

KANSAS FARMER

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BREEDERS' DIRECTORY.

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EGGS HALF PRICE.

After June first I will sell 30 eggs from my pure-bred White Wyandottes for \$1.00. Also free with each shipment a recipe for making a lice and mite killer paint. P. O. Box 60, White Dotte Poultry Farm, Mrs. V. Odell, Prop., Wetmore, Kas.

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PURE-BRED FARM POULTRY AT FARMERS' PRICES. Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Light Brahmans, Silver Wyandottes, Black Javas, S. C. Brown Leghorns, White Leghorns, Buff Leghorns, Silver Spangled Hamburgs, White Guineas, Pearl Guineas and Buff Turkeys. Single birds, pairs, trios and breeding pens. Our stock is from the leading breeders and prize-takers of the country. Birds from \$1 up. Eggs \$1 per 13; \$5 per 100. Recipe for "Liquid Lice Killer" free with each order. (Enclose stamp.) A. H. DUFF, Larned, Kas.

SWINE.

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M. H. ALBERTY, Breeder of Registered **CHEROKEE, KAS. DUROC-JERSEY SWINE.** Baby Pig Teeth Clippers, 35 cents by mail.

Thoroughbred Duroc-Jersey Hogs Registered stock. Send for 44-page catalogue, prices and history, containing much other useful information to young breeders. Will be sent on receipt of stamp and address. J. M. Stonebraker, Paola, Ill.

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

Mound Farm Herd of Poland-Chinas. 100 head. Foundation stock, Tecumseh. Boars in service, Tecumseh Joe 13445, Chief 13840 S. Butler Wilkes 17764 S., U. S. Tecumseh 17850 S., 15 fall gilts, 30 spring pigs, 30 summer pigs. Inspection and correspondence invited. H. E. Bachelder, Fredonia, Wilson Co., Kas.

"HIGHLAND POLAND-CHINAS." Twenty-five very fancy fall boars, some of which will do to head any herd or to go in any show ring. Sired by Knox All Wilkes 18179 S. and Highland Chief 18334 S. by Chief Tecumseh 2d 9115. No better sires in any herd. Our prices very low if taken at once. One hundred fine spring pigs by same sires. **Plymouth Rock Eggs.** **DIETRICH & SPAULDING, Richmond, Kas.**

HEADQUARTERS FOR POLAND-CHINAS IN KANSAS IS AT SHADY BROOK STOCK FARM.

H. W. CHENEY, Prop., NORTH TOPEKA, KAS. Cheney's Chief I Know 19513 (S) at head. All popular strains represented in matrons. Write for prices, which are always reasonable. Buyers met at train and shown stock free.

Wamego Herd Imp. Chester Whites and Poland-Chinas. Mated for best results. Also Barred Plymouth Rock chickens and eggs for sale. Correspondence or inspection invited. Mention FARMER. C. J. HUGGINS, Proprietor, Wamego, Kas.

Standard Herd of Poland-Chinas A choice lot of gilts sired by Ideal U. S. and bred to Tecumseh Chief. Also some good Tecumseh Chief gilts bred to Look Over Me (he by old Look Me Over) and some good fall pigs, both sexes. Write and get my prices or come and see. **WM. MAGUIRE, Haven, Kas.**

Large-Boned Poland-Chinas—A Bargain. For the next thirty days we will sell fifteen extra fine boars and twelve sows, of September farrow, good enough to go in any herd, and some of them will win this fall in hot company. They go cheap while they last. 150 spring pigs representing all the fashionable families. Come and see us or write. **WAIT & EAST, Altoona, Wilson Co., Kas.**

PURE-BRED POLAND-CHINA SWINE. Brood sows by Wren's Medium, Hadley M. Washington, Protection Boy, Moss Wilkes Tecumseh (by C. T. 2d), Tanner 19212, a grandson of the famous Hildestretcher, at head of herd, assisted by Prince Darkness, out of Darkness 1st. Corwin Sensation and Darkness 1st are very choice sows. Some October Tanner pigs for sale. Get one for a herd header. Also some One Price Medium 2d pigs for sale. Three young boars ready for service. Write for prices. **J. R. WILLSON, Marion, Kas.**

PLEASANT VALLEY HERD REGISTERED POLAND-CHINA SWINE King Perfection 4th 18744 S. at head of herd, assisted by Tecumseh Wilkes 12634 S. and Lambing Ideal 14050 S. The sire of last named is Gov. C. by Black U. S. We have added several very finely bred sows to our herd. Write for particulars. Address either **W. E. JOHNSON, E. A. BRICKER, Colony, Kas. Westphalia, Kas.**

Kansas City HERD Poland-Chinas. **W. P. GOODE, Lenexa, Kas.**

SWINE.

D. L. BUTTON, North Topeka, Kas., breeder of Improved Chester Whites. Stock for sale. Farm 2 miles northwest of Reform School

DIVERDALE HERD of Chester White swine and Light Brahma poultry. J. T. LAWTON, BURBTON, KAS., proprietor. All stock guaranteed. I can also ship from Topeka, my former place.

THE SEDGWICK NURSERY CO., Sedgwick, Harvey Co., Kas.,—Breeder of— **Short-horn Cattle and Poland-China Swine** Of the Best Strains. Stock for sale. Correspondence and inspection invited.

SIXTEEN TO ONE HERD REGISTERED POLAND-CHINA SWINE. Herd boars, Gold Standard Wilkes by Guy Wilkes 2d 17777 S. and Ideal Quality by Darkness Quality 2d 14361 S. Brood sows, Tecumseh, Black U. S. and Wilkes. Thirty spring pigs, both sexes, ready to go. Farm two miles north of Welda. **J. M. COLLINS, Welda, Anderson Co., Kas.**

CHERRY ORCHARD HERD Composed of the BEST POLAND-CHINA. Deadly Cullers and wonder as well known. The present offering consists of August, September and October pigs—10 boars and 20 sows—very choice. The stock by or bred to Kievers' Model, What's Wanted Jr., Hildestretcher, Wilkes, Waterloo Chief, etc. For further information address, **W. H. WREN, Marion, Kas.**

BLUE MOUND HERD BERKSHIRE SWINE. Herd boars, Victor Hugo 41799 (sire Imp.), Barkis 30040 (weight 800 lbs.), Prince 17th, from World's Fair winner. Choice pigs from five different strains. Also bred Shropshire sheep, M. B. turkeys and B. P. Rock chickens. Write. **Allen Thomas, Blue Mound, Linn Co., Kas.**

Nation's Poland-Chinas. Fifty boars and gilts for this season's trade. My herd boars consist of Darkness Quality 14361, Princeton Chief 14543, Col. Hildestretcher 37247 and Standard Wilkes. My sows are splendid individuals and of the right breeding. Personal inspection and correspondence invited. **LAWRENCE NATION, Hutchinson, Kas.**

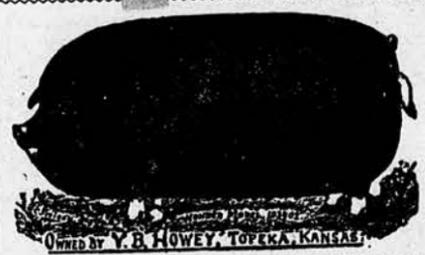
SUNFLOWER HERD OF SHORT-HORN CATTLE and POLAND-CHINA SWINE. 125 head in herd, with Sir Knight 124403 at the head. Females are by such imported Crulekshank bulls as Craven Knight 96223, Thistle-top, Master of the Hills, Earl of Gloster 74523, Viscount Richmond, Knight Pompliar 66658, etc. Forty very choice brood sows. Young stock for sale. **ANDREW PRINGLE, Harveyville, Kas.**

POLAND-CHINAS. Guy Darkness 18292 and Best Nims 19512, herd boars, Sept. '97 boars and gilts for sale. Guy Darkness gilts will be bred to Best Nims for fall farrow. Correspondence or inspection of herd solicited. **S. W. HILL, Hutchinson, Kas.**

HIGHLAND FARM HERD PEDIGREED POLAND-CHINAS. One hundred head. Bred sows in pig to herd boars, Corwin I Know 18448 S., he by the great Chief I Know 19922 S., and others to Hadley U. S., a son of the great Hadley, Jr. 13314 S. Also ten extra choice fall boars and twelve gilts for sale at reasonable prices, breeding and quality considered. Fifty spring pigs by seven different noted sires. Write or visit the farm. **John Bollin, Kickapoo, Leavenworth Co., Kas.**

Mains' Herd Poland-Chinas Headed by the three grand breeding boars, Model Combination—his sire was J. D. Model, he by Kiever's Model 14694 out of McKelvie's Lass 42107; his dam Lady Chief 42919, she by Chief Tecumseh 2d 9115 and out of Ralph's Pet 42788; **One Price Chief**—his sire Chief Tecumseh 2d 9115, his dam Alpha Price 38785, she by One Price 4207; **Kansas Chief** 33615—he by Royal Chief's Best and out of Bell O. 74694. The sows are all selected and equal in breeding and quality to any. A few sows bred will be offered. Young males and gilts ready. Satisfaction guaranteed. **James Mains, Oskaloosa, Jefferson Co., Kas.**

SWINE.



Owned by Y. B. HOWEY, TOPEKA, KANSAS.

Breeder and shipper of thoroughbred Poland-China and Large English Berkshire swine and Silver-Laced Wyandotte chickens.

CATTLE.

ROCK HILL HERD OF SHORT-HORNS. An Elbert & Falls "Waterloo" bull and Norton's "Clipper" Scotch bull "Cupid" head the herd. Ten Scotch and Scotch-topped daughters of the great Linwood "Lord Mayor" and several daughters of C. C. Norton's "Imp. Salamis" included. No heifers or bulls old enough for service for sale. **J. F. TRUE, Newman, Kas.** Twelve miles east of Topeka on U. P. railroad.

