 100 higher.
Hogs—Receipts, 34,000; official Saturday, 3,589; shipments, 3,166; left over, 1,000; market fairly active, steady; light, \$4.30@4.60; mixed, \$4.40@4.75; heavy, \$4.40@4.85; rough, \$1.40@4.55.
Sheep—Receipts, 8,000; official Saturday, 8,617; shipments, 1,002; market firm; best grades 10c higher.

Chicago Grain and Provisions.

	June 17.	Opened	High'st	Low'st	Closing
Wht.—June....	73½	73½	73½	73½	73½
July....	74½	74½	74½	74½	74½
Sept....	74½	75½	75½	75½	75½
Corn—June....	48½	48½	48½	48½	48½
July....	48½	49½	49½	49½	49½
Sept....	49½	50½	50½	50½	50½
Oats—June....	28½	28½	28½	28½	28½
July....	28½	29	29	29	29
Sept....	27½	28½	28½	28½	28½
Pork—June....	12 35	12 35	12 35	12 35	12 35
July....	12 40	12 45	12 45	12 45	12 45
Sept....	12 70	12 75	12 82½	12 73	12 73
Lard—June....	6 52½	6 52½	6 52½	6 52½	6 52½
July....	6 60	6 62½	6 60	6 62½	6 62½
Sept....	6 80	6 82½	6 80	6 82½	6 82½
Ribs—June....	6 27½	6 27½	6 27½	6 27½	6 27½
July....	6 30	6 37½	6 30	6 35	6 35
Sept....	6 52½	6 63	6 52½	6 57½	6 57½

Kansas City Grain.

KANSAS CITY, June 17.—Wheat here was about 2c lower to-day. One or two elevator firms took the few samples on sale. There was almost no outside demand.
Receipts of wheat to-day, 26 c. rs.; a year ago, 39 cars.

Sales of car lots by sample on track, Kansas City: No. 2 hard wheat, 1 car 75½c; No. 3 hard, nominally, 74c; No. 4 hard, nominally, 72½c; No. 2 red, 2 cars 77½c; No. 3 red, 3 cars 77½c; No. 4 red, 1 car 75c; rejected, nominally, 73½c.

Corn was 1½ to 2c lower. The offerings were rather large. There was almost no order demand. Most of the samples were taken by elevator men. Many bids were still lower than the prices at which corn sold.

Receipts of corn to-day, 38 cars; a year ago, 169 cars.

Sales by sample on track, Kansas City: No. 2 mixed corn, 24 cars 43½c, 2 cars 43c; No. 3 mixed, nominally, 42½c@43c; No. 4 mixed, nominally, 42c; No. 2 white, 4 cars 44½c, 1 car 44c; No. 3 white, nominally, 43½c@44c.

Oats met with very little demand and bids were way below the ideas of sellers.

Receipts of oats to-day, 11 cars; a year ago, 7 cars.

Sales by sample on track, Kansas City: No. 2 mixed oats, nominally, 25½c@26c; No. 3 oats, nominally, 24½c@25c; No. 4, nominally, 24c; No. 2 white oats, 1 car 29c; No. 3 white oats, nominally, 27c@28c.

Hay—Receipts, 33 cars; market firm; timothy, choice, \$10.00; No. 1, \$8.50@9.00; No. 2, \$7.50@8.00; fancy prairie, \$8.50@9.00; choice, \$7.50@8.00; No. 1, \$7.00@7.50; No. 2, \$5.00@6.00; packing hay, \$3.50@4.50.

St. Louis Grain.

ST. LOUIS, June 17.—Receipts, wheat, 9,420 bu.; last year, 9,221 bu.; corn, 22,285 bu.; last year, 61,175 bu.; oats, 38,125 bu.; flour, 1,732 bbls.; shipments, wheat, 30,000 bu.; corn, 92,734 bu.; oats, 25,740 bu.; rye, 501 bu.; flour, 5,518 bbls. Closing prices: Wheat—Cash, 74c bid; June, 76½c; July, 75½c; September, 74½c. Corn—Cash, 45½c; June, 45½c; July, 45½c; September, 47½c. Oats—Cash, 28½c; June, 28½c; July, 27½c; September, 27½c.

