

KANSAS FARMER

ESTABLISHED 1863.
VOL. XXXI, No. 23.

TOPEKA, KANSAS, WEDNESDAY, JUNE 7, 1893.

SIXTEEN TO TWENTY
PAGES—\$1.00 A YEAR.

TABLE OF CONTENTS.

PAGE 2—THE STOCK INTEREST.—Problems of the Cattle Industry. Medium Hog. A Public Sale of Short-horns and Poland-Chinas. An Old-Time Short-horn Sale.
PAGE 3—AGRICULTURAL MATTERS.—My First Fish Pond. Prices of Wheat for Three Centuries. Fall Sowing Alfalfa.
PAGE 4—THE FARMER'S FORUM.—Railroad Control a National Question.... Publications of the United States Department of Agriculture for May.
PAGE 5—THE HORSE.—Clydesdales at the Columbia. Horse Markets Reviewed. Breeding and the Terms Used by Breeders.... Stock Gossip.
PAGE 6—THE HOME CIRCLE.—The Christian Martyr (poem). A Trip to Florida. Strawberries—Several Excellent Ways of Serving. Docking.
PAGE 7—THE YOUNG FOLKS.—Sweet Petunias (poem). The Story of Jim. Success With Flowers. Bones' Duck. The Bed of the Atlantic. A Thankless Sinner. Peter, the "Mint Bird."
PAGE 8—EDITORIAL.—The Kansas Grain Company. Will Chemistry Supersede Agriculture? May Fall Back on Greenbacks. More Worlds to Discover.
PAGE 9—EDITORIAL.—Thou, Too, Pennsylvania. The Low Price of Grain. Plant Corn, Broomcorn or Forage Crops. Weekly Weather-Crop Bulletin. Weather Report for May, 1893. Publishers' Paragraphs.
PAGE 10—HORTICULTURE.—Pruning Fruit Trees for Blight. Summer Pruning of Grape Vines.... ENTOMOLOGY.—Insecticides and Their Use.
PAGE 11—IN THE DAIRY.—The Soy Bean Test. Experiments in Feeding Dairy Cows.... THE POULTRY YARD.—A Plum Orchard. Young Chicken Feed. Incubators. Feeding Turkeys. Poultry Notes.
PAGE 12—THE APIARY.—Bees and Honey.... THE FAMILY DOCTOR.—The World's Medical Congress.
PAGE 13—THE VETERINARIAN.... Market Reports.

BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeder's Directory for \$15.00 per year, or \$8.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

HORSES.

PROSPECT STOCK FARM.—Registered, imported and high-grade Clydesdale stallions and mares for sale cheap. Terms to suit purchaser. Thoroughbred Short-horn cattle for sale. Two miles west of Topeka, Sixth street road. H. W. McAfee, Topeka, Kas.

BRIGHTSIDE STOCK FARM.—Work horses for sale. Young, high-grade draft and roadsters for city and farm use. Call on or address C. C. Gardner, Bradford, Wabunsee Co., Kas.

CATTLE.

HOLSTEIN-FRIESIAN CATTLE.—Consul Gerben 4304 H. F. H. B. at head of herd; butter record of dam thirty-two pounds in seven days. Herd numbers fifty head of all ages. Any number of the herd for sale. H. V. Toepfer, Stockton, Kas.

HOLSTEINS.—Rutger Farm, Russell, Kas. Highly bred and excellent individuals—the Anglie family.

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

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

BROOKDALE HERD RED POLLED CATTLE.—Oldest and largest registered herd in the West. Prize-winners at five State fairs in 1892. Young stock for sale. Address Wm. Miller's Sons, Wayne, Neb.

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.

HOLSTEIN-FRIESIAN CATTLE.—Mechthilde Sir Henry of Maplewood heads the herd. Dam Mechthilde, the world's butter record 39 lbs. 10 1/2 oz. in seven days. Have in herd May Averton 2810 H. F. H. B., 34 lbs. 8 oz., Gerben 1080 D. F. H. B., 32 lbs., and others. First prizes at eight State fairs in 1892. Write or come. C. F. Stone, Peabody, Kansas.

GALLOWAY CATTLE.—Kansas City Herd. Over 500 head in herd. The largest in the world. Young stock, both sexes, for sale. M. R. Platt, Kansas City, Mo.

SWINE.

D. TROTT, Abilene, Kas.—Pedigreed Poland-Chinas and Duro-Jerseys. Of the best Cheap.

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

TOPEKA HERD OF LARGE BERKSHIRES.—Young boars ready to use. Choice weanling pigs. Ten-pound Pekin ducks. H. B. Cowles, Topeka, Kas.

SWINE.

MAINE HERD OF POLAND-CHINAS.—James Maine, Oskaloosa, Jefferson Co., Kas. Selected from the most noted prize-winning strains in the country. Fancy stock of all ages for sale.

JOHN KEMP, North Topeka, Kas., breeder of improved Chester White swine and Light Brahma chickens. Stock for sale and eggs in season.

POULTRY.

H. H. HAGUE, Walton, Kas., breeder of recorded Poland-China hogs, Cotswold and Merino sheep. Twenty varieties of land and water fowls. Stock for sale. Eggs in season. Stamp for reply.

TURKEY POULTRY YARDS.—L. E. Pixley, Emporia, Kas., breeder of Plymouth Rocks, S. Wyandottes, Buff Cochins, B. and W. Leghorns, B. Langshans and Pekin ducks. Write for prices.

PURE-BRED LANGSHAN AND BARRED PLY-mouth Rock eggs, one dollar per dozen. Address Robert Crow, Missouri Pacific Railway Agent, Pomona, Kas.

MAMMOTH BRONZE TURKEY EGGS, also B. Minorcas, Indian Games and Langshans. S. J. B. Dunbar, Elkhorn, Wis.

WHITE HOLLAND TURKEYS—\$3 each; eggs \$2 per dozen. Plymouth Rock fowls \$2 each; eggs \$1 per dozen. White guinea eggs \$1 per dozen. Mark S. Salisbury, Independence, Mo.

ZACHARY TAYLOR, Marion, Kas.—S. C. Brown and White Leghorns, of Munger, McCane, Hensford and Knapp strains; S. L. Wyandottes; R. P. Rocks, combination Felch, Munger and McCane strains; Black Langshans. Eggs, \$1.25 per 15.

A. B. DILL, Edgerton, Kas., breeds the finest of B. P. Rocks, S. Wyandottes, Lt. Brahmas, B. and S. C. B. Leghorns, M. B. Turkeys, etc. Eggs \$1 to \$3 per setting. Satisfaction guaranteed.

CHOICE S. C. BROWN LEGHORN EGGS—Fourteen for \$2.25, \$3, \$4. Well packed in light boxes. Stamp for reply. Belle L. Sprout, Frankfort, Marshall Co., Kas.

I HAVE THE EGG MACHINES.—Thoroughbred stock. The Bufts have come to stay. I will sell eggs from large Buff Leghorns, \$2.50; White Minorcas and S. Wyandottes, \$1.50 per 15. F. H. Larrabee, Hutchinson, Kas.

CUT PRICES ON EGGS!

From \$3 and \$5 per setting to \$1.50, or two settings for \$2, for B. Langshans and Buff Cochins, and W. C. B. Polish \$2 per setting. Fourteen other varieties of eggs from prize-winners. Greatest yards known. Stock for sale. Send stamp for illustrated circular. H. E. Gavitt & Co., Topeka, Kansas.

CHICKEN-HATCHING BY STEAM

IMPROVED VICTOR INCUBATOR.—Simple, easy of operation, self-regulating, reliable, fully guaranteed. Send for full catalogue. Geo. Kriel & Co., Mfrs. Quincy, Ill. U.S.A.

THE COMING FENCE,

Is the title of another Hustler "poem." Here is one verse:

"Other fences there will be,
But no one can fail to see
That 'gainst this they stand no show to win the day.
They lack the essential thing,
The self-regulating spring
Which defeats expansion and contraction in a scientific way."

Send for a copy.
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

NOTICE TO IMPORTERS

INTERPRETER AT THE HOTEL.

PARIS, FRANCE.
53 RUE DE PROVENCE.
Near the banks, shipping offices and principal business places.
Charges strictly moderate.
All information concerning the Horse districts, Jacks and Jennets, given at the office. Correspondence solicited.

STEHR'S SON & CO., Proprietors,

Have the pleasure of informing their numerous patrons that they have a splendid Catalogue of Photographs of all kinds of Stallions, from all countries, that they will gladly send to all importers and horsemen upon application to 55 Rue de Provence, Paris, France.

All horses which are bought are photographed.

JACKS AND JENNETS.

In writing to our advertisers please say you saw their advertisement in the KANSAS FARMER.

W.W. SUMMERS.
J.L. MORRISON.
SUMMERS MORRISON & CO.

Produce Commission Merchants, Chicago, Ill.

SWINE.

CHAMPION HERD POLAND-CHINAS.—All sold except a few fall pigs and am now booking orders for spring pigs, of which I have a fine lot on hand. R. S. Cook, Wichita, Kas.

QUALITY HERD POLAND-CHINA SWINE.—Headed by Seldom Found 23087 O. 7515 S. Kiever's Chip Vol. 78. Fashionably-bred pigs for sale. Partridge Cochins fowls. Willis E. Gresham, Burton, Kas.

BERKSHIRE

G. W. BERRY, Berryton, Shawnee Co., Kansas. Longfellow Model, winner of first in class and sweepstakes at Kansas City, at head of herd. Orders booked now for spring.

PIGS.

W. W. WALTWIRE, Carbondale, Kas., breeder of improved Chester White swine and Light Brahmas and P. Rock chickens. Stock for sale. Correspondence invited.

ASHLAND STOCK FARM HERD OF THOR-oughbred Poland-China hogs, contains animals of the most noted blood that Ohio, Indiana and Illinois contains. Stock of both sexes for sale sired by Bayard No. 4893 S., assisted by two other boars. Inspection of herd and correspondence solicited. M. G. Vansell, Muscatine, Atchison Co., Kas.

PLEASANT PRAIRIE HERD.—COLTHAR & LEONARD, Pawnee City, Neb., breeders of

POLAND-CHINA SWINE.
THIRD ANNUAL SALE
October 18, 1893.

SWINE.

KAW VALLEY POLAND-CHINA SWINE CO.—200 pigs from four grand boars. Send stamp for circulars. Address M. F. Tatman, Rossville, Kas., or the Company, at Lawrence, Kas.

BERKSHIRES.—Rutger Farm, Russell, Kansas. Spring pigs—splendid quality. Sows bred to farrow in June, July, August and September. It will pay you to price them before you buy.

CATTLE AND SWINE.

M. H. ALBERTY, Cherokee, Kas. Registered Holstein-Friesian cattle. Choice lot of bull calves from choice cows and sired by the noted bull, Lord Clifden's Kloster No. 17033.

J. H. TAYLOR, Pearl, Dickinson Co., Kas., BREEDER OF HORNS, Poland-Chinas and Bronze turkeys.

SHEEP.

SAM'L JEWETT & SON, Proprietors Merino Stock Farm, Lawrence, Kas., breeders of SPANISH MERINO SHEEP. Forty rams for sale. Correspondence solicited.

SHROPSHIRE SHEEP.—You can buy high quality Shropshires, highest breeding, and Hereford cattle of Will T. Clark, Monroe City, Mo., on H. & St. Joe and M. & K. T. HEREFORD CATTLE

GRAVING FOR STIMULANTS or liquor habit cured. Home treatment. Best and cheapest cure known. Sent secure from observation. ENO CURE CO., Box 263, Station A, Des Moines, Iowa.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

JUNE 16.—L. A. Knapp, Short-horns, Maple Hill, Kas.

PROBLEMS OF THE CATTLE INDUSTRY.

In a recent issue of the *National Provisioner*, Col. Wm. L. Black, of Fort McKavett, Texas, had a pertinent article regarding the cattle industry. The writer of the article is well known to the *FARMER* as a recognized authority on live stock, hence the reproduction of the essential part of his communication this week will interest our readers. He says:

"I am of the opinion, however, that we are rapidly approaching a period of exhaustion, and I base this opinion on the fact that fully two-thirds of the meat supply this year will consist of breeding cows. It stands to reason there must be a great scarcity of steers in the country or they would be shipped to market. And when we reflect that this drain upon our producing capacity has been going on steadily since 1889, when the proportion of females was 25 per cent., it calls for very little argument to prove that we are very near the end of our supply, and I think it would be very wise if producers would hold their few remaining cows for breeding purposes alone.

"We have practically been sending our 'seed corn' to market for five years. We will soon have no seed to produce from.

"It is certainly very unfortunate that our great cattle industry has not been managed with greater accuracy, and there is no telling how many poor cattlemen have been driven into bankruptcy in the past few years for the want of proper information relating to supply and demand.

"The Agricultural Department pretends to give us this information, yet if we analyze the figures that are sent out by this department it is very plain that they are altogether wrong.

"In 1884, the culminating period of the great boom in cattle, when a cow and calf were worth \$50 in gold, the Department of Agriculture reported the stock of 'oxen and other cattle' in all the States as 29,046,101. This, of course, was exclusive of milch cows.

"In 1892 the report showed that there were 37,651,239, or an increase of 8,505,138 head over 1884.

"In 1884 the shipments to Chicago were only 1,817,697, and in 1892 they were over 3,500,000, and had been proportionally large since the depression began in 1884.

"It is a well known fact that since the year 1884 cattlemen have been using every possible means to reduce supply, and have resorted to spaying heifers and shipping calves in a way that was never done before.

"Now, how is it possible that our supply of cattle could have increased 8,505,138 head in the face of such facts as I have mentioned is a conundrum I will turn over to the statistician of the Agricultural Department to answer, for it is certainly too hard for me.

"What has become of the thousands of foreign investors who were drawn into the cattle business during the 'boom'? And where are the thousands of herds that these gentlemen paid millions of dollars to purchase?

"And where are the tens of thousands of small American holders who were not so fortunate as to sell out during the inflated period?

"Is there any one in the cattle business who will pretend to claim that there are more people engaged in the cattle industry to-day than were in it in 1884?

"Ask any of the old time cattle kings if they are holding as many cattle now as they did then, and nine in every ten will answer you that they have long since gone out of breeding cattle and have been confining themselves exclusively to steers.

"How, then, is it possible to have increased our supply from 29,046,101 to 37,651,239?

"There is certainly something radically wrong, and I do not believe it will ever be possible to arrive at the cor-

rect condition of our cattle supply until we have a 'Bureau of Information and Statistics' devoted especially to live stock. This matter was made a subject for discussion at the Inter-State Convention of Cattlemen that was held in Fort Worth in 1890, and it was unanimously recommended as the most practical way of conducting the business of live stock, and I think the recent development in our hog product fully bears out the wisdom of such recommendation.

"Senator G. G. Vest, of Missouri, has been a strong friend of the measure, and has introduced a bill in the Senate for the purpose of creating such a bureau, and I trust you will use every effort to keep the matter prominently before Congress until we have them in practical operation.

"There is perhaps no single industry in the United States in which more people are interested than in live stock. There is hardly a farmer in the land that does not depend largely for support on either cattle, sheep or hogs, and to think of this great industry being permitted to languish for want of a proper system is not in keeping with the spirit of the age we live in.

"Look at the care that is used in keeping up with the supply and demand of cotton and wheat. Is it not equally important to those engaged in the buying and selling of live stock to have correct statistics relating to the supply and demand of sheep, cattle and hogs?"

Medium Hog.

John W. Wilson gave his reasons for the medium hog being the profitable hog, at the last meeting of the Indiana Swine Breeders' Association. Being a practical farmer, he spoke from experience and said: First, he is just the hog the packers and butchers want. Second, his early maturity enables him to be marketed between two winters, saving an expense that amounts to at least ten bushels of corn per head. When we practiced wintering our hogs we estimated that it would take ten bushels of corn per head to winter shoats that were farrowed in March or April, and thought we were doing well if we had a gain or growth of thirty-five pounds, which, with corn worth 40 to 50 cents per bushel, would be very unprofitable pork. Third, I believe them to be more prolific, and their active, spry disposition makes them more careful and better mothers, which is an item of great profit. In raising hogs some sows are fed the entire year to raise half the brood, or, in other words, you are compelled to feed twelve or fifteen sows the entire year to produce fifty pigs, when seven or eight sows should have produced the entire number required; besides it requires much less feed to winter sows of medium size. Again, the medium hog is the best grazer. I have often noticed the active, spry, medium hog feeding about over the grass fields, making pounds of cheap pork to add to the profits, while the larger, rough, dull, sluggish fellow lies in the fence corner, under some shrub or beside some stack, allowing the flies to eat him up. One other thing that makes the larger hog not so profitable is the size he is required to make before he is ready for market. According to our best authorities, the experiment stations, there is an increase of cost in producing the second hundred pounds, as compared with the first hundred pounds, also third to the second.

The price of pork remains high in consequence of speculative manipulation, says the *National Provisioner*, and the market in this article is practically and to all intents and purposes in the hands of the clique, with a very fair outlook for a boomerang. The trade has apparently taken the advice repeatedly given in these columns, and left the market to those on the "inside" at Chicago. It therefore remains stationary and on a still prohibitive basis. In the matter of beef there is still a disposition to flounder in the maelstrom of uncertainty, despite reports from all over the West and Southwest that the shortage becomes every day more apparent. That meddlesome factor—speculation—however, does not so much

stand in the way of getting at direct knowledge in regard to this product, and that beef is scarce and will continue to be so (as we have steadily contended since January last) has now begun to be felt in the trade. Not alone are cattlemen getting good prices all the way through, but a general increase in the retail price is quietly going into operation in the Eastern States. The consuming public must now turn to mutton, which at this date should be very cheap food in consequence of an unusually large supply.

A Public Sale of Short-horns and Poland-Chinas.

It is now generally conceded that cattle are once more on the sure upward tendency, consequently better prices will be realized until at least for a period of four or more years that will be required to supply the 25 per cent. shortage that now exists throughout the United States. In view of these facts, the *FARMER* takes pleasure in calling the attention of its readers to the ninth annual sale announcement of Mr. L. A. Knapp, found elsewhere in this issue. He will offer to the highest bidder, at his farm near Maple Hill, Kas., on Friday, June 16, 1893, a draft of thirty-five head from his herd of Short-horns; also about fifteen head of Poland-China hogs. Our traveling representative visited the Spring Glen herd one day last week and found over eighty head grazing over the farm of 350 acres, whose history is briefly as follows: The proprietor, Mr. Knapp, began breeding Short-horns twenty-five years ago in Illinois, and in 1871 established himself in Kansas as one of the pioneer breeders of the trans-Missouri section of country. All of the individuals that now comprise the herd except two, a Goodness cow and the two-year-old bull, Scottish Victor, were bred by their present owner. The female line of the herd consists mainly of Elizabeths, Zelias and Mrs. Mottes, with an occasional representative of other leading and fashionable families. The visitor will find a major portion of the mature cows are very excellent milkers, great care having been exercised by Mr. Knapp in the improvement of the dairy qualities of the herd. The yearlings and the two-year-olds are mostly by the very excellent sire, Governor Glick 92606, that was bred by the well-known Missouri Short-horn breeder, Mr. J. N. Winn, of Edgerton. This bull was sired by The Baronet 58250, out of Ellen 10th (Vol. 10, page 659, S. H. B.), and his grandsire, Baron Victor, that was one of the most victorious show bulls ever imported. Every well-posted Short-horn breeder in the West will at once recall the many victories won in the show ring by The Baronet. From a calf up he always stood in the front rank. When in his yearling form he was purchased of Col. W. A. Harris, of Linwood, Kas., by Messrs. Clay & Winn, of Missouri, for \$750, and subsequently many of his sons were placed at the head of numerous herds throughout the Western Short-horn field. The visitor will find among the offerings fourteen head of heifers that are, and should be, the pride of every cattle-breeder. They are remarkably uniform in conformation, all good color, blocky and thrifty, and just what every prospective buyer wants with which to lay a herd foundation or as an addition to the already established herd.

A major portion of the calves that have been dropped within the past month were sired by Scottish Victor, a two-year-old March 10, last, and now

"HOW to Take Care of Leather" and patent lambskin-with-wool-on swob, both free at the store.

Vacuum Leather Oil is the care-taker; 25c, and your money back if you want it.

Vacuum Oil Company, Rochester, N. Y.

weighs over 1,500 pounds. He is one of the best individuals that Mr. B. O. Cowan, of New Point, Mo., has ever bred, and the visitor will find his get all of a deep red, broad backed and in every way typical of their sire. Among the young bulls suitable for service are Jumbo and Barney. Jumbo is what the breeders call a good one, sired by Governor Glick and out of an Elizabeth cow. Barney possesses more than considerable merit, and ought to bring more money at the sale than will probably be given for him from the auctioneer's block.

Of course hogs are now 'on top, and anything that squeals for corn and grunts with satisfaction sells, and many times outsells himself, hence but little need be said for the Polands, as they will go at good prices anyhow.

In conclusion, it should be understood that too many cattle for the pasture range is the prime cause of the proposed sale by Mr. Knapp at this season of the year.

An Old-Time Short-horn Sale.

The closing-out sale of Short-horn cattle held at Lincoln, Neb., on the 26th ult., by Isaac Johnson, was one of the most successful of the year, and substantiates the prevailing idea that well-bred cattle are destined to bring more remunerative prices in the near future—in other words, the upward tendency is surely at hand. The aggregate of the sale was as follows: Thirty-five females, total \$5,335; average, \$152.45. Nine bulls, total \$1,330; average, 147.50. Forty-four head brought \$6,665; average, \$151.25.

BALDWIN & FRITZ'S DRAFT.

Six heifers, total \$715; average, \$119.16. Seven bulls, total \$780; average, \$111.40.

Piles! Piles! Piles!

Not piles of worthless stuff, but Steketee's Ointment and Pile Remedy combined will cure the worst case of Piles in any form, and have plenty left to cure burns or any sores on man or beast. Was never known to fail to cure sore breast and scratches on horses. All for 35 cents. Do not pay \$1.00 when you can have this for 35 cents. For sale by druggists, or on receipt of 35 cents in U. S. postage G. G. Steketee, Grand Rapids, Mich., will send it. Cut this out and take it to a druggist first; 3 boxes for \$1.00.

Make Your Own Bitters

On receipt of 30 cents, U. S. stamps, I will send to any address one package Steketee's Dry Bitters. One package makes one gallon best tonic known. Cures stomach and kidney diseases. Now is the time to use bitters for the blood and stomach.

WHEATON, Ill., December 7, 1890.

MR. STEKETEE:—Your Dry Bitters has no equal for kidney or liver complaint. Have been troubled for the past ten years. Find your bitters excellent. FRANK SCHUSLER.

Send G. G. Steketee, of Grand Rapids, Michigan, 30 cents, U. S. stamps, and we guarantee that he will send at once.

Iowa Veterinary College,

413 West Grand Ave., DES MOINES, IA.

Organized and incorporated under the laws of the State of Iowa. Session 1892-3 beginning October 1, 1892. Trustees—O. H. P. Shoemaker, A. M., M. D., President; F. W. D. Loomis, M. D., Secretary; J. A. Campbell, D. V. S., Treasurer and Registrar. Write for catalogue.

WOOL



References:
Metropolitan National Bank,
Chicago,
and this Paper.

SHIP YOUR WOOL

Direct to market and get all the value there is in it. We receive more Wool direct from the Growers than any house in this market, and make quicker returns. If you doubt it our books will prove it, and our shippers have testified to it. Average time on returns last season was eleven days from the time each shipment was received and we handled over three hundred thousand pounds. If you want your Wool sold at its true market value and get quick returns, don't dispose of it until you write us for prices and our terms for handling, and see the testimonials of our shippers. We are not an exclusive Wool house, but handle Hay, Grain and Produce of all kinds, and will quote prices if requested and give any information wanted.

SUMMERS, MORRISON & CO.
COMMISSION MERCHANTS,
174 South Water St., CHICAGO.

Agricultural Matters.

MY FIRST FISH POND.

EDITOR KANSAS FARMER:—The first summer I lived in Kansas I noticed, along the public road on the south side of my farm, a natural pond, formed by teams traveling to and fro tramping the soil, which was carried down three ravines by freshets, causing a pond about two feet deep, and covering, say, three rods in diameter. This, I noticed, had at this time become dry by evaporation. Although there is no stream within two miles of this, there were sunfish and catfish six inches long, dead, in this place. The thought struck me at once, what a grand place to keep fish! I set my boys at work at once, and by winter had an embankment 200 feet long, five feet high, and wide enough to drive a team across. Not having any one to give me advice, I thought I was ready for my carp to go in, as a fall rain had raised the water about a foot, covering, probably, one rod square where I had scooped out a hole to line the dam with gumbo. Having been accustomed to seeing sloughs, etc., fill up in the winter months in Kankakee county, Illinois, called K. K. K. swamps, I had no thought but that plenty of rain would fall in Kansas to keep my fish alive all winter, so I ordered at once some carp, minnows and spawners, of a fish breeder at Lakeside, Kansas, which proved to be about \$20 too many. They came in good order and I placed them in the pond, thinking all I had to do was to let these fellows double up.

Very little rain fell that winter, and about Christmas my trouble commenced. The pond was covered with six inches of ice, and my pets bedded along its edges in ice. I got an ax and commenced to chop the fish out. Having a tub of well water with me, I would drop the chaps in the tub, and to my surprise, as soon as their fins were released from the ice they darted off as if nothing had happened, even those that were bedded in so solid that if the chunk was broken in two by accident it would separate Mr. Carp like a frozen bologna. I at once saw that I was going to lose all my carp, so I set a well drill at work and struck water at twenty feet. This afforded me fifteen barrels of water per day, and was 200 feet away from where my fish were; the level of the dam would back the water up to this well. Not being satisfied, I kept the drill at work until the extent of the rope was reached, which was 151 feet, but no more water was found. Expense for windmill, pump, etc., \$275. All done, I set the pump at work. It was as cold as Greenland, and by the time the water reached the fish my open ditch was covered solid, and water letting up in the well. Next day I tried it again, but found I simply made the ice thicker on the pond. I at once saw that my well was not sufficient. I made up my mind to take my pets to my nephew, five miles away, who has a spring that never freezes over. So I cut a hole in the deepest part of my carp prison (as such it proved to be). I had no trouble in catching the fellows, for as soon as an opening as large as a wash tub was made they all stuck their eager heads to the top, making a popping noise as if saying, "Just in time! O! air; I want air!" I scooped them out with a basket and placed them in a barrel ready to transport. I will right here, for the beginner, say, at my expense, you can learn never to crowd the winter pond and overstock the amount of water, as in this hole the water felt like strong soap suds, and looked about as dark. You can well imagine how much pure oxygen these poor fish had. Well, I loaded the fish, cage and all. The fish-cage was made of a large box with a hole one foot square in each end, covered with wire gauze, so as to allow the water to change.