SILVER CREEK HERD SHORT-HORN CATTLE. Scotch and Scotch-topped, with the richly-bred Champion's Best 114671 in service. Also high-class **DUROC-JERSEY SWINE.** Can ship on Santa Fe and Missouri Pacific railroads. **Jarple coloration.** **Wren, Cowley Co., Kas.**

CLOVER CLIFF FARM. Registered Galloway Cattle. Also German Coach, Saddle and Trotting-bred horses. World's Fair prize Oldenburg Coach stallion, Habbo, and the saddle stallion, Rosewood, a 16-hand 1,100-pound son of Montrose, in service. Visitors always welcome. Address **BLACKSHERE BROS., Elmdale, Chase Co., Kas.**

ROSE CREEK FARM JERSEY CATTLE **POLAND-CHINA SWINE** **MAMMOTH BRONZE TURKEYS** and Silver Wyandottes are from premium stock. Turkey eggs \$2.50 for 9, Wyandottes \$1.50 for 13. (Farm in Republic Co., Kansas.) **H. WOODFORD, Mgr., Chester, Neb.**

DEER PARK FARM. **H. E. BALL, Proprietor.** Registered Jersey cattle. Young bulls and heifers for sale. Registered Poland-China swine. Young boars for sale. Farm two miles east of Topeka on Sixth street road. **T. P. CRAWFORD, Mgr., Topeka, Kas.**

SUNRISE STOCK FARM. **C. A. STANNARD, Prop., Hope, Kas.** Breeder of Hereford Cattle and Large English Berkshire Hogs. Bulls in service: Kodax of Rockland 40781, who has won more first premiums at leading State fairs in past six years than any other bull in Kansas; Java 64045. Thirty-five yearling heifers and seven bulls 3 to 7 years old for sale.

LIVE STOCK AUCTIONEERS. **J. N. HARSHBERGER,** LIVE STOCK AUCTIONEER, LAWRENCE, KAS. 11 Years of experience. Sales made anywhere in the United States. Terms the lowest. Write before claiming date.

C. A. SAWYER, FINE STOCK AUCTIONEER— S. Manhattan, Riley Co., Kas. Have thirteen different sets of stud books and herd books of cattle and hogs. Complete catalogues. Retained by the City Stock Yards, Denver, Col., 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.

The Stock Interest.

ORIGIN OF RED POLLED CATTLE.

When Caesar, satiated with the flowing blood of the trans-Alpine Gauls and fresh from his victories over the retreating Franks, crossed the strait of Dover and with the friends that he had made among the British tribes marched into the interior of England, he found in the native forests a breed of white hornless cattle with black or red ears and black noses. The heaviest of these denizens of the primeval forests, where the Druids have since sung their mystic songs and danced their religious dances, weighed, as stated by him, 400 pounds. One of these animals painted from life in the thirteenth century occupies a space between two Italian madonnas on the walls of the British museum in London, and from a photograph taken in 1887 of this picture a crayon sketch hangs upon the walls of the home of the writer.

These animals still live in England, and four small herds of them, native, white, wild and hornless are still to be seen with their white gleaming sides and black or red ears and noses as they swish through the green copewood in the deepest recesses of the moss-grown parks where, with their natural wildness, they still choose to live. In form these animals leave little to be desired, except that as you stand behind them you lose sight of their backs; but in muscular development, in sinewy strength, in depth of chest, in the spring of the rib, their natural hardiness has been the guarantee of the perfectness of their form. In size they have increased until they weigh about 600 pounds. There can be no doubt that while there have been native polled cattle in Ireland, in Wales and in England from time immemorial, and all of them as wild as their hornless brethren of Uruguay, that the color of the Red Polled cattle of to-day cannot be attributed to any of these breeds. And now comes our good brethren from Devon with a history for their cattle as ancient as medieval times and always as red as to-day, and claim the honor of being the origin and source of the bright ruby red that is one of the peculiar characteristics of Red Polled cattle.

"GAY OLD HOME BRED."

The first authentic name for Red Polled cattle in the domestic state, "Gay Old Home Bred," was attributed to them as a designation because of their sheeted or roan characteristic. The blending of the white with the wild hornless forest bulls of Caesar's time with the ruby red of the domesticated cow from Devon and on down through the centuries from the Dark Ages until the writing of the Domesday Book, the red and the white mingled in the color of the cattle on the borders of Devon, Sussex, Suffolk and Norfolk. But in 1792, red, being then as much esteemed as now, began to grow permanent, and by natural selection and the power of blood, assisted by fancy in the selection of red animals, we find the cattle of Norfolk and Suffolk still hornless from the old bulls gradually approaching the Devon in his garnet-hued coat.

John Kirby, of Wickham Market, published in the Suffolk Traveler a series of articles in 1732-3-4 in which he spoke of the butter produced in the dairy districts of Suffolk as "justly esteemed the pleasantest and best in England." And Arthur Young, the ablest early writer on agricultural subjects in England, speaking of the polled breed as it existed in 1792, in his report, which was published in 1794, locates the home of the polled breed in Suffolk county. He says the cattle were universally polled; that in size they were small, weighing about 700 pounds; that they had a clean throat with little dewlap, a snake head, clean, thin legs and a short springing rib and a large carcass; a flat loin, the hip bones to lie square and even, and the tail to rise high from the rump. These cattle were red, and from this small beginning, by judicious selection, by good care and feed, have been bred up the modern champion cattle with their great weight and thick substance, easy-going disposition and remarkable readiness to fatten.

STOCKS THEY CAME FROM.

There appears in the make-up of the strain of Red Polled cattle, as shown by the Encyclopedia Britannica and by contemporary historians, to have been added another strain of blood from the breed known as the Suffolk Duns, evidently a cross of cattle made from the original hornless white bull of the forest with the Guernsey or Jersey cream-colored cattle from the Channel islands. In a work entitled "The Rural

Economy of Norfolk," published in 1782, we quote: "The native cattle of Suffolk are a hardy, thriving race, fattening as freely and finishing as highly at 3 years old as cattle in general do at 4 or 5. They are small-boned, short-legged, short-barrelled, well-loined, thin-thighed, clean-chapped, the head in general fine, and the horns clean, middle sized and bent downward, the average color a blood red."

This race of cattle was mixed in and alloyed with the polled cattle that we have been describing. They lost their horns; they added to the Red Poll the early fattening characteristic, and if a Red Poll ever "backs back" to the breed at all it is shown by the fact that the first place any white comes upon a Red Polled grade is in the form of a star in the forehead, and when crossed with the Herefords the Red Poll readily takes off a yard of horn but falls on the white face. The cross-bred Red Poll and Hereford is a red animal, hornless, with a white face. From the files of the Norwich Mercury, one of the reliable agricultural factors of the English press for more than a hundred years, we find that as early as the year 1770 whole dairies of polled cows were advertised in Norfolk. We find advertisements in the same paper in 1780, 1795, 1797, and the prevailing color, as shown by these advertisements, was red.

The Right Honorable Lord Sondes, speaking at the Norfolk Agricultural Association dinner in 1859, says that when he came to live in the county early in the century he found on the estate in Norfolk these home-bred cows. Following the advice of the Earl of Leicester, he has stuck to the breed ever since, believing that they were as profitable and useful a class of cattle as could be kept. They were red with but little white upon them. In 1802 dairies of polled cows were offered for sale at auction at Gately, and the advertisement stated that "twenty-one beautiful polled cows and a bull, as good cows as the county Norfolk can produce," would be offered for sale. The advertisements for polled cattle all through this district are shown by the files of the local newspapers, and in almost every instance they are described as being polled and red.

AT THE SHOWS.

These cattle began to be shown in competition with other breeds for prizes as early as 1810, when Mr. Reeve exhibited a very fine Norfolk bull and two two-year-old heifers at Holkhan. This herd of Mr. Reeve's was maintained until 1828, when a sale was advertised of eleven matchless blood-red cows in calf and eleven two-year-old heifers in calf and a two-year-old blood red bull, one of the most perfect animals in the kingdom, and it is stated in the advertisement that Mr. Reeve never used a Devon bull, but that he had gotten a Suffolk for a sire, doubtless to preserve the polled characteristic. We find from the files of a local paper that in 1822, Mr. George, who had purchased his cattle at the sale of Mr. Reeve before mentioned, offered for sale by auction twelve blood-red polled cows and a year-old blood-red polled bull.

In 1818, we first discover the term Norfolk Polled applied to these cattle, but from that time on the names Norfolk Poll and Suffolk Poll came into frequent use, and the "Gay Old Home Bred" was known in Suffolk and Norfolk by this name, made up from the name of his county and his chief characteristic, until later the cattle became fashionable and being bought up and owned by noblemen they were for many years known as Park cattle. It was during this time, while they lived with the aristocrats, that they confirmed their color to the deep ruby red, eliminating every element of white except it be from the udder and switch, and at the same time increased those characteristics for fattening which, like their gouty owners, came to them easily on the good rich feeds and pleasant pastures of the English parks.

This sketch brings us down to about the year 1846, at which time there was a merger of the two breeds from Norfolk and Suffolk, and the beginning of the blending of the cattle together that has continued down to the present time.—J. C. Murray, Maquoketa, Iowa, in Texas Stockman and Farmer.

The Short-horn as a Dairy Cow.