Kansas City Produce.

KANSAS CITY, June 17.—Eggs—Receipts light; candled stock, 90 per dozen.

Poultry—Market steady on hens and eastern advices indicate a weaker feeling on springs. Hens, 6c; springs, fair to good, 14c per lb.; good to choice, 15c; fancy and large, 2 lbs. and over, 16c per lb.; "peepers" not wanted; roosters, 15c. Turkeys sell lowly; gobblers, 5c; hens, 6c. Ducks, 5½c@6c. Geese, old and not wanted; alive, 3½c@4c. Pigeons, firm; \$1.25 per doz.

Butter—The recent rains will bring in a great supply of country butter. Extra fancy separator, 15c; fair, 12½c@13c; dairy fancy, 11c; fair, 9½c@10c; store packed, fresh, 8½c.

Fruit—Apples, supply moderate; market steady on good apples; best fancy stand, \$5.00@7.00; common to choice varieties, \$2.00@4.00; Arkansas apples, supply heavy, 15¢@40¢ per ½ bu. box. Texas plums, sand hill, 75¢@1.00 per crate; thirds, 35¢@50¢; wild goose, \$1.00@1.50 per crate; 50¢ per 1-3 bu. California peaches, 50¢@1.00 per box. California cherry plums, \$1.75 per box. Clyman plums, \$1.75@2.00 per box. California cherries, 50¢@1.50 per 10-lb. box. Strawberries, scarce, \$1.75@2.25 per crate. Raspberries, supply heavy, market steady, \$1.15@1.25 per crate. Blackberries, supply fair, \$1.25@1.50 per crate. Huckleberries, demand slow; fresh, \$1.25@1.75 per crate. Gooseberries, \$1.00@1.50 per crate. Currants, growing scarce and firm, \$2.00@2.25 per crate. Cherries, \$1.50@2.00 per crate.

Vegetables—Potatoes, new, \$1.00@1.25 per bbl.; 3½¢@5c per bu.; Colorado, market firm, 75¢@80c per bu.; good to choice, 65¢@70c; common to good, 50¢@60c. Sweet potatoes, slow; red and yellow, 25¢@30c per bu.

THE STRAY LIST.

FOR WEEK ENDING JUNE 5, 1895.

Montgomery county—Jno. W. Glass, clerk.

HORSE—Taken up by F. W. Spencer, in Caney tp., May 13, 1895, one roan horse, branded W. on left shoulder.

HORSE—By same, one iron-gray horse, branded S. on left shoulder.

MARE—Taken up by G. L. Carrinder, in Caney tp., May 10, 1895, one black mare, fifteen and a half hands high, silt in right ear.

HORSE—By same, one bay horse, fourteen hands high, branded H. on right shoulder.

COLT—Taken up by W. N. Adams, in Fawn Creek tp., one black two-year-old horse colt, branded P. on left shoulder, silt in left ear and string tied around tail.

COLT—By same, one dark roan colt, some white on hind foot.

COLT—Taken up by Chas. W. Wheeler, in Fawn Creek tp., one two or three-year-old strawberry-roan mare colt.

FOR WEEK ENDING JUNE 12, 1895.

Cherokee county—P. M. Humphrey, clerk.

MARE—Taken up by I. N. Conard, in Neosho tp., two and a half miles south of Faulkner, April 28, 1895, one bay mare, fourteen and a half hands high, O on left fore foot and O on right hind foot.

COLT—By same, one brown horse colt, one white spot on back and small white spot back of ears, branded B on right hip; the two valued at \$30.

MARE—Taken up by G. W. McBride, in Lola tp., one black mare, 7 years old, small white star in forehead, cut in left fore foot, saddle marks on back; valued at \$35.

COLT—By same, one bay mare colt, 2 years old, white strip in forehead, scar on neck, scar on left hip; valued at \$15.

Miami county—Jas. E. Caton, clerk.