Reaching my nephew, I told him of my bad luck. He at once was willing to place the cage in the spring, and kindly offered to take care and see that they were fed. We placed a peck or so of wheat in the cage to begin with. It makes me laugh while I write this, to think what a fool I was. Talk about a carp eating food between the months

of November and April! One hundred carp would not devour twenty kernels of corn in my tanks of a capacity of fifty barrels. In the seven years shipping experience, even at the many fairs I exhibited fish in my glass aquariums, where they were always before me, I never saw them touch the food people would offer them. Well, my kind friend fed often, and never thought that accumulating food would sour the water. One day he came to me and said: "Henry, your fish are dying off fast. Come over and see. I have been feeding often and there seems to rise a strong smell from the cage when I open the cover." So I went to see. I cut loose the cage, which was fast with ice at one end, and hauled it out (it seemed as heavy as lead), and behold, the fish were nearly all dead, with several inches of wheat and corn covering the bottom, and a mangled mud turtle, partly decayed, which my nephew had kindly caught in the creek and cut up "to feed the carp some fresh meat," he said. This would have been a treat to Mr. Carp were it in the month of June. I thought at that moment if that stuff was placed in the hands of one of our Illinois distillers he could make pretty fair whisky of this mess intended for poor carp. Well, we released what few carp were alive by letting them drop into the spring, expecting to recover them in May, but that was the last I got to see of them, as this spring was at the head of a creek, and the fish left with high water.

But I was not to be baffled so easily. I got fifteen little fellows, two inches long, of the Fish Commission; paid 60 cents for pail and express. This looked too small for the big speculation I had figured on, so I sent to W. C. Rose, of Lakeside, Kas., and got sixteen carp spawners. By this time my pond covered about three acres and was six feet deep, all fed by the clouds through slope ravines. Now I was happy. Would have been more so had not the high wind commenced to whip away the loose soil on the inside of the dam; so I made floats, chained them together and fastened them out six or eight feet to an occasional post to keep them at proper distance. This kept the water more quiet next to the dam. About mid-summer the water commenced to seep through the bottom along the whole length of the grade. You know in the beginning of this article I said the bed of the public road caused a natural pond, and this road happened to be on the line of my south fence, and placing the soil on this hard bottom foundation, the new loose soil not having been packed by age, as they most all do, was similar to a filter, and my pond was fast lowering. I consulted a stone mason. He said my only salvation was to place a stone wall, laid in cement, on the water side; but how to place down this wall to box back the water as the wall was constructed, looked like requiring J. Gould's pocket-book. I said to my friend, the mason: "There is more than one way to 'skin a cat.' I think I can stop that by digging a trench on the outside of the dam, filling it with gumbo (Kansas subsoil) moistened and stamped to a putty, and continue it up several feet above the seep." He laughed at me, and said I would lose all my labor. But, Mr. Editor, after a Dutchman plans a thing and dreams over it he is going to "dry it, enevay. No dalk schtop me und mine Hans." I finished my trench and filling, and behold, from that day the dam never leaked. My friend, the mason, came along the next day, and says he: "You have struck it. Who but a Pennsylvania Dutchman like you would ever have dreamed of such an idea? Why, you saved at least \$200."

W. H. R.

EDITOR KANSAS FARMER:—Could Kaffir corn be planted after wheat is cut, say the last of June, and make a crop? The land on which I wish to plant is good, being second bottom. Will some one please answer through the FARMER, and oblige,

A SUBSCRIBER.
Rock, Cowley Co.

Watered stock is all right on the farm.

The animals blest with kind masters are glad they were born.

Prices of Wheat for Three Centuries.

The *Millers' Gazette and Corn Trade Journal*, of London, England, recently copied from the *Mark Lane Express*, of Liverpool, a compilation of the average price of wheat in each year from 1595. The prices to 1790 were copied from the *Gentleman's Magazine* for July, 1801, in which it was explained that they were taken from "Smith's Corn Tracts" from 1595 to 1764, from Lord Hawkesbury's office from 1765 to 1770, and from 1771 to 1790 from "Cuthbertson's Tables."

As originally published in the English journals, the prices were given in pounds, shillings and pence per quarter. The KANSAS FARMER has reduced these to dollars and cents per bushel to make the table the more readily useful to its readers:

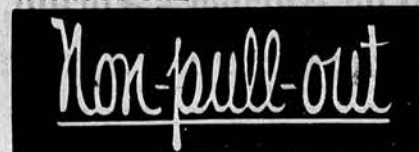
Year.	Price per bushel.	Year.	Price per bushel.	Year.	Price per bushel.	Year.	Price per bushel.
1595	1.24	1670	1.13	1745	1.75	1820	1.06
1596	1.29	1671	1.14	1746	1.05	1821	1.71
1597	1.26	1672	1.11	1747	1.04	1822	1.36
1598	1.53	1673	1.26	1748	1.00	1823	1.62
1599	1.06	1674	1.86	1749	1.00	1824	1.94
1600	1.00	1675	1.75	1750	1.00	1825	2.08
1601	1.04	1676	1.03	1751	1.41	1826	1.76
1602	1.79	1677	1.14	1752	1.21	1827	1.78
1603	1.06	1678	1.35	1753	1.21	1828	1.84
1604	1.83	1679	1.62	1754	1.04	1829	2.03
1605	1.97	1680	1.23	1755	1.10	1830	1.94
1606	1.89	1681	1.23	1756	1.22	1831	2.02
1607	1.99	1682	1.19	1757	1.02	1832	1.78
1608	1.53	1683	1.08	1758	1.35	1833	1.61
1609	1.35	1684	1.21	1759	1.08	1834	1.40
1610	1.07	1685	1.26	1760	1.00	1835	1.19
1611	1.06	1686	1.92	1761	1.00	1836	1.47
1612	1.14	1687	1.22	1762	1.05	1837	1.69
1613	1.32	1688	1.74	1763	1.10	1838	1.96
1614	1.12	1689	1.03	1764	1.53	1839	2.15
1615	1.05	1690	1.04	1765	1.29	1840	3.02
1616	1.09	1691	1.02	1766	1.16	1841	1.95
1617	1.32	1692	1.26	1767	1.74	1842	1.75
1618	1.26	1693	1.83	1768	1.04	1843	1.52
1619	1.06	1694	1.73	1769	1.24	1844	1.57
1620	1.82	1695	1.43	1770	1.32	1845	1.54
1621	1.82	1696	1.42	1771	1.43	1846	1.66
1622	1.59	1697	1.62	1772	1.54	1847	2.12
1623	1.41	1698	1.85	1773	1.55	1848	1.54
1624	1.29	1699	1.08	1774	1.60	1849	1.36
1625	1.41	1700	1.08	1775	1.47	1850	1.54
1626	1.33	1701	1.01	1776	1.16	1851	1.45
1627	1.09	1702	1.01	1777	1.38	1852	1.24
1628	1.77	1703	1.81	1778	1.28	1853	1.62
1629	1.14	1704	1.26	1779	1.02	1854	2.20
1630	1.51	1705	1.81	1780	1.33	1855	2.27
1631	1.84	1706	1.00	1781	1.34	1856	2.10
1632	1.44	1707	1.11	1782	1.43	1857	1.71
1633	1.57	1708	1.11	1783	1.60	1858	1.34
1634	1.51	1709	2.12	1784	1.44	1859	1.46
1635	1.53	1710	1.46	1785	1.27	1860	1.62
1636	1.68	1711	1.46	1786	1.18	1861	1.68
1637	1.43	1712	1.25	1787	1.26	1862	1.68
1638	1.55	1713	1.23	1788	1.37	1863	1.86
1639	1.21	1714	1.46	1789	1.51	1864	1.22
1640	1.21	1715	1.16	1790	1.61	1865	1.27
1641	1.29	1716	1.39	1791	1.76	1866	1.52
1642	1.17	1717	1.24	1792	1.28	1867	1.35
1643	1.18	1718	1.65	1793	1.49	1868	1.94
1644	1.66	1719	1.89	1794	1.58	1869	1.46
1645	1.39	1720	1.00	1795	2.28	1870	1.78
1646	1.29	1721	1.01	1796	2.39	1871	1.72
1647	1.98	1722	1.07	1797	1.63	1872	1.73
1648	2.29	1723	1.04	1798	1.58	1873	1.78
1649	2.16	1724	1.00	1799	2.11	1874	1.69
1650	2.07	1725	1.31	1800	3.55	1875	1.37
1651	1.76	1726	1.24	1801	3.63	1876	1.40
1652	1.34	1727	1.15	1802	2.12	1877	1.73
1653	1.49	1728	1.47	1803	1.79	1878	1.41
1654	1.62	1729	1.24	1804	1.91	1879	1.33
1655	1.00	1730	1.00	1805	2.73	1880	1.35
1656	1.16	1731	1.09	1806	2.40	1881	1.38
1657	1.26	1732	1.72	1807	2.29	1882	1.37
1658	1.16	1733	1.77	1808	2.47	1883	1.28
1659	1.24	1734	1.05	1809	2.91	1884	1.09
1660	1.53	1735	1.16	1810	3.23	1885	1.09
1661	1.89	1736	1.09	1811	2.89	1886	1.05
1662	2.00	1737	1.03	1812	3.85	1887	1.01
1663	1.54	1738	1.06	1813	3.64	1888	1.07
1664	1.09	1739	1.04	1814	2.26	1889	1.00
1665	1.84	1740	1.37	1815	1.99	1890	1.06
1666	1.74	1741	1.26	1816	2.39	1891	1.13
1667	1.07	1742	1.02	1817	2.95	1892	1.02
1668	1.08	1743	1.07	1818	1.99		
1669	1.20	1744	1.67	1819	2.62		

Fall Sowing Alfalfa.

EDITOR KANSAS FARMER:—As it is too wet to work to-day, I will use up the time in giving a bit of experience in fall sowing of alfalfa.

Last August I plowed fourteen acres oat stubble, put it in as good condition as possible, and with a common wheat drill, set fine, I drilled, letting the seed go through the hoes, six bushels and three pecks of alfalfa. I sowed it the last day of August and first day of September, then harrowed it after sowing. This put in too deep. About one-half came up right away. The balance did not come for ten or twelve days after. Between the first and second times of coming up we had a good rain, the only one we had last fall. The first to come up all did well; the second practically all died—got too dry for it. Still there was enough left. The day before I began on this piece I plowed my potato patch, about one-fourth acre, and sowed it broadcast, at same rate. This all came up and stood the fall better than the drilled. I lay it to the fact that it is more scattered. The drill massed it too much in a place. This all went into winter quarters tender, and on the 7th of December we had eighteen to twenty inches of snow that staid on it prac-

WITHOUT THE



BOW (RING)

it is easy to steal or ring watches from the pocket. The thief gets the watch in one hand, the chain in the other and gives a short, quick jerk—the ring slips off the watch stem, and away goes the watch, leaving the victim only the chain.

This idea stopped that little game:

The bow has a groove on each end. A collar runs down inside the pendant (stem) and fits into the grooves, firmly locking the bow to the pendant, so that it cannot be pulled or twisted off.



Sold by all watch dealers, without cost, on Jas. Boss Filled and other cases containing this trade mark—Ask your jeweler for pamphlet.

Keystone Watch Case Co., PHILADELPHIA.

tically all winter. It came out from under the snow as green and tender as it was in the fall; then began the freezing and thawing, high winds and drouth, the equal of which I have not seen since the spring of 1874, with not a drop of rain since September till the second week in May.

Now for results. The broadcast piece will average eight inches high, and the ground is completely covered. The drilled piece in places is entirely gone, and from that up to a good stand. There is a narrow strip alongside the drilled piece that was sown last spring, and were it not for the drilling there are but few that could tell where the line was between them. Take the same grade of land in the neighborhood, location, slope, etc., equal that is sown to winter wheat and the conditions as to stand, etc., are almost, if not exactly, the same, or near enough to satisfy me, that it will stand whatever winter wheat will stand, and by sowing in the fall, we gain a year's use of the land, as alfalfa spring-sown is useless here the first year. My land is ordinary upland prairie, forty to sixty feet to water, and underlaid with stiff heavy clay gumbo in places, and stony in others, but rolling enough to insure perfect drainage.

My alfalfa looks the best, both on the new and the old (have some four years old), where the plants are four and six inches apart. It tillers as the roots get old, and it must have room. If this misses the waste basket I will some day report on the cuttings of this crop.

Z. W. COLEMAN.

Navarre, Dickinson Co., Kas.

Hair is a proloner of life; hairy butter always out-lives the bald-headed sort.

ST. JOSEPH Medical and Surgical INSTITUTE.



DR. EGBERT, Specialist in Diseases of the Eye, Ear, Nose, Throat and Chest, Mental and Nervous Diseases. Medical Expert on Insanity.

DR. MILLER, Specialist in Diseases of Women, and Diseases of the Rectum.

DR. WALKER, Specialist in Surgery, Diseases of the Skin, Diseases of the Blood, Diseases Peculiar to Men.

All the Latest Scientific Treatments. Electricity, Massage, Etc. Each doctor is a regular graduate, has fitted himself by years of study and practice for his specialties, to which he devotes his entire time. Write for free printed pamphlet and Symptom Blank No. 1 for Men, No. 2 for Women, No. 3 for Skin Diseases, No. 4 for Rectal Diseases. Call on or address **ST. JOSEPH Medical and Surgical INSTITUTE,** Northeast Cor. 8th and Edmond Sts.—Opp. postoffice Lock Box 900, St. Joseph, Mo.

The Farmer's Forum.

This department is devoted to the discussion of economic questions and to the interests of the Alliance, Grange and kindred organizations.

RAILROAD CONTROL A NATIONAL QUESTION.

EDITOR KANSAS FARMER:—Recent legislative effort in several Western States, looking to the establishment of maximum railroad freight charges in the interest of producers, suggests the question: "How far can such legislation benefit farmers?" Hence the purpose of this article is not a discussion of what should or should not be done in the matter of railroad control, not whether freight rate charges are too high, but what are the conditions existing, and what the benefits to accrue to farmers from proposed State legislation in reduction of freight rates.

Intelligent effort at doing a thing requires, first, a knowledge of the magnitude of the thing to be done, and secondly, the sufficiency of the instrument proposed for the accomplishment of the work.

Recent political disturbances are outgrowths of economic conditions, mistakenly supposed to have been due to corruption or mismanagement of political parties, and yet to correct the conditions complained of, any party, no matter how honest, would find its efforts a failure, as the difficulty arising from economic changes is beyond the reach of legislative control.

In the wonderful improvements during the last quarter of a century, nothing has been more marked than development of transportation, facilitating the distribution of commodities. Railroads and telegraphs, reaching every productive section of the globe, have revolutionized economic conditions. The local markets of a few years since, in which local supply and demand determined prices, have been superseded by the universal market, in which prices are determined by world supply and demand. Former local and isolated communities, having become blended, now constitute one neighborhood, all parts of which are accessible to the common center, western Europe being the center toward which the products from every section of the universal neighborhood gravitate. The flow of food supplies and raw material is from circumference toward the center, and that of manufactured products, from center toward circumference. Distribution commences at the point of production. The products of agriculture heading toward the center are dropped off to supply demand for consumption along the line until the center is reached, where the remainder of the cargo is dumped. When the European portion of the Kansas supply reaches Liverpool, it there meets the surplus coming in from the eastern, the western, the northern and from the southern section of the neighborhood, the lines of commerce from every quarter pointing like the spokes of a wheel toward the center. The price at this center is the price at all points on the line, less cost of handling and transportation from point of production to the center. The commodities following these avenues of commerce, being handled at the long haul freight charge, are not affected in value to the producer through local change in freight rates; hence transportation and commerce, being continental, cannot be regulated by local laws.

Chicago is the American center for the grain of the Western States, the products of Kansas for shipment being sold by the farmer at Chicago quotations, less freight charges from point of sale to Chicago. Nor is the price paid the farmer ascertained by deducting local freight charges to Missouri river points, plus charges from thence to Chicago, but Chicago quotations, less charge for the continuous haul from point of shipment to Chicago, determines the price to the seller; hence Chicago prices and Chicago freight rates determine the price to the farmer of every bushel of wheat produced in the State, no matter what local rate may be fixed across the State by legislative act. And as Kansas is an almost

exclusively agricultural State, her surplus being shipped out and her supplies shipped in, she has the benefit of distance freight rate charges to a degree, placing it beyond the power of a Kansas Legislature to reduce local rates sufficiently to give the farmer better prices for what he sells or lower prices for what he buys, it being the distance and not the local haul, the interstate and not the State traffic, in which farmers are interested.

When freight crosses a State line the regulation of charges for any part of the haul does not come within the power of State legislation—that only which begins and ends within the State coming within control of such legislation. And as the markets in which Kansas sells and buys are outside her borders, the proposition to benefit the farmer through reduction of freight rates by State legislation is a delusion, and the effort to do so will prove a disappointment.

The farmers of Iowa and Nebraska, where extreme legislation has been enacted touching local rates relatively to distance from Chicago, enjoy no advantage over the Kansas farmer, who lost nothing in the failure of the House and Senate bills last winter.

Imperfect understanding of conditions and their causes and want of intelligent appreciation of the extent of the commercial neighborhood of which we are residents, is the chief cause of discontent, change from former local to general conditions being more extended than is generally supposed or understood. And this want of correct appreciation gives rise to futile efforts at regulation of continental and general conditions through the application of local remedies.

Commerce is as oblivious as the wind to State lines, which are but imaginary boundaries for political and not for commercial purposes. If State lines were obliterated and the whole country transformed into a single State, what effect could an act of Congress have, reducing by one-half the freight charges, say on all shipments beginning and ending in the territory between Garden City and Kansas City, when of the 80,000,000 bushels of wheat produced last year 60,000,000 were shipped to points outside the territory affected by such reduction? In other words, freight rate reduction to benefit the producer must extend all along the line from the farm to the market, a thing no State or number of States acting in concert can do, Congress having the sole power to act in the matter, as regulation of traffic between the States was the most urgent of all reasons leading to the adoption of the constitution in which the States unitedly delegated that power to the general government.

Trade, with growth of transportation facilities, has reached national proportions; hence it can be controlled only through national agencies. State control can go no further than regulation of that traffic which begins and ends within the State, and in a State like Kansas, where all that which is sold goes outside and all that which is bought comes from without, the local traffic is practically of but little importance to the people as a whole. In local shipment of staples, even if the cost of transportation were reduced one-half, it would make no difference to the farmer in the price of his stock or grain, the long haul freight rate, at which the greater quantity is shipped to points outside, being the factor governing the selling price of the entire product.

H. B. KELLY.

Wool at St. Louis.

Alfred C. Reynolds, Secretary of St. Louis Commission Co., writes KANSAS FARMER under date June 3:

The feeling has been weak but there has been little change in the general condition of the market during the past week. The demand was confined almost entirely to the coarse and medium grades, and all heavy and inferior, as well as fine wools, were slow of sale. The unfavorable condition of financial affairs continues to be a most depressing factor in the wool market.

KANSAS AND NEBRASKA.

Medium, 17 to 18 cents; light fine, 14 to 15; coarse, 13 to 16; heavy fine, 11 to 12; fine medium, 15 to 16; sandy and earthy, 8 to 10 cents.

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

Royal Baking Powder

ABSOLUTELY PURE

Marketing the Produce of the Farmer.

The eyes of the whole world are at present centered on the World's Fair city—Chicago. Visitors from all parts of the civilized globe, as well as from heathendom, are flocking Chicagoward. The attraction is the great "White City" on the banks of the unsalted inland sea—the World's Columbian Exposition. The farmer is interested in this great exposition in more ways than one. The direct and special benefit to be derived from it is the increased market it will make for his product. To accommodate these visitors hundreds of hotels have been erected, and the Chicago merchants are making special and enlarged arrangements. Commission merchants are increasing their facilities for the local distribution of the products which the farmer sends in. A great percentage of it has, heretofore, been sent to the Eastern cities. It will now have to be retained in Chicago to feed the multitudes. Farmers should not be blind to the opportunity thus afforded them, but should avail themselves of the very best way of disposing of what they have to sell. The business farmer will sell, for the very highest price, his entire product, and he will buy the things he needs where he can save money. It is just as important to save in disposing of the product as it is in purchases. To get the very best price for what is grown on the farm, the middleman's profit must be saved. Some of the best and most progressive farmers in the country are now shipping all their surplus products direct to market, for they recognize the fact that this is the only way to get the true market value of what they have to sell. We think that the question of confidence is now the only one that stands in the way of all farmers doing their own shipping, and it is the only one that prevents a complete revolution in the distribution of all farm produce. It is just as much the business of the farmer to put his produce into market as it is to raise it, and if he does not do so he is not attending to his business, but allowing the middleman or some one else to attend to it for him, and as long as he continues to do this, he should not complain if he does not get what belongs to him. There is no necessity of selling outside of the great markets if you have responsible parties to whom you can ship in confidence, and this question of confidence is becoming more fully established every day. Why? Because there are good, responsible houses in large markets to whom shippers can ship in confidence and be fairly and justly dealt with. We believe that all that is necessary to have our readers avail themselves of the advantages of shipping direct is to acquaint themselves with these houses. To any of our readers who desire to ship to Chicago, we desire to call their attention to the well and favorably known commission house of Summers, Morrison & Co., 174 South Water street. Our Chicago manager was impressed with the facilities employed by this enterprising firm, and requested the privilege of publishing this sketch, which is done without money and without price. He enjoys the personal acquaintance of both of these gentlemen and writes us that Mr. W. W. Summers is a native of Virginia, where he resided until 1873. He came direct to Chicago that year, where he has since been identified with the commission business. Mr. Morrison is a native of Canada, and came to Chicago in the year of 1875, and has also since that date been connected with the commission business in Chicago. After serving a long apprenticeship, these gentlemen formed a co-partnership in 1880. They were, at that time, well qualified to engage in such a business, as they had familiarized themselves with a great many shippers, as well as buyers on the market. In 1881 they moved into the commodious building which they at present occupy, and which forms a part of our first-page illustration. While they have what is regarded a large commission establishment, owing to the increase of their business, they will soon have to seek larger quarters. Mr. Summers was elected President of the Produce Exchange of Chicago in 1891 and held the office for one year. He was offered a re-nomination, but refused in order to give his business his entire attention. Being so familiar with the Chicago market, these gentlemen are well qualified to determine the wants of their patrons, and it is a known fact by all who are familiar with their method of dealing, that they

handle all shipments with promptness and dispatch, and make a specialty of prompt remittances. Their advantage to the producer consists in the fact that they receive and sell everything they have to ship. No shipment is too large and none too small, but each receives the same careful attention, and the trade of the producer is looked after with the same care as the trade from regular shippers and has the same advantages. Their special wool department is meeting with great success. It matters not what you have to sell—it would pay you to communicate with them, and, when you do so, mention this paper.

Publications of the United States Department of Agriculture for May.

Report No. 104 of the Division of Statistics. Report of the Statistician for May. Contents: Condition of Winter Grain; Mowing Lands and Pastures; Progress of Cotton-planting; Spring Plowing; Changes in Crop Areas; Temperature and Rainfall; Notes from Reports of State Agents; The Cotton Crop of India for the Year 1892-'93; European Crop Report for May, 1893; Transportation Rates. Pp. 141-178.

Miscellaneous Report No. 7 of the Division of Statistics. An Agricultural Survey of Wyoming. Pp. 72, 1 map.

Bulletin No. 29 of the Division of Entomology. Report on the Boll-worm of Cotton. Pp. 73, pls. 2.

Experiment Station Record, Vol. 4, No. 7. Contents: Editorial Notes—Recent Compilations of Analyses of Feeding Stuffs, Butter-making in Denmark, Agricultural Statistics as related to Experimental Work; article—The Relation of the Physical Properties of the Soil to the Cultivation of Plants, by Ewald Wollny; Abstracts of Publications of the Agricultural Experiment Stations in the United States, and of Reports of Foreign Investigations. Pp. 525-624.

Insect Life, Vol. 5, No. 4. (Periodical Bulletin of the Division of Entomology, devoted to the economy and life habits of insects, especially in their relations to agriculture.) Pp. 213-288, illustrated.

Monthly Weather Review for March. (A summary of weather conditions observed throughout the United States during March, 1893.) Pp. 61-90, charts 6.

Letter to the Secretary of Agriculture regarding Forest Growth and Timber Consumption. (Prepared by B. E. Fernow, Chief of Division of Forestry.) Pp. 3.

North American Fauna No. 7. The Death Valley Expedition: A Biological Survey of parts of California, Nevada, Arizona, and Utah—Part 2. Pp. 384, pls. 14, maps 5.

Bulletin No. 13, Part 2, Division of Botany. Grasses of the Pacific Slope, including Alaska and the Adjacent Islands—Plates (50) and Descriptions of the Grasses of California, Oregon, Washington and the Northwestern Coast, including Alaska.

CHRONIC CATARRH,

As the Result of Nervous Debility, Nervous Prostration, Neurasthenia, Sleeplessness, or Atonic Dyspepsia.

Depression of the nervous system of any kind is quite likely to cause a condition of the mucous membranes of the nose and throat so nearly resembling catarrh that many times they are identical. Also chronic diseases which depress the nervous system will produce the same result. They cause a flabby, pale condition of the mucous surfaces, with a sticky, stringy mucous secretion, which causes much hawking or coughing, properly called catarrh, the whole trouble being caused by nervous depression, pure and simple. Beside the usual symptoms of catarrh, the patient has brown specks before his eyes, slight dizziness, roaring in the ears, attacks of nervous headache, palpitation of the heart, flashes of heat, followed by slight chilly sensations, faintness, depression, despondency, forebodings, foolish fears, and many other similar ones.

Pe-ru-na has, again and again, been found to be of value in such cases. The first dose gives prompt relief to the most distressing symptoms, and a persistent use of it for a reasonable length of time will permanently cure cases of long standing. A treatise on catarrh in every phase of this dread disease is sent free to any address by the Pe-ru-na Drug Manufacturing Co., of Columbus, O.,

The Horse.

Clydesdales at the Columbia.

At the late meeting of the Executive committee of the American Clydesdale Association additional rings were provided for the displays noted below, viz.:

Best display of five head of yearling Clydesdales, to consist of either or both sexes, the five head to have been bred by the exhibitor. Gold medal.