While the subject of dairying is being discussed, let us take a look at the Short-horn as a butter cow. There were three tests of cows at the agricultural hall the past winter, one of which was confined to the Jerseys, with fourteen entries; another to the Short-horns, with seventeen entries, but only nine competitors; while the third was for cows of any other breed or cross, and

included Red Polls, Ayrshires, Dutch and cross-bred cattle. The largest quantity of butter produced in the day by any animal was given by a cross-bred cow of the Short-horn type. This was 2 pounds 13½ ounces, from 46 pounds of milk; the second largest yield was taken by the cow Galety—2 pounds 11¼ ounces, from 53 pounds of milk; while the third largest yield was by a Jersey cow—2 pounds 10¼ ounces, from 47½ pounds of milk. The Jersey ratio of milk to butter was 17.88, the Short-horn was 19.49, and the cross-bred cow's ratio was 16.28. This is not only the best ratio, says an English writer in Michigan Farmer, but one among the whole of the cattle, and it is a figure which is equal to the best work of the very best Jerseys which we remember for years past. Of the nine Short-horns four produced more than 2 pounds of butter, indeed, more than 2 pounds 3 ounces of butter, whereas among the other thirty-two cattle competing in the tests only five gave over 2 pounds. This shows of what the Short-horn is capable. At the same time there were extraordinary disparities. Of the nine Short-horns three produced a pound of butter from less than 2 gallons of milk, five others took from 25 pounds to 30 pounds, or 2½ to 3 gallons; while one animal actually required 49½ pounds, or nearly 5 gallons, to produce the same quantity. We will not find fault with the method pursued, but it is morally impossible for the milk of a healthy cow to contain so small a quantity of fat. There is, however, this to be remembered, that the milk of some cows is less churnable than others, and consequently it is faulty, or less valuable for butter-making purposes. Among the Red Polls the milk was poor for butter-making, for the lowest quantity required to make a pound of butter was 30.40, while the highest was 43.74. On the other hand, the Ayrshires showed the higher quality, but even these required from 25 pounds to 28½ pounds. We may take it, then, that there are first-rate Short-horns, regarded from a butter-making point of view, and inferior Short-horns, and therefore—as we have shown in previous years—it is possible, if breeders choose, to produce a cow by the process of selection which will not only excel the Short-horn of to-day, but any other cattle which exist in the known world.

Deadly Cornstalks.

During the past five years we have been hearing a good deal about an old disease under a new name—the so-called "cornstalk disease" of Dr. F. S. Billings and Professor Burrill, which aforesaid went by the names of "dry murrain," "fardle bound," and "impaction of the third stomach." For a time at least the new disease, or, rather, the new explanation of the old trouble, made converts among breeders and veterinarians, but latterly the sensation seems to have died down and facts thus far do not appear to have either corroborated or refuted the claim of the scientists to the effect that a certain microscopic fungoid germ or spore infesting the stalk and leaf-stems was to blame for the fatal form of disease in some instances caused by the consumption of cornstalks. Meanwhile it may be stated that no precautions have been taken by feeders to prevent the disease nor do they understand more than they have always done regarding its nature, symptoms and results.

Personally we must confess to a lack of confidence in the existence of the particular disease termed "cornstalk disease," as the data upon the subject are too meager to perfectly prove the case; but there is another phase of the cornstalk question which is worthy of consideration and yet is altogether new to feeders. We refer to the fact that where corn growing upon very rich bottom land, and in some cases on ordinary corn land, dries up abnormally as a result of drought it is liable to contain, more particularly in the joints of the stalks, a great amount of nitrate of potash (saltpeter), which if taken into the bovine system proves poisonous. In the opinion of the writer this presence of saltpeter explains most of the so-called cornstalk disease cases, for such are characterized by the post-mortem lesions following such poisoning, while the ante-mortem symptoms are also diagnostic of saltpeter poisoning. It is not a new fact that saltpeter exists in injurious quantities in certain unnaturally dried-up fodders, for veterinarians of the British army in India have pointed out the fact as regards a variety of fodder called there "andropogon sorghum." In the course of an article on the subject in the Journal of Comparative Medicine, for November, 1897, Veterinary Captain H. T. Pease says that

Food Caused Pain

Catarrh of the Stomach Cured by Hood's Sarsaparilla.

"I was taken sick about a year ago with catarrh of the stomach. At times I would have a ravenous appetite and at other times could not eat. My food caused me excruciating pain. I was running down so fast I had to stop work. My friends urged me to take Hood's Sarsaparilla. I did so and soon began to feel better. The disagreeable symptoms of disease gradually passed away and flesh and strength returned. I owe it all to Hood's Sarsaparilla." MARY L. CUMMINGS, North Brookfield, Mass. Remember

Hood's Sarsaparilla

Is the best—in fact the One True Blood Purifier. Sold by all druggists. \$1; six for \$5.

Hood's Pills

cure Liver Ills; easy to take, easy to operate.

the plant mentioned only gave rise to poison symptoms among cattle "when it had been stunted and withered up, when it had grown to a certain height, and when rains had failed." Another point noticed was the rapidity with which the symptoms developed and led to a fatal termination, death being almost apoplectic in some cases and the majority of the animals attacked dying very rapidly. On examination of the stalks which had been given to the animals that died the veterinary captain was much surprised on breaking them open to find a considerable quantity of a white salt deposited in crystals in the pith, more especially at the nodes. Analysis afterward determined that this salt was nitrate of potash and existed in the stem analyzed to the extent of seventy-five grains per ounce weight of the plant. The writer in the course of his article says:

"The symptoms of poisonous doses of nitrate of potash are gastro-enteritis, tympanitis, nausea and colic, staggering gait, stupefaction, polyuria and death. Authorities on the subject state sometimes death from nitrate of potash poisoning is apoplectic form and we may at times observe spasms and rotation of the eyeballs. It is usually very rapid; the animal may succumb in a few minutes. Usually it lasts about half an hour, but seldom over twelve hours. The ground in appearance are those of hemorrhagic gastro-enteritis, cherry-red or purple coloration of the gastric mucous membrane and that of the small intestine and superficial ulceration of this membrane. The intestinal contents are reddish-brown."

He adds further on:

"Some of the samples I have examined contained 25 per cent. of this salt, so that a very small feed of them would introduce sufficient to carry off the animals which ate them."

In order to show that the presence of saltpeter is also recognized in our own country, the following from an article read by Dr. Mayo before the United States Veterinary Medical Association at its meeting held in September, 1896, will prove of interest and instruction:

"Two years ago seven out of twelve head of cattle died during one night from the effects of potassium nitrate which was contained in four armfuls of cornstalks. These cornstalks had been grown upon very rich soil and a large amount of potassium nitrate—25 per cent. of the dry weight of the stalks in some instances—had been stored within or deposited upon the cornstalks. It was then thought that poisonous quantities of potassium nitrate would only be found in corn grown on soil which had been heavily manured; but since I have found potash present in poisonous quantities in cornstalks grown without fertilizer upon bottom and upland soils. Less than eight ounces of salt will produce fatal effects in adult cattle. Poisonous quantities of potassium nitrate in the plant often occur in patches not recognized by any noticeable difference in the growth of the corn. The presence of potash in poisonous quantities in the corn may be influenced by climatic conditions. In this State (Kansas) there is often a period of dry weather which may check the metabolic process in the plant and thus favor the deposition of potassium nitrate."

In India it has been noticed that the affected sorghum proved non-poisonous as food after heavy rains, indicating that the potash was washed off or out of the stalks, which would suggest that the cutting and washing of cornstalks during periods when cattle are dying in stalk fields might prevent mortality.—A. S. Alexander, V. S., in Breeder's Gazette.

WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending June 13, 1898, prepared by T. B. Jennings, Section Director:

GENERAL CONDITIONS.

The week has been very wet generally, with a temperature more nearly normal. Over three inches of rain fell in the central western counties and in the south western and central counties of the middle division, while a very large part of the State received two inches during the week. The number of rainy days has been unusual.

RESULTS.

EASTERN DIVISION.

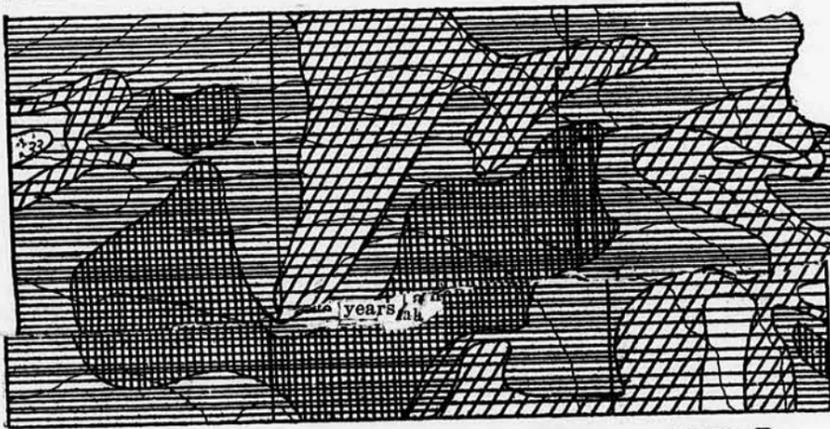
Corn has made fair progress, but needs cultivation in the central and northern counties. Wet weather has retarded haying, and will injure the alfalfa crop if it continues. Rust is reported in many wheat and some oat fields. Wheat is well headed, is ripening in the central counties, while the early wheat is ready to harvest in the southern. Oats are heading. Flax is beginning to bloom and promises an unusually good crop. Apples continue to fall. Early cherries are ripening. Peaches promise a fair crop. Allen county.—Everything growing rapidly; corn getting very weedy. Atchison.—All work delayed by heavy rains; growing corn nearly taken by weeds; prospect for a corn crop never poorer at this season of year; corn a little over half planted; apples have fallen badly, will be nearly a total failure; early cherries ripening; early oats heading. Bourbon.—Corn nearly all planted, most of the crop promises well; oats damaged by cold and chinch bugs, at least one-fourth a total loss; flax more promising than for five years; grass as fine as we ever had. Chase.—Favorable week for farm crops, but too wet to cure or stack alfalfa; some wheat beginning to ripen; good stand of Kaffir corn; gardens flourishing. Chautauqua.—Wheat harvest begun, but stopped by rains; corn has grown rapidly; oats are fine; gardens good. Cherokee.—Too wet for farm work; corn very weedy; oats and wheat promise well; some report of rust on wheat. Coffey.—Frequent showers; cultivators busy in corn fields in south part, north part too wet; replanted corn a good stand; flax beginning to bloom; some early wheat harvested; new hay on market.