HEIFER—Taken up by T. W. Officer, in Marvillville tp., May 28, 1895, one red heifer, about 2 years old, some white in forehead, left horn little down, no marks or brands; valued at \$15.

Atchison county—Chas. H. Krebs, clerk.

HORSE—Taken up by George Highfill, in Mt. Pleasant tp. (P. O. Farnell), May 20, 1895, one brown horse, 3 years old, two white hind feet, left fore foot white, white strip in face, about fourteen hands high; valued at \$20.

Anderson county—J. T. Studebaker, clerk.

STEER—Taken up by Wm. Hopkins, in Jackson tp., one red steer, about 3 years old, brush of tail white, branded on left hip with straight mark about three and a half inches long, dehorned; valued at \$30.

Douglas county—F. D. Brooks, clerk.

MARE—Taken up by C. A. Hallstrom, in Clinton tp. (P. O. Belvoir), May 16, 1895, one iron-gray mare, no marks or brands visible, neck had appearance of having been sweetened; valued at \$20.

FOR WEEK ENDING JUNE 19, 1895.

Coffey county—T. N. Bell, clerk.

MARE—Taken up by R. H. Happy, in Pottawatomie tp., May 7, 1895, one gray mare, 3 years old, no marks or brands; valued at \$20.

Cheyenne county—G. Beukelman, clerk.

MARE—Taken up by O. P. Edmonds, in Calhoun tp. (P. O. St. Francis), May 17, 1895, one brown mare, fourteen and a half hands high, about 6 years old, crop off right ear, branded P on left shoulder; valued at \$25.

MARE—By same, one bay mare, fifteen hands high, about 6 years old, branded P on left shoulder; valued at \$25.

MARE—By same, one bay mare, fifteen hands high, about 9 years old, branded P on left shoulder, valued at \$25.

STALLION—By same, one sorrel stallion, 2 years old, fourteen hands high, white strip in face; valued at \$20.

Rawlins county—A. K. Bone, clerk.

MARE—Taken up by Peter Peterson, in Jefferson tp. (P. O. Achilles), May 31, 1895, one light iron-gray mare, 8 years old, height five feet, right hind foot white, silt in right ear, no marks or brands; valued at \$12.

HORSE—By same, one iron-gray horse, 5 years old, five feet high, left hind foot white, lump on right side of nose, no marks or brands; valued at \$14.

Douglas county—F. D. Brooks, clerk.

MARE—Taken up by August H. Boehle, in Willow Springs tp., May 23, 1895, one mare, between bay and roan in color, about 8 years old, about fifteen hands high, both hind feet white, white spot in forehead; valued at \$30.

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The Poultry Yard.

THE EGG INDUSTRY.

World Owes a Large Debt to the Modest But Industrious Hen.

Chicago owes a large debt to the hen, considering the fact that the city consumes from \$8 to \$15 worth of eggs every minute. Last year Chicago used the enormous amount of 313,542,000 eggs.

The magnitude of the egg product of the United States is vaguely understood by those not directly in the trade. The leading cities of the country consumed 600,000,000 dozens last year. Laying them end to end they would form a line 170,434 miles long. In other words, they would stretch around the world over seven times, and would go around it once forming a band fourteen inches wide. The product handled for daily consumption last year at an average price of 17 cents a dozen makes a total of over \$100,000,-



000, while the value of the wheat crop was less than \$300,000,000.

Eggs are used in many ways that the general public seldom thinks of. If the hen should stop laying not only would the gourmand suffer, but the arts would come in for a large share of hardship. The number of eggs used by photographers, artists, painters and paper hangers, bookbinders and chemists, and in the mechanical arts in general, is something enormous.