Best display of five head of two-year-old Clydesdales, to consist of either or both sexes, the five head to have been bred by the exhibitor. Gold medal.

Best display of five head of Clydesdales, to consist of either or both sexes, under 4 years of age, the get one sire, the five head to be the property of the exhibitor. Gold medal.

Best ten head of Clydesdales, of either or both sexes, of any age, the ten head to be the get of one sire, the sire not to be shown. Gold medal.

The special list of cash prizes offered by the American Clydesdale Association for exhibits of Clydesdale stallions and mares at the Columbian Exposition are as follows: First premium, \$200; second, \$100; third, \$75, and fourth, \$40. The amounts named above are offered for stallions 5 years old or over, 4 years old, 3 years old, 2 years old, 1 year old and under 1 year old.

The same cash premiums as noted above for stallions are offered by the American Clydesdale Association for mares of corresponding ages.

Gold medals are offered for breeding rings, to consist of a stallion and three colts of his get of either sex, and for a mare and two of her colts of either sex.

Only American-bred stallions and mares recorded in the American Clydesdale stud book are eligible to compete for the cash premiums noted above.

The cash prizes offered by the Columbian Exposition for Clydesdale horses are open to general competition and are very liberal, as will be seen below.

The cash premiums of the Columbian Exposition for Clydesdale stallions 5, 4, 3, 2 and 1 year old are as follows: First premium, \$150; second, \$100; third, \$50; fourth, \$25.

For stallions under 1 year old, \$75, \$50, \$30 and \$20.

The same cash premiums as noted above for stallions are offered in the classes for mares of corresponding ages.

In the ring for stallions and three of his colts, of either sex, under 4 years old, the prizes are \$200, \$100, \$50 and diploma.

Premiums of \$200, \$100, \$50 and diploma are offered for mare and two of her colts of either sex.

The sweepstakes prizes consist of medal for stallion of any age, mare of any age, and for collection consisting of two stallions and three mares, all to be 4 years old or under and bred by the exhibitor.

The cash premiums to be offered the Columbian exhibit of Clydesdale horses so far as known at this writing, are as noted: American Clydesdale Association, \$5,200; World's Columbian Commission, \$4,300; Clydesdale Breeders of Scotland, \$1,200. Total amount, \$10,700.

The amount of cash to be given Columbian exhibitors of Clydesdales residing in Canada and the States named below, will be liberal, and will doubtless increase the aggregate inducements for display of Clydesdales at the World's Fair to at least \$15,000.

Canada Columbian Commission.
Illinois Board World's Fair Commission.
Iowa Board World's Fair Commission.
Kansas Board World's Fair Commission.
Kentucky Board World's Fair Commission.

Missouri Board World's Fair Commission.
Ohio Board World's Fair Commission.
Pennsylvania Board World's Fair Commission.

A prominent Scotch breeder of Clydesdale horses offers a special premium of \$50 (\$250) for the best ten head of Clydesdales exhibited by the owner; said display to consist of either or both sexes of any age, the get of one stallion.

Horse Market Reviewed.

CHICAGO.

J. S. Cooper, Union stock yards, Chicago, writes:

With moderate receipts and considerable inquiry for special class of horses a fairly firm, though by no means very active market, prevailed this week. The tone is, however, fully up to the firm close of last week, and if receipts do not come in too freely and largely in excess of requirement, an improved market should be in order for some weeks at least.

Good streeters are in better demand than for some time at prices \$5@10 better than late quotations, and smooth chunks and draft horses are much sought after, but common workers and coarse, thin draft horses drag at low prices and hard and slow sale.

As usual for some time handy to better

class of drivers, coach and saddle horses are scarce and selling well, and have fully maintained first place as ready sellers.

Daily inquiry for branded horses is made and the first extensive sale of these will be held this week.

KANSAS CITY.

Contrary to expectations the demand for good stock during the past week was greater than the supply, and prices on good drivers and roadsters were strong at quotations. There were quite a number of new buyers on the market, and as most of them were buying on orders they were willing to pay a good price when they found just what they wanted. The shippers who were lucky enough to have in loads with quality made plenty of money, but there was absolutely no demand for pluggy and Southern stock. Parties who ship in this class must expect to lose money. Good streeters were fairly active at about \$2.50 above last week's prices. There were but few good draft horses on the market and these few sold fully up to quotations, with buyers hungry for more. There was considerable inquiry for well-matched driving teams and carriage horses. The trade was healthy and strong in everything except the cheaper grades and the small Southern horses. Good chunks and knee-actors were much sought after as usual. Country buyers who ship in this class cannot make mistakes.

Prospects for the coming week are very fair, as there are a number of buyers with loads partially filled and waiting for next week's market. The shutting down of all Eastern markets has made the regular shippers a little slow in taking hold, and the recent money scare has made values so uncertain that country dealers will have to use more caution and buy nothing but purely straight, sound horses with plenty of quality.

Draft, extra, 1500 lbs.	\$130@175
Draft, good, 1300 lbs.	\$60@100
Drivers, extra.	125@200
Drivers, good.	75@100
Saddlers, good to extra.	75@200
Southern mares and geldings.	35@75
Western range, unbroken.	20@50
Western range, broken.	30@80
Matched teams.	15@300
Western ponies.	15@25

Breeding and the Terms Used by Breeders.

Pedigree is the record or statement of the ancestors of an animal for several generations. It does not necessarily imply purity of breeding, but usually pedigrees are only kept of animals that are purely-bred.

The book in which pedigrees are kept in the interest of any breed and to which the public have access is termed a "Stock Book," "Herd Book," "Flock Book," "Register," or "Record," as the case may be.

Pure-bred, thoroughbred and full-blood are terms applied almost altogether to animals with pedigrees recorded and accessible to the public. These terms are used to indicate animals of a well-defined breed, without any admixture of other blood. They are frequently considered synonymous, but the term thoroughbred in its strict signification is used to designate the English race horse.

The term *cross-bred* is applied to the progeny of two distinct breeds. The offspring in this case will generally closely resemble that breed which has been bred pure for the longest period, but may be modified by inherent constitutional vigor.

Cross-breeding is not much resorted to by breeders, unless in the formation of new breeds, and for the reasons, (a) that good specimens of either breed, when pure, usually sell for a higher price than the offspring; (b) that sometimes the progeny of the cross is no improvement on either of the pure breeds, and (c) that the results are less certain than those obtained from the breed grades.

The terms *grade* and *high-grade* are usually applied to animals other than cross-bred, the breeding of which is not sure. A *grade* is an animal possessing any percentage of pure blood less than 100. A *high-grade* is an animal of mixed blood in which the blood of a pure breed largely predominates.

In breeding grades, where improvement is sought, it is always essential to use a male possessing a good pedigree and that is good individually and prepotent. Where this process is persevered in, the offspring soon come to possess practically all the good qualities of the pure breed. This could not possibly be accomplished in the same time through the use of grades, since they do not possess dominant qualities, owing to mixed breeding.

The terms, *high-breeding, line-breeding, close-breeding and in-and-in breeding* may be applied to either pure-breeds or grades, but they are chiefly used only in reference to the breeding of the former.

High-breeding signifies a vigorous selection of breeding stock with reference to a definite standard, and within the limits of a particular family.

Line-breeding implies the continued selection of males from a particular family.

Close-breeding signifies the mating of animals which are closely related.

In-and-in breeding has a tendency to speedily fix certain characters which may be desired. It has been found of much



FRANK B. BARKLEY MFG. CO., Garden City Block, Chicago, Manufacturers Harness, Buggies, Road Carts, Farm Wagons, Etc.

DIRECT TO THE CONSUMER AT FACTORY PRICES.

service in the establishment of new breeds, but when long continued it leads to delicacy of constitution, sterility, loss of size, and impaired vigor generally.

An *out-cross* properly signifies the use of a sire of alien blood upon animals that have been highly bred, or bred in line. It has for its object the renewal of constitutional vigor generally and sometimes the correction of some family defect. It is a step which requires the use of much judgment and skill.

The term *scrub* is applied to animals whose valuable properties have been lost through lack of care in breeding and management.

As a rule they are kept at an actual loss to the owner, and always at a relative loss. Their one redeeming feature is their ability to resist the influence of neglect and privation.—Kentucky Stock Farm.

Chicago a Great Manufacturing Center.

The farmers of the great Mississippi valley can scarcely realize the advantages they derive from being so close to a great city like Chicago, and more and more they are learning the benefits of it as a market to them. Not only is it a great market for their products, but as a source of supply it is the greatest in the world to-day. Owing to this fact, manufacturers are centering in and about Chicago in order that they may be brought in close proximity to the wide-awake farmers of the great and growing West. Instead of farmers being dependent upon the local merchant or dealer for what he needs, he has virtually within his own possession as large an assortment as the great stores of the city, that is if he has availed himself of the privileges afforded by manufacturers who send their catalogues gratis to any one applying. Every farmer should stock himself with catalogues and investigate prices and quality thoroughly before he makes a purchase. This fact was recently impressed upon our Chicago manager, and he has prepared for us an illustration which sets forth the advantages of one institution, which illustrates the point very well. The Frank B. Barkley Manufacturing Co., with offices in the Garden City block, Chicago, manufacture all kinds and styles of horse goods; both single and double harness, and all styles and grades of vehicles for horse or pony, dog or goat. By writing them, they will send you a handsomely illustrated catalogue, giving full description of their goods and the prices they ask. They advertise in the columns of this paper to sell better goods at one-third saving over the price your local dealer will charge you. To meet the demands of their growing business they have located their factory plant at South Waukegan, Ill., and the illustration pictures the first building they have erected, which has a capacity of 100 men. This is not a new business which has sprung into existence mushroom-like. Mr. Barkley is one of the best posted harness men in the country; been in business over twenty years, and he has associated himself with Mr. G. W. Nash and Mr. C. W. Stansbury, as you will see by the illustration, both gentlemen of high repute. The following is copied from the South Waukegan News: "The factory will use none but the very best of No. 1 pure oak-tanned leather in their harness, which is sold so low as to be almost incredible. Think of a harness as low as \$5, a road cart for \$10, a buggy for \$55, goat or dog harness \$1.50, goat or dog carts \$4, and dog wagons \$2.50. These figures will give a glimpse of their catalogue rates, which are really those of the factory to wholesalers. Send for catalogue and familiarize yourself with the production and prices of this factory. The people of South Waukegan are to be congratulated upon the opening of this institution, which will eventually give employment to hundreds of families who will live here and form part of our industrial

population. The members of the firm are gentlemen whom it is a pleasure to know, and who will closely identify themselves with not alone the material, but the moral and social life of our new city." When attending the World's Fair, notice their two exhibits in the Transportation building. They will show you there just the kind of goods they ship to their customers. In writing the Frank B. Barkley Manufacturing Co., address Garden City Block, Chicago, Ill., and mention this paper.

Stock Gossip.

The Iowa Swine Breeders' Association and the National Association of Expert Judges hold a meeting at Des Moines, Iowa, on June 20 and 21, 1893.

The live stock exhibit at the World's Fair is arranged as follows: Cattle, horses and jacks and jennets, August 21 to September 21; sheep and swine, September 25 to October 14. The dog show will be held all next week.

The business for the Union stock yards, Omaha, as compared with last year, five months is as follows: For last year, 1892, the live stock receipts were, cattle, 348,552; hogs, 905,076; sheep, 89,170; horses and mules, 2,603. In the five months of 1893 the receipts were, cattle, 421,901; hogs, 656,478; sheep, 140,999; horses and mules, 4,882.

J. N. Grau, of Asherville, Mitchell county, has our thanks for some samples of Dickinson-Delaine Merino wool that is surprising, and by far the best samples of wool grown in Kansas that the writer has ever seen. Something further will be said regarding this class of wool and the kind of sheep that produce it, on our stock page next week.

"It seems strange," writes W. W. Waltmire, of Carbondale, Kas., who has his Short-horn cow, Genevieve, in the Short-horn class of the great dairy test now being made at the World's Fair, "that only three breeds are represented, viz., Jerseys, Guernseys and Short-horns. The Holstein-Friesians are conspicuous by their absence." Kansas bids fair to make a good record for both Short-horns and Jerseys.

Our Chicago manager reports the receipt of a letter from John M. Doty & Son, of Charleston, Ill., in which they state that they began breeding recorded Chester Whites and Berkshires seven years ago. They have made new additions to their herds each year from the most noted stock in America. Their Berkshires are pure English strain. They have seven sows which up to date have a total of seventy living pigs out of seventy-seven pigs farrowed by the seven sows. They have also been breeding Cotswold sheep for twenty-five years. Royal Preston 184, is at the head of their flock this season. They report lambs in excellent condition.

Superior to Anything.

FARGO, North Dakota, March 1, 1893.

The Lawrence-Williams Co., Cleveland, O.:

Please send me descriptive circulars, directions and all printed matter that you may have on the Balsam question. I have used it for years and think and know that it is superior to anything else of the kind. C. H. MITCHELL.

Have every workman see that the tool he uses is properly cared for as soon as he is through with it.

Tarred on the under side and edges and laid in a bed of tarred sand, two-inch plank make a water-tight floor.

Suppose we all conclude to cut all the weeds along the road and on the farm this year before they go to seed.

Regular hours for rising, going to work and quitting work are just as essential to success on the farm as in the store or office.

The Home Circle.

To Correspondents.

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

The Christian Martyr.

[Published by request of "Jayune."]

If thou canst bear the rich man's scorn,
Nor curse the day that thou wert born
To feed on husks and lie on corn;

If thou canst dine upon a crust,
And still hold on with patient trust,
Nor pine that fortune is unjust;

If thou canst see with tranquil breast,
The knave or fool in purple dressed,
Whilst thou must work in tattered vest;

If thou canst rise, ere break of day,
And toll and toil till evening gray
At thankless work for scanty pay;

If in thy progress to renown
Thou canst endure the scoff and frown
Of those who strive to pull thee down;

If thou canst bear the averted face,
The glances and treacherous embrace,
Of those who run the self-same race;

If thou in darkest days canst find
An inner brightness in thy mind,
To reconcile thee to thy kind;

Whatever obstacles control,
Thine hour will come—go on—true soul!
Thou'lt win the prize, thou'lt reach the goal.

If not, what matters? Tried by fire,
And purified from low desire,
Thy spirit shall but soar higher.

Content and hope thy heart shall buoy,
And men's neglect shall not destroy
Thy secret peace, thy inward joy.

—Chas. Mackay.

A TRIP TO FLORIDA--2.

BY OUR BEE EDITOR.

THE BLIGHT OF THE LAND.

The curse and blight of the negro, and of many of the whites, too, in Florida, is the saloon and gambling dens. This, too, in a State where, as a man in the business informed me, the State, county and city licenses amount to over \$1,000 per year. This is not very encouraging to the high-license theory from a moral standpoint.

The whites and blacks do not drink from the same counter. The man who caters to both must provide separate places for them to drink, but when they are drunk they will herd together, gamble, if needs be, at the same table, or, perchance, be run in by the same negro policeman, and spend a night together in the same "boose," if not in the same cell; but they will not start the drunk at the same bar. The greatest evil that the negro of the South has to contend with is the saloon, and not a real or imaginary prohibition of his exercising the right of franchise as he may wish. He who can free the race from the demon of rum will be more of a benefactor than the blatant politician or editor who howls and screeches about a "free ballot and a fair count." Not only the men but the women are being caught in the fangs of this fiendish vampire. A lady told the writer that she had a good cook who drank so much she had to dismiss her.

I was passing along the street one day and overtook a negro man leading a boy who yet wore short pants, and heard him say to the child: "You d—n little cuss, you cannot have any more whisky; one glass of whisky is enough for a boy of your size. You can drink more whisky than I can." With such a scene before him, how can any one doubt that here is one of the most important problems that confront the people of that country to-day—how to save this impulsive, imitating race from the curse of drunkenness, vice and immorality?

The negro, as I found him in Florida, is not an ideal citizen at his best. On the other hand, he is far from it, in my opinion. In many respects he is a very undesirable citizen. He is noisy, bumptious, forward, self-asserting, and, in many cases, pugnacious; and, say what you will, he is not as reliable as a servant as the white help of the North, and we all know that some of that is very unreliable. Of course, we must take into consideration his past history and the influence that sudden elevation and being made a bone of contention is sure to have on anyone reared in ignorance and poverty. The writer has no sympathy with that selfish, contemptible spirit of some men in the South who delight in calling him a "nigger," by which they mean he is no better than a horse or a dog; neither has he any sympathy with that loud, clamorous buncombe which we hear at times setting him up as a persecuted hero. He is not an animal, he is not a vagabond, he is not a hero, he is not a saint, but a very ordinary human being, low down in the scale of existence, with capacity to rise. How much capacity only time and experience will tell. I want to say, however, that I found him working along what I believe to be right lines, and that if let alone and protected from the influences of vice until growth

makes him stronger, he will solve the problem of his future for himself.

I was talking with an old Southerner with locks and beard as white as the snow, that never comes in Florida, and I asked him if he was a native of the State. "No," said he, "I am from the rebel State of South Carolina, but I have lived here for thirty years." He was silent for a moment, and then said: "I wish Massachusetts and South Carolina had been compelled to go out to themselves and fight until every one of them was dead, and then the rest of us would have behaved ourselves." This was rather a new way of settling the war, but I do not know but it would be a good way to get rid of the people, both North and South, who are constantly trying to make trouble about the negro. If our modern fire-eaters could be treated to a dose of this kind of medicine it would be better for the negro and the country, but I confess it would be a little hard on them.

WHAT OF THE CLIMATE?

If I should try to answer this in a word, I would say "It is immense." It is not always agreeable, or at least it was not this past winter, but it is always endurable. During the past winter there were days in Jacksonville when it was very disagreeable to be out, and from what I could learn this was true in many other localities. At times it was not pleasant even in the house. The unpleasantness in the house, however, grew out of the fact that these people are not prepared for cold, damp weather. The houses are not built for winter, and you have only to think of the air full of dampness and the mercury down to about 22° above zero, and yourself trying to keep warm from the heat of an oil stove, or worse yet, a lamp, in one of these houses, and then you will understand why it is not always pleasant in Florida. But one should remember that it is not always pleasant in the winter in Missouri or Kansas. Perhaps there is no day in a winter like the past one even but what a person could be more comfortable in a properly heated house in Florida than he could be in any home in the North. When the sun does come out, it brings with it such brightness, warmth and good cheer that one soon forgets the cold, and he is inclined, in spite of the disagreeable days, to say, "Surely the climate is immense."

I want to say a word to invalids about going to Florida. If you are able to take care of yourself, or have plenty of means so you can secure the necessary comforts of life, a trip to Florida may do you good; but if you are not able to care for yourself, and do not have plenty of money to buy anything you want, you would better stay at home. There is no question in my mind but this sending of invalids to Florida is largely a mistake. Many of them would be better off at home. Take a case of consumption, for illustration. When the doctor feels himself helpless, as he so often does, he says to the patient, "I think a trip to Florida would do you good." Perhaps the doctor was never south of Mason and Dixon's line, but he must do something, and so he says, "Go South." The patient many times has but little money—not enough to secure the comforts a well man needs, to say nothing of a sick one; but encouraged by the statements of the doctor, he goes, spends all he and his friends can raise, and meets in the end disappointment and death.

If consumption is caused by microbes and the theory of their growth is correct, then I do not know of anything better suited to their development than a warm, damp atmosphere. The only thing that makes Florida suited to such people is the abundance of sunshine, and the fact that they can be out in the open air every day. To go to Florida to stay in the house means death to a consumptive, and I am not so sure but he would be as well off in the North if he got plenty of fresh air every day, rain or shine, when we take into consideration the comforts he will be deprived of as soon as he leaves home. The constant talk of Florida as a home for the invalid has been, in my opinion, a great injury to the State. Florida needs more people, but she does not need more invalids, or even tourists, for they create an abnormal and unnatural condition of things. She needs more men and women of brains and brawn to develop her wonderful resources.

WHAT CAN THEY RAISE?

Almost everything. A writer in the Florida Dispatch says: "One of the great wonders of Florida is her contradictions. These contradictions run through everything. I would almost guarantee to find from one or two to four or five different soils on any forty acres in south Florida."

I found this to be true in all parts of the State, or at least I found this element of contradiction everywhere when I talked with the people about the products of the soil and the resources of the State. Eggs were 30 and 35 cents per dozen in Jacksonville. I said to a man who had a few chickens that I should think poultry would pay in that country. He replied: "Hens will not lay here like they will in the North." I went up the St. Johns and spent a few days with a thrifty Southern family who had plenty of chickens, ducks, turkeys, etc., and they were getting plenty of eggs,



Make a strong suds with Ivory Soap and squeeze the crêpe de chine in it. If there are spots, rub a little of the soap on them. After the dirt is removed, wring out the water and pin the crêpe de chine on a sheet fastened to the carpet, and allow it to dry thus stretched. When dry, unpin and the fabric will be like new.

G. H.

COPYRIGHT 1893, BY THE PROCTER & GAMBLE CO.

and said that was a fine country for poultry.

As I sat down to the table I noticed they had good milk and butter. I said, "I have been told that you cannot make good butter in the South." "I made this," said one of the young ladies, "and I can make better butter in the summer than I can in the winter, if I have ice." The butter on the table was good enough for any one.

I am very fond of sweet potatoes, and as I found none on the table where I boarded in Jacksonville, I ventured to inquire the reason. I had an idea that the natural home of this palatable vegetable was in the South. The gentleman remarked that they could not raise good sweet potatoes in Florida. I went down to Ocala and staid a short time and the first meal I sat down to eat I noticed they had very fine sweet potatoes on the table, and I remarked that I had understood that sweet potatoes would not grow well in Florida, and asked why it was. I was informed that those on the table grew in Florida and that there were hundreds of bushels of them raised there every year. Surely this is a land of contradictions.

(To be continued next week.)

Strawberries--Several Excellent Ways of Using.

Strawberry Jam.—The following recipe is a good one, though extremely simple, and has been thoroughly tested: Stew the berries with just as little sugar as possible, and stir continually. When the strawberries are thoroughly done, but not before, add the sugar in the proportion of one pound to each pound of fruit. Of course, the jam will need to cook only a little longer, and this will preserve as far as can be the exquisite red of the berries.

Strawberry Preserves.—This recipe is a most valuable one; it admirably keeps the flavor and the lovely color of this perfect fruit. Take fruit as fresh as possible, wash very carefully, taking pains not to bruise

the berries in the least, or to leave a moment longer than necessary in the water. Add three-quarters of a pound of granulated sugar to one pound of fruit. Put immediately on the fire, and cook quickly for twenty-five or thirty minutes. Then take out the strawberries and spread on flat dishes in the sun. Selecting a bright, warm day for making these preserves, the color will be more perfect. Boil the sirup until it is thick and clear. Pour it over the fruit while hot. Put in jars, and serve them often. The secret of success with strawberry preserves is not to cook too long, or to use too much sugar, as their delicious flavor is more easily impaired than that of any other fruit.

Strawberry Shortcake.—Make the pastry light and flaky; bake in six shallow plates. Spread the berries—either stewed with sugar, or if the berries are large and ripe, only set aside with enough sugar to make a juice before using them—between the pastry in alternate layers, at least six berries deep. There must be always a generous allowance of berries. It should be eaten with rich, thick cream poured over it, and appeals equally to the eye and palate.—Good House-keeping.

Docking.

The docking of horses' tails by Anglo-manians who ape English manners and customs should be made a criminal offense, punishable by imprisonment for not less than one year. Nature provided the horse with a tail to brush off the flies, mosquitoes, and other insects, just as the Creator furnished man with hands to protect himself. There are no mosquitoes and scarcely any flies in Great Britain to bother animals. A man who will wantonly cut off a horse's tail should be compelled to stand on a sugar dock in hot weather, with his hands tied behind his back, and he would then know the agony and torture a poor horse suffers with nothing but a stump of a tail to drive off these pests and tormentors.—St. Louis Herald.

Looking Forward.

Judging the future by the past, no Baking Powder in the near future will in any way approach the superior qualities and purity of

Dr. Price's Cream Baking Powder

The Queen of all the Baking Powders in purity, strength, wholesomeness and efficacy. The favorite in every kitchen.

Dr. Price's is a Pure Cream of Tartar Baking Powder, and so pre-eminently superior to every other that it must remain without a rival in the future—as in the past.

The Young Folks.

Sweet Petunias.

They clamber o'er my windows,
They're peeping through the door;
They wait the sweet old fragrance
Of the hallowed blooms of yore;
I pluck a bud, and visions
Of boyhood's days arise,
When years were censors, bearing
Incense from Paradise.

The white of budding May-time,
The pink of tender June,
The breath of summer hay-fields,
The rest of silent noon;
The fragrant turf of evening,
The low of pastured kine,
The tinkle of the sheep-bells
Idyllic scenes, once mine!

And, oh, the benediction
That came at day's decline,
When mother's prayer and blessing
Healed every grief of mine!
The scent of purple lilacs,
The spiced petunias' balm
Came stealing through the casement,
Stray chords from Nature's psalm.

My lengthening years roll backward
And I'm again a child,
Seeking the nesting ground-bird
Through tangled roses wild;
Or, deep in balsam pine-woods
I delve for satin "chinks,"
Or in the swamp for flag-root,
Mallows and waxen pinks.

Then up the garden pathway
I bear my glad surprise
To her who in the doorway
Greets me with love-lit eyes.
The table with its shortcake
And raspberry tarts, awaits,
Though robins dear have twittered
Good night to all their mates.

—Good Housekeeping.

THE STORY OF JIM.

The time was a cold October afternoon. The place was a lonely junction waiting-room in northern Michigan. The people of the drama were an old lumberman in "store clothes" and a young man whose apparel proclaimed the city. And then there was a rough pine box, about six feet long, on a truck outside. Perhaps that might have been called the "properties."

There is no more desolate place than the Sault Ste. Marie junction. And it was raining that afternoon. There is a dirty little station and the train dispatcher's house on one side of the main track. Opposite is a deserted log cabin. There is nothing else to be seen. In summer the commonest flowers shun the spot. The old man with the crape on his hat sat looking out at the box on the truck. The young commercial traveler, or advance agent, or whatever he was, stared vacantly at his companion. The time passed slowly and drearily. Once a freight train rattled by. The young man got all the enjoyment he could out of that, and ruefully viewed the caboose fading away into the fog.