Wilson.—Fine growing weather; some corn laid by; harvest begins by 15th; oats are heading. Woodson.—Rains have retarded field work; corn is doing fairly well, but needs cultivation; flax and potatoes are growing unusually well; rye harvest begins next week. Wyandotte.—Ground too wet to work well; corn growing rapidly, but getting weedy; too wet for haying; wheat beginning to turn; too wet for potatoes; early cherries ripe. MIDDLE DIVISION. The wet weather is retarding the cultivation of corn and it is becoming weedy; corn has a good color, and in the northern and western counties is making a better growth than in the central and southern. Wheat is rusting some in most of the counties, otherwise it is in good condition; harvest is beginning in some of the southern counties. Alfalfa hay has been injured in several counties by the rains. Prairie grass is good. Barber.—A fine growing week; farm work retarded by wet weather; wheat, rye and corn doing well. Barton.—Too wet for field work, and corn is getting weedy; much alfalfa, cut for hay, caught by the rains and badly damaged; very little fruit, except cherries, which are ripening. Butler.—Favorable for growing crops, but corn needs cultivation badly; wheat looks well, but only four rows to the head have filled, against six in other great crop years, harvest will begin late in the month; oats heading well; cherries ripe, fair crop. Cloud.—Continued wet weather is damaging wheat. Cowley.—Corn growing rapidly, some being laid by; wheat harvest has begun; chinch bugs numerous. Dickinson.—Wheat not damaged much yet, but in fair condition to rust; ground too wet and cold for corn; grass growing rapidly. Edwards.—Too cloudy for alfalfa haying; wheat maturing slowly; oats and barley doing finely; pastures good; corn growing slowly; cherries ripening; new potatoes abundant. Harper.—Wheat harvest will begin this week; corn in good condition, but backward; oats fair; pasture good. Harvey.—Wheat, corn, oats and grass doing very well. Kingman.—Wheat, condition excellent, crop very promising, harvest in about two

dition, except that the red rust has appeared in several counties. Oats and barley are beginning to head. Alfalfa cutting was stopped by the rains and some of the cut hay damaged. Corn is getting weedy—ground too wet to work. The range grass is very fine and cattle are fattening on it. Clark.—Too wet to plow or sow. Decatur.—Favorable weather for small grain; wheat prospect now is for a better crop than since 1891; corn is a little weedy, but its prospect is very good. Finney.—Too wet for alfalfa haying; all kind of vegetation making rank growth; wheat heading; some cattle dying with blackleg. Ford.—Wheat is fine but rusting slightly, weather too wet; cut alfalfa damaged by rains. Gove.—Everything growing finely. Graham.—No field work possible. Grant.—All plowed crops growing nicely; wheat heading; grass fine; stock fattening rapidly. Gray.—Alfalfa cutting delayed by rains; slight complaint of barley blasting and of red rust on wheat blades; cherries beginning to ripen. Hamilton.—Crops growing finely, grass better than any other crop; too wet for field work. Kearny.—Wet weather delaying field work and alfalfa cutting. Logan.—A rainy week; wheat making a rank growth and beginning to head, some rusting; other small grain looking well; corn needs cultivation, but the ground is too wet. Morton.—Cloudy and showery; grass growing vigorously; listed cane, Kaffir and maize drowned, or washed out, some re-planting to be done; cherries ripening. Ness.—Too wet for farm work, but fine for small grain; corn getting weedy; barley, a heavy crop; rye shoulder high; some rust in wheat, but its prospect is good. Scott.—Unusually cool, but good growing week; early sown wheat beginning to head, late sown, heads just forming; barley and oats heading; range grass very fine; all crops in fine condition. Sheridan.—Small grain crops generally good; some wheat fields are weedy; corn very backward and but little cultivated; some fear of rust on wheat. Sherman.—A wet week; corn growing slowly; other crops growing rapidly; wheat in fine condition. Thomas.—Ground wet, delaying work; wheat in bloom; barley and oats heading; some rust; corn very weedy; alfalfa fine; good stand of cane, sod corn and Kaffir. Trego.—A rainy week; some rust in wheat; late wheat beginning to head; too wet for corn. Wallace.—Wet week; wheat, oats and barley heading; alfalfa fine, cutting delayed by want of sunshine; range grass growing finely.



The man whose home is menaced by midnight marauders isn't slow to grasp a weapon to defend it. The same man when threatened by an enemy ten thousand times more dangerous, will calmly go his way and make no effort at defence. The most dangerous of all mankind's enemies is consumption. There is but one effective weapon with which to combat this grim destroyer. It is Dr. Pierce's Golden Medical Discovery. It cures 98 per cent. of all cases of consumption, bronchitis, asthma, laryngitis, weak lungs, spitting of blood and throat and nasal troubles. Thousands have testified to their recovery under this remedy after they were given up by the doctors, and all hope was gone. Many of these have permitted their experiences, names, addresses and photographs to be printed in Dr. Pierce's Common Sense Medical Adviser. Any sufferer may write to them. The "Golden Medical Discovery" is the great blood-maker and flesh-builder. It makes the appetite hearty, the digestion and assimilation perfect, the liver active, the blood pure and rich with the life giving elements of the food and the nerves strong and steady. Acting directly on the lungs, it drives out all impurities and disease germs. It is also a wonderful medicine for all nervous troubles. Sold by all dealers in medicine. Jno. M. Hite, of Audubon, Audubon Co., Iowa, says: "I took a severe cold which settled on my lungs and chest. Several of our best physicians gave up all hopes of my recovery. I would cough and spit blood for hours. I took Dr. Pierce's Golden Medical Discovery and recovered." Dr. Pierce's Common Sense Medical Adviser is a book of 1,008 pages and over three hundred illustrations. This book is free. You may have it in all its usefulness, and in strong paper covers, for 21 one-cent stamps, which pays the cost of mailing only, or in cloth binding for 31 stamps. Address, World's Dispensary Medical Association, Buffalo, N. Y.



Scale, less in inches. ACTUAL RAINFALL FOR WEEK ENDING JUNE 11, 1898.

Crawford.—Growing week; wheat turning; flax in bloom; chinch bugs damaging wheat and oats; cherry and apple crops light; peaches doing well. Douglas.—Corn is nearly all planted, it is growing slowly but the fields are too wet to cultivate except on high ground; wheat and oats are rusting; strawberries and cherries abundant; apples falling badly; too wet for haying. Franklin.—Wet week; some wheat rusting; corn needs cultivation; corn not all planted yet; cherry crop light. Greenwood.—Corn growing rapidly; cherries abundant; wheat nearly ready to harvest. Jefferson.—Corn planting nearly done; too wet for field work; crops in the Delaware bottoms damaged by overflow; fine cherry crop. Johnson.—Still wet for farm work; wheat beginning to turn, rust and chinch bugs attacking it; timothy and clover are looking well; fruit prospects are fine. Labette.—A fine growing week; corn growing rapidly; wheat harvest begun; oats look very well; pastures improving since the rain. Leavenworth.—Wheat excellent; oats fair to good; corn growing well; timothy and clover in fine condition; apples scarce; peach crop moderate. Lyon.—Still too wet for corn; wheat doing well; upland pastures are fine. Marshall.—The prospects are good for large wheat and oats crops; much wheat lodged by rain and wind; rust reported in some wheat and oat fields; rains interfered with corn cultivation; potatoes, gardens and grass growing well. Montgomery.—Corn has greatly improved and is generally well worked, but the stand is not good; wheat is ripening; early wheat harvest begun; some damage by rust and chinch bugs along east side of county. Osage.—Rains retarding corn cultivation; gardens are doing well; wheat is well headed; an unusually large crop of cherries. Pottawatomie.—A wet week, seriously interfering with alfalfa haying; corn getting weedy. Riley.—A wet week; corn needs cultivation; some rust in wheat; alfalfa needs sunshine; new potatoes in market. Shawnee.—Too wet in western and northern part, preventing corn cultivation and rusting wheat and oats some; corn is growing, and in southeastern part is being cultivated; wheat and oats give good promise; oats heading. Wabausee.—Wheat and oats are looking well; corn is doing well, but needs cultivation.

weeks, some rust on blades; oats, rye and barley growing much straw; some rye being cut; corn backward; potatoes doing well. McPherson.—Field work stopped by rains in central and eastern part, alfalfa haying in progress in western; corn becoming weedy; some rust reported, but wheat is in good condition yet. Mitchell.—Cloudy and wet, unfit for work; weeds gaining on the corn; some fears about wheat if cloudy weather continues; fruits promising. Ottawa.—In northern and western part wheat is rusting some, and on bottom lands is down quite badly; in central and eastern parts weather has been drier; early potatoes on the market; early cherries and strawberries are abundant; corn, though small, has a good color. Phillips.—Too wet to work; wheat, oats, corn and barley in very good condition; stock doing nicely. Reno.—Corn growing rapidly, but is weedy, too wet to cultivate; rye harvest begins this week; some rust in wheat; alfalfa being cut; grass fine; early cherries abundant. Republic.—Ground soaked; wheat in the dough and looks well, but shows a tendency to lodge on low ground. Rush.—Wheat in blossom, but is rusting slightly; rains retarding cultivation of corn. Russell.—Damp weather delays cultivation and corn is getting weedy; wheat rusting some, otherwise it is in fine condition; oats have recovered greatly and will make a fair crop. Saline.—Cloudy, wet week, interfering with farm work, rusting wheat and spoiling much alfalfa hay; corn growing finely. Sedgwick.—Corn growing well, but very weedy; wheat fine, but needs sunshine before harvest; cut alfalfa hay injured by rains; pastures and prairie hay seldom better; condition of all crops better than last week. Stafford.—All crops are making a vigorous growth, and the county has a fine promise of a heavy wheat crop. Sumner.—Good growing weather; corn has good color, but is small; wheat harvest will begin next week. Washington.—Corn is growing well but is very weedy, cultivation retarded by wet weather; oats growing well, mostly in head; wheat—early sown, berry is full grown, late sown, just forming; some rust on wheat and oats; grass very fine. WESTERN DIVISION. Wheat is heading in the central and northern counties and is in very good con-

Kansas Salt Company.