Even the poor, despised bad egg has come to be a necessity for certain uses other than those of the stage. A few years ago it was discovered that the yolk and decayed parts made the finest of preparations for finishing leather. When properly worked up the bad egg is barreled and sent to France, Germany and other countries, to say nothing of large quantities used at home. It has become indispensable to morocco and kid dressers as well as to glove manufacturers. The proportion of bad eggs coming into Chicago has been reduced to a minimum since the candling system has come into vogue. This has been reduced to almost a science. Experts are required for the work. Before being shipped to the city markets the eggs are taken into a dark room and examined in front of a candle. By this means any spots showing signs of decay are discovered and only good ones are sent to market, thus saving the freight on poor stock, while the housewife is saved annoyance.

In the early days of the commercial history of eggs farmers employed primitive methods for the preservation of eggs in store for the winter months, when the supply is almost cut off and the market price abnormally high. In January the price often used to run as high as 50 and 60 cents a dozen, while in the spring and early summer the supply was a drug and dear at from 4 to 8 cents. The eggs were packed in oats or sawdust and also in preserving fluids. This process was far from satisfactory. The preserving fluids had a tendency to weaken the shells. A process came into use by which the eggs were dried by artificial heat and ground up into the shape of meal for packing. Such egg meal found favor with bakers and was practicable for use on ocean vessels.

The cold storage system of preservation was hit upon as the most successful, and it has assumed vast proportions, millions of dollars being expended in plants. Chicago has several of the largest concerns of the kind in the country. The old method of using ice is being gradually dispensed with in view of the improved facilities of the big storage houses. Chicago has sufficient capacity to hold 230,000,000

eggs at one time. Notwithstanding alleged discoveries by which eggs can be manufactured no process has been found successful up to date. No egg has ever been manufactured except at a greater cost than the production of the natural one.—Chicago Tribune.

Poultry Facts in a Nutshell.

Give the hens sweet milk to drink. It promotes laying and health. Turkey eggs hatch best on the ground, where it is warm and dry. Keep sitting nests well dusted with insect powder and rub a little sweet oil on the hens' heads once a week. Put all of the poultry out of the poultry house, then place a little sulphide of carbon in a shallow dish, go out and shut the house up tight, leave it twenty-four hours, then open and ventilate. Be careful of fire or light, for the gas is highly explosive. Whitewash all the premises. Keep things clean and wholesome. Keep lice away.—Ohio Farmer.



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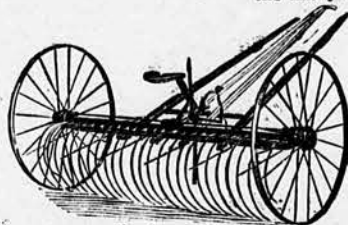
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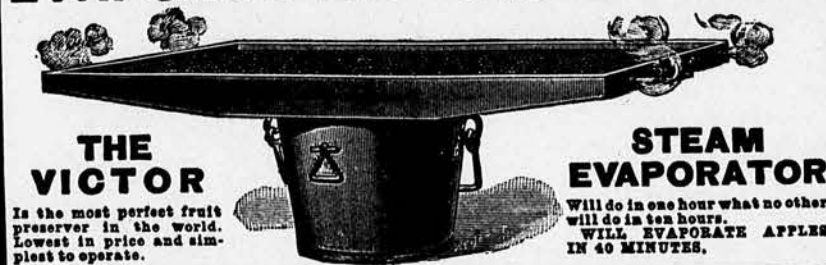
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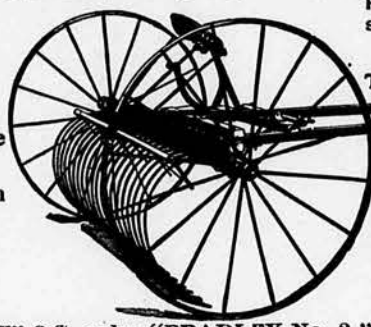
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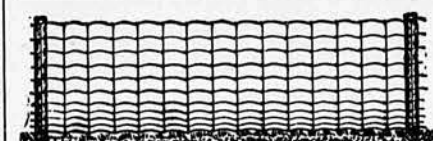
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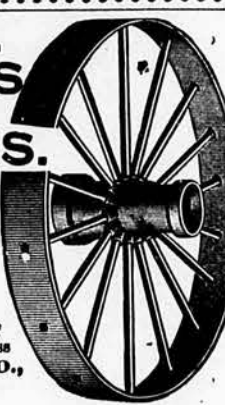
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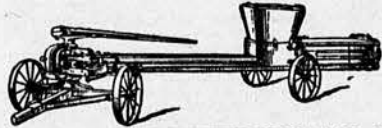