At length, as if compelled to speak, the old man said: "Say, I hate t' see th' rain fall on that 'ere coffin so. They oughter made the eaveses t' this yere station bigger. I tried to bring him in, but that truck's too wide. Jim was a fine boy, he was, afore he went up t' Marquette. That's him out there. It warn't unnatural fer him t' want to go. There hain't nothin' to keep a bright boy t' home in a town what's got nothin' in it but my ole sawmill an' th' store. But I wisht he'd a staid—I wisht he'd a staid! A country boy ain't got no show in one o' them tough iron towns. I ain't a blamin' Jim fer leavin' me. But he was all I had. He didn't know how much I wanted him to stay or he'd a done it. He didn't have no sort o' raisen. His mother died when he was just a little feller. When he growed up, nothin' 'ud do but he must go away. He goes up to Marquette an' gits him a good job on th' ore docks, being strong an' handy. He uster write me th' fines' letters you ever seen ev'ry Sunday regular. He was up there jest four months when he quit writin'. I stood it a month, an' then I went up. He was sick in a measly bordin'-house. He was consider'ble sick, but we fetched him through, an' I took him home. He got good an' well again. He said he'd stay with me at home. But he didn't. He runned off one night. I didn't care fer what he took, if he'd only a come back. He kep' a-writin' fer money t' come home on, an' I kep' a-sendin' it—but I had to go fer my boy. He was shot through the heart at a saloon at the Soo. That's him out there. I ain't a blamin' him. I didn't raise him as I—"

Then a whistle was heard. It was the awaited train. With careful hands the father, the train dispatcher and the young man wheeled the coffin to the baggage car. Gently the burden was lifted within. The old man climbed in to be with his dead. The door was shut. And in a moment the train was lost in the burnt pine barrens.—Harper's Weekly.

Success With Flowers.

"A little of that good, old-fashioned quality, sometimes vulgarly called 'horse sense,' is about as valuable a thing as an amateur can supply himself or herself with when he or she concludes to have a flower garden," writes a contributor to the June

American Gardening. * * * "Many amateurs start out with a great store of enthusiasm, and not enough of the essential named. They say that they 'just love' flowers, and that they 'go wild' over them. Now, please do not go wild; go slow if you are new in the business. Rid yourself quickly of the fallacious belief that success with flowers is in any sense a matter of luck. Flowers will grow and bloom as readily for you as for any one, if you undertake their culture in the right way. Investigate the methods and success of the lucky flower-grower, and see if he or she is not well up on the question of the right kind of soil for plants, the proper location of this bed of pansies and that bed of petunias. The lucky flower-grower knows just when to sow certain seeds and where to sow them. He knows how deep to put them, and the difference between the requirements of the rose and the nasturtium. He is not depending upon luck, but upon his practical knowledge of flowers and their needs. The amateur should study into the requirements of every seed he sows and every plant he sets out. He should not undertake too much in the beginning, and he should never allow his enthusiasm to get the better of his judgment, and lead him into all sorts of ventures, certain to result in failures."

Bones' Duck.

Bones was a shaggy, fat Skye terrier with a short tail. Just why these scruffy-looking Skye terriers always find luxurious homes and fond admirers I don't know, but they seem to do it. Bones was no exception. He was the household pet. Every member of the family cuddled and kissed him, and he returned their affection with equal ardor.

When any one came home after a short absence, Bones showed extravagant delight, and his demonstrations were usually rewarded with candy or cake.

He had a trick of catching up any small object which came handy, and bringing it to lay at the returned one's feet, as if to display the generosity of his heart.

Sometimes he overshot the mark, like the rest of us.

One day the lady of the house returned, and Bones, dashing out to find some token of affection to present her, fell over three unfortunate little ducks walking primly behind their mamma. He caught one up in his mouth, and with joyful haste rushed back to the parlor.

Poor duck! Poor Bones! The duck struggled. Bones took a firmer grip. The duck struggled harder. Bones gave a hurried gulp, and, to his own dismay as well as to the duck's, the duck went down Bones' throat, and never came up again.

The shout of laughter which greeted his exploit was too much for Bones. He ran out faster than he came in. His stomach and his conscience both troubled him for long after. It was only necessary to say, "Duck, Bones!" to see him slink away with the funniest expression of doggy shame, caused by the remembrance of his unintentional dinner.—Harper's Young People.

The Bed of the Atlantic.

Proceeding westward from the Irish coast the ocean bed deepens very gradually; in fact for the first 230 miles the gradient is but six feet to the mile. In the next twenty miles, however, the fall is over 9,000 feet, and so precipitous is the sudden descent that in many places depths of 1,200 to 1,600 fathoms are encountered in very close proximity to the 100-fathom line. With the depth of 1,800 to 2,000 fathoms the sea bed in this part of the Atlantic becomes a slightly undulating plain, whose gradients are so light that they show but little alteration of depth for 1,200 miles. The extraordinary flatness of these submarine prairies renders the familiar simile of the basin rather inappropriate. The hollow of the Atlantic is not strictly a basin whose depth increases regularly toward the center; it is rather a saucer or dish-like one, so even is the contour of its bed.

The greatest depth in the Atlantic has been found some 100 miles to the northward of the island of St. Thomas, where soundings of 3,875 fathoms were obtained. The seas round Great Britain can hardly be regarded as forming part of the Atlantic hollow. They are rather a part of the platform banks of the European continent which the ocean has overflowed. An elevation of the sea bed 100 fathoms would suffice to lay bare the greatest part of the North sea and join England to Denmark, Holland, Belgium and France. A deep channel of water would run down the west coast of Norway, and with this a majority of the fiords would be connected. A great part of the Bay of Biscay would disappear; but Spain and Portugal are but little removed from the Atlantic depression. The 100-fathom line approaches very near the west coast, and soundings of 1,000 fathoms can be made within twenty miles of Cape St. Vincent, and much greater depths have been sounded at distances but little greater than this from the western shores of the Iberian peninsula.—National Magazine.

A Thankless Sinner.

A Journal reader was looking over an old newspaper the other day when he found the following incident, which he thought would bear reviving:

It was in an English hospital. The chaplain was making his morning rounds when he met a porter.

"How's Robinson this morning?" he asked.

"He's dead, sor," answered the porter.

"Dead!"

"Yes, sor."

"But why didn't you call me? I might have been able to comfort the poor fellow a little in his last moments."

"Hi comforted 'im myself, sor."

"You? Indeed! And what did you say to comfort him?"

"Hi said to 'im, 'Robinson, Hi suppose you know you're werry sick?'"

"Yes," says 'ee.

"Robinson, Hi suppose you know you can't last long?"

"Yes," says 'ee.

"Robinson, Hi suppose you know you've been werry wicked?"

"Yes," says 'ee.

"Robinson, Hi suppose you know you can't go to heaven?"

"Yes," says 'ee.

"Well, Robinson," says Hi, 'you ought to be werry thankful that there's a place provided for you fellows to go to.'

"Yes," says 'ee.

"And then 'ee turned 'is face to the wall an' died without even thanking me for comforting 'im."—Boston Journal.

Peter, the "Mint Bird."

If you have a silver dollar of 1836, 1838 or 1839, or one of the first nickle cents coined in 1856, you will find upon it the true portrait of an American eagle that was for many years a familiar sight in the streets of Philadelphia. "Peter," one of the finest eagles ever captured alive, was the pet of the Philadelphia mint, and was generally known as the "mint bird." Not only did he have free access to every part of the mint, going without hindrance into the treasure vaults, where even the treasurer of the United States would not go alone, but he used his own pleasure in going about the city, flying over the houses, sometimes perching upon lamp posts in the streets. Everybody knew him and admired him, and even the street boys treated him with respect. The government provided his daily fare, and he was as much a part of the mint establishment as the superintendent or the chief coiner. He was so kindly treated that he had no fear of anybody or anything, and he might be in the mint yet if he had not sat down to rest upon one of the great fly wheels. The wheel started without warning, and Peter was caught in the machinery. One of his wings was broken, and he died a few days later. The superintendent had his body beautifully mounted, with the wings spread to their fullest extent; and to this day Peter stands in a glass case, in the mint's cabinet, where you may see him when you go there. An exact portrait of him as he stands in the case was put upon the coins named.—Harper's Young People.

Rocked on the Crest of the Wave,

The landsman, tourist or commercial traveler, speedily begins, and not only begins, but continues, to feel the extreme of human misery during his transit across the tempestuous Atlantic. But if, with wise prescience, he has provided himself with a supply of Hostetter's Stomach Bitters, his pangs are promptly mitigated, and then cease ere the good ship again drops her anchor. This is worth knowing and thousands of our yachtsmen, summer voyagers, tourists and business men do know it.

BICYCLE TO ANY BOY OR GIRL FREE
under 18 years of age who will work for us after school. NO MONEY NEEDED.
Send this ad. to A. CURTIS & CO.,
207 WEST WASHINGTON ST., CHICAGO, ILL.

FISHERMEN'S OPPORTUNITY
If your local dealer does not keep
Paddock's Angler's Outfits
send stamp for catalogue to Paddock
& Co., 195-197 Halsey St., Newark, N. J.

NOT FAIL to send for specimens & penmanship and illustrated circulars of the **WINFIELD BUSINESS COLLEGE**. Only college in the West that has ever been awarded medals at any of the World's great Expositions. Expense less than any other school. Address,
C. S. PERRY,
Winfield, Kansas

Topeka Business College

Best Business Course. **Shorthand Penmanship** **BOARD AND ROOM, \$2.50 PER WEEK. STUDENTS** constantly securing good positions. For catalogue and specimens of penmanship address **L. H. STRICKLER, Topeka, Kas.**

CHICAGO VETERINARY COLLEGE.
FOUNDED 1893.

The most successful college on this continent. For further particulars address the Secretary,
JOS. HUGHES, M. R. C. V. S., 2537-2539 State St., Chicago, Ill.

If Your Cistern Is Out of Order

or Soft Water is scarce,

don't worry yourself for a moment—go right ahead and use hard water with

KIRK'S
WHITE RUSSIAN
SOAP

and you'll never know the difference. The clothes will be just as white, clean and sweet-smelling, because the "White Russian" is specially adapted for use in hard water.

JAS. S. KIRK & CO., Chicago.

Dusky Diamond Tar Soap. Best Soap for the Hands.

Worth a Guinea a Box.
Stubborn tendencies to digestive troubles in children will always yield to a mild dose of **Beecham's Pills** (Tasteless)
25 cents a box.

—THE—
J. H. NORTH

Furniture and Carpet Co.

A FULL LINE OF

Furniture,
Carpets,
Draperies,
Wall Paper,
Crockery,
Stoves.

Best Goods. Lowest Prices.

1216 to 1224 Main Street,

KANSAS CITY, - MO.

KANSAS FARMER.

ESTABLISHED IN 1863.

Published Every Wednesday by the
KANSAS FARMER COMPANY.OFFICE:
No. 116 West Sixth Street.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

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

Address **KANSAS FARMER CO.,
Topeka, Kansas.**A MEMBER OF THE
**WESTERN AGRICULTURAL JOURNALS
ASSOCIATION.**EASTERN OFFICE: Frank B. White, Manager,
651 The Rookery, Chicago.**ADVERTISING RATES.**

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

Special reading notices, 25 cents per line.
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.

Annual cards in the Breeders' Directory, consisting of four lines or less, for \$15.00 per year, including a copy of the 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 the 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.

The "gold reserve" in the United States Treasury, which it has been regarded a sacred duty to keep at \$100,000,000, was officially reported June 1 at \$95,048,640, and three days later had decreased to rather less than \$90,000,000.

Lieutenant Governor Daniels publishes a stirring letter to the people of Kansas, in which he takes the position that the railroad rates to the World's Fair ought to be only one-half of the usual rates, and he is willing to be one out of a possible 30,000 people to enter into an agreement to deprive themselves of the proposed pleasure and profit of seeing the exposition unless the transportation rates are made reasonable.

On page three of this week's FARMER will be found a most valuable table, showing the average yearly prices of wheat in Liverpool, England, since 1595—almost 300 years. The highest prices prevailed about the beginning of the present century, and in 1812 the extreme figure of \$3.85 per bushel was reached. The lowest price occurred in 1688, when 72 cents per bushel prevailed. Prices have been fairly steady, with a generally downward tendency, for the last forty years. Cut out the table and paste it in your scrap-book for future reference.

Immense runs are reported on banks, especially savings banks, of Chicago and other places east of us. Failures of firms engaged in various kinds of business, as well as banks, are of daily occurrence. The time will probably come some time when we shall, in this country, adopt the very sensible and absolutely safe system of postal or government savings banks. The present stringency, which borders on a panic, need not have occurred if the Treasury had all along availed itself of its option of paying either silver or gold in redemption of certificates. "Somebody has blundered."

THE KANSAS GRAIN COMPANY.

The Kansas Grain Company, until recently known as the Kansas Grain and Live Stock Company, suspended payment last Monday. It is said that this company purchases more grain from producers than any other firm in the world. It has 106 elevators in Kansas, located along the lines of the Atchison, Topeka & Santa Fe, the Missouri Pacific and Rock Island railways. The largest of the company's elevators are located at Hutchinson, Newton, Douglass, Caldwell, McPherson, Conway, Galoa, Windom, Sterling, Sylvia, Belle Plaine, Coldwater, Kinsley, Concordia, Augusta, Mulvane, Kiowa and Ellinwood. The elevators represent an investment of \$151,000. The capital stock

of the company is \$50,000, fully paid up and the surplus is placed at \$30,000.

The company has two principal offices, one in the Exchange building in Kansas City under the management of H. M. Kirkpatrick, Secretary and Treasurer, and the other in Hutchinson under the supervision of T. J. Temple, the President of the company.

The suspension of the company is attributed to the tightness of the money market which prevented it from hypothecating warehouse receipts so as to meet maturing paper. The low price of cash wheat in comparison with what it was worth for July and September delivery is also given as another factor in the suspension. The assets and liabilities of the company have not been made public.

WILL CHEMISTRY SUPERSEDE AGRICULTURE?

PART III.

If the writer were a lawyer employed to prove the negative of this question he might pettifog the case by presenting reasons for supposing that the bacteriologist rather than the chemist is the character which the agriculturist of the future will assume. It has been remarked that the oldest chemists are the bakers, and it is true that in making bread certain changes are wrought in the chemical composition of ingredients of the flour. But these changes are wrought through the agency of the living organisms of yeast, and the excellence of the results depends not upon the skillful manipulation of the baker in the role of chemist but upon the efficiency and care with which he cares for and propagates his yeast and at the proper time arrests its action. In this case the chemist has investigated and described the results upon the composition of the flour, but he has had no hand in producing them.

When, not many decades ago, a few chemists began to turn their attention to agriculture, and it was found that slight changes in the chemical composition of the soil produced immense changes in its productiveness, great expectations were aroused. A cynical individual remarked that "soon all that will be necessary for the prosperity of the farmer will be to go over his fields with his chemistry under his arm and, on observing the lack of vigorous growth of any crop, to sprinkle a little powder from his vest pocket upon it, when all will be changed." This extreme statement was forcibly called to the writer's mind a year ago on conversing with an eminent agricultural chemist, who had recently sold a fine farm on the rich lands of the Wabash, in Indiana, and had invested in some of the poor, thin lands of eastern Maryland. "It is not here," he remarked, "so much an object to buy fertility as to secure surface on which to apply fertilizers. The cities of Washington, Baltimore and Philadelphia afford a ready market at good prices for products which do not well bear transportation from the rich lands of the West, while the nitrate beds of Chili furnish the fertility at moderate cost."

The chemist has, indeed, by his thousands of analyses and by diligent comparison of soils which are productive with those which are less productive, been able to determine the elements of fertility. He has found that for all vigorous growth there must be in the soil somewhat liberal quantities of compounds of nitrogen. He has learned also that these are taken up and removed from the soil with considerable rapidity with the crops; that, on decomposing, vegetation readily loses its nitrogen by allowing it to escape in some gaseous form, so that the fertility is not completely restored, even though the utmost care be exercised to return as much manure as can be produced from the products of the land. The chemist has also been able to determine that nature restores exhausted fertility, but slowly, under ordinary circumstances. The rains do indeed bring into the soil from the air in proper form, to increase fertility, about seven pounds of nitrogen per acre per year, and if the soil is otherwise well constituted, this is largely retained. But these seven pounds per

acre are but a fraction of the amount of this element removed with an ordinary crop. The most eminent and thoughtful agricultural chemists, after allowing for all that the nitrate beds of South America can do, were startled at the showing of the most conservative figures as to the exhaustion of fertility, and were puzzled to answer the question as to whence the coming millions are to be fed. Experiments were planned and performed to determine whether plants can assimilate any of the untold tons of nitrogen which floats freely over every acre of land as a constituent of the air. Such experiments, until recently, resulted in confirming the doleful opinion that plants are unable to avail themselves of this ocean of the fertilizing element. And indeed experiments conducted purely on the chemical plan might still have been giving mankind the blues as to the food supply of their progeny had it not been suggested that nature might have some other than the chemical way of operating. Thereupon soils were again analyzed and the determination of the quantities of nitrogen present were carefully made. Plots of these soils were then cultivated to various crops and again the soils were analyzed, when lo, after making allowance for all possible gains of nitrogenous compounds through rains, the clover plots were found to have materially added to their stocks of nitrogen. Under the treatment of the chemist alone clover, as well as other plants, had failed to make such addition; but under the treatment of the farmer clover had added the all-important element.

Microscopic examinations followed, and it was discovered that, under ordinary conditions, clover roots are affected by bacteria, which, acting upon the roots, cause the tubercles which were known to grow upon the roots of the plants which it affects; and it was further found that when these tubercles grow, nitrogen is assimilated. So, as in the case of bread-making, the desired result is brought about by bacteria, and the chemist is relegated to the position of an observer of what the practical bacteriologist, in this case the farmer, has done.

MAY FALL BACK ON GREENBACKS.

It was given out from Washington, on June 2, that one of the plans to replenish the gold reserve, which has been subjected to the strictest legal scrutiny, is a reissue or an extra issue of greenbacks. There is no doubt of the power of the Secretary of the Treasury to do this under the law. As greenbacks are not redeemed and interchangeable for gold, they are just as good for all purposes as the yellow metal itself. And it is argued, therefore, that gold enough can be obtained for greenbacks to make up whatever loss the gold reserve suffers from continued foreign shipments. To the suggestion that the government would be compelled to pay a premium for gold if it went into the business of buying, the answer is given that there is gold enough held by the banks in this country, which they would be willing to exchange for greenbacks, to supply all deficiencies until Congress assembles. This scheme would not increase the bonded debt, and is given as an indication that there are other methods of recovering gold than the issue of an interest-bearing bond.

The public debt statement, issued to-day, shows that there was a net decrease of \$739,425.50 last month. Of this \$657,175.50 was in the amount of the bonded indebtedness of the government and \$82,250.49 in the increase of the cash in the treasury. The interest-bearing debt increased \$300. Debt on which interest has ceased since maturity decreased \$37,480, and the debt bearing no interest \$619,695.50. The aggregate interest and non-interest-bearing debt, May 31, was \$961,750,888.63; on April 30 it was \$962,407,764.13. The certificates and treasury notes offset by an equal amount of cash in treasury outstanding at the end of the month was \$594,531,017, an increase of \$1,485,004. The total cash in the treasury was \$754,122,984.47, the gold reserve \$95,048,640 and the net cash balance \$26,516,514.30. In the month

there was a decrease of \$5,764,749.32 in the gold coin and bars, the total at the close being \$196,518,609.76. Of silver there was an increase of \$5,173,874.48. Of the surplus there was in national bank depositories \$11,649,142.54 against \$11,270,696.69 at the end of the previous month.

MORE WORLDS TO DISCOVER.

In the breast of perhaps almost every young man, when he learns of Columbus' great achievement of the discovery of the new world, there arises a wish that he, too, might discover a world, and then, after more or less enjoyment of the thought of enrolling his name among the illustrious of earth, he subsides with the somewhat prosaic reflection that there are no more worlds, at least none on this earth, to discover.

So might have soliloquized Thomas A. Edison and scores of others who have, during recent years, written their names on the roll of honor as discoverers. Indeed, there has never been a time when discoveries as to the agencies of nature in bringing about results were more frequent than now. These discoveries, too, are more directly connected with the farm, than ever before. To illustrate: It has long been known that some butter was better flavored than other. It has been known that cleanliness had much to do with this, and yet it did not account for all variations of flavor. Within the very recent past it has been discovered that the ripening of cream is brought about by living organisms called bacteria. It has been further discovered that there are several species of these. After applying the usual methods of separating them, it has been found possible to cultivate and propagate for use only those which by their action upon cream so ripen it that it will produce butter of the finest flavor.

The "new world" which is opening to the explorer in this direction might be illustrated by many other examples not less interesting.

So, too, in another direction it is quite possible to enter into other worlds of discovery. Only the beginning of knowledge has been attained as to how the character of any kind of plants may be modified by the influences of culture, as it affects the embryo, when continued through a few generations of the plant under treatment.

"But," perhaps the ambitious young man says, "you have mentioned things which have been done, but I want to hear of something yet to be done. To merely repeat the work of others is like going from Europe to America after Columbus had discovered the country, and even worse, for Columbus really discovered very little of the new world."

Even so, and, in the fields of discovery now open, only the outlines of a coast, possibly only a mere cape of the great continents, have been seen. The great work of exploration is yet to be undertaken. Let the KANSAS FARMER give you a suggestion.

You are acquainted with the Ben Davis apple. You know the tree to be a strong grower and hardy, and an early and profuse bearer. You know that as to size, shape, color and keeping qualities it is almost perfect. It has one serious defect—it lacks flavor. The KANSAS FARMER is not going to tell you to hunt up some kind of bacteria to give it flavor, as you might infer from what has been said about controlling the flavor of butter. It is not probable that the Ben Davis apple can be flavored in that way, although it has been said that some species of Florida oranges have their flavor improved by the bacteria which produce the rusty appearance of the skin which all have noticed on some oranges. But the Ben Davis apple can doubtless be improved as to its one fault by careful selection of propagating stock for a few generations. And, possibly a new variety, possessing the desirable characteristics of this profitable apple, with the added advantage of fine flavor, can be produced by crossing this variety with some other under favoring conditions.

This is only one of the thousand things waiting for the "Columbus"

who will traverse the only partially known paths to them. If you are willing to prepare for the "voyage," to meet and overcome obstacles, to endure disappointments, to work, work, work, to attend to small details as well as showy results, there are "worlds" of knowledge to be explored as to things seen every day right on the farm.

THOU, TOO, PENNSYLVANIA.

The Census office has just issued a bulletin showing the statistics of indebtedness in the Keystone State. From this it appears that the real estate mortgage movement in Pennsylvania, the second State of the Union in population and near the first in wealth and manufactures, was a progressive one, with a single interruption, from 1880 to 1889, beginning with a debt of \$92,046,674 in 1880 and ending with \$186,642,124 in 1889. In 1888 a debt of \$194,839,253 was incurred, an amount not equaled by that of any other year. This increase of 102.77 per cent. in the incurred debt during the ten years was greater than the increase of population, which was 22.77 per cent.; but how it compares with the increase of the value of all of the real estate of the state can not be known, because that value was not estimated in the census of 1880. In 1880, 78,435 mortgages were made. In 1889 the number was 131,801. During the ten-year period a debt of \$1,366,037,437 was incurred, represented by 1,038,608 mortgages.

It was not practicable to classify the mortgages of Pennsylvania into those incumbering acre tracts and those incumbering lots, on account of the very large proportion of confessions of judgment which were taken by the Census office, and which are included in the mortgage statistics of this State.

The real estate mortgage debt existing January 1, 1890, is \$613,105,802. For each of fifteen of the sixty-seven counties of the State there is an existing debt of more than \$10,000,000, and in three a debt of more than \$25,000,000, namely, Allegheny county, \$62,975,531; Philadelphia county, \$178,903,066, and Schuylkill county, \$36,307,836.

Pennsylvania has a per capita mortgage indebtedness of \$117, and in this respect stands high among the other States whose mortgage statistics have been tabulated, as appears from the following comparative statement:

Alabama.....	\$ 26	Missouri.....	\$ 80
Connecticut.....	107	Nebraska.....	126
Illinois.....	100	New Hampshire.....	50
Indiana.....	51	Oregon.....	73
Iowa.....	104	Pennsylvania.....	117
Kansas.....	170	Rhode Island.....	106
Maine.....	40	Tennessee.....	23
Massachusetts.....	144	Vermont.....	84

In the ratio between the debt and the estimated true value of all taxed real estate Pennsylvania is represented by 18.91 per cent., and compares with other States as is shown below:

	Per cent.		Per cent.
Alabama.....	10.96	Missouri.....	16.15
Connecticut.....	20.14	Nebraska.....	24.58
Illinois.....	14.06	New Hampshire.....	11.68
Indiana.....	9.79	Oregon.....	8.11
Iowa.....	17.61	Pennsylvania.....	18.91
Kansas.....	28.13	Rhode Island.....	12.13
Maine.....	13.28	Tennessee.....	8.67
Massachusetts.....	19.42	Vermont.....	19.21

In Pennsylvania the average rate of interest on the existing mortgage debt is 5.60 per cent., and from 1880 to 1889 the rate on the incurred debt declined from 5.87 to 5.65 per cent.

THE LOW PRICE OF GRAIN.

The great depression in the prices of grain excites surprise and is a matter of disappointment to others besides farmers. The professional speculators, "the bears," are greatly assisted in their attacks on prices by the disturbed condition in which the financial world just now finds itself. For the week ending June 3 the decline in the price of wheat was over 4 cents per bushel.

The professional bears have claimed that wheat would go down, and have predicted that 65 cents will be high in July. They have probably acted on their theory, and have doubtless contracted to deliver large amounts of wheat, which they do not own, at prices much above present quotations. The decline which they expected, and helped to make, has come, and they can fill their contracts with wheat at

far less than the price they are to receive for it. As a matter of fact, they will not fill the contracts at all, but will collect from those to whom they sold the difference between the contract price and that at which they are able to fill their contracts.

The crop situation throughout the world has not materially improved. In most of the wheat-producing countries of Europe the spring drought continued so long that the rains which finally came could not relieve it to the extent of making anything but a light crop.

Cash wheat in Chicago last week reached the lowest point for thirty years, having sold on Friday at 66 cents per bushel. The lowest figure reached at a previous date was 66½ on August 5, 1887.

The KANSAS FARMER is equally anxious with its readers for an answer as to where the decline is going to stop.

Other grains have also declined, but not quite as much as wheat.

Plant Corn, Broomcorn or Forage Crops.