Very few people realize what an important institution and Kansas industry it is that constitutes the salt business of this State. The leading and most extensive plant is known as the Kansas Salt Company, and is located at Hutchinson. It produces the finest table salt, and is the only manufacturer of the first-grade salt west of New York. The product is the purest and best known and guaranteed not to harden in any climate. The Kansas Salt Company is strictly a State institution and is accredited as being the most extensive manufacturer of salt in the world. The officers of this company comprise the following Kansas gentlemen: President, Joab Mulvane; vice president, John R. Mulvane, both of Topeka; J. C. Baddeley is treasurer and general manager; H. A. Snell, secretary, and A. L. Baker, general sales agent. The latter-named gentlemen have active charge of the various plants and offices at Hutchinson. During the recent Republican State convention at Hutchinson many of the delegates took advantage of the opportunity to visit the works, and were very much interested in the process of salt-making and the magnitude of the various plants owned by this company. The daily manufacturing capacity of the Kansas Salt Company is 3,400 barrels, and their annual output is not less than 600,000 barrels. The company employs about 500 people in the various departments of the plant. The different brands of salt are the Western, Riverside, Diamond, New York, G. & H. and R. S. V. P. (rock salt very pure). The latter brand is one that has an immense sale in every city in the United States as a celebrated table salt. This same brand is one that is used by the creameries of the West for making butter, and all creameries which have given the brand a thorough trial are loudest in its praise and find it unnecessary to send to New York and Michigan for dairy salt. The other brands are used by all the big meat packers of the Missouri valley. They are unable to get anything better in this country. The process of manufacture is very simple, the water or brine being pumped in tanks from the wells, and from there it is taken into vats and heated, and in each succeeding vat in which the brine passes the temperature of the water is increased. The salt is then raked out from the vats and put through a drier and sifter, producing the various grades of salt for the trade. The Kansas Salt Company now has a very attractive exhibit in the manufacturer's building at the Trans-Mississippi exposition at Omaha.

Bollin's Poland-Chinas.

Among the successful breeders of pedigreed Poland-China swine in Kansas none have spent more time and money nor exercised better judgment in founding and recruiting their herds than the founder of the Highland farm herd, Mr. Bollin—commonly called John—laid the foundation of his present herd in 1894 with Tecumseh, Corwin, Black U. S. and Wilkes blood. The visitor in quest of sure good ones now finds over 100 head at the farm, three-fourths of a mile west of Kickapoo, a station on the Missouri Pacific railway in Leavenworth county. The chief herd boars now are Corwin I Know 18448 S., a son of the great Chief I Know 11992 S.—the sire of more State fair prize winners than any boar in the history of the American Poland-China breed of improved swine. His dam was Little Beauty (27976) by Corwin U. S. 7116 S. and out of Black Beauty 2d (17792), that was the dam of the State fair winner, Chief We Know, that was shown

in 1895 and sold for \$500. Corwin I Know 18448 S. weighed at 13 months over 600 pounds, and during one month of his pig form he gained eighty-six and one-half pounds. His get now coming on are finely marked and finished and of much promise. His co-worker, Hadley U. S., is a son of the noted Hadley Jr 13314 S., that was the sensational breeder and prize-winner during his first two years at Sunny Slope farm and was at the dispersion sale for \$550. The dam of Hadley U. S. was Princess J. S., a daughter of Masher's Black U. S. 13244 S., that has made Mr. Masher's herd second to none in Missouri. Individually he shows a happy combination of the Hadley and Black U. S. characteristics, and it is doubtful if there is a better balanced Poland-China boar in the State. Some of the choicest brood sows in the galaxy of twenty-three are in expectancy to him. If any one is desirous of a Chief I Know boar, there is an April 29, 1897, son of him out of What You Want (44543), she by the noted What's Wanted Jr. 10026 S. and out of Lady Colthar 8 (28965). Here is certainly good breeding, and this short yearling ought to do some one plenty of improvement. He is one of a litter of six, five of which were sold in Mr. Bollin's first annual sale last October, at Leavenworth, for \$180. Among the fall pigs there are ten boars, all extra good ones, and twelve gilts, a major portion of which are sure show gilts. The prospective buyer need not hesitate in ordering if he wants something extra choice. Their sire, Hadley Jr. Tecumseh 18226 S. by Hadley Jr. 13314 S., and his dam, a daughter of old Chief Tecumseh 2d, ought to be strong enough to suit any up-to-date Poland-China breeder. The facts are that Hadley Jr. Tecumseh was one of the half score of top boars seen by the writer during 1897. Mr. Bollin will also price some specially selected brood sows safe in pig to either of the herd boars. About fifty spring pigs are coming on and several litters near at hand.

Notice to Breeders.

Every Kansas breeder of improved stock who expects to exhibit at any of the fairs or the Trans-Mississippi exposition at Omaha, is requested to send particulars at once to H. A. Heath, Secretary Kansas Improved Stock Breeders' Association, Topeka, Kas.

New Train Service to Buffalo.

Nickel Plate road, train No. 6, from the Van Buren street passenger station, Chicago (on the Loop), 2:55 p. m. daily, with Buffalo sleeper, arriving in that city at 7:40 the following morning. Through New York sleeper on same train, via Lackawanna road, Buffalo to New York, arriving early next morning. Three through trains daily, at convenient hours, to Ft. Wayne, Cleveland, Erie, Buffalo, New York and Boston. Rates lower than via other lines. City ticket offices, 111 Adams street and Auditorium Annex. Telephone, Main 3389.

Do You Intend Moving?

Why not investigate southwest Missouri, southern Kansas, north west Arkansas, Indian Territory or the Texas coast country? The manufacturing, farming and stock raising industries of these sections are attracting considerable attention. The chief centers are reached via the Frisco line. For ticket rates and full particulars, address Geo. T. Nicholson, Gen'l Pass. Agt., St. Louis, Mo.

Sheep Department.

Conducted by J. CLARENCE NORTON, Moran, Kas., to whom all letters should be addressed.

Dickinson Delaines.

In this department of May 26 I say "Dickinson county Delaine Merino," when the word "county" should have been left out. There is a register for a family of the Merinos kept by the Dickinson Recording Co., of Canton, O., and a "Dickinson Delaine" means a sheep registered, or eligible to register, in that book. Mr. J. N. Grau, whose sheep I referred to, has a few of this celebrated breed, and he has taken the trouble to send me three photographs of the head of his herd, McKinley No. 10. He is a fine individual and a great sire. Mr. Grau keeps about 800 head of sheep and ought to know best what breed is suitable to his conditions. Upon examination of about thirty samples of wool sent me, I am convinced that Mr. Grau has some grand sheep that are making him some money and that he knows just how to handle them. One sample of lamb's wool measured four and three-fourth inches taken from a twelve-pound fleece. Seven samples measuring three and one-fourth inches were taken from fleeces weighing sixteen pounds, clipped from recorded Dickinson Delaine ewes. Several other samples measured three and three-fourths inches, taken from twelve to sixteen-pound fleeces. There was no evidence of dirt and sand so commonly attributed to Kansas wool.

Wool and the Trans-Mississippi Exposition.

The management of the Trans-Mississippi exposition promises not to make the mistake that was made at the World's Fair in Chicago, in the matter of displaying the wool exhibit. At that show it was put off in an obscure corner of one of the large galleries and was only seen by the comparatively few visitors who had some special interest in wool.

Comparatively few persons in the West realize that in the wool and sheep industry of the United States, valued at over \$100,000,000 for live stock alone, three-fourths of the industry is in the Trans-Mississippi States. No statistics are available giving the annual product of this large agricultural industry, but it probably exceeds \$75,000,000. Over half of this income is for wool alone, making this article one of the largest items of net profit known in agriculture. The directors of the Trans-Mississippi exposition have recognized the importance of the industry to the Western country, and are making an effort to have wool specially represented at the exposition.

A circular letter is being sent out in regard to the wool exhibits at the exposition which says:

"It is not designed at the Trans-Mississippi exposition to have a special wool department, nor a special wool exhibit. The special wool exhibit system was carried out on an elaborate scale at the Columbian exposition in 1893. It proved a failure in so far as arousing general interest in American wools was concerned, besides depriving various States of the opportunity of exhibiting their largest resources in their State exhibit. On the other hand, with the exhibit of American wools placed in the gallery of the Agricultural building, certain foreign nations which exhibited wools extensively were enabled to make the impression that Australian and Argentine wools were the whole thing. The result was one cause of disaster to American wool-growers. It is desired that each State may make a large and attractive display of its wools as a part of its State exhibit."

The Cotswold Sheep.

In response to inquiries received upon the general type of the Cotswold breed, the following extract from Stewart's "Domestic Sheep" is published:

"The Cotswold sheep has an interesting history. It is the oldest breed of sheep of which there is any satisfactory record. Its history goes back for at least three centuries, and beyond that, while it has no written records, yet it has been known that the long wool yielded by this sheep was in high favor long before the name of the sheep which produced it was a matter of notoriety. This long pedigree explains the reason for the great natural prepotency of the ram of this breed in the production of the various crosses which have been made by the Cotswold rams.