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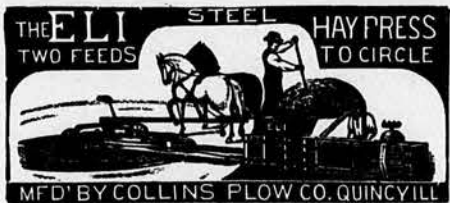
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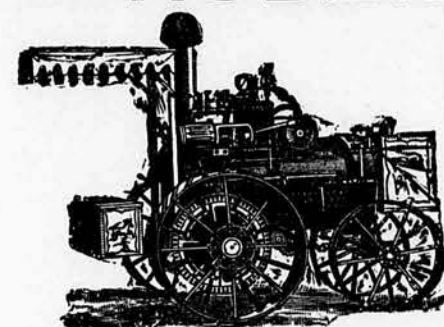
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I have excellent farms in Rooks county, Kansas, for sale, way down below their value. Will sell on contract for one-tenth down and one-tenth yearly, or will give deed if one-fourth or more is paid down. Write for particulars and state how much you can pay down and how you want the balance of payments. I also have several unimproved farms in central Nebraska and one large body of over 7,000 acres. I have a finely improved ranch of 1,440 acres in Rooks county, Kas. Any or all of above will be sold very low, or might exchange part or all of it for good improved property in Chicago or vicinity. Address

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2509 Farnam St., OMAHA, NEB.

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And all Diseases of the Rectum cured by Drs. THORNTON & MINOR, Kansas City, Mo. without knife, ligature or caustics—no fee accepted 'till patient is cured. Other Specialties: Diseases of the Skin and Women. Ask for our circulars. They contain testimony from leading business men and high officials—tell how to avoid quacks, sharpers and doctors who ask for fees or a note in advance. OFFICES: 30-31-33 Bunker Building, 100 West Ninth Street.

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California

is told in a beautifully illustrated book entitled "To California and Back." Ask G. T. Nicholson, G. P. A., Santa Fe Route Topeka, Kas., for a copy. It is free.

Personally - conducted weekly parties leave Chicago every Saturday evening, and Kansas City every Sunday noon, for Pacific Coast, via Santa Fe Route. Special agents and porters in attendance. Pullman tourist sleepers are used, furnished with all conveniences for comfortable traveling. Second-class tickets honored.

You have been planning that California trip for several years. Why not go now, and take advantage of cheap rates? Santa Fe Route is positively the only line with Pullman tourist and palace sleepers, Chicago and Kansas City to San Francisco and Los Angeles, daily without change.

FLORIDA.

Through Sleeping Cars Kansas City to Jacksonville.

Commencing Sunday, November 18 1894, the MEMPHIS ROUTE, Kansas City, Fort Scott & Memphis Railroad, will inaugurate a through sleeping car line, Kansas City to Jacksonville, via Memphis, Birmingham, Atlanta and Macon, arriving at Jacksonville at 9:45 a. m., making close connections there for all points in South Florida. The cars in this line will be strictly first-class in all their appointments and will run every day in the week, leaving Kansas City at 10:30 a. m.

For rates and full information, address **J. E. LOCKWOOD, G. P. A.,**
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THE GREAT ROCK ISLAND RY.

THE FAVORITE ROUTE TO THE East, West, North, South.

Through cars to Chicago, St. Louis, Colorado, Texas and California.

Half Rates to Texas Points!

LOW RATES TO ALL POINTS.