EDITOR KANSAS FARMER:—Farmers are apt to make the mistake this year of allowing wheat to stand which will not pay the cost of harvesting and threshing, and thereby lose a first-class opportunity to grow a good corn crop. We do not presume absolutely to know the future, but unless Kansas foolishly goes back on her past record, she will give us timely and abundant rains from this on to the end of the season, and the man who loses money in trying to save a poor wheat crop and thereby misses a chance to make a good corn crop is not wise.

The heavy rains which have recently fallen in central and western Kansas, while too late to help out wheat, have placed the soil in excellent condition for corn or other summer crops, and corn planted now and for some time to come will have an equal chance to make a crop with that planted a month ago.

From my twenty years of observation and experience in Kansas I feel safe in recommending farmers to lose no time in turning wheat fields into corn fields in all cases where the wheat is a very light crop.

This applies to all of central Kansas. In the western belt some corn might also be planted, but broomcorn is safer, and where sheds can be built to cure it the crop will no doubt be more profitable than corn. The failure of the wheat crop may only be a temporary loss. A corn crop may more than compensate for the loss, and besides leave the ground in splendid shape for seeding to wheat in the fall.

Broomcorn, also, if properly handled, may be worth in net cash per acre twice as much as an average acre of wheat.

In all portions of central and western Kansas reached by the heavy rains of last week farmers should be active during this month in planting corn, broomcorn or forage crops where wheat has failed; for who knows but that on the home stretch they may come out winners?

M. MOHLER.

Topeka, Kas., June 5, 1893.

Weekly Weather-Crop Bulletin.

Issued by the United States Department of Agriculture, in co-operation with the Kansas State Board of Agriculture, for the week ending June 5, 1893; T. B. Jennings, observer:

All parts of the State have been watered this week, but the rain has been unequally distributed. Heavy rains have fallen in the central counties bordering the Colorado line, in Norton, Ellis, Barton and Ellsworth, in the northern counties from Smith to Brown, thence sweeping southeastward through the Kaw valley counties to Johnson, Miami and Linn, and in Sumner and Sedgwick, thence eastward to the Missouri line, while over the other counties it ranged from light to fair.

The week has continued cool but with a tendency to warm up, while an average amount of sunshine has prevailed, except in the eastern counties, where it was deficient.

In general it has been a good growing week.

The wheat will be ready to harvest this coming week in the extreme

southern counties. It is now in bloom in Coffey and Miami.

There has been a marked improvement in much of the wheat through the central and western counties, the reports indicating a total failure in some fields while other fields promise "from ten to twenty bushels per acre," and "half a crop." The straw will be short, generally, throughout the State.

Corn is doing well. It is very small for the first of June, but is a good stand and has a good color, and, excepting in the extreme eastern counties, where the wet weather has prevented, has generally been well worked and is clean.

In the central and western counties much corn is being put into fields whose fall crops promised too little.

In the southern counties of the western division much broomcorn is being planted.

Oats are heading out in the southern counties. The straw will generally be short.

Grass, both wild and tame, continues to improve and generally stands at the head of all crops in condition. Clover and timothy are in bloom in Coffey and Anderson.

Potatoes continue to give very good promise and are coming into market in the southern counties.

Fruits of all kinds are light.

Strawberries are ripe as far north as the Kaw valley.

May cherries are being marketed in Harvey and are ripening in Marion.

The rains have been injurious to the bugs.

Weather Report for May, 1893.

Prepared by Prof. F. H. Snow, of the University of Kansas, from observations taken at Lawrence.

One of the coolest and wettest Mays on our twenty-six years' record, and, notwithstanding the excessive precipitation, one of the clearest. The rainfall of this single month equals the total for the four preceding months of the year. A harmless white frost occurred on the 2d. The run of the wind was normal while the barometer ranged below the average.

Mean temperature was 61.87°, which is 2.98° below the May average. The highest temperature was 86°, on the 21st; the lowest was 42° on the 1st, giving a range of 44°. Mean temperature at 7 a. m., 56.84°; at 2 p. m., 70.22°; at 9 p. m., 60.04°.

Rainfall was 7.62 inches, which is 3.08 inches above the May average. Rain fell in measurable quantities on eleven days. There were five thunder showers. Hail in small quantities accompanied the rain on the 20th and 30th. The entire rainfall for the five months of 1893, now completed, has been 15.39 inches, which is 2.57 inches above the average for the same months in the preceding twenty-five years.

Mean cloudiness was 40.4 per cent. of the sky, the month being 7.5 per cent. clearer than usual. Number of clear days (less than one-third cloudy), thirteen; half clear (from one to two-thirds cloudy), thirteen; cloudy (more than two-thirds), five. There were six entirely clear days and four entirely cloudy. Mean cloudiness at 7 a. m., 46.8 per cent.; at 2 p. m., 44.51 per cent.; at 9 p. m., 30 per cent.

Wind was southwest twenty-four times; south, fifteen times; northwest, fourteen times; north, eleven times; northeast, eleven times; east, seven times; west, six times; southeast, five times. The total run of the wind was 11,370 miles, which is 441 miles below the May average. This gives a mean daily velocity of 367 miles and a mean hourly velocity of fifteen miles. The highest velocity was fifty miles an hour from 5 to 6 p. m. on the 4th, and from 2 to 3 a. m. on the 22d.

Barometer.—Mean for the month, 28.991 inches; at 7 a. m., 29.003 inches; at 2 p. m., 29.005 inches; at 9 p. m., 28.966 inches; maximum, 29.400 inches, on the 25th; minimum, 28.510 inches, on the 22d; monthly range, 0.890.

The Kansas coal miners' strike still continues.

Wall street appears to be a good deal shaken up, and has become much of a "calamity howler."

Publishers' Paragraphs.

Wives and mothers, do not fail to read the large advertisement of the Ohio Chemical Co. in this issue. It may be the means of saving your son or husband.

That well-known dairyman and farmer, A. E. Jones, has an announcement in this issue stating that he desires the nomination for Treasurer of Shawnee county. He is a man well qualified for the place and deserves the support of all his party friends. The country surely is entitled to a fair share of the offices.

The Milwaukee Harvester Co., Milwaukee, Wis., have a very fine exhibit in the World's Fair Agricultural building. The Milwaukee Harvester and Binder, and Chain Mower and Gear Power Mowers, are finely displayed there, and the special points of merit may be readily comprehended. Farmers, in attending the World's Fair, should be sure to see their exhibit.

M. M. Freeman & Co., hay commission, 14 Pacific avenue, Chicago, Ill., report to our Chicago office that the receipts of hay during the week ending Saturday, May 20, were 4,206 tons, or about 700 tons per day, the striking feature of which is, that under these circumstances the market has ruled steady and firm, and the outlook favorable for uninterrupted good market to continue.

An Incubator Test.—Things in incubator circles are becoming quite interesting. The challenge recently issued by the Reliable Incubator & Brooder Co. has been accepted by Geo. Ertel & Co., of Quincy, and a test will probably be held between the "Reliable" and the "Victor" incubators at an early date. Mr. Ertel accepts the challenge and publishes the same in the Quincy Journal of May 29, which is as follows: "Editor Journal:—We are thankful for the opportunity of displaying the merits of our Improved Victor Incubator, and especially the regulator. The challenge of the Reliable Incubator & Brooder Co. is hereby heartily accepted, but as it seems they wish to test our regulators more particularly than anything else, we change the time for looking at the lamps or regulator 'from 6 o'clock p. m. to 7 a. m.' (as they have it) to only once in twenty hours; both of the incubators to be run publicly in some place, under lock and key, to be agreed upon. It must be understood that another test should be made between the two rival machines next fall or winter in a cool room as we may direct and on same plan as herein stated. The eggs to be used in both incubators shall be intermixed and furnished by one party. Geo. Ertel & Co."

The great influx of World's Fair visitors makes Chicago a busy place at present. Especially active is everything in amusement circles, there being scores of enterprises afoot, all tending to entertain the stranger and enrich the entertainer. But the public is very apt in sifting the wheat from the chaff, and, as a result, only a select few of the schemes have blossomed into striking prosperity. One of the most prominent of these is the Trocadero, Michigan avenue and Monroe streets. The stage entertainment offers the famous Von Bulow orchestra from Germany, which is equal to the Theodore Thomas or Boston Symphony organization, the same group of sixty musicians as a military band playing brass (pronounced superior to any brass band ever heard in America), the celebrated Voros Miska Hungarian orchestra, prime favorites in all the royal courts of Europe, the Iwanoff Russian troupe of singers and dancers who have made the greatest hit known on this side of the Atlantic in years, Cyrene, the famous eccentric danseuse from the Alhambra, London, and a host of refined specialties in lighter vein. Besides all this the Trocadero offers material entertainment. A superior cafe is maintained in connection with the institution, the menu of which is the care of a specially imported chef from Paris. Everything that the esthetic or material man may desire is to be found at the Trocadero, and, as a result, the great crowd of amusement-seekers has not been slow to lavish upon this enterprise the most abundant patronage. It is the only strictly high-class music hall in America.

A crop of clover roots is equal to a good dressing of barnyard manure.

Travelers' Supplies.

Every visitor to the World's Columbian Exposition should get their supplies before starting at the Topeka Trunk Factory, 412 Kansas avenue.

Is there any especially rich acre upon your farm? If so, does it not pay better than any other acre? If so, again, does it not suggest that it is good business policy to bring all of the other acres up to the same pitch?

Farm Loans.

Lowest rates and every accommodation to borrowers on good farm loans in eastern Kansas. Special rates on large loans. Write or see us before making your renewal. T. E. BOWMAN & Co., Jones Building, 116 W. Sixth St., Topeka.

Borticulture.

Pruning Fruit Trees for Blight.

A recent paper, on this subject, by a practical man makes some suggestions which are well worth considering. The pear, cherry, plum, peach, and apple, says this writer are subject to blight. There are two species of blight, one called frozen sap blight, the other insect blight. It is with the frozen sap blight that this article has principally to do. If we look around at the trees which grow according to nature, we will find them growing in two ways, one as forests, when they grow tall and spindling, and each one relies on their companions for shade to their stems. The other way we find them growing as single specimens with their branches from the ground in a pyramidal shape, thereby protecting and shading their own trunks. Doesn't it look a little odd that man should try and make the fruit trees which he tries to control and grow as single specimens with tall, unprotected stems? Here it is that the blight disfigures and eventually kills this unnatural growth.

It seems that the most of the farmers and tree growers have an idea that they can grow something beneath the tree. If they would just stop and consider a moment, they will see that they cannot grow anything beneath these trees, because the roots of the trees draw all nourishment to themselves for their own use, and if plants of any kind are placed in the soil beneath the tree, these plants make no growth, and never arrive to perfection. Therefore, as these plants never amount to anything, why not prune the trees as single specimens, and make handsome, shapely trees of them as they grow according to nature, and give the trees a chance to shade their own trunks from the hot sun.

Such orchards would be worth looking at. The fruit would be scattered all over the tree on many branches, and not as you may see the fruit now all crowded on two or three limbs, which are constantly breaking down with their loads. These trees would bear sooner; the fruit can be gathered easier, and the cultivation would be around the outer circumference of those limbs which sweep the ground; there would be no longer barked stems by the careless plowman; no longer frozen sap blight, and when an orchard is once established, it will thrive and bear, and pay for many years. I know of several such orchards, and frozen sap blight is unknown in them.

According to well-known authorities, during the winter the stems of the trees are frozen; the sun shines about noon hot upon the exposed stems; it melts the ice in the bark and wood, and consequently this bark dies, turns black, breaks loose from the wood, and the stem is disfigured, and in some cases the trees are killed. If the stem is covered with branches, the sun is partly hidden by the branches, and cannot exert any undue influence on the trunk.

Summer Pruning of Grape Vines.

As soon as the young shoots bearing blossoms have shown the bunches, the tips should be pinched off one joint outside the last bunch, writes Judge Samuel Miller, of Missouri, in *Colman's Rural World*, and if large bunches are desired, the third bunch may be taken along. In a few weeks the laterals will shoot out, and these should be pinched off again when six inches long. This will check the outward growth, and the leaves form a nice canopy to shade the bunches of fruit. All the force is thus sent into the fruit instead of growing into wood. But there should be at least three or four strong shoots allowed to start below to grow for the next year's fruiting.

These should be left to grow at will until at the top of trellis, then the points can be nipped off or let grow along the upper wire as may suit the grower. If nipped, the laterals will soon start out and carry off the force. Even these laterals may be pinched at their tips when a foot long. This will insure the ripening of the wood complete. But never break out these laterals from the main cane, for they

are there for a purpose, and if all are broken off, as some have done, and the head leader getting broken off, the buds that are for next year's crop will burst forth and may set grapes, but will not ripen, and the crop for the following year is lost.

In addition to this, the vine, in its endeavor to recover, will be full of sap when the frosts come in the fall, and the vines will be badly damaged. Of all the fallacies in grape-growing is the clipping off of the leaves, so as to let the sunshine on the fruit; it should never be practiced, for it will ruin any crop of grapes. I would not mention this were it not that we still see this practiced at times.

But to the pruning again. When pinching back the tips of the bearing side shoots you may rub off all shorts that have no fruit, and the small ones that often come out aside of the main bearing one can be taken off, as well as all the feeble starts along the cane, always bearing in mind that you let the three or four canes for next season have full sway, and tie up as needed, to prevent them from breaking off by wind.

Entomology.

Conducted by Prof. E. A. Popenoe, State Agricultural college, Manhattan, Kas., to whom queries about insects and specimens for determination may be sent, with request for reply in this paper. Answers will be published as soon as possible, and unless of immediate importance no other reply will be made. Always send several specimens, where possible, with statement of habits observed and, with the plant-feeders, parts of the plant attacked, where its name is not certainly known. Specimens may be packed, if small, in a quill; if larger, in a tight tin or other box, strong enough to prevent crushing in transit, and never loose in a letter. The package, addressed and marked with the name of the sender, without other writing, is mailable at the rate of 1 cent per ounce, prepaid.

Insecticides and Their Use.

FIRST PAPER.

EDITOR KANSAS FARMER:—Before the discovery and introduction of mineral poisons for the fight against our orchard's enemies, but little could be done. Now in later years, the number of tested insecticides and machines for their application, has increased and reached a degree of perfection, that well causes them to be relied upon against the majority of the most harmful insects.

Although the experiments in this line began many years ago, the work is but fairly begun, as there is still much room for further development in the class of poisons to be employed. They may be divided into two general classes, viz., those which kill by being taken internally and those destructive on actual contact. In this paper, however, I shall mention only the former, among which are the arsenites—London purple, Paris green, etc.

It is generally conceded that all arsenical compounds are extremely dangerous to animal life, and this fact, which alone makes them valuable, draws severe criticism upon them by some purely theoretical writers, who seem scarcely able to consider so vital a question from all points of view. Although there is danger, to a certain extent, the manner in which they are employed (if proper care be taken), renders them perfectly safe as a spraying solution. Experience only will place the novice at spraying on safe ground. He will soon find the proper medium between a solution so weak as to be only partially effectual and one strong enough to poison the foliage. As the different types of machines used cause a variation in the amount and force of the spray, no definite methods or figures can be given.

Most of these arsenical poisons can be applied either in water or dry, but some of the compounds are prepared so as to be used only in the former manner.

In the dry application, the poison is thoroughly mixed with some inert substance for the sake of safety, economy and even distribution over the foliage. Of the various ingredients used, common wheat flour gives the most satisfaction, since it has the proper adhesiveness to retain its place when wet by rains. Powdered gypsum has been used as a diluent with a degree of success, and is less expensive than flour. An additional disadvantage in the

use of flour is, that when the mixture is wet by the rains, it forms a paste impervious to air, thus increasing the caustic action of the poison. This is almost entirely overcome by using a mixture of one-third wood ashes to two-thirds flour; then the tendency to form a solid paste is much lessened.

It is of utmost importance that the mixture of the poison and the diluents should be as thorough as possible, for the success of the operation depends largely upon its being properly done. The best time for applying the dry poison is in the early morning before the dew is off the plants, and, for economy, before the wind blows.

The dry method of applying Paris green has proven satisfactory under the conditions to which I have already referred, whenever the genuine article has been properly applied and in the correct proportion. This varies from one pound of the green to twenty to thirty-five pounds of the diluents. Much experience in this branch of insect poisoning has shown that the best results in all cases are obtained from a mixture of one pound of the poison to thirty of the ingredients, applied uniformly, at the rate of twenty pounds to the acre. More than this is unnecessary, besides being liable to injure the plants.

Quite a number of experiments made by reliable persons, with the dry application of London purple, have been effectual. The same rule in the application of Paris green applies to this also, but the proportions are slightly different. The formula most recommended is one pound of the purple to about forty-five of the diluents the latter consisting most advantageously of fifteen pounds of wood ashes to thirty pounds of flour.

This method of using the arsenites is not practicable, of course, in large trees, but is a most decided success upon smaller plants and vegetables, as the melon, potato and cabbage. R. L. N.

Impaired digestion cured by Beecham's Pills.

Bureau of Information.

"The Burlington" has recently established in a convenient quarter of its elegant and commodious passenger station at Chicago, an office designed to afford travelers information on the thousand and one things they need to know, with regard to routes, rates, connections and accommodations. It has been placed in the hands of an experienced man, supplied with all railway guides, maps and time-tables, and is known as the "Bureau of Information."

It is a place to which all travelers may apply for information and receive a full and correct answer. This is the only office of the kind west of the sea-board cities; and it cannot but prove a convenience to the traveling public. All trains of the "Burlington" enter and depart from this station, and the intelligent and valuable service of the bureau may be enjoyed by all patrons of this line.

A special pamphlet will be issued by the "Burlington" in the near future, giving accurate information as to "How to get to the World's Fair Grounds;" How to secure rooms and board at the various hotels, boarding and lodging houses.

Trustworthy agents will be at the C. B. & Q. depot in Chicago to impart all information to visitors. Arrangements will probably be made by which some trains will be run direct to the World's Fair grounds without change or delay.

Well Machinery Send for illus. cat'g. Peck Mfg. Co., 60 40th St., Sioux City, Iowa.

Nerve Tonic **Blood Builder**

DR. WILLIAMS' PINK PILLS FOR PALE PEOPLE

50c. per box. 6 for \$2.50.

Dr. WILLIAMS' MEDICINE CO., Schenectady, N.Y. and Brockville, Ont.

FAT PEOPLE reduced by new process, safe, sure and lasting. No drugs. No cure, no pay. Advice free. Ferrine & Co. Boston, Mass.

PARALYSIS Dr. Hartman's treatment for Paralysis. Book free to all afflicted. Address **PINGREE & SARGENT**, SURGICAL HOTEL, Columbus, O.

CANCER Can be cured by Drok Method. No knife, no pain. Book free. Address **PINGREE & SARGENT**, 241 Wabash Ave., Chicago.

"German Syrup"

Martinsville, N.J., Methodist Parsonage. "My acquaintance with your remedy, Boschee's German Syrup, was made about fourteen years ago, when I contracted a Cold which resulted in a Hoarseness and a Cough which disabled me from filling my pulpit for a number of Sabbaths. After trying a Physician, without obtaining relief—I cannot say now what remedy he prescribed—I saw the advertisement of your remedy and obtained a bottle. I received such quick and permanent help from it that whenever we have had Throat or Bronchial troubles since in our family, Boschee's German Syrup has been our favorite remedy and always with favorable results. I have never hesitated to report my experience of its use to others when I have found them troubled in like manner." REV. W. H. HAGGARTY, of the Newark, New Jersey, M.E. Conference, April 25, '90. **A Safe Remedy.**

G. G. GREEN, Sole Man'fr, Woodbury, N.J.

EPILEPSY OR FITS

Can this disease be cured? Most physicians say No—It is incurable; all forms and the worst cases. After years study and experiment I have found the remedy. Epilepsy is cured by it; cured, not subdued by opiates—the old, treacherous, quick treatment. Do not despair. Forget past impositions on your purse, past outrages on your confidence, past failures. Look forward, not backward. My remedy is of to-day. Valuable work on the subject, and large bottle of the remedy—sent free for trial. Mention Post-Office and Express address. Prof. W. H. PEEKE F. D., 4 Cedar St., New York.

DEAFNESS AND HEAD NOISES CURED by Peck's Invisible Ear Closures. Whispers heard. Successful when all remedies fail. Sold FREE by F. HINCKLEY, 258 E. Wacker Dr., Chicago. Write for book of 5000.

Strawberries -- Wanted: To let berry-growers know that our new Robinson strawberry is the ideal for market purposes. Is large, strong, standard, firm and Captain Jack 700,777 plants of other well-known varieties for sale. Send for price list. B. F. SMITH, Box 6, Lawrence, Kas.

The Royal Fruit Picker.

Price \$1.75 **Address W.H. RAUCH, WICHITA, KANS.**

MAKE MONEY While You Sleep.

STAHL'S EXCELSIOR FRUIT DRIER

Evaporates Fruit DAY and NIGHT. Catalogue free upon application. Address **WILLIAM STAHL EVAPORATOR CO., QUINCY, ILL.**

The Rocker Washer has proved the most satisfactory of any Washer ever placed upon the market. It is warranted to wash an ordinary family washing of 100 PIECES in ONE HOUR, as clean as can be washed on the washboard. Write for prices and full description. **ROCKER WASHER CO., FT. WAYNE, IND.** Liberal inducements to live agents.

SAVE MONEY

KENWOOD \$65 High Arm "Kenwood" \$25.50 \$55 High Arm "Kenwood" \$22.50 \$50 High Arm "Arlington" \$20.50 \$45 High Arm "Arlington" \$18.50 The "Kenwood" is the latest improved and BEST sewing machine made. Light running. Noiseless. Self-setting needle. Self-threading shuttle. Automatic bobbin winder. Warranted ten years. All attachments free. Washup anywhere to anyone in any quantity at wholesale prices and pay freight or give ten days' free trial in your own home. No money required in advance. We also sell Standard Singer machines at \$16.50, \$14.00 and \$9.50. Send at once for free catalogue. **CASH BUYERS' UNION, 158-160 W. Van Buren St., B710, CHICAGO, ILL.**

In the Dairy.

The Soy Bean Test.

A paper read by Prof. F. C. Burtis, State Agricultural college, before the State Dairy Association.

THIRD PART.

If we compare the average of the results of the first four periods, including the four Jerseys, we have the following:

Per cent. of fat in milk.	Wt of Ensilage milk. lbs. oz.	Bran eaten. lbs.	Ensilage eaten. lbs.
First period, corn ensilage fed.....	6.27	9 11	39 8
Second period, Edamame ensilage fed.....	7.21	11 1	33 8
Third period, Kiyusuke ensilage fed.....	6.85	10 ..	45 8
Fourth period, Yamagata ensilage fed.....	6.56	9 3	44 8

Between the first and second periods we have a gain of .94 of a per cent. of butter fat, and one pound and six ounces of milk a day. They lacked six pounds a day of eating as much of the corn ensilage as of the bean ensilage, in this case.

During the third period there was an average daily loss of .36 of a per cent. of butter fat and one pound one ounce of milk, as compared with the second period. There was a gain of twelve pounds of ensilage eaten a day over the second period and six over the first.

The fourth period shows a still greater decrease in the amount of butter fat and milk, as compared with the second and third periods, but a small gain of .29 of 1 per cent. of butter fat over the first period where the corn ensilage was fed, but a loss of eight ounces of milk a day. Here we have a gain of butter fat in all cases where the bean ensilage was fed, and a gain of milk in all but the last period. This is as far as the four Jerseys can be used together as a comparison.

To compare the Yellow Soy with the other varieties, we will use the averages of the results of the two Jerseys, Madam Bloomfield and Pauline M. They are the only two that were fed all the varieties:

Per cent. of fat in milk.	Wt of Ensilage Daily. average. lbs. oz.	Bran eaten. lbs.	Ensilage eaten. lbs.
First period, corn ensilage fed.....	5.71	11 3	38 8
Second period, Edamame ensilage fed.....	6.37	13 3	41 8
Third period, Kiyusuke ensilage fed.....	6.13	11 14	41 8
Fourth period, Yamagata Cha-Daidzu ensilage fed.....	5.81	10 11	41 8
Fifth period, Yellow Soy ensilage fed.....	6.02	11 8	37 8

Here we have a gain of .55 per cent. of butter fat and two pounds of milk between the first period, where corn ensilage was fed, and the second period, where Edamame bean ensilage was fed. The rate of falling off in per cent. of fat and quantity of milk is about the same in this comparison in the third and fourth periods as it was in the comparison where the four cows were used, but when we come to the fifth period, where the Yellow Soy was fed, we notice a raise of .71 of a per cent. of butter fat and thirteen ounces of milk, as compared with the fourth period, where the Yamagata Cha-Daidzu was fed, or a gain of .91 of a per cent. of butter fat and five ounces of milk, as compared with the first period, where corn ensilage was fed. Now if you remember the order of maturity of the beans, you can see they affect the flow and richness accordingly, the one most mature giving the richest and most milk. Some might say that it was due to the variety, but this is hardly possible, as they analyze almost the same. So we learn right here, to get the most good from Soy bean ensilage, the plant must be as near mature as possible, and this is true of all other ensilage crops.

But for another comparison or two. Lukanga and Brunie Lambert had been returned to corn ensilage for the fifth period. Comparing with the fourth period, where the beans gave the poorest results, we have a loss of .18 of a per cent. of butter fat and nine ounces of milk, and comparing with the second, where the best bean ensilage was fed to these two cows, we have a loss of .91 of a per cent. of butter fat and two pounds and two ounces of milk a day. They ate about a pound a day or more of the corn ensilage in this case.

The Holstein, when fed the bean ensilage, made a gain of .55 of a per cent. of butter fat over the time when she was fed the corn ensilage. She ate

eight pounds a day more of the corn ensilage than of the bean. Out of the whole, we have a gain in richness and quantity in the milk in favor of the bean ensilage, while the quantities of the two ensilages eaten were about the same. I don't know whether you will consider these paying gains or not, but I do not know of any other food that will affect the per cent. of fat in the milk like this. It does not affect the flavor of the milk in the least particle, that is, to give it an offensive smell, as you might judge from the smell of the ensilage.

I hope you may have the opportunity of getting a better idea of the results of this experiment, after it is finished, than I have been able to give you in this paper. Then you will also get the results of feeding the ground hay and grain. The amount of water drank, and time drank, and the variations of weight in the cows, gives me very interesting results that time will not allow to include in this paper.

Experiments in Feeding Dairy Cows.

It now seems to be a generally accepted fact that the per cent. of butter fat in milk is always a matter of breeding and of individual peculiarities, and that it cannot be controlled in any considerable degree by the feeding or treatment of the cow.