"It is one of the hardest of all breeds, having been reared for this long period in a poor, exposed district, and while it changes character when removed to

more favorable surroundings, yet it is one of the hardest sheep for the range. It is next largest sheep to the Lincoln. It is a good mutton sheep, and has a good fleece of rather coarse wool, valuable for heavy goods.

"The flesh is not so fine as that of the Down breeds, but is yet excellent for the butchers' use when not over 15 months old, when it fattens readily and makes twenty-five pounds to the quarter. Its old size has been somewhat reduced, to conform to the present demand for lighter carcasses. The fleece, too, is not so heavy as it used to be, when it often weighed twelve pounds or over of wool. It has been crossed with advantage with the Leicester, yielding then better mutton and a finer staple of lustrous wool, in good demand for heavy goods, and especially the coarser kinds of women's dress fabrics.

"One of the best of its crosses is with the smaller Down breeds. It has been used with much success to cross on the Merino, the lambs of this cross making fine market stock, being large and fat, and the full-grown cross-breeds making fine market mutton and a useful fleece.

"Sir J. B. Lawles, in his experiments in feeding sheep of various breeds, proved that these sheep made a more profitable return in growth for the food consumed than any other breed. Its hardiness has been proved by its average losses by death or accident being as low as 2½ per cent. under ordinary circumstances, under a system of open fielding during the winter. It has been kept mostly on a system of feeding in the open ground on turnips.

"The face of the sheep is mostly white, sometimes with grayish mottled marking; the cross with the Downs gives a black face with a less pronounced Roman nose, which is, however, less prominent than in the Lincoln and Leicester. The forehead has a conspicuous tuft of wool. The belly is generally covered with wool, as is also the scrotum. For crossing on the smaller breeds, especially our common natives, it is not excelled in point of hardiness of the progeny, the increased size and weight and value of the fleeces."

The sheep tick is rather remarkable in that it does not lay true eggs, but brings forth its young as pupae, enclosed in a hard, shining membrane, causing them to look like seeds. The number of young which a female will produce in a lifetime is small. Some authorities claim only one or two are produced, while others place the number as high as eight or nine. It is certain, however, that they produce only one at a time. The pupae case adheres to the wool. The length of time the pupa remains in the case is not fully determined, but it is supposed to be from seventeen to twenty-five days. When the time arrives for the pupa to emerge from its case the end breaks across and the young tick comes out ready for active work. The tick remains close to the body, but does not attach itself at one time longer than is necessary to fill up with blood.

What Some Men Think.

Myron Reed.—Mr. McKinley calls for another 75,000 men. Why not 300,000? End the bloody thing—end it with a crash and a smash. I am a tolerable soldier. I am liable to follow a brass band all over town. But my mind tells me to end the war. The most merciful thing we can do is to wipe Spain off the map of the world. There are 1,000,000 men who wish to go. Send them.

Governor Pingree.—The Supreme court has decided against an income tax. The decision should be reversed, if possible. If the constitution is such that the decision must stand it should be amended so as to allow the government to get at corporate wealth which is escaping taxation. It is the same with charters. I do not believe in long-time charters. How can one generation of men give away the rights of those who come after them? The right to control the affairs of the world belongs to the living.

Hon. A. Mount.—Americans will reap rich financial harvests in Cuba, whether it be annexed or not, and in the years not far distant the population will be largely American in either case. American capital will predominate and American ideas of government will obtain. On account of the right hand of fellowship now extended by Uncle Sam, Americans will be welcomed by the Cubans and given concessions greater than any other nation. The relationship between the countries will be very close and the commercial interests of one identical with those of the other.

Congressman Gunn.—The highest ideal of patriotism is that which will uphold the government at this time in

a vigorous prosecution of the war and at the same time seek to make the burden as light on our people as possible. Do not put on the farmer, whose toil never ceases, the mechanics in our numerous hives of industry scattered all over the land, or the miner who labors to bring forth the hidden wealth of the nation, an unnecessary load of taxation. These are the men who will fight the battles, and they should be the objects of the first care and attention.

Where the Cattle Went in Kansas.

Kansas Cattle Inspector Joseph G. McCoy, in his report to the Kansas Live Stock Sanitary Commission, says:

"Gentlemen: Herewith I have pleasure in submitting report of number of cattle entering Kansas from these yards during the month of May, to-wit: By railroads, 8,963 head; driven out, 631 head; total shipped and driven, 9,594 head.

Shipped to points outside the State via Kansas railroads, 303 head. Cattle entering Kansas were carried by the following railroads: Atchison, Topeka & Santa Fe, 2,762; Missouri Pacific, 2,666; Rock Island, 1,704; Union Pacific, 1,600; Burlington, 404; Fort Scott & Memphis, 89; Missouri, Kansas & Texas, 41.

Of those driven into the State most of them went to near-by points and chiefly for maturing or domestic purposes. Those shipped went to following stations: Downs, 267; Durham, 115; Lebanon, 104; Welda, 20; Oberlin, 70; Larned, 57; Holton, 64; Summerfield, 26; Oakley, 37; McLouth, 149; Lawrence, 139; Olathe, 28; Leavenworth, 48; Alta Vista, 34; Garnett, 95; Wilder, 140; Marietta, 1; Donavant, 69; Olpe, 81; Atchison, 10; Vermillion, 192; Studley, 249; New Mexico, 24; Neely, 110; Randolph, 33; Burlingame, 60; Cleburne, 65; Kingsville, 357; Burlington, 37; Seneca, 92; Hammond, 30; Neodesha, 43; Logan, 76; Greenleaf, 117; Gardner, 25; Helmick, 104; Reading, 48; Hanover, 28; Tribune, 52; Otego, 46; Onaga, 70; Delavan, 66; Buffalo, 27; Bashore, 36; Haddock, 33; Colony, 212; Hilltop, 62; Eureka, 92; Valley Falls, 33; Lecompton, 30; Herington, 284; Carlyle, 198; St. George, 38; Holton, 28; Shannon, 55; Allen, 1;

Hutchinson, 27; Toronto, 100; Comisky, 1; Stanley, 59; Bonner Springs, 55; Morganville, 131; Lansing, 20; Vera, 192; Wellsville, 76; Grenola, 181; Ellinwood, 85; White City, 40; Gridley, 117; Bazine, 71; Sabetha, 93; Critzer, 30; Alma, 154; Gaylord, 125; Whitehall, 31; Warwick, 67; Kincaid, 40; Esbon, 45; St. Marys, 207; La Harpe, 1; Danville, 51; Phillipsburg, 193; Linwood, 119; Almena, 40; Montrose, 57; Smith Center, 48; Melvern, 52; Volland, 62; Madison, 50; Lyndon, 34; Olathe, 5; Brookville, 72; Cummings, 24; Crandall, 188; Stockton, 169; Baldwin, 40; Morrow, 64; Paxico, 22; Bradford, 61; Kirwin, 44; Bancroft, 106; Grantville, 30; Lebo, 35; Ashland, 80; Sharp, 65; Lovewell, 128; Oskaloosa, 60; Red Cloud, 1; Hope, 105; Waldo, 80; Haddam, 45; Kingsley, 44; Baileyville, 29; Perry, 23; Horton, 86; Arizona, 36; Texas, 69; Nebraska, 98; Colorado, 70; Oklahoma, 30 (303).

The average number for each business day was 368 head, against an average for April of 435 head per like day, and 1,339 head per day for month of March. The falling off is attributed to the effect of war on money matters, and the present prices of mature cattle on the market. Fully three-fourths of those taken to Kansas were yearlings or last spring's calves, and about one-sixth of the whole number were for maturing on pasture and grain and the balance were stockers 2 or 3 years old.

A Thing Worth Knowing.

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The Home Circle.

THE CALL TO ARMS.

BY HENRY W. ROBY.

The friends of freedom stand aghast
When dastard aliens sweep
A friendly craft and peaceful crew
From off the neutral deep.

The cry goes up from East to West,
And rings from crag to crag:
Awake, ye sons of liberty,
And rally round your flag!

To-day the hosts of treachery
From Spain's armadas fling
Defiance to the stars and stripes,
And laud their baby King.

Turn all the ocean monsters loose,
And let the iron rain;
A blazing cannon is the best
Ambassador to Spain.

Have done with sham diplomacy,
With Weyler and De Lome;
Let Mar's battalions arbitrate,
And blaze their judgments home.

Spain's iron heel on freedom's neck
Has tarried long enough;
Teach her that our forefather's sons
Are made of sterner stuff

Than those who dragged Columbus home,
A slave in clanging chains,
And racked a million heretics
With Inquisition's pains.

The world remembers Spanish crimes
Against the Moor and Jew,
And Cortez's deeds in Mexico,
Pizarro's in Peru,

Old Torquemada's damning deeds,
De Soto's dripping hands,
And Alva's foul and bloody trail
Across the Netherlands.

Mankind in agony beheld
Its plea for mercy spurned,
And children hanged for heresy,
Dead men dug up and burned.

Is liberty so dead a thing,
It hath no stirring songs?
Is freedom such a worthless boon,
We dare not right its wrongs?

War is the arbiter of crimes
No justice can appease,
The last resort of freedom's host,
Its court of common pleas.

Arouse, ye freemen, strong and bold,
Columbia's gallant sons;
Strike up the notes that stir the world,
And wake the "drumming guns."

Call out the mighty men of Mars,
And all the sons of Thor;
Proclaim the ban, unbar the gates,
And loose the Dogs of War!

Topeka, Kas., February 15, 1898.

A BORN SOLDIER.