Especially California, Texas and Southeastern Points. If you are going to the Midwinter Fair at San Francisco, if you are going to Texas, if you are going East on business or pleasure—in fact, if you intend to do any traveling, be sure to consult one of the agents of the

Great Rock Island System

JOHN SEBASTIAN,
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SOLID THROUGH TRAINS FROM

KANSAS CITY TO ST. JOSEPH

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Dining Cars

Vestibuled Drawing Room Sleeping Car

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ONLY ONE CHANGE OF CARS

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THE BEST LINE FOR

NEW YORK, BOSTON,

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BREEDERS' DIRECTORY.

(Continued from page 1.)

SWINE.

MARTIN MEISENHEIMER,
Registered Poland-China Swine.
Hiawatha, Brown Co., Kas.

20 brood sows, headed by Tecumseh Free Trade 10783 S., assisted by a son of Benton's Last 8827 S. Some of best females bred to Butler's Darkness, Black U. S. Nemo (Vol. 9) and Victor M. Jr. (Vol. 9) Annual Clearance Sale, September 18, 1895.

P. A. PEARSON

Kinsley, Kansas,
Breeder of

Poland-China Swine

All ages for sale. Herd headed by Dandy Jim Jr. and Royalty Medium, a son of Free Trade.

JOHN A. DOWELL'S HERD
REGISTERED POLAND-CHINA SWINE.
Robinson, Brown Co., Kas.

130 head, all ages, headed by Onward 8861 S., sired by George Wilkes. He is assisted by Tecumseh Wilkes, sired by General Wilkes 21927. The females belong to the best strains. Come or write.

BROWN COUNTY HERD,**PEDIGREED POLAND-CHINAS.**

ELI ZIMMERMAN, Hiawatha, Kas.

46 brood sows in herd, headed by Black U. S. Nemo Vol. 9, Model Wilkes (Vol. 9), Sunset Chip (Vol. 9) and Billy Bundy (Vol. 9). Female lines: All Right, Short Stop, King L. L. Wilkes, Free Trade, Wannaker. Aged sows, bred gilts and fall pigs for sale.

ROYAL HERD

POLAND-CHINAS and **Plymouth Rocks.** Herd headed by Cunningham's Choice 18731, from the herd awarded grand sweepstakes at World's Fair on boar and sow; Royal King 11874. My sows are royal-bred. Ward A. Bailey, Callista, Kingman Co., Kas.

D. W. EVANS' HERD**REGISTERED POLAND-CHINAS.**

FAIRVIEW, BROWN CO., KAS.

250 head headed by Swi Tecumseh 11929 S., by L. A. Tecumseh 11418 S. and Billy Wilkes 9369 S., by George Wilkes 5560 S. A public clearance sale on Thursday, February 14, 1895, of 75 sows bred to these and other noted boars. Inspection invited.

ROCK QUARRY HERD.

N. E. MOSHER & SON, SALISBURY, MO.
Fifteen choice Poland-Chinas sows bred to Mosher's Black U. S. and Faultless Wilkes for sale; ten choice young boars ready to go; six young Hereford bulls. Also eggs for sale from Black Langshans scoring 94 to 95% and from a choice lot of Light Brahmas and Mammoth Bronze turkeys.

R. S. COOK

Wichita, Kas.,
Breeder of

Poland - Chinas.

Won seven prizes at World's Fair—more than any single breeder west of Ohio.

BLACK U. S. AND WILKES

300 head, registered or eligible. Boars in service, Modest Duke 12653 S., Wilkes Tecumseh 11763 A., White Face 12681 O. and Osgood 1 Dandy Wilkes 12709 S. 60 young boars; 80 gilts.
J. R. CAMPBELL & SON,
Avilla, Jasper Co., Mo.

DOGS.

HIGHLAND KENNELS, TOPEKA, KAS.—Great Danes and Fox Terriers. The first prize and sweepstakes winner, Great Dane King William, in stud. Dogs boarded and treated for all diseases; also, remedies by mail. Correspondence solicited.

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D. R. 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.

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Refer to the best breeders in the West, for whom I do business. Prices reasonable and correspondence solicited.

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Sales made everywhere. Refer to the best breeders in the West, for whom I sell. Satisfaction guaranteed. Terms reasonable. Write before claiming dates. Mention KANSAS FARMER.