Prof. Farrington, of the Illinois Station, has made some experiments recently to test this point, and the results obtained are interesting. He finds that the butter fat was the most changeable constituent of the milk. The per cent. of solids not fat was quite uniform. Both were higher in the last part of the period of lactation than in the first, when the cows were fresh and the maximum quantity of milk was produced. This was especially true of the fat. As the activity of the milk glands gradually decline until the flow of milk ceases, the formation of the fat seems to hold out better than the other constituents of milk.

A gradual increase of the grain feed from twelve to twenty-four pounds per day per head and the change from stable to pasture feed each increased the yield of milk, but had very little effect on its quality. In some respects the results obtained by Prof. Farrington are contrary to the generally accepted belief in regard to the production of butter fat, and will serve to reopen a question which has never been definitely settled.

After the grip, when you are weak and "played out," Hood's Sarsaparilla will restore your health and strength.

The Poultry Yard.

A Plum Orchard.

"Yes, we sometimes," says the *American Poultry Yard*, "give our space to fruit culture, but only inasmuch as it affects our specialty—poultry. It is a well-known fact that it is a very difficult matter to secure a crop of plums in almost any locality, the tree being alike subject to what is known as 'black knot'—a warty excrescence which develops itself plentifully on the branches—and to the attacks of the plum curculio, an insect which punctures the fruit and causes it to drop off the tree before it has matured or ripened. In localities where the plum trees are thus affected—and there are but few where they are not—the only crops of plums obtained were from trees planted in the poultry yards. Fowls kept in confinement require shade during the hot summer months, and plum trees, being of a low, slow growth, make good trees for the purpose. As you can count on at least an occasional good crop from them, they become of two-fold value. Select two-year-old trees and plant them about eight feet apart in the yards. Prepare the ground well around the roots, putting a little fine well decomposed manure in the bottom of the holes, sprinkle a little soil on it and then plant your trees, not cramping the roots, and finish up by packing the soil down well around the tree. The plum tree is about the only fruit tree which will do well where the soil re-

mains packed down hard, as it does in a poultry yard, and the chicks keeping the insects cleaned up constantly, usually insures good crops of fruit after the trees come into bearing."

Young Chicken Feed.

Do not feed very young chickens corn meal dough, as they are too tender to digest such a strong food. Provide a mixture prepared as follows: Break up fine, bits of wheat or rye bread which has become hard and stale. Place in a pan and over it pour fresh or skim-milk. When it is thoroughly soaked give at frequent intervals. It don't cost much on a farm where cows are kept and is healthful.

Incubators.

To make a success of hatching poultry with an incubator requires some natural tact for it, great patience and a careful observance of the little details, as to neglect any one of them is often to make a complete failure. Mrs. A. Gromer, on a small fruit and poultry farm near Barry, Mo., has just reported a successful hatch with an Incubator. With 160 fertile eggs she hatched 142 chicks. She has now 475 chicks and 52 young turkeys.

Feeding Turkeys.

Out of a drove of thirty-one turkeys raised last season not one died of disease; five were caught by some wild animals after they were nearly half grown. They were fed twice a day on a mixture of corn meal and shorts, half-and-half, with a wetting of either sour milk or dish water, and only enough of wetting to make the feed moistened through. Too much wetting in the food is injurious, especially if meal only is used. A red pepper was occasionally put in the feed, say twice a week, and on this the turkeys grew famously, as fine a drove as one need to see, and the way they go for the grasshoppers is a pleasure to the husbandman. Previous years it has been our custom to yard or pen our turkeys as soon as they were hatched, and never has it been our luck to raise over half under such treatment.—*San Francisco Chronicle*.

Poultry Notes.

If you want eggs, give your fowls plenty of good, wholesome food.

Keep the hens busy. An idle hen usually becomes fat, and a fat hen won't lay.

Don't forget that a supply of pure water is necessary, and that the poultry should have it regularly every day.

Grit of some kind is absolutely necessary to the profitable keeping of hens. They will live without it but they will not lay without it.

To break up a sitting hen, let her sit for a few days and then put her in a box with lath nailed on the bottom a few inches apart. Elevate the box and the hen will soon get tired of her sitting.

It is an excellent idea to have an open shed connected with the poultry house, where, in cold, stormy weather, the fowls may take exercise and get plenty of fresh air. Have it fronting the south if possible.

Chicks under two weeks old should be fed as often as every two hours; be careful and feed no more than they will eat up each time. The first feed should be given as soon after day-light as possible, the last just at dark. See that your chicks have green food; if they are not where they can reach it, mix it with their feed—grass chopped fine, lettuce, etc. A little meat with their food is a good thing.

Manufacturing wit and selling wit go well together.

A good example is Vacuum leather oil. It is the best preserver of harness and shoes; you pay a quarter for it, "your money back if you want it;" you get a "lamb-skin-with-wool-on swob" with it, free, the handiest thing in the world; and a book, "How to Take Care of Leather," free.

Manufacturing wit makes good things. Selling wit makes them a thousand times more useful.

Don't YOU Need a "BABY" Cream Separator

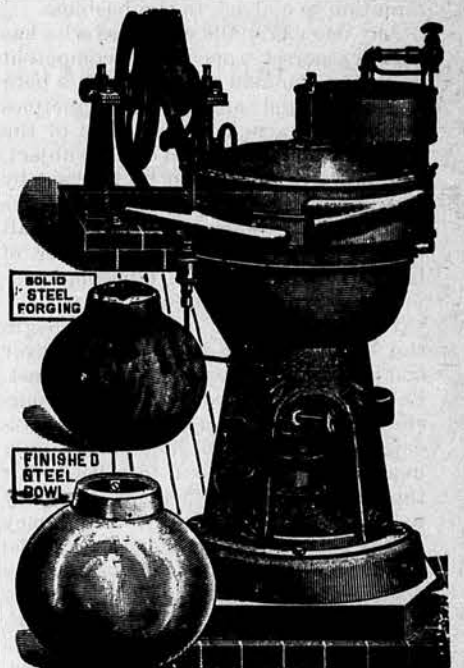


If you have five or more cows, a "BABY" cannot but prove a most profitable and pleasing investment. Its use means more and better butter, warm skim-milk for feeding purposes, saving of ice, time, labor and plant, and better satisfaction with dairying generally. Send for new "BABY" catalogue, giving actual experiences of well-known users and endorsement of highest dairy authorities in every section, styles, capacities, prices, and complete information.

THE DE LAVAL SEPARATOR CO.,

GENERAL OFFICES:

74 Cortlandt St., New York.



If you know of any one contemplating buying Creamery or Cheese Factory Machinery, refer them to Davis & Rankin Bldg. and Mfg. Co., Chicago, Ill., largest manufacturers of these goods in the world. Low prices and fair dealing is their motto. Alexandra Improved Cream Separator a specialty. See out above. Capacity 2,500 to 4,000 lbs. per hour. Two horse power will run it. They also manufacture Fairlamb Cheese Color, Fairlamb Cheese Dressing, Fairlamb Rennet Extract, Fairlamb Butter Color and the Babcock Milk Tester and everything in the line of machinery and supplies for butter and cheese factories. If you wish to buy from the manufacturers direct, write for quotations and discounts. All goods guaranteed first-class or can be returned at our expense.

Davis & Rankin Bldg. and Mfg. Co.

240 to 252 West Lake Street,
CHICAGO, ILLINOIS.

FRUIT EVAPORATOR

THE ZIMMERMAN
The Standard Machine
Different sizes and prices. Illustrated Catalogue free.
THE BLYMER IRON WORKS CO., Cincinnati, O.

THE "WESTERN SETTLER"
IS A NEW PAPER.
TELLS ALL ABOUT THE WEST.
Will be sent free to you and your friends.
Address JOHN SEBASTIAN, Gen. Ticket and Passenger Agent,
Chicago, Rock Island and Pacific Railroad, Chicago, Ill.

THIS BIT combines the BEST QUALITIES of other patent bits and will easily control the most vicious horse at all times. It is the **COMMON SENSE BIT** because it can also be used as a mild bit. X.C. Sample mailed \$1.00. Nickel - 2.00.
RACINE MALLEABLE IRON CO.,
J. P. DAVIES, Mgr. **RACINE, WIS.**

In writing to our advertisers please say you saw their advertisement in the KANSAS FARMER.

PILES, FISTULA,

And all other Diseases of the Rectum cured by Drs. Thornton & Minor, Kansas City, Mo., without knife, ligature or caustics—no money to be paid until patient is cured. We also make a specialty of Diseases of Women and Diseases of the Skin. Beware of all doctors who want any part of their fee in advance, even a note. In the end you will find them expensive luxuries. Send for circular giving names of hundreds who have been cured by us, and how to avoid sharpers and quacks. Office, No. 100 West Ninth Street. Rooms 30-31-32 Bunker Building.

The Apiary.

Edited by REV. E. T. ABBOTT, St. Joseph, Mo., to whom all communications relating to this department should be addressed. Enclose a stamp if you desire a reply by letter. We invite questions and communications from any of the readers of KANSAS FARMER who may be interested in bee culture.

Bees and Honey.

No department of industry has made more rapid developments within the last thirty years than the culture of the honey bee. * * *

The wonderful development made by this industry will appear from its statistics, which demonstrate it an element of national wealth. Some years ago there were in America about 3,000,000 colonies of bees, but the reports were from less than a quarter of a million or one-twelfth of the whole. This would make about 12,000,000 colonies in all. Putting the average at ten pounds per colony, which would amount to 120,000,000 of pounds. This, at the usual price that honey sells for, would bring in millions of dollars. * * *

There is a wide field for the exercise of this industry, and no one should become at all discouraged who has an inclination to embark in the business. Any one can make a success who has energy, perseverance and competent degree of common sense. As it is both a science and an art, its principles should be learned out of some of the leading works published on the subject. The practical part must be learned by the actual manipulation of the bees themselves. Before this is done all book knowledge is but a matter of faith; after it is tried it becomes experience and is valuable.

The spring is the best time to begin the business, after the winter is over and all danger of losing colonies is past. Let one or two good colonies be purchased of some bee man. By good colonies we understand—not exceedingly heavy ones with but few bees—but those that have a sufficiency of honey to carry them over until the honey flow sets in with plenty of bees. The number of bees is a sure index to the prolific quality of the queen. In those colonies which have but few bees, with a great surplus of honey, the queen is either dead or a very poor layer. Either of these conditions should condemn the colony in the estimation of the buyer.

Having secured the bees, place them in an eastern or southern exposure, with the opening of the hive facing the east or the south; or, if the situation is suitable, 45° between the above points of the compass. This position will secure the early rays of the sun, which is very important in the winter season and in cold mornings. If such a position can be secured east or south of a board fence, all the better, as the fence will afford a wind-break against the west and north winds.

Having thus secured and located your bees, if they are in movable comb hives, there is nothing particular to be done with the bees themselves but to prepare for securing the swarms and surplus honey. There ought to be some two extra hives for every colony of bees made and held in readiness. Unless situated in the Southern States, swarms will not issue before the middle of May, unless the season is unusually early and favorable. A great deal depends upon the fruit-tree bloom and the favorableness of the weather to secure its nectar in securing early swarms.

Instead of the old method of cutting off limbs of trees in securing the swarms, it is far better to make a hiving box. Get some four thin boards one-fourth of an inch thick, eighteen inches long and six inches wide—basswood is the best because of its lightness. Make a box with these boards and close one end with a board of proper dimensions, leaving the other end open. Then, with a brace or inch auger, fill the sides and end with holes. Make an inch and a half hole in the center of the box through two sides for a pole to mount the box on. This pole may be from sixteen to eighteen feet long; a shorter one will answer, but of course will not reach as far. When a swarm issues and settles, which it is almost sure to do, take hold of the pole, turn the open end of the

box upward and push it up on the small end of the cluster as far as you can, when there will be quite a bunch of bees in the box. You can then turn the side of the box against the cluster and the balance of the swarm will run in through the auger holes. If the swarm settles, as it sometimes does, on the trunk of tree, or even on a fence rail, lay the box gently on the swarm and the bees will soon go into it.

The next thing of importance is to make preparation for securing surplus honey. If the season is good a good colony may cast a swarm or two and make some fifty to seventy-five pounds of comb honey. Section boxes are to be secured. These are to be put on when the hives are full of bees and when they are beginning to be crowded for room. Each section box ought to have a starter of thin foundation, which serves as a guide to the bees in filling them.—Rev. Wm. Ballantine, in *Farm News*.

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. This department is intended to help its readers acquire a better knowledge of how to live long and well. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

The World's Medical Congress.

CHICAGO, June 4, 1893.—There closed yesterday, in this great city, the most important medical convention in the history of the human race. From all parts of the civilized world progressive men of high attainment had been invited by the World's Columbian Congress Auxiliary to participate in one vast assemblage and discuss a thousand questions of vital import to the human family. And when the opening day arrived they came pouring in from Russia, Germany, France, Spain, Italy, England, India, Australia, China, Japan, the Sandwich Islands and other lands. It was a wonderful scene. Men in the garb of Hindoo and Kossack, Arab and Turk, mingling with English and American types, all bringing a message of good cheer to the afflicted. Surgeons who have no superiors on earth were there. Men from the antipodes told us the virtues of tree and plant and shrub in far-off lands, whose leaves are for the healing of the nations.

Three long sessions each day for a week and three great divisions of topics, making three congresses sitting at the same time, marked the convocation. One division devoted all its sessions to climatology, one to the homeopathic and one to the eclectic branch of medicine and surgery. To the everlasting disgrace of its leaders, the allopathic school alone was not represented in the congress. Because the World's Fair officials would not give them the sole management and control of the congress of medicine and climatology and allow them to dictate to all other schools and associations, they refused to participate in the greatest series of congresses the world has ever known. Liberal and broad-gauged men of that school in considerable numbers participated in the congress of climatology and did good service to the cause of health and hygiene, and it is greatly to their credit that they did so. In this free land, where thought is omnipotent and refuses to wear the collar of any sect or clique, where science is the watchword and the saving of life the professed aim of all medical practice, the spirit which proclaims that it will rule or ruin the congress, is most reprehensible, and the people of the whole country take note of it.

In each congress the greatest harmony prevailed. It is doubtful if such unanimity and oneness of purpose was ever before seen in any great medical body. The science of saving life, the art of mitigating pain and all suffering and the improving of the physical man with increase of longevity, was the burden of every paper, every address, and all discussion. No man can foretell the vast good such a convocation will do to mankind. For once the sharp contest of candidates for office was entirely wanting, and no side issues diverted attention from that one supreme effort for human welfare.

The United States government provided a fund for the permanent preservation of all documents and discussions so, that future generations may know how well the complex and dignified duties of the congress were performed.

One significant fact shows how intense was the interest of all the participants in this great congress. A very large majority of all the doctors who had been invited from their high position in medical science to write papers for the congress responded, very few sent regrets, and all sent their papers. And during the whole busy week hardly a member of the congress was out of his or her seat during the whole eighteen sessions, and most of those who were absent were in session elsewhere as members of important committees.

TOBACCO HABIT

For sale by all first-class druggists, or sent by mail on receipt of \$1.00. Ask for HILL'S Tablets, and take no others. Particulars free. THE OHIO CHEMICAL CO., 51, 53, and 55 Opera Block, LIMA, O.

HILL'S CHLORIDE OF GOLD Tablets will completely destroy the desire for Tobacco in any form in from 3 to 5 days. Perfectly harmless, cause no sickness, and may be given in a cup of tea or coffee, without the knowledge of the patient, who will voluntarily stop Smoking or Chewing in a few days.

EASILY CURED

A Rival to the Shetland Pony.

There is a rival in the Southern horse marts to the Shetland pony, which the *Southern Cultivator* explains to be an outcome of the war and called creole. He is a miniature horse, and originated during and since the war in the prairies along the gulf coast from Mobile to the western limit of Louisiana. Many planters during the war allowed their thoroughbred mares to escape and, breeding in the wild state with the natives, the size has gradually diminished until many of them do not reach thirteen hands, and few of them go much over that.

The good blood in them shows in their symmetry, and their better style and action commend them to a boy. They are too mettlesome for a child of 4 or 5 years, but for a girl 7 to 10 they fill the bill. For driving purposes they are not so good as the Shetland, as the infusion of thoroughbred blood makes them impatient of so ignoble work. Their gait is a long gallop.

Facilities for Reaching the World's Fair Grounds.

The Columbian Coach Company is operated by an English concern, who have imported drivers and buglers. These tally-hos, each seating forty persons, stop at the leading hotels and leave the business district every thirty minutes, following the boulevards and parks to the grounds. Distance, nine miles; time, eighty minutes; fare, \$1 each way. In addition to the above, several of the trunk lines of railroads run trains from their depots to the grounds, on the arrival of their through trains. The cablecar accommodations from the business center to all parts of the West and North sides are very complete; trains in each direction leave every minute.

	Per hour.	Per day of 18 hours.
Illinois Central Express.	57,600	1,036,800
Local.	15,000	270,000
Elevated road.	50,000	900,000
Cable cars.	50,000	900,000
Lake steamers.	25,000	450,000
Total.	197,600	3,556,800

The daily business travel of the city riders is in an opposite direction, both morning and evening, to that traveled by World's Fair visitors, but even could the combined travel be turned in one direction only, it will be seen there is a large margin to spare.—From Henry Haven Windsor's article, "Transport Facilities at Chicago," June Review of Reviews.

To Catch a Runaway Horse.

Most persons, when trying to stop a runaway horse, merely add to the panic which has caused the beast to take to his heels. Don't stand in the middle of the road and throw up your hands and shout. No one ever saw a real runaway stopped by such tactics. Don't stand on the side of the road and yell to the horse to stop. That will merely cause him to be worse frightened than before. As you see the horse coming, start to run as fast as you can in the same direction the horse is taking; when he catches up with you, and before he passes—horses don't go with the rapidity of a bullet from a gun even when running away—jump for his bridle rein, and hold to it, running along all the while as fast as possible.

ble. The check thus given by the pull on the bit will almost always stop a runaway. If on horseback you can do it with ease, and very little danger, for in this instance your horse is running and you have all your strength to give to the runaway. The mounted policemen in Central park, and on the roads about, catch runaway horses with much neatness and dexterity, and they have plenty of practice.—Rider and Driver.

As the calf is fed the cow is inclined.

ENGINES

If you want to buy a strictly first-class outfit at low figures, address The W. C. LEFFEL CO., Greenmount & SPRINGFIELD, O.

BEES!

If you keep BEES subscribe for the *Progressive Bee Keeper*, a journal devoted to Bees and Honey, 50 cents per year. Sample copy free. Also illustrated catalogue of Bee Keepers' Supplies. Address LEAHY & CO., Higginsville, Mo. Mention FARMER.

THE ST. JOE HIVE

LATEST! CHEAPEST! BEST! We keep all kinds of bee supplies. Send for free circular. Satisfaction guaranteed. ST. JOSEPH APIARY CO., St. Joe, Mo. L. Box 146. E. T. ABBOTT, Manager.

HIGGS COMMISSION CO.,

Receivers and Shippers of Grain, 413 Exchange Building, KANSAS CITY, MO. Only authorized Grain Agents of Kansas Alliance Association. Liberal advancements made on all consignments. Market reports furnished on application, free.

POSITIVELY FREE. Our Beautiful NEW CATALOGUE, illustrated with Colored Portraits, and giving full particulars of all our famous **ORGANS AND PIANOS.** Sold for CASH or on EASY TERMS of PAYMENT to suit everybody. **ORGANS \$35.00. PIANOS \$175.00.** SEND AT ONCE FOR CATALOGUE. Write To-day. CORNISH & CO., Washington, D.C. New Jersey.

THE PIONEER LINE!

Is the only line running Pullman Dining, Pullman Sleeping and free Reclining Chair cars to

Denver, Ogden, Salt Lake, Portland and San Francisco without change.

It also runs through Pullman Sleepers and free Reclining Chair cars

TOPEKA TO CHICAGO,

via Chicago & Alton, making the quickest and best time between Topeka, Chicago and all points east and south.

The Great Through Car Line! Best for all Classes of Travel.

No other line offers equal facilities for comfort, etc. For all information address E. L. LOMAX, J. B. FRAWLEY, G. P. & T. A., Omaha. Gen. Agt. Pass. Depot, Kansas City. Or A. M. FULLER, Agent, Topeka, Kas.

MILWAUKEE

MILWAUKEE STEEL JUNIOR No. 10 Has won for itself the reputation of being the lightest, easiest handled, and most perfectly balanced Harvester and Binder manufactured. Its single lever reel, raising and lowering device, and carrying spring has no equal. Never before has a Harvester and Binder met with such grand success. It has an end drive sickle, one lever self-balanced reel. A spring carries the entire weight of the machine. It has no side-draft, and weighs only 1250 pounds.

MILWAUKEE CHAIN POWER MOWER.

Its perfection is guaranteed. It is the strongest and lightest running Mower manufactured. No side-draft. No weight on horse's neck. Cutter bar can be raised by either hand or foot lever. Has a spring to float the bar.

We invite your inspection before purchasing. Catalogue mailed free to any address.

MILWAUKEE HARVESTER CO.

155-157-159 Huron St., Milwaukee, Wis.

HE CANNOT GO ANY FURTHER, NEITHER CAN WE, But if you will write to us and say you saw our ad. in this paper, we will send you Free our PRICE LIST of goods that should be in Every Family in the land. We Guarantee our goods. You will be pleased, sure. Write to-day CHAS. J. DOLD CO., Kansas City, Mo.

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, or 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.

SCROTAL HERNIA.—I have a colt, 1 month old, that has a soft swelling of the scrotum. It can be forced back with the hand and does not worry the colt in the least. Please advise me.

Dighton, Kas. W. K.

Answer.—It is a rupture, and will probably get all right itself. Let it alone till next fall, then, if it has not grown smaller, write again.

PIGS COUGHING.—LAME SHOATS.—(1) I have some pigs, 3 weeks old, that have a cough and are not doing well. The sow runs on grass and has soaked corn and swill. Please prescribe. (2) I also have two shoats that are stiff and lame and act as if they had rheumatism. They are running on grass and have soaked corn and swill. One has swelled legs or ankles. What is it? J. A. P.

Independence, Kas.

Answer.—We cannot tell much about your pigs from the slight description you give. What kind of sleeping quarters have the pigs got? They may have caught cold from sleeping on wet ground or in a current of cold air. (2) We think you have struck the "key-note" to the trouble with the shoats yourself. Rub the swollen joints with lard and turpentine in equal parts, once a day, till the skin becomes slightly sore. Mix a tablespoonful of concentrated lye in swill enough for ten hogs and give to all your hogs every other day for a week or two.

STIFF SHOULDERS.—I have a mare, 12 years old, that had the fistula a year ago; I wrote you at the time and got it cured. This spring I have been working her and she seemed to be all right until about two weeks ago she got stiff and I could not locate it for several days, then I found it was in her shoulders and neck about where the collar goes. It was swelled a little and has been getting worse until now it is swelled on both sides. It started on the opposite side from where the fistula was last year. She cannot get her head down to eat grass. I blistered her this morning. Please answer in this week's FARMER if possible.

Garnett, Kas. D. S.

Answer.—There has either been a recent bruise from the collar or you failed to get quite all of the diseased tissue out of the fistula before it healed last year. If the former is the case, continued blistering may remove the swelling, but if it is the latter, it will very likely continue until it forms an abscess. Repeat the blister, as often as the effects of the last application pass away, until the swelling either goes down or comes to a head. If it forms pus and breaks, or has to be opened, treat it just the same as you did the fistula last year, and if there is need of further advice write us again. Your letter reached us too late for this week's paper. All letters must reach us by Saturday to receive a reply the following week.

Horse Owners! Try

GOMBAULT'S Caustic Balsam

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

THE LAWRENCE-WILLIAMS CO., Cleveland O.

MARKET REPORTS.

LIVE STOCK MARKETS.

Kansas City.

June 5, 1893.

CATTLE.—Receipts, 5,667 cattle; 334 calves. The tight Eastern money markets are charged with the demoralization of the market. Dressed beef men were indifferent, and heavy cattle commanded no attention. The market closed at the lowest figures of the day. Top prices were \$4.82½ against \$5.40 a week ago. The following from the record of sales made indicates the range of prices:

DRESSED BEEF AND SHIPPING STEERS.					
No.	Wt.	Pr.	No.	Wt.	Pr.
48.....	1,328	4.82½	8.....	1,297	4.75
9.....	917	4.55	18.....	1,238	4.55
21.....	1,128	4.50	14.....	1,097	4.47½
3.....	1,300	4.47½	18.....	1,238	4.45
3.....	1,080	4.30	32 yr.....	730	4.40
30 mixed.....	624	4.00	20.....	750	4.10
1.....	580	3.60	24.....	831	3.75

TEXAS STEERS.					
No.	Wt.	Pr.	No.	Wt.	Pr.
1.....	1,440	4.50	24.....	1,072	3.90
23.....	1,108	3.90	15.....	1,049	3.80
22.....	1,065	3.80	24.....	1,048	3.70
12.....	1,063	3.70	15.....	922	3.30
38.....	953	3.30	27.....	965	3.30
51.....	821	3.00	177.....	812	2.95
48.....	912	2.75	50.....	985	3.00
20.....	969	3.00	21.....	804	2.95
27.....	894	2.80	18.....	817	2.75
11.....	690	2.60			

TEXAS COWS.					
No.	Wt.	Pr.	No.	Wt.	Pr.
3.....	880	2.50	26.....	774	2.65
104.....	732	2.75	75.....	730	2.55
26.....	772	2.75	34.....	683	2.60
8.....	773	2.25			

TEXAS CALVES.					
No.	Wt.	Pr.	No.	Wt.	Pr.
9.....	600	6.00	6.....	326	2.00
47.....	675	6.75	40.....	675	6.75

INDIAN STEERS.					
No.	Wt.	Pr.	No.	Wt.	Pr.
33.....	838	4.20	25.....	917	3.60
106.....	855	3.40	25.....	1,002	3.35
202.....	1,290	4.40	75.....	1,151	4.10
24.....	1,090	3.65	26.....	925	3.50
19.....	915	3.45			

HOGS.—Receipts, 2,408. The market opened 1¢ lower; was weak and uncertain, and finally collapsed, leaving a considerable proportion of the hogs received still in first hands. Sales were at prices ranging nearly 50¢ lower than a week ago. The following from the record of sales made indicates the range of prices:

PIGS AND LIGHTS.							
No. Dock. Av. Pr.				No. Dock. Av. Pr.			
58.....	60..	140..	5 00	49.....	120..	161..	5 25
81.....	80..	137..	5 65	97.....	120..	160..	5 75
83.....	80..	152..	5 75	6.....	120..	143..	6 40
81.....	164..		6 55				

REPRESENTATIVE SALES.							
71...	160	205	6.25	71...	120	229	6.35
76...	40	250	6.35	73...	80	219	6.35
75...	213	6.37½		86...	40	211	6.40
61...	40	222	6.40	74...	200	249	6.45
50...	280	309	6.45	75...	120	211	6.47½
66...	276	6.47½		59...	80	275	6.50
28...	80	238	6.50	64...	40	301	6.55
3...	40	236	6.60	99...	160	182	6.65

SHEEP.—Receipts, 3,162. The demand was good for muttons and early prices were steady or steady to strong. Later the market weakened in sympathy with Chicago. Common spring lambs were dull at \$1.00 to \$1.50 per head. Some were unsold last week and still on sale.