Charles King, the brave years ago, who volunteers from Wisconsin, is made the subject of an interesting sketch by Capt. Phil Reade, U. S. A. Captain Reade is an old friend and comrade of General King, and is well known in Chicago, where he was on the staff of the commander of the Department of the Missouri for a number of years as inspector of rifle practice. Captain Reade's story of General King, while it aims to be but a biographical sketch of the Wisconsin soldier, is a strong tribute to his bravery and skill as a fighter. Among other things the sketch contains the following:

"Capt. Charles King was born October 12, 1844, at Albany, N. Y. He comes of a family that is distinguished in literature and politics. His father, Rufus King, was for some years minister resident for pontifical states at Rome, and during the Civil war became brigadier general of volunteers. His grandfather, Charles King, LL. D., was President of Columbia College. His great-grandfather, Rufus King, was one of the signers of the constitution, was long United States Senator from New York, and was twice Minister at the Court of St. James. On his mother's side, Captain King is descended from the Indian apostle, John Eliot.

"One year after the birth of his son, Rufus King resigned from the engineer corps of the army and removed to Milwaukee, Wis., to become editor and proprietor of the Milwaukee Sentinel. Thus it came about that Charles' boyhood was spent in the growing West and on the shores of Lake Michigan, where he still makes his home. In 1858 he was sent to New York city to be educated at the grammar school of Columbia College by Dr. Charles Anthon, and in June, 1861, he passed his examination for the freshman class in college. But the Civil war had begun, and within twenty-four hours after he had passed his examination Charles King turned up at the camp of the Wisconsin volunteers at Washington, D. C., drumsticks in hand.

"For a few weeks he was busy teaching his fellow Badger boys the use of the drumsticks, and then, at the organization of the Wisconsin brigade—the command of which was tendered to his father—the sixteen-year-old boy was made mounted orderly at brigade headquarters.

"In this capacity he saw his first real soldiering in Virginia. In October, 1861,

with the promise of a cadetship at West Point from Mr. Lincoln himself, Charles King began to take even a livelier interest in military affairs; and in June, 1862, he entered on his academic career and graduated four years later. He is remembered by those who knew him at the United States Military Academy, West Point, N. Y., as one who hated mathematics and devoted only so much of his active brain to the mastering of the exact sciences as was necessary.

"From the fall of 1866 until January, 1869, Lieutenant King was attached to Light Battery K, First artillery, serving at New Orleans. On the latter date he was transferred to Light Battery C, at Fort Hamilton, N. Y. He served a few weeks on recruiting service at Cincinnati, O., in the spring of 1869, but was ordered to West Point as instructor in cavalry tactics and horsemanship. At the military academy he served as commandant of Company C. He was relieved from duty in October, 1871, in order to enable him to accept a staff position. He was transferred from the First artillery to the Fifth cavalry on December 31, 1871, and was assigned to K troop. The troop had then left Fort D. A. Russell, Wyoming Territory, and was en route to Camp Hualpai, Arizona Territory, which station it reached February 15, 1872. He was, however, transferred to General Smith's staff at New Orleans.

"On April 7, 1872, the International race, gentlemen riders, was ridden on the old Metairie track under the auspices of the Metairie Jockey Club. England, Ireland, Austria and France were represented. The challengers were Count Victor Crenneville, of the Austrian Hussars, and Capt. George Rosenlecher, of France. But Lieut. Charles King, returning to the city from a tour of inspection through Mississippi, heard of the unaccepted challenge open to the United States, and at once obtained General Emory's permission to take up the gauntlet.

"A great crowd was present on the day of the race, and the judges' stand was a beautiful sight. It was too soon after the war for a Yankee to have many friends among the fair ones of New Orleans, and, while the blue and gold bars of Captain Rosenlecher, the scarlet and white of the Austrian, the cherry-red and green of the Stuart

saddle-horse; in fact, every where colors of the ladies, not more than one or two had the courage to wear King's colors. He was attired in the colors of his old college—Columbia—sky-blue and white—and looked the gentleman rider to perfection. It was a beautiful race. The 'Yank' won it by just two horse-lengths. After the gold-mounted whip was presented to him from the judges' stand and the other gentlemen had cordially congratulated the victor, he took his prize across the track and laid it in the lap of the young lady who had accompanied General and Mrs. Emory to the scene, and who wore the aide-de-camp's colors. She has that whip yet, and shakes it at him sometimes, but has never used it on their children. They were married the fall following.

"Their honeymoon was spent in no little excitement, for the riots were in full blast in New Orleans that winter of 1872 and 1873, and the aide-de-camp had full share in all the service. He was complimented by General Emory for coolness and gallantry. During the year 1872 King's troop, K, Fifth cavalry, was employed in alternate months of field service, from its station, Camp Hualpai, Arizona Territory.

"In the campaign against the Apaches in Arizona Territory (1874-76) the Fifth cavalry, with King in command of his troop, was conspicuous above all others. General Sherman publicly stated that he considered their services 'unequaled by those of any cavalry regiment during our late Civil war.' General Crook, the division commander, also singled out the Fifth cavalry for especial praise in distributing commendations on the uniform bravery of the men and officers under his command.

"In an engagement at Diamond Butte on May 25, 1874, King's gallantry won from President Grant a recommendation to the Senate for the brevet commission of Captain. The Senate referred the matter to the military commission, and there it was lost. On November 1, 1874, King was dangerously wounded at Sunset Pass. He was then saved from falling into the hands of the savages by the devotion of Sergeant Bernard Taylor, a devotion carried to the point of insubordination, for the latter refused to save himself, although ordered to do so, and held the howling Apaches in check until reinforcements arrived.

"It was characteristic of King that he should have exposed himself to the cer-



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tainty of torture and a horrible death by ordering Sergeant Taylor to leave him. And it is gratifying to note that Congress awarded a medal of honor to Taylor. King himself gained no recognition. His only brevets were his wounds received in action.

"For months King was laid up with a shattered saber arm. Before the ugly wound had healed he was in the saddle again, sharing in every fight and suffering all the terrible privations of the Fifth cavalry in the Big Horn and Yellowstone expedition of 1876. At the close of the campaign the regimental commander, Wesley Merritt, rewarded him with the adjutancy of the regiment. This was in October, 1876, and Charles King did honor to the position, to the officer who appointed him, and to the regiment in that capacity for the next fifteen months.

"The year 1878 was for his regiment another of mountain scouting, but it was also a year of suffering for King. The Arizona wound, so far from healing, had grown worse, and he was forced to ask that he be sent before a retiring board. In June, 1879, having meanwhile been promoted captain of A troop, King joined the little array of shelved warriors on the retired list, and, except for an occasional and deeply-relished visit, saw his old regiment no more.

"After his retirement he went speedily to his old State, was for two years one of the faculty of the University of Wisconsin at Madison, and began at once his connection with the national guard, which he has continued to this day. Governor Jeremiah Rusk made him colonel and aide-de-camp in March, 1882, and he holds that position now.

"King has a bright and happy home on Farwell avenue, up on the bluffs, overlooking the dancing waters of Lake Michigan. They—he and the lady who owns the Metairie whip—have three children, two daughters and a little fellow who is a chip of his cavalry father, and never so happy as when perched up on the saddle in front of him.

"In the study where Captain King writes his soldier stories is the veritable Navajo blanket in which the soldiers bundled their crippled leader and bore him down the mountain side when the fight was over. King in everything save that crippled arm of his is a soldier. With him it is the soldier and the soldier life that predominates."

Written for Kansas Farmer.

A Beautiful Kansas Valley.

How I wish that some of the Eastern newspaper men, and all of the Eastern farmers and their wives, who delight in maligning our grand and beautiful State, could have been with me this morning as I drove up the Smoky Hill valley. If they could look but once on the beautiful fields of wheat which wave in living green on every hand, their ridicule of "poor, drought-cursed, poverty-stricken" Kansas would be turned into amazement and then into admiration. They have never beheld the like—those farmers of the East, whose hilly, stony or swampy little farms will not raise good weeds without fertilizing. I am sure they all would agree that of all the grand and beautiful sights which man ever beheld, nothing can surpass the wheat fields of Kansas.

What could be more beautiful? No flower is more perfect than the blossoming grain, and as we look and think of the acres and acres which stretch away, covering this broad and fertile valley and reaching far back over and among the hills, we feel that we have just cause to be proud of our glorious Sunflower State. Truly this is the golden belt.

After once having lived in this valley,

it is said one cannot be suited elsewhere. This has proven true in many cases. Many have gone from here to Texas, to Colorado, to Missouri, to Minnesota, and to innumerable other places, but after remaining away a few months almost invariably return, sadder but wiser, and also poorer men, quite satisfied to make their homes in Kansas for the remainder of their lives.

I will copy from memory a short poem which tells better than I can of the charm of our fair valley:

There is an old, old legend,
Told by the Western men,
That they who drink of the Smoky's tide
Shall return and drink again.

For they say an Indian chieftain,
In the mystic days of old,
Stood beside the shining river,
And his tale of magic told.

And he cried, "Blest be the river,"
As he stood upon its brink,
"They who once shall drink its waters
Shall return again and drink.

"Though they wander to the Eastland
Or the Western mountains high,
They will wander to the Smoky
Once again before they die."

Gone the Indian and his magic,
But the river still remains,
And its limpid waters sparkle
As it murmurs through the plains.

And how many, oh, how many
Have left the State and moved away,
Then have wandered back to Kansas,
And are living here to-day.

NELLIE WEAVER WHITE.

Quick to Learn.

The Park avenue trolley line in the city of Rochester is crossed by three consecutive streets which bear masculine surnames. An Irishman with a carpet bag entered one of the cars the other day, and sat down gingerly near the door. Four or five other men completed the list of passengers. The car swung round the corner of Chestnut street.

"James," shouted the conductor. A man signaled him, the car stopped, and the man alighted. A half minute afterward the car neared another cross street.

"William," announced the conductor. Another man got out. The Irishman's eyes grew visibly larger.

"Alexander," shouted the conductor. The third man left the car.

When it had started the Irishman arose and approached the conductor.