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Pedigreed and registered live stock a specialty. Write for dates. Sales conducted anywhere in the country. Best of references and satisfaction guaranteed.

C. A. SAWYER, FINE STOCK AUCTIONEER—Manhattan, Riley Co., Kas. Have thirteen different sets of stud books and herd books of cattle and hogs. Compile catalogues. Retained by the City Stock Yards, Denver, Colo., to make all their large combination sales of horses and cattle. Have sold for nearly every importer and noted breeder of cattle in America. Auction sales of fine horses a specialty. Large acquaintance in California, New Mexico, Texas and Wyoming Territory, where I have made numerous public sales.

Kansas Tannery.

ESTABLISHED IN 1889.

Does a general tanning business, including robes, rugs, etc. Tanning Galloway hides for robes a specialty. First-class work, reasonable prices. All kinds of leather in stock—best quality. Have you any oak bark? Good prices paid for it. Write me.
M. C. BYRD, Lawrence, Kas.

The Western Trail

Is published quarterly by the Chicago, Rock Island & Pacific Railway.

It tells how to get a farm in the West, and it will be sent to you gratis for one year. Send name and address to "Editor Western Trail, Chicago," and receive it one year free.

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TWO-CENT COLUMN.

"For Sale," "Wanted," "For Exchange," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order.
Special 1—All orders received for this column from subscribers, for a limited time, will be accepted at one-half the above rates, cash with order. It will pay. Try it!

STOCK HOGS FOR SALE.—Sixty head at 4 cents per pound. Address L. Lemert, Arkalon, Seward Co., Kas.

FOR SALE AT HALF PRICE.—Very choice Indian Game hens. Hatch of 1894. W. V. Church, Marion, Kas.

WRITE—To Alex. Richter, Hollywood, Kas., for information concerning sub-irrigation. Enclose 2-cent stamp for reply. Manufacturer of galvanized sub-irrigation pipe.

FOR A GOOD HAND-SEWED BUCK, CALF OR kid glove or mitten, address Mrs. Ed. Warner, Lexington, Clark Co., Kas. Reference: KANSAS FARMER.

HAY, GRAIN, POTATOES.—Consignments solicited. Vining & Snyder, 1130 12th St., Kansas City, Mo. Reference, Metropolitan National Bank.

PET RABBITS—BLACK AND WHITE.—Fifty coveys per pair. Can be sent by express to any point in Kansas or other State. Address Lucile McAtee, 314 West Fifth St., Topeka, Kas.

HOLSTEIN BULL.—Three years old, of extra quality and breeding, for sale for much less than he is worth. H. B. Cowles, Topeka, Kas.

500,000 SWEET POTATO PLANTS.—For sale during the months of May and June. Ten best kinds at very low rates. N. H. Pixley, Wamego, Kas.

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BERDEEN-ANGUS BULLS.—Sired by the \$850 Erica Boy and out of imported cows. Two and three-year-olds. Individually very choice. Wm. B. Sutton & Son, Russell, Kas.

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

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

LIGHT BRAHMAS AND S. L. WYANDOTTES.—L Eggs from pure Foch strain Light Brahmas and selected S. L. Wyandottes at \$1 per fifteen or \$1.75 per thirty. Wm. Plummer, Osaage City, Kas.

THE FINEST HONEY.—Is gathered from alfalfa and clover blossoms. You can buy it of the bee-keeper, cheap and in any quantity, by freight, and know it is genuine. Address Oliver Foster, Las Animas, Colo.

BERKSHIRE SOWS.—Safe in pig to imported Lord Comely. Individually and breeding the best. Wm. B. Sutton & Son, Russell, Kas.

FOR SALE.—The tried and grand breeding boar, Kansas King 8911 S., sired by Dandy Jim 8442 S. and out of Broadback (1912). Registered and He is a desirable-bred hog, extra good in conformation, having broad back and extra good ham. Sunny Slope Farm, Emporia, Kas.