824 Tex.....	77	4 45	264 Tex.....	61	4
347 Tex.....	86	4 80	122 Tex.....	86	4
242.....	69	4 60	69.....	71	4
5 lambs.....	@	3 00			

CATTLE.—Receipts, 16,000. Very slow and dull. Beef steers, \$4.00 to \$5.70; stockers and feeders, \$3.00 to \$4.25; bulls, \$2.50 to \$3.35; cows, \$2.00 to \$3.90. **HOGS.**—Receipts, 21,000. Demoralized and mostly 50¢ lower. Mixed, \$6.50 to \$6.95; heavy, \$6.50 to \$7.10; light weights, \$6.40 to \$6.90. **SHEEP.**—Receipts, 18,000. 15¢ to 25¢ lower. Demand very weak. Natives, \$3.50 to \$5.16; lambs per cwt., \$4.50 to \$6.25.

St. Louis. June 5, 1893. **CATTLE.**—Receipts, 2,000. Few natives. Native steers, common to best, \$3.50 to \$4.00; Texans, \$3.75 to \$4.00. **HOGS.**—Receipts, 2,600. Sales were at \$5.50 to \$7.05. **SHEEP.**—Receipts, 3,700. Natives steady. Texans lower. Natives, \$3.50 to \$4.75.

GRAIN AND PRODUCE MARKETS.
Kansas City. June 5, 1893. In store: Wheat, 1,020,547 bushels; corn, 161,176 bushels; oats, 58,080 bushels, and rye, 5,603 bushels. **WHEAT.**—Receipts for forty-eight hours, 16,000 bushels. The market was very bearish. Continued closeness in the money market, better crop weather and weaker cables all worked towards lower prices. And from the opening there was much excitement and heavy unloading, and wheat seemed without a friend. July and September both sold down, and even at a sharp decline the market received no support. An increase of 208,000 bushels in the visible supply instead of a marked decrease, and the failure of the Kansas Grain Company intensifying the feeling of uncertainty as to the future; hence a general unloading and evening up and an absence of all demand save from "shorts." July opened at 57¢, so'd down to 55½¢ and firmed up a little and closed at 55½¢; September opened at 61¢, declined to 59½¢, and then recovered and closed at 59½¢. Sample lots sold steady during the early hours of the day under the influence of light offerings, but weakened towards the close in sympathy with futures. By sample on track on the basis of the Mississippi river (local 6¢ per bushel less): No. 2 hard, 5 cars 60 to 61 pounds at 64½¢, 1 car fancy 60 pounds at 65¢, 1 car 61 pounds later at 64½¢, No. 3 hard, 2 cars 58 to 59 pounds at 63½¢; No. 4 hard, 61¢ to 62¢, 1 car at 59 pounds at 63¢; No. 4 hard, 61¢ to 62¢, 1 car at 59 pounds at 63¢; No. 2 61¢; rejected 58¢ to 60¢, 1 car choice at 61¢; No. 2 red, 60¢ to 70¢, 2 cars 59½¢ pounds at 60¢; No. 3 red, 60¢ to 70¢; No. 4 red, nominal, 62¢ to 65¢. **CORN.**—Receipts for forty-eight hours, 28,000 bushels. Demand fair for mixed and values steady, but

when it came to white there was a weak feeling in the market and sales slow. By sample on track, local: No. 2 mixed, 34½¢ to 34¾¢; No. 3 mixed, 34½¢ to 34¾¢; No. 2 white, 34½¢ to 34¾¢; No. 3 white, 34½¢ to 34¾¢. Sales: No. 2 mixed, 2 cars local at 34½¢, 2 cars Memphis at 40½¢; No. 3 mixed, 2 cars local at 34½¢; No. 2 white, 3 cars local at 35¢, 6 cars local at 34½¢, later 2 cars local at 34½¢.

OATS.—Receipts for forty-eight hours, 18,000 bushels.

Demand good, but values weaker in sympathy with the break in the speculative market. Some early sales of track stuff were made at full Saturday's prices, but towards the close buyers bid lower and the market closed with buyers and sellers apart. By sample on track, local: No. 2 mixed, 29½¢ to 30¢; No. 3 mixed, 29½¢ to 30¢; No. 2 white, 31½¢ to 32¢; No. 3 white, 30½¢ to 31¢, and No. 4 white, 29½¢ to 30¢. Sales: Early, No. 2 mixed, 5 cars choice at 30½¢; 1 car fancy at 31¢; No. 2 white, 1 car at 32¢, and No. 3 white, 1 car at 31¢.

RYE.—Receipts for forty-eight hours, 500 bushels. Market quiet and weaker in sympathy with wheat. By sample on track on the basis of the Mississippi river: No. 2, 56¢ to 57¢; No. 3, 55¢ to 56¢.

BRAN.—Market steady, but quiet. We quote bulk at 53¢ and sacked at 61½¢ per cwt.

FLAXSEED.—Steady and in fair demand. We quote at 92¢ per bushel upon the basis of pure.

HAY.—Receipts for forty-eight hours, 100 tons, and shipments, 80 tons. Selling very well; steady. We quote new prairie, fancy, per ton, \$9.00 to \$9.55; good to choice, \$7.50 to \$8.50; prime, \$6.50 to \$7.00; common, \$5.00 to \$6.00; timothy, fancy, \$10.00 and choice, \$8.50 to \$9.50.

HIDES.—Market dull; unchanged. We quote: Green, salted, cured, butchers' free of brands: No. 1, 4¢; No. 2, 3½¢; bull and stag, 3¢ to 4¢; kip skins, 3½¢ to 4½¢ per pound. Green, uncured, No. 1, 1¾¢; No. 2, 2¢ to 3¢; dry flint, 5¢ to 6¢.

WOOL.—Market still dull and weak. We quote: Missouri, unwashed, per pound, heavy fine, 13¢ to 14¢; light fine, 16¢ to 18¢; medium, 19¢ to 20¢; medium combing, 19¢ to 20¢; coarse combing, 18¢ to 20¢; low and carpet, 15¢ to 18¢. Tub-washed, per pound, choice, 23¢ to 31¢; medium, 27¢ to 29¢; dingy and low, 23¢ to 26¢.

BUTTER.—The market is dull and weak. There is some demand for best table goods for consumption, but otherwise sales drab. Packers are still the only buyers for low grades. Creamery, highest grade separator, 17¢; finest gathered cream, 18¢; fine fresh, good flavor, 15¢; fair to good, 13¢. Dairies—Fancy farm, 13¢; fair to good lines, 10¢. Country store packed—Fancy, 13¢; fresh and sweet packing, 10¢.

EGGS.—The market was firm and demand fair. Fresh candied, 11½¢ per dozen.

POULTRY.—Market unchanged in price, but the order demand is better than for many weeks. Chickens, broilers, 11¢ per pound; chickens, light, 7¢ to 7½¢; heavy, 7¢ to 7½¢; roosters, old and young, 20¢ each; springs, per dozen, large, \$3.00 to \$3.50; small, \$2.00 to \$2.50; turkeys, hens, small, 7¢ per pound; large, 7¢; gobblers, 7¢; ducks, old, 7¢; spring, 7½¢; geese, full feathered, 6¢; geese, partly feathered, 5½¢; piglets, \$1.25 per dozen.

POTATOES.—Market steady and demand fair. Northern table, \$1.10 per bushel; new, 85¢ to 90¢ per bushel.

St. Louis. June 5, 1893. **WHEAT.**—Receipts, 19,001 bushels; shipments, 231,000 bushels. Cash, No. 2 red, 64½¢; June, 63½¢; July, 65½¢ to 67½¢, closing at 65½¢ to 65½¢; August, 67½¢ to 68½¢, closing at 67½¢; September, 68½¢ to 70½¢, closing at 69½¢.

CORN.—Receipts, 220,000 bushels; shipments, 71,000 bushels. No. 2 mixed, cash, 36½¢; June, 36½¢; July, 38½¢ to 37½¢, closing at 37¢; September, 38½¢.

OATS.—Receipts, 62,000 bushels; shipments, 12,000 bushels. Market dull. No. 2, cash, 23½¢; July, 27½¢; August, 24½¢; September, 25½¢.

WOOL.—Receipts, 238,400 pounds; shipments, 68,600. Market was lower. Medium—Missouri and Illinois, 18½¢; Kansas and Nebraska, 17¢ to 18¢; Texas, Arkansas and Indian Territory, 8 to 12 months, 17¢ to 18¢; Montana, Wyoming and Dakota, 16¢ to 18¢; Colorado, New Mexico and Arizona, 17¢ to 18¢. Coarse—Missouri and Illinois, 18½¢ to 17½¢; Kansas and Nebraska, 18¢ to 18¢; Texas, Arkansas and Indian Territory, 14¢ to 16¢; Montana, Wyoming and Dakota, 18¢ to 15¢; Colorado, New Mexico and Arizona, 12¢ to 14¢. Tub-washed, choice, 28¢.

Chicago. June 5, 1893. Cash quotations were as follows: **WHEAT.**—Receipts, 28,000 bushels; shipments,

285,000 bushels. No. 2 spring, 63½¢ to 64½¢; No. 3 spring, 62½¢ to 63½¢; No. 2 red, 63½¢ to 64½¢. **CORN.**—Receipts, 543,000 bushels; shipments, 634,000 bushels. No. 2, 37½¢; No. 3, 36½¢. **OATS.**—Receipts, 347,000 bushels; shipments, 737,000 bushels. No. 2, 27¢; No. 2 white, 1. o. b., 30½¢ to 32½¢; No. 3 white, 1. o. b., 29½¢ to 31½¢. Liverpool, Eng.

WHEAT.—Market was quiet; demand moderate and holders offer moderately. No. 1 California, 5s 10½d to 5s 11½d per cental [\$0.88 to \$0.88 per bushel]; red western spring, 5s 1½d per cental [\$0.75 per bushel]; No. 1 red western spring, 5s 4½d to 5s 5½d per cental [\$0.80 to \$0.84 per bushel]; No. 2 red winter, 5s 8d to 5s 9d per cental [\$0.82 to \$0.84 per bushel].

CORN.—Market firm and demand moderate. Mixed western, 4s ½d per cental [\$0.56 per bushel]. 1 cental—100 pounds.

Consignments solicited. Market reports free.

References:—Inter-State National Bank, Kansas City, Mo.; National Bank of Commerce, Kansas City, Mo.; Bank of Topeka, Topeka, Kas.

A. D. JOHNSON, President. G. L. BRINKMAN, Vice President.

JOHNSON-BRINKMAN COMMISSION CO.

Grain, Mill Products, Etc.

ROOM 328 EXCHANGE BUILDING, KANSAS CITY, MO.

Proprietors Rosedale Elevator.

HORSES AUCTION.

Kansas City Stock Yards Horse and Mule Depot.

W. S. TOUGH & SON, Managers.

Largest Live Stock Commission Company in the world. Hundreds of all classes sold at auction every Tuesday, Wednesday and Thursday, and at private sale during each week. No yardage or insurance charged. Advances made on consignments.

Philip Jagode & Co.

Successors to DAVID SCULL & CO.,

WOOL

No. 12, 14 and 16 Letitia Street, PHILADELPHIA.

Consignments and Correspondence Solicited.

CASH ADVANCES MADE.

Refer by permission to Independence National Bank, Philadelphia. Girard National Bank.

AGENTS LOOK

and Farmers with no experience make \$2.50 an hour during spare time. A. D. BATES, 164 W. Robins Ave., Covington, Ky. —ac \$21 one day, \$31 one week. So can you. Free and catalog free. J. E. SHEPARD & Co., Cincinnati, O.

WOOL MEN!

We can interest you. Do you know that St. Louis is a spot cash market? In 10 years we have handled more separate lots of wool, each season, than any other commission house here. Over 30 years' experience in the business, and your shipments receive our personal attention. We guarantee top prices, quick sales and prompt cash returns. Write for our 1893 Wool Circular, giving full particulars and points in regard to the preparation of wool for market. Wool Sacks, Shipping Tags, Market Reports, etc., sent Free upon request. Write what you have to offer.

A. J. CHILD & SON, 209 & 211 Market Street, ST. LOUIS, MO.

JESSE T. BAKER, Pres.

ALFRED C. REYNOLDS, Secy. and Treas.

ST. LOUIS COMMISSION COMPANY,

General Commission Merchants

S. E. COR. MAIN AND PINE STS., ST. LOUIS, MO.

Experienced and competent men in every branch. Our WOOL DEPARTMENT receives our special attention. We solicit consignments of Grain, Wool, Cotton, Hides and Furs. Sacks, Tags and MARKET REPORTS furnished on application. References: Third National Bank, and the Laclede National Bank, St. Louis, Mo.

Cannon's Dip.

(Made at Lincoln, Eng.)
Non-Poisonous.

Cures Foot-Rot, Mange, Scab, Warts, Sores, and kills Ticks, Lice, Fleas and Maggots.

General agents for this Celebrated Dip and Liniment. Price of Dip, \$1.50 per gallon. One gallon will dip 100 sheep. Send for circulars and testimonials.



Cannon's Liniment.

(Made at Lincoln, Eng.)
Great Curative Qualities.

Destroys Sew Worms, heals Wounds and Saddle Galls and expels Internal Worms.

WOOL

F

SPECIAL ANNOUNCEMENT.

We have made arrangements with Dr. B. J. Kendall Co., publishers of "A Treatise on the Horse and his Diseases," which will enable all our subscribers to obtain a copy of that valuable work free by sending their address (enclosing a two-cent stamp for mailing same) to DR. B. J. KENDALL CO., ENOSBURGH FALLS, VT. This book is now recognized as standard authority upon all diseases of the horse, as its phenomenal sale attests, over four million copies having been sold in the past ten years, a sale never before reached by any publication in the same period of time. We feel confident that our patrons will appreciate the work, and be glad to avail themselves of this opportunity of obtaining a valuable book.

It is necessary that you mention this paper in sending for the "Treatise." This offer will remain open for only a short time.

(First published May 24, 1893.)

SEALED PROPOSALS.

Sealed proposals will be received at the office of the Board of Public Works of the State of Kansas at Topeka, Kansas, until 2 p. m. on Monday, June 19, 1893, and opened immediately thereafter, for all labor and material required in the construction of a detached ward cottage for the insane at Oswatomie, Kansas, under the provision of House Bill No. 245, approved March 11, 1893, in accordance with the drawings and specifications prepared therefor by Seymour Davis, State Architect, copies of which may be seen at the office of the Board, State Capitol grounds, after May 27, 1893.

Each bid must be accompanied by a certified check for a sum not less than 5 per cent. of the amount of the proposal, made payable to S. M. Scott, President of the Board of Public Works, State of Kansas, and to be forfeited to the State of Kansas as liquidated and assessed damages by the successful bidder if they fail to enter into contract and give the required bond on or before June 27, 1893.

The right is reserved by the Board to reject any or all bids if it be deemed in the interest of the state so to do.

No proposal will be received after the time above designated.

Each proposal will be inclosed in an envelope, sealed and marked "Proposals for work and materials required for the completion of a detached ward cottage for the insane at Oswatomie, Kansas," and addressed to Wm. Wykes, Secretary Board of Public Works, Topeka, Kansas.

Companies or firms bidding will give their individual names, as well as the firm name, with their addresses.

All bidders are invited to be present at the opening of bids, either in person or by attorney.

Office Board of Public Works.

R. M. SCOTT, President.

WM. WYKES, Secretary.

(First published May 24, 1893.)

PROPOSALS

For Material Required to Cover 100,000 Feet of Roofing, to be Delivered f. o. b. at Lansing, Kas.

OFFICE OF BOARD OF PUBLIC WORKS,
May 22, 1893.

Sealed proposals will be received at the penitentiary, Lansing, Kas., until 2 p. m., on the 14th day of June, 1893, and opened immediately thereafter, per foot for all material required to cover 100,000 square feet, more or less, of roof for the State penitentiary, Lansing, Kas. Bids to be per square foot.

Each bid must be accompanied by samples and specifications, and the successful bidder shall send one competent man to oversee the execution of the work, and shall be required to give good and sufficient bond, guaranteeing to keep the roof in watertight condition for five years. No bids will be considered for tin or corrugated iron. All felt used must be 3 ply.

Each bid must be accompanied by a certified check for a sum not less than 5 per cent. of the amount of the proposal, made payable to S. M. Scott, President of the Board of Public Works, State of Kansas, and to be forfeited to the State of Kansas as liquidated and assessed damages by the successful bidder if they fail to enter into contract and give the required bond on or before June 20, 1893.

The right is reserved by the board to reject any or all bids if it be deemed in the interest of the State so to do.

No proposal will be received after the time above designated.

Each proposal will be enclosed in an envelope, sealed and marked, "Proposals for material required to cover 100,000 square feet, more or less, per square foot of roofing, at the Kansas penitentiary," and addressed to Wm. Wykes, Secretary of Board of Public Works, in care of Warden Chase, State penitentiary, Lansing, Kas.

Companies or firms bidding will give their individual names, as well as the firm name, with their addresses.

All bidders are invited to be present at the opening of bids, either in person or by attorney.

S. M. SCOTT, President.

WM. WYKES, Secretary.

WORLD'S FAIR.

How to economize time and money so as to see the World's Fair to best advantage, is a question that may have puzzled you. Avoid mistakes by getting posted in advance. Perhaps the illustrated folder just issued by the San A Fe Route is what you need. It contains views of World's Fair Buildings, accurate map of Chicago, and other information of value to sight-seers. Address G. T. NICHOLSON, G. P. & T. A., A. T. & S. F. R. R., Topeka, Kas., and ask for free copy.

SANTA FE ROUTE.**Portable Well Drilling MACHINERY**

Established 1867. Covered by patents. Machines drill any depth both by steam and horse power. We challenge competition. Send for free illustrated catalogue.

MORGAN, KELLY & TANEYHILL,
Waterloo, Iowa.

AMERICAN ROOFING CO.

Largest Manufacturers in the U. S.

Sheet Iron Building Material
Siding, Ceilings, Roofings, Shutters, Imitation
Brick or Weatherboarding, Gutters, Downspouts,
etc. For a 2 per cent. discount, mention
this paper.

St. Louis. • • Cincinnati.

Why?

Why is Strictly Pure White Lead the best paint? Because it will outlast all other paints, give a handsomer finish, better protection to the wood, and the first cost will be less.

If Barytes and other adulterants of white lead are "just as good" as Strictly Pure White Lead, why are all the adulterated white leads always branded Pure, or

Strictly Pure White Lead?

This Barytes is a heavy white powder (ground stone), having the appearance of white lead, worthless as a paint, costing only about a cent a pound, and is only used to cheapen the mixture.

What shoddy is to cloth, Barytes is to paint. Be careful to use only old and standard brands of white lead.

"Southern" "Red Seal" "Collier"

are strictly pure, "Old Dutch" process brands, established by a lifetime of use. For colors use National Lead Co.'s Pure White Lead Tinting Colors with Strictly Pure White Lead.

For sale by the most reliable dealers in paints everywhere. If you are going to paint, it will pay you to send to us for a book containing information that may save you many a dollar; it will only cost you a postal card to do so.

NATIONAL LEAD CO.,

St. Louis Branch,
Clark Avenue and Tenth Street.

1 Broadway, New York.

THE KANSAS MUTUAL LIFE, TOPEKA, KANSAS.

J. P. DAVIS, President.

JOHN E. MOON, Secretary.

Issues all the most attractive policies of Renewable Term, Ordinary Life, Limited Payment Life and Endowment Insurance. All, except the Renewable Term policies, have large guaranteed cash surrender values at the end of each year after the second from date of issue, and participate in annual dividends.

\$100,000 Deposited with the State Treasurer of Kansas.

Assets, January 1st, 1893, \$191,829.27.
Death claims paid to April 15th, 1893, 410,000.00.

For policy or agency, address,

J. P. DAVIS, President.

H. P. DILLON, President.

ORGANIZED 1882.

J. W. GOING, Secretary.

Shawnee Fire Insurance Company

TOPEKA, KANSAS. A strong Western Company. Insures against fire, lightning, wind storms cyclones and tornadoes. Losses paid, over \$105,000. Agents wanted everywhere in Kansas.

The Kansas City Stock Yards

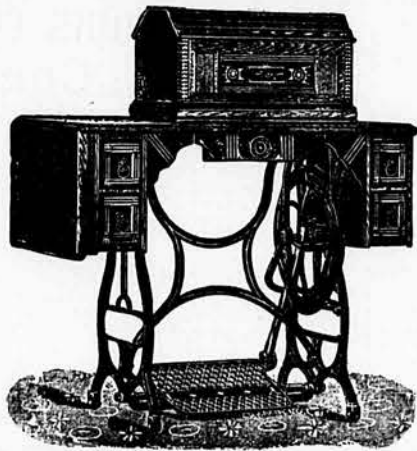
Are the most complete and commodious in the West and the second largest in the world. Higher prices are realized here than further east. This is due to the fact that stock marketed here is in better condition and has less shrinkage, having been shipped a shorter distance; and also to there being located at these yards eight packing houses, with an aggregate daily capacity of 9,000 cattle, 40,000 hogs and 4,000 sheep. There are in regular attendance sharp, competitive buyers for the packing houses of Chicago, Omaha, St. Louis, Indianapolis, Cincinnati, New York and Boston. All of the eighteen railroads running into Kansas City have direct connection with the yards.

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts, 1892	1,571,155	2,397,477	438,268	32,505	97,462
Slaughtered in Kansas City	727,381	1,805,114	218,969		
Sold to feeders	213,923	440,501	29,078		
Sold to shippers	440,501	580,503	48,259		
Total sold in Kansas City	1,388,405	2,395,937	296,246	15,974	

C. F. MORSE, General Manager. E. E. RICHARDSON, Secretary and Treasurer. H. P. CHILD, Assistant Gen. Manager. E. RUST, Superintendent.

Look Here!

THIS WILL INTEREST YOU
If You are Thinking of Buying

A SEWING MACHINE.

The wood cut herewith represents The Kansas Farmer Sewing Machine, made under a special contract with the publishers of this paper. It is an elegant high-arm machine, beautifully finished in antique oak, with the name "KANSAS FARMER" artistically lettered on the cover and on the arm.

Economy is a virtue in itself, and, when judiciously applied, it becomes financial wisdom. Of course the family must have a sewing machine, but it is poor economy to pay \$40 to \$60 for what you can have for less than half the money.

READ:—We will deliver, express charges prepaid, at any express office in Kansas, the "Kansas Farmer" high-arm sewing machine, all complete, with full attachments, and warranted

by the manufacturers for five years, for only \$20, including a year's subscription to the "Old Reliable" KANSAS FARMER.

OR, if a less expensive machine is wanted, we will deliver, express charges prepaid, at any express office in Kansas, the "NEW SINGER" high-arm sewing machine, all complete, with attachments, and manufacturers' warranty, for only \$15, including a year's subscription to the "Old Reliable" KANSAS FARMER.

These prices are, of course, for strictly cash with the order.

Address all orders to

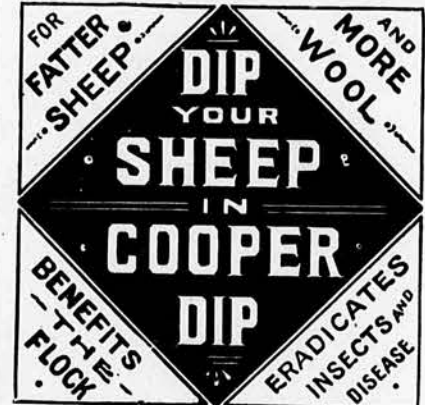
KANSAS FARMER CO., Topeka, Kas.

"DIETZ" TUBULAR DRIVING LAMP.

It is the only practicable and perfect Driving Lamp ever made. It will not blow out. It gives a clear white light. It looks like a locomotive head light. It throws all the light straight ahead, from 200 to 800 feet. It burns kerosene.

Send for book.

R. E. DIETZ CO.,
65 Lighthouse St., N. Y.



1,000 gallon case, \$16; 100 gallon packet, \$2.
SWIFT & HOLLIDAY, TOPEKA, and all Dealers.

IF YOU WANT ANYTHING

IN THE LINE OF

PRINTING, BINDING, STATIONERY, BLANKS,

Township, School District or City Supplies.

KANSAS LAW BOOKS, ETC.,

WRITE TO

CRANE & Co.

812 Kansas Ave., Topeka, Kas.

Send for Catalogue if interested.



The Most Successful Remedy ever discovered as it is certain in its effects and does not blister. Read proof below.

KENDALL'S SPAVIN CURE.

SMITH'S FORD, N. C., Nov. 29th, 1892.

DR. B. J. KENDALL CO.,
Gentlemen:—I have the pleasure of writing you again in regard to my mare, about whom I wrote you about two years ago, she being afflicted with Blood Spavin. After following the directions you gave me for using "Kendall's Spavin Cure" I obtained perfectly satisfactory results after using six bottles.

The Spavin Cure was not known in my part of the country until I purchased the first bottle, now all my neighbors use no other liniment but "Kendall's Spavin Cure." It is all you claim. You may publish this if desired.

Very respectfully, ADAM BRITAIN.

Price \$1.00 per bottle.

DR. B. J. KENDALL CO.,

Enosburgh Falls, Vermont.

SOLD BY ALL DRUGGISTS.

1893.

WELL MACH'Y All Kinds, Water, Gas, Oil, Mining, Ditching, Pumping, Wind and Steam: Heating Boilers, &c. Will pay you to send 25c. for Encyclopedia, of 1500 Engravings. The American Well Works, Aurora, Ill. also, Chicago, Ill.; Dallas, Tex.; Sydney, N. S. W.



For catalogue and prices write to THE HOWE SCALE CO., Chicago, St. Louis, Cleveland, Minneapolis, Kansas C.

NEVER MIND THE FREIGHT You will more than save it in buying a **VICTOR STANDARD SCALE.**



The best in the market. For circulars, prices and fair play, address, **MOLINE SCALE CO.** 30 Third Avenue, Moline, Ill. When You Write Us Mention This Paper.



A Small THRESHING MACHINE of great capacity for Light Power. The Columbia something new. **EVERY FARMER** can now **DO HIS OWN THRESHING**, with less help and power than ever before. Send for free illus. Catalogue. We make a full line of Horse Powers. **BELLE CITY MFG. CO., Racine, Wis.**



K.C. HAY PRESS CO. KANSAS CITY, MO.

ADAM'S COMBINATION

WOVEN WIRE FENCING

Absolutely the Best.

The greatest variety of styles and sizes. Before buying get our catalogue. Ask your dealer for Adam's Woven Wire Fencing and Gates.

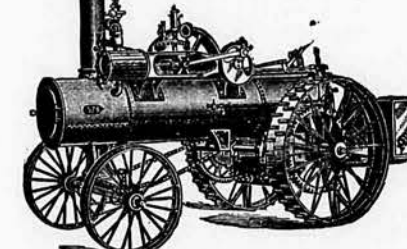
WRITE W. J. ADAM, Joliet, Ill.



MONEY SAVED By Buying Direct from Manufacturer.

We make Wood and Galvanized Steel Mills, Wood and Steel Towers. Mills Sold on Trial and on Time.

CURRIE WINDMILL CO., Manhattan, Kansas.



FACTORY--BATTLE CREEK, MICH.

Write for illustrated catalogue and price list. Self-Feeders, Traction Engines, Separators, Automatic Stackers, Etc.

ADVANCE THRESHER CO., Kansas City, Mo.

FARMERS AND THRESHERMEN

Catalogue FREE. All the Latest Improvements. Cylindrical Gear, Steel Tire, Return Flue-Boiler. 1/2 Fuel Saved. Traction, Plain or on Skids.

3,000 IN USE and never an explosion.



BUY THE NEW HUBER ENGINES.

ALL SIZES THRESHERS.

HUBER MFG. CO., Marion, Ohio.

AVERY PLANTER CO., Agts., Kansas City, Mo.

"Would you know why with pleasure Our faces so beam?"

Our Servants ne'er Grumble,



Our life is a dream.



CLAIRETTE LAUNDRY SOAP

Is the cause of our bliss; For all sorts of cleaning It never comes amiss.

MADE ONLY BY **N.K. FAIRBANK & Co. ST. LOUIS.**

"KEYSTONE" HAY LOADER.



The Only Kind



That Two Horses can handle easily. That is not a horse Killer. That does not take up dirt, trash and manure. That does not jerk itself to pieces. That loads successfully from cock or windrow. That loads green clover for ensilage. That loads heavy hay successfully. That does not thrash dry clover to pieces. That does not require hay to lay in swath and burn. Send for circular.

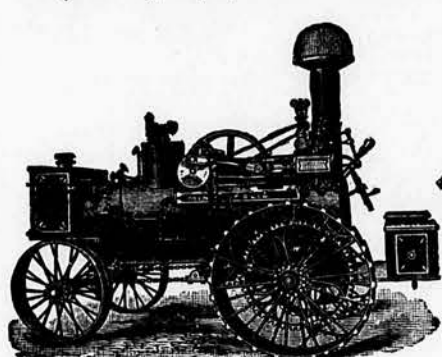
BRANCH HOUSES conveniently located. **KEYSTONE MFG. CO., STERLING, ILL.** Mention this Paper.

THE VICTORY SEPARATOR

has no equal for rapid threshing separating and cleaning all kinds of grain, flax and Timothy. Seven sizes from 28 in. cylinder and 42 in. rear, to 40 in. cylinder, 62 in. rear.



THE MINNEAPOLIS TRACTION ENGINE



will draw a heavier load, steam easier; use less fuel, than any other engine in America. Sizes 10-12-14-16-18 horse power, Wood and Coal or Straw-burners, as desired. Also Victory Self-feeders, Reliance Horse Powers, Weighers, Bagger Attachments, etc., etc.

Manufactured by The Minneapolis Threshing Machine Co., Minneapolis, Minn.

Write for catalogue. **G. J. FERGUSON, General Agent. KANSAS CITY, MO.**



I. X. L. THEM ALL. QUALITY TELLS.

THE BEST STEEL MILL. STRONGEST STEEL TOWER. No long story here, but send for Catalogue of Wood and Steel Mills, Pumps & Tanks. For Goods or Agencies address **THE PHELPS & BIGELOW WIND MILL CO., KALAMAZOO, MICHIGAN.** Goods shipped from DALLAS, KANSAS CITY, MINNEAPOLIS or KALAMAZOO.

BE HAPPY WHILE YOU LIVE, FOR YOU WILL BE A LONG TIME DEAD.

To be Happy buy a **DANDY STEEL MILL**

With Graphite Boxes. Never needs Oil. The Dandy Steel Tower is a 4 Cornered Tower, and the strongest and best in the market. Will be sent on 30 Days Test Trial, and if not entirely satisfactory can be returned to us, and WE WILL PAY FREIGHT BOTH WAYS. We also manufacture the old Reliable Challenge, O. K. Peerless and Dandy Wind Mills, Pumps, Cylinders, Tanks, Feed Mills, Corn Shellers, Horse Powers, &c. **Challenge Wind Mill & Feed Mill Co., Batavia, Kane Co., Ill.** In writing to advertisers please state that you saw their advertisement in the KANSAS FARMER.

OSCILLATOR THRESHER



HORSE POWER ENGINES. John S. Davis Sons

DAVENPORT IOWA. Send for catalogue



JUST WHAT YOU NEED

When building or moving fences. Fits spool that go with the wire. Fastens securely to wagon box.

Des Moines Equalizer Co., Mfrs. DES MOINES, IOWA.

This ad. appears once a month only. Better cut it out.

THE GREAT SOUTHWEST!

Kansas. Colorado
Oklahoma. Texas.
New Mexico. Arizona.

Unparalleled Resources of Climate, Products and Markets.

Write to Jno. E. Frost, Land Commissioner SNTA FE ROUTE, Topeka, Kansas, for latest FREE PAMPHLETS.

The Atchison, Topeka & Santa Fe Railroad is offering for sale, on easy terms and at reasonable prices, 100,000 acres choice farming and grazing lands in fertile Arkansas River valley in South-Central and Western Kansas. These are not cuttings, but valuable original selections, which have reverted to the company. No better lands can be found for general farming purposes or investment. Fine fruit lands in wonderful Mesilla valley, near Las Cruces, N. M., equal, except for citric fruits, to any California fruit lands, are also offered at less prices than this class of property usually commands. The prosperity of the great A. T. & S. F. system being largely dependent upon the prosperity of the farmers of the Southwest, it is naturally willing to aid the deserving and industrious immigrant seeking to establish a new home, by giving him all the facts and data at its disposal.

MISSOURI PACIFIC RAILWAY

THE GREAT Southwest SYSTEM. Connecting the Commercial Centres and rich farms of **MISSOURI,** The Broad Corn and Wheat Fields and Thriving Towns of **KANSAS,** The Fertile River Valleys and Trade Centres of **NEBRASKA,** The Grand, Picturesque and Enchanting Scenery, and the Famous Mining Districts of **COLORADO,** The Agricultural, Fruit, Mineral and Timber Lands, and Famous Hot Springs of **ARKANSAS,** The Beautiful Rolling Prairies and Wood lands of the **INDIAN TERRITORY,** The Sugar Plantations of **LOUISIANA,** The Cotton and Grain Fields, the Cattle Ranges and Winter Resorts of **TEXAS,** Historical and Scenic **OLD AND NEW MEXICO,** And forms with its Connections the Popular Winter Route to **ARIZONA AND CALIFORNIA,** For full descriptive and illustrated pamphlet of any of the above States, or Hot Springs, Ark., San Antonio, Texas, and Mexico, address Company's Agents, or **H. C. TOWNSEND, ST. LOUIS, MO.** Gen'l Passenger & Ticket Agent.

SEEDS

J. G. PEPPARD, 1400-1402 UNION AV.,
MILLET A SPECIALTY.
Red, White, Alfalfa and Alsike Clovers,
Timothy, Blue Grass, Orchard Grass, Red
Top, Onion Sets, Tree Seeds, Cane Seed.

KANSAS SEEDS

You will have
the Best Crop
if you buy

Our Novelties: Glass Radish, Jerusalem and Kansas
King Corn, Denver Lettuce and Kansas Stock Melon.
Our Specialties: Onion Seed and Sets, Alfalfa, Esper-
netto, Kafir Corn, Cane, Millet, Seed Corn, Tree Seeds for
timber claims and nurseries. Everything in the seed line
Catalogues mailed Free on application.
KANSAS SEED HOUSE, F. Barteldes & Co., Lawrence, Kan.

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:—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!

TRADE OR SALE—Eight lots in Wichita. Also
Eureka three hundred egg incubator. Prefer a
large jack. Room 1 Fletcher Building, Wichita, Kas.

WILL EXCHANGE—Well-bred mares and young-
sters for desirable farm or land. A good chance
for one to become a breeder of fine horses at once.
Charles P. Damon, St. Louis, Mo.

EGGS—From choice Light Brahmas, \$1 per 13; \$1.75
per 20. Wm. Plummer, Osage City, Kas.

LANGSHANS AND LEGHORNS—Handsome
and hardest on earth. Eggs from prize-winners
\$1. James Burton, Jamestown, Kas.

FOR SALE OR TRADE—For real estate, stock or
merchandise, imported black Percheron stallion,
French Coach and black jack. Must sell at some
price. Box 105, Spring Hill, Johnson Co., Kas.

CALLOWAY BULLS FOR SALE—I have some
fine young Calloway Bulls for sale cheap; also
Scottish Collie Pups. Come and see them, or address,
F. H. Hutton, Snokomo, Wabunsee Co., Kas.

THOROUGHED STOCK FOR SALE—The
Farm Department of the Kansas State Agricul-
tural College offers to sell several fine recorded
Short-horn bulls and heifers; also an Aberdeen-
Angus heifer and a young Hereford cow. Address
Prof. Georgeson, Manhattan, Kas.

PLYMOUTH ROCK AND M. B. TURKEY EGGS—
Send for circular. John C. Snyder, Constant,
Kansas.

BARRER PLYMOUTH ROCKS exclusively. Eggs
\$1.00 per 15. Severance, Kas. Thos. J. Francis.

PRESERVE YOUR EGGS—How to keep eggs fresh
the year round. Formula mailed for 50 cents.
John B. Campbell, Lock Box 305, Topeka, Kas.

200 good canvassers wanted at once to sell nur-
sery stock for the Seneca Nurseries. Steady
employment all the year. Outfit free. Write at
once. S. J. Baldwin, Seneca, Kas.

FOR SALE—Or trade for live stock, 160 acres good
farming land near Dodge City, Kas. John
Schenk, Wright, Kas.

WHITE FACED BLACK SPANISH (exclusively)
Eggs. \$1.25 per 15. Satisfaction guaranteed.
John Black, Barnard, Kas.

FOR SALE—Leslie's poplar octagon 1 quart berry
boxes, per 1,000, \$2.25; crates for same, per 100,
\$3.00. F. Barteldes & Co., Lawrence, Kas.

FOR SALE OR TRADE—Farm fifty miles north-
west of Chicago. Address Alex. Gardner, Rich-
land, Shawnee Co., Kas.

FOR SALE OR RENT—Timber claim. For par-
ticulars address N. B. Bishop, Meade, Meade
Co., Kas.

LIMITED OFFER—By special arrangement for a
short time we are enabled to supply our readers
with the KANSAS FARMER and the Weekly Capital,
both one year for only \$1.25. Make remittances to
KANSAS FARMER CO., Topeka.

RED POLL BULLS—For sale, three Red Poll bulls,
one imported 6 years old, one 2 and one 1 year
old, from imported stock. Will sell cheap or will
exchange one for same kind of animal. Corres-
pondence or inspection solicited. D. S. Fraser, Pea-
body, Kas.

FOR SALE CHEAP—Mounted 10 H. Dingee-Wood
bury power. Has been used less than two weeks
and guaranteed all complete (with equalizers) and
in good condition. Will be delivered at any station
desired. For further particulars address Power,
care this paper.

FOR SALE—Scotch Colley pups, cheap. Farmers,
now is your chance to get a good dog. E. B.
Davis, Columbus, Kas.

WANTED—Large stock ranches. Horses and
cattle in exchange for land, Kansas City or
Topeka property. John G. Howard, 423 Kansas
Ave., Topeka, Kas.

FOR EXCHANGE—233½ acres in Cass Co., Mo.
Worth \$30 per acre, cash. Incumbered for
\$3150—long time, easy payments. Want to trade
equity for smaller improved farm in Kansas. Must
be virtually clear. Address Mrs. O. C. Dever, Lone
Tree, Mo.

TO EXCHANGE—1120 acre stock and breeding
farm near Colorado Springs, El Paso Co., Col.
Finest improved and watered farm in the country.
Elegant house, barns, etc. Will exchange for city
property, merchandise or cattle. J. DeWitt, 1254
Fillmore St., Topeka.

FOR SALE—Two finely marked thoroughbred
Holstein bull calves, \$10 each. J. D. Ziller, Hin-
matha, Kas.

MILLET AND CANE SEED

Wanted. Send samples and will make bids.
J. G. PEPPARD, 1400-1402 Union Ave.,
Kansas City, Mo.

MISCELLANEOUS.

F. M. WOODS,
Live Stock Auctioneer, Lincoln, Neb.
Refer to the best breeders in the West, for whom I
do business. Prices reasonable and correspondence
solicited.

DR. S. C. ORR, VETERINARY SURGEON AND
DENTIST—Graduate Ontario Veterinary Col-
lege, Canada. Veterinary Editor KANSAS FARMER.
All diseases of domestic animals treated. Ridgling
castration and cattle spaying done by best approved
methods. Will attend calls at any distance. Office:
Manhattan, Kas.

S. A. SAWYER, FINE STOCK AUCTIONEER,
N. Manhattan, Riley Co., Kas. Have thirteen dif-
ferent sets of stud books and herd books of cattle
and hogs. Complete 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.

MODELS—For patents and experimental ma-
chinery. Also brass castings. Joseph Gerdon
& Sons, 1013 Kansas Ave., Topeka, Kas.

ANNOUNCEMENTS.

FOR COUNTY TREASURER.
A. E. Jones desires to announce to his friends
that he is a candidate for County Treasurer, and
respectfully solicits their support, subject to the
action of the Republican county primaries.

THE STRAY LIST.

FOR WEEK ENDING MAY 24, 1893.

Osage county—Geo. Rogers, clerk.

STEER—Taken up by F. H. Mountz and Sam
Kirshner, in Elk twp., P. O. Overbrook, November
28, 1892, one steer, white spot in forehead and white
bush on tail.

STEER—By same, one steer, white and red belly
and white bush on tail.

Reno county—J. E. Eaton, clerk.

MARE—Taken up by W. A. Birket, P. O. Abby-
ville, April 15, 1893, one brown mare, 16 hands high,
barb wire scratch on left fore leg; appraised value,
\$20.

Finney county—T. C. Laughlin, clerk.

HORSE—Taken up by C. C. Adam, in Pierceville
twp., P. O. Pierceville, May 3, 1893, one black horse,
10 years old, branded X below an O on left shoulder
and U below an X on left hip.

MARE—By same, one sorrel mare, 4 years old,
ringbone on left fore foot, branded YG on left
shoulder.

Anderson county—J. T. Studebaker, clerk.

MARE—Taken up by R. P. Lesh, in Westphalia
twp., one bay mare, 4 years old, barb wire cuts
across breast and fore legs; no other marks or
brands visible.

Cherokee county—P. M. Humphrey, clerk.

MARE—Taken up by Henry Settu, in Shawnee
twp., P. O. Crestline, January 25, 1893, one black
mare, 10 years old; shod in front, had on headstall,
branded on left hip and left shoulder.

MARE—Taken up by Wm. Rafferty, in Shawnee
twp., P. O. Crestline, May 3, 1893, one brown mare,
8 years old, 5 feet high, harness marks, shod all
around; branded WC on left shoulder.

MARE—By same, one sorrel mare, 4 years old,
4 feet 8 inches high, blaze face, white under lip,
had on bell.

PONY—Taken up by J. R. Hodson, in Gordon twp.,
April 25, 1893, one bay pony mare, 14 hands high, 12
or 14 years old, both hind feet white, one lop ear,
branded A on one jaw; valued at \$25.

Shawnee county—J. M. Brown, clerk.

COLT—Taken up by John Ropp, in Roseville twp.,
one bay horse colt, 9 months old; no marks or
brands; valued at \$15.

FOR WEEK ENDING MAY 31, 1893.

Cheyenne county—J. C. Barton, clerk.

MARE—Taken up by Gustav Felzeln, in Lawn
Ridge twp., P. O. Lawn Ridge, May 8, 1893, one light
bay mare, about 17 years old, weight about 900
pounds, blaze face, both hind feet white, blemish
on hind foot and on both front feet; appraised
value, \$35.

Hodgeman county—H. B. Helm, clerk.

MARE—Taken up by Ord C. Sanders, in Sawlog
twp., May 3, 1893, one iron gray mare; no marks or
brands; appraised value, \$40.

FOR WEEK ENDING JUNE 7, 1893.

Hamilton county—Ben A. Wood, clerk.

2 COLTS—Taken up by Byron Brown, in Liberty
tp., May 10, 1893, two yearling male colts, one gray
and one black, no marks or brands; valued at \$7.50
each.

Sumner county—Wm. H. Carnes, clerk.

COLT—Taken up by Abe Mumaw, in South Haven
tp., P. O. South Haven, April 27, 1893, one sorrel
mare colt, 1 year old, white spot in face; valued at
\$15.

Montgomery county—G. H. Evans, Jr., clerk.

MARE—Taken up by J. J. Alexander, in Sycamore
tp., P. O. Lay, May 8, 1893, one bay mare, 5 or 6 years
old, about 16 hands high, slit in left ear; valued at
\$50.

Sheridan county—J. B. McPherson, clerk.

COLT—Taken up by I. R. Korabough, one iron-
gray horse colt, 2 years old, no marks or brands;
valued at \$30.

Franklin county—O. M. Wilber, clerk.

HORSE—Taken up by D. P. Clark, in Peoria tp.,
P. O. Rantoul, May 31, 1893, one gelding, 6 or 7
years old, sweetened in right shoulder; valued at \$50.

Greenwood county—J. M. Smyth, clerk.

HOG—Taken up by Maels Agard, in Fall River
twp., near Climax, March 22, 1893, one Berkshire bar-
row, weight 200 pounds, slit in right ear; valued at
\$15.

Shawnee county—J. M. Brown, clerk.

HORSE—Taken up by Thomas Lawler, in Wil-
liamsport tp., P. O. Wakarusa, May 12, 1893, one black
horse, very old, white hind feet; valued at \$20.

HORSE—By same, one sorrel horse, very old, left
hind foot white, blind in one eye; valued at \$20.



N. G. ALEXANDER
DELAVER, ILL.
Proprietor Illinois Central
Herd of Recorded Chester
Whites 100 Pigs for sale.
Illustrated catalogue free.

SHANNON HILL STOCK FARM.

G. W. GLICK, ATCHISON, KAS.

Breeds and has for sale Bates and Bates-topped
SHORT-HORNS. Waterloo, Kirklevington, Wil-
bert, Cragg, Princess, Gwynne, Lady Jane and other
fashionable families. The grand Bates bulls Water-
loo Duke of S. Shannon Hill No. 89879 and
Winsome Duke 11th at head of herd. Choice
young bulls for sale now. Visitors always welcome.
Address
W. L. CHAFFEE, Manager.

Double Action Rubbing and Washing Machine.

Washes as clean as the
old hand wash board; will
wash 14 shirts in 7 min-
utes. All machines war-
ranted to wash cleaner,
quicker and easier than
any other made. Has
great lever purchase.
Agents wanted. Write
W. J. POTTER,
Manufacturer, Tama, Ia.

ALLIANCE CARRIAGE CO., CINCINNATI, OHIO.

You should order
no BUGGIES,
CARRIAGES,
WAGONS or HARNESS
from any one until you have seen
our New Grand Catalogue for 1893, which
is mailed free to any address. It shows over
one hundred new styles, with prices of vehicles
ranging from \$30 upward, and Harness from \$5 upward.
Our goods are strictly hand-made and fully warranted for two
years, and our Spiral Springs are warranted for 12 years. We are
recognized manufacturers for the above organizations. Examine our
mammoth display at the World's Fair, in Chicago. The only manufac-
turers in the world that sell their entire output direct to the consumer.
Factory and Salesrooms: Cincinnati, O.
Cincinnati, O.

CARRIAGES, BUGGIES, PHETONS, SURREYS AND HARNESS.

A Buggy

ONLY CONCERN IN THE WEST DEALING EXCLUSIVELY WITH
THE CONSUMER and giving him the benefit of manufacturers' prices.
Goods are first-class in every particular; fully warranted for 2 yrs.
A home institution entirely distinct from any Eastern concern.
KANSAS CITY CARRIAGE AND HARNESS CO.
1209 Walnut Street, KANSAS CITY, MO.

SEND
FOR
ILLUS-
TRATED
CATAL-
OGUE.

SHORT-HORN AND POLAND-CHINA SALE.

I will offer at public sale at my farm, 6 miles southeast of Maple Hill, (Wabunsee Co., Kas.,)
on Chicago, Rock Island & Pacific
Railroad, on
FRIDAY, JUNE 16, 1893,
about 35 head of fine Cows, Heifers and Bulls. I have paid especial attention to developing the
milk qualities of my cattle for several years, and have many excellent milkers. The bull now at the
head of my herd was got by S. O. Cowan's imported Cruickshank bull, Scottish Lord, and out of a Victo-
ria cow. I will also sell 15 head of pure-bred Poland-China Gilts and Pigs. Stock in good breed-
ing condition. Sale to begin at 1 o'clock p. m. Terms, Cash. Six months' time may be obtained on bank-
S. A. SAWYER, Auctioneer.

L. A. KNAPP.

KANSAS CITY HAY EXCHANGE

Lately Established at 18th and Liberty Sts.
Is in the interest of the producer and shipper. Exact weights are assured, honest practices compelled,
and convenience given shippers, commission men and buyers. Two-thirds of the hay firms in Kansas
THE HAY EXCHANGE, and thus given honest weights and honest sales. All hay so billed is insured
without extra cost. Mention this paper.

FRED MORRILL, President. **A. A. PULLMAN,** Vice President. **F. H. BAKER,** Sec'y and Treas.

JAMES H. CAMPBELL, General Manager, Chicago. **J. H. McFARLAND,** Secretary, Chicago.
GEO. W. CAMPBELL, President, Kansas City. **D. L. CAMPBELL,** Vice President, "maha."
L. J. DUNN, Treasurer, Kansas City. **H. F. PARRY,** Manager, St. Louis.

CAMPBELL COMMISSION CO.

(Successors to JAMES H. CAMPBELL CO.)
LIVE STOCK COMMISSION MERCHANTS.
Chicago, St. Louis, Omaha, Sioux City and KANSAS CITY STOCK YARDS.

The well-known firm **PETERS BROTHERS**, have consolidated with us
And respectfully ask a continuance of their former patronage. Your business solicited.
Money advanced to Feeders. Market Reports sent Free on application.

POWER FROM GASOLINE

CHEAPER THAN STEAM.
No Boiler. No Steam. No Engineer.
BEST POWER for Corn and Feed Mills, Baling
Hay, Running Separators, Creameries, &c.
OTTO GASOLINE ENGINE
Stationary or Portable.
1 to 50 H. P. 8 to 20 H. P.
OTTO GAS ENGINE WORKS,
33d & Walnut Sts., PHILADELPHIA, PA.

Send for Catalogue, Prices, etc., describing work to be done.

TOWER'S FISH BRAND

TRADE MARK.
This Trade Mark is on the best
WATERPROOF COAT
in the World!
Illustrated Catalogue Free.
A. J. TOWER, BOSTON, MASS.

THE KIRKWOOD Steel Wind Engine

Has been in use since 1882. It is
the Pioneer Steel Mill. It has
beauty, strength, durability, power;
it is the best, hence the mill for
you to buy.
Thousands have them!
OUR STEEL TOWERS
Have four angle steel corner
posts, substantial steel girts and
braces; not fence wire. They are
light, strong, simple in construc-
tion, much cheaper than wood and
will last a lifetime. Our mills and
towers are ALL STEEL and
FULLY GUARANTEED.
Write for prices and circulars.
Address, mentioning this paper,
KIRKWOOD WIND ENGINE CO.
Arkansas City, Kas.

Whoa! Stop!! Read!!!

Increase your Income by saving on your purchases.
We can save you 33 1/3 per cent. on all horse goods.
Never before has such bar-
gains been offered direct to
the consumer. We manu-
facture all kinds and styles
of horse goods, both single
and double Harness, and
all styles and grades of
Vehicles for horse or pony,
dog or goat. Call at our
office when attending the World's Fair and get ac-
quainted with us, and see for yourself what we are
"saving" for consumers. Be sure and see our two
fine Exhibits at the World's Fair. Our leaders, \$5.50
Harness, \$55 Buggy, \$10 Road cart, etc., may be
seen there. Send at once for our new Handsome
Illustrated Catalogue.
FRANK B. BARKLEY MFG. CO.,
GARDEN CITY BLOCK, CHICAGO, ILL.
Mention KANSAS FARMER when answering.

\$10 for MACHINE

to weave your own FENCE
at 25 cts. per rod. 10 No. 11
galv. wires. Cross wires 1/2
in. to 2 ft. apart. It weaves
30 rods a day. It weaves
a lining for the corn-crib,
and rat proof guards for
cellar windows. Agents
Wanted. Catalogue Free
Carter Wire Fence
Machine Co. Derby, O.

\$25 to \$50 per week

to Agents, Ladies or
Gentlemen, using or selling
"Old Reliable Plaster." Only
practical way to replace rusty and
worn knives, forks, spoons, etc.,
quickly done by dipping in melted
metal. No experience, polishing,
or machinery. Thick plate at one
operation; lasts 5 to 10 years; fine
finish when taken from the plaster.
Every family has plaster to do.
Plaster sells readily. Profits large.
W. F. Harrison & Co. Columbus, O.