THREE HOLSTEIN BULLS.—A two-year-old, a yearling and one 6 months old. Registered and belong to the Kansas fair. For further particulars write H. L. Liebfried, Emporia, Kas.

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

IRRIGATION PUMPS.—For prices of irrigation pumps write to the editor of KANSAS FARMER.

40 POLAND-CHINA FALL OF 1894 PIGS.—Both sexes, for sale, sired by Riley Medium 12306 and Tecumseh J. Corwin 1074. Cannot well use the latter boar longer, hence will sell him. E. T. Warner, Princeton, Franklin Co., Kas.

WANTED.—Buyers for Large English B. kashires. One hundred pure-bred pigs, farrowed in March and April, are offered for sale at from \$10 to \$15 each. Farm two miles west of city. Riverside Stock Farm, North Topeka, Kas.

250 Farms for Sale.—On eastern shore of Maryland and Virginia. Climate mild. Land cheap and productive. Send stamp for descriptive price list and map of peninsula. F. H. Dryden, Pocomoke City, Maryland.

Write for Information of the

Sunny Grand Valley of Colorado

The Home of the Peach and other Delicious Fruits. The land of perpetual sunshine, where there are neither blizzards, cyclones, nor malaria; where the fruit crop never fails, and the farmers are prosperous and happy.

THE WESTERN LAND & ORCHARD CO.
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Farmers, Spay Your Sows

Mares, Cows and Gilt Dogs with Howsley's Spaying Mixtures. No knife, no deaths. Easy to use and absolutely sure. Price, large bottle with syringe, \$3; small bottle \$1, syringe 25 cents extra. Large bottle spays thirty to fifty head of sows. Write us for testimonials and particulars. Corresponding office, New Orleans, La. Sole manufacturers
THE HOWSLEY SPAYING CO. L.T.D.,
Kansas City, Mo. New Orleans, La.

\$47.50

Standard Make (National Carriage-Makers' guarantee). 15-16 in. drop axle, 3/4 in. wheel, end spring, piano box Buggies, with leather quarter top, delivered at your station for \$47.50 with shafts, \$50 with pole. A nice new job, cheaper than ever before. Your dealer would charge you \$80 for one of equal quality. Upon receipt of \$10 will ship the above to any point in Missouri, Kansas or Oklahoma Territory, for inspection, draft for balance to follow with bill of lading. If not wanted, money in excess of freight refunded. Address
GEORGE BURNED (Vehicle Broker),
Station A., Kansas City, Mo.

All styles of vehicles handled. Carts as low as \$10 and road wagons \$30. Buy direct and save money. Reference: Union Avenue Bank of Commerce.

FRUIT EVAPORATOR

THE ZIMMERMAN
The Standard Machine
Different sizes and prices. Illustrated Catalogue free.
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WANTED
MILLET SEEDS
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J. G. Peppard
1400-2 Union Avenue,
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Catalogues of Cherry Orchard Poland-Chinas

Will be ready for free distribution about June 1, that will show the breeding of about 120 spring pigs sired by the two highly-bred boars, Corwin Whiteface 9924 and Wren's Medium 12387, and out of as fine a lot of matured sows as can be found in any herd, East or West, and will be priced as low as their breeding and quality will allow. Correspondence and inspection invited.

W. H. WREN, Marion, Marion Co., Kansas.

THE UNION STOCK YARDS, CHICAGO.

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

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

The Greatest Horse Market in America, the Dexter Park Horse Exchange.

N. THAYER, President. **JOHN B. SHERMAN,** Vice President and Gen. Manager. **J. C. DENISON,** Secretary and Treasurer.

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The Kansas City Stock Yards

are the most complete and commodious in the West,

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

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts, 1894.....	1,772,545	2,547,077	589,555	44,237	107,494
Slaughtered in Kansas City.....	359,646	2,050,784	387,570		
Sold to feeders.....	308,181	11,496	69,816		
Sold to shippers.....	409,965	468,616	45,780		
Total sold in Kansas City, 1894.....	1,677,792	2,530,896	503,116	28,903	

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

NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.

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