"O! want to git out at Avnoo B," he said. "Me foorsht name is Michael."—Youth's Companion.

Deafness Cannot Be Cured

by local applications, as they cannot reach the diseased portion of the ear. There is only one way to cure Deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous lining of the Eustachian Tube. When this tube gets inflamed you have a rumbling sound or imperfect hearing, and when it is entirely closed Deafness is the result, and unless the inflammation can be taken out and this tube restored to its normal condition, hearing will be destroyed forever; nine cases out of ten are caused by catarrh, which is nothing but an inflamed condition of the mucous surfaces.

We will give One Hundred Dollars for any case of Deafness (caused by catarrh) that cannot be cured by Hall's Catarrh Cure. Send for circulars, free. F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75c.

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The Young Folks.

THE OLD TRUNDLE BED.

Oh, the old trundle bed where I slept when a boy,
What canopied king might not covet the joy?
The glory and peace of that slumber of mine,
Like a long, gracious rest in the bosom divine;
The quaint, homely couch, hidden close from the light,
But daintily drawn from its hiding place at night.
Oh, a nest of delight, from the foot to the head,
Was the queer little, dear little, old trundle bed!

Oh, the old trundle bed, where I wondering saw
The stars through the window, and listened with awe
To the sigh of the winds as they tremblingly crept
Through the trees where the robins so restlessly slept;
Where I heard the low, murmurous chirp of the wren,
And the katydid listlessly chirrup again,
Till my fancies grew faint and were drowsily led
Through the maze of the dreams of the old trundle bed.

Oh, the old trundle bed! Oh, the old trundle bed!
With its plump little pillow and old-fashioned spread;
Its snowy white sheets, and the blankets above,
Smoothed down and tucked round with the touches of love;
The voice of my mother to lull me to sleep
With the old fairy stories my memories keep
Still fresh as the lilies that bloom o'er the head,
Once bowed o'er my own in the old trundle bed. —James Whitcomb Riley.

Written for Kansas Farmer.

YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 26.

GARTEN-BAUSCHULE.

Elderly maiden ladies in Germany, as well as in other countries, cannot be accused of spending their whole time in cultivating the domestic affections of cats. There are several things that may be done by them that are of much higher importance than the above-mentioned labor of love.

In Friedenau, a northwestern suburb of Berlin, there are two ladies, unincumbered with husbands, who have found a delightful means of employing their leisure and financial resources which Providential fortune set aside for them before their advent into the world.

These ladies are Fraulein Dr. Castner and her sister, who have each experienced the pleasure of about thirty to thirty-five "revolving years," and have established a "garten-bauschule" for the encouragement and agricultural education of young ladies who desire to learn the best methods for the cultivation of gardens and orchards, and even farming, generally.

I do not know that I ever heard of society young ladies in Kansas puzzling their heads over the intricate questions of geometrical flower beds, or artistically-constructed vegetable plots, or aesthetic horticulture; but here in Berlin may be found the daughters of wealthy families who come from various parts of Germany and even other countries of Europe to learn such matters at the beautiful school home of Fraulein Dr. Castner, who says she will only receive as pupils young ladies from the "best families."

This school was founded by Fraulein Dr. Castner in 1894. The buildings are two very pretty villas located in the midst of several acres of beautiful gardens which are the experimental grounds for the students.

A half hour's ride on the cars took our party from Kleist street to the big iron gate which closes the entrance to the garten-bauschule. In answer to our pull at the bell in the gate the "portier frau" admitted us and we were presented to the Fraulein Dr., who is a very pleasant and interesting lady. In the reception-room we were introduced to a Russian lady who had heard of the school and had come a long way to Berlin to visit it, as she wished to establish a similar one in her native city. After a few minutes of pleasant conversation, Russia, Germany and America formed a "triple alliance" for the purpose of inspecting the garten-bauschule in a fitting manner. German was the principal language used, although French and United States talk were indulged in. Fraulein Dr. had been in America years ago, and can speak English very well, but much prefers to use her native language. She said: "Yez, America is a fery nice country and I like her fery mooch."

Before going in the garden Fraulein Dr. told us something about the school

and showed us some of the work. The regular course is finished in two years, and during this time the young ladies study botany, physics, drawing, chemistry, horticulture, etc., and all work in the garden, even to the making and repairing fences. At the end of the two years the student desiring a diploma must pass a severe examination in the various studies and make a plan of a garden in water colors. The young ladies who take this course do so for the purpose of intelligently assisting in the management of their own estates and to learn how to make them more attractive and remunerative.

The students are required to arise at 4:30 a. m. and work and study in the school-room and garden till noon; then they rest and sleep until 4 p. m., when work and study are resumed until 7 o'clock.

There are at present twenty-six young ladies taking the regular course, and six more "hospitiring," i. e., they take a few of the lectures and do not undertake the full amount of work required in the full course—just enough of outdoor work for their health.

The Fraulein Dr. was very kind in explaining everything pertaining to the management and work of the bauschule, and then invited us to accompany her to the gardens to see a practical illustration of its methods. Here we found the young ladies at their work. Their costume is dark linen waist, rather short skirt, large white hat, gloves and oil-cloth apron. It was very interesting to me to watch them at their work. You know it is so restful and satisfactory to look on while others do the laboring. Some were planting and others were sprinkling young plants and raking smooth flower beds and trimming the borders. Two young ladies on the right were pruning young fruit trees. In this garden everything is cultivated that is suitable to German soil, from pineapples to black potatoes, and from the finest berries of all kinds to the dainty little sauerkraut plants which looked lovingly up to the morning sun.

My attention was especially attracted to the young apple trees which were being trained in the way they should go. In this garden a tree is not permitted to grow in just any old way, but a design is mapped out for each tree and its future ways are directed accordingly. Here were some fan-shaped; a frame-like fan had been constructed and the tree was bound to its supports, all limbs had been amputated except to right and left, and then these were fastened to the arms of the fan. After two years of such training the tree graduates (without diploma) from the frame and ever afterward appears like a huge fan which bears its fruit in a cultivated and aristocratic manner at the proper time of year. In the corner formed by the fence a tree had been planted—close into the corner, and the limbs had been trained at right angles against the wall, with none growing toward the front. This tree was covered with a wealth of apple blossoms when we saw it. Large rose trees had been so pruned that no limbs were lower than eight feet from the ground and the tops were huge tufts of brush which were loaded with the most gorgeous roses I ever saw.

Little apple trees had been so trimmed that many not over six feet high, with thick trunk, were loaded with blossoms. Seeing such a great number of apple trees in proportion to the size of the grounds I remarked the fact of my observation, and Fraulein Dr. said: "Ve must a great many apple treeze (long z) raise, so you Americans not so many send." She further admitted that they were planted "too tight together and some will have to be transplanted."

Passing down the garden we saw pretty beds of vegetables, strawberries, etc., all showing the effect of plenty of intelligent work. I noticed especially their method of raising asparagus. It is not permitted to grow above ground and become green, but is kept banked up with earth so the stalks are blanched like celery.

The Doctor showed us plants and vegetables native of China, Japan, India, America and other enlightened countries. On one small plot of about fifteen feet square she told us we were over two hundred different kinds of plants.

In one corner of the garden we saw the bee house. Here the bees were at work as briskly as the young ladies and almost as sweet as they; but the bees had outside help in the shape of rock candy upon which they were feeding until there were plenty of blossoms to gather honey from.

Leaving the sweet bees and charming young ladies, we visited the school-rooms, dining-rooms, balconies (where they eat their breakfasts and "abend-brod" in summer time) and tool-rooms; in the latter, each young lady has her

own hook for her spade, and all the implements shone like silver. Each one has a shelf for apron, heavy shoes, tools for grafting, pruning, etc., kept in pretty leather cases, with the name of each owner neatly marked on the outside. Noticing the excellent care bestowed upon the farming and garden tools, I was minded to tell the Fraulein Dr. that in Kansas we usually shelter all farming implements on the shady side of a wire fence; but they have few wire fences here in Germany, so I thought the idea could not be utilized, therefore refrained from recommending it.

We had now seen the entire establishment, and had thoroughly enjoyed it. After thanking the good Fraulein Dr. Castner, and wishing her all the success her enterprise so richly deserves, we bid her and the young ladies adieu, and the triple alliance was dissolved.

Mr. B. F. Horner.

From press boy in the office of a country newspaper to general passenger agent of a great line of railway, and the meridian of life not yet reached—such is the history of Mr. B. F. Horner, General Passenger Agent Nickle Plate railway. Back in the '50's, before cylinder presses and plates and "ready print" had found their way into the rural newspaper offices, in the composing room of the Weekly Republican, at Mt. Vernon, O., young Horner waged the "battle for bread." Early in the '60's—to be exact, in 1863, after serving two years as a soldier—Mr. Horner transferred his abilities to railroad work, beginning at the very bottom of the ladder as a brakeman. But in this line of work he had found his calling, as subsequent events have proved. Railroad companies are prone to recognize ability, and it was not long until Mr. Horner became one of the most popular passenger conductors of the country. From the punch and coach it was but a step to the ticket office, and so from 1868 to 1877 we find him ticket agent for all the Pennsylvania lines west of Pittsburg, serving in this capacity both as city passenger agent and in the depot ticket office. From Pittsburg he was transferred to Chicago, officiating as city passenger and ticket agent of the Pennsylvania lines in that city until 1882.

Fifteen years' continuous service in the passenger department of a great railway line! Is it any wonder that when the new Nickle Plate road sprang into existence to do combat for traffic with the old lines, in casting around for well-equipped warriors, it should select Mr. Horner? That fifteen years of splendid training made him a valuable man, and so, October 1, 1882, Mr. Horner was made General Western Passenger Agent for the Nickle Plate road. But the new road was not slow to recognize ability, and so in March, 1883, just twenty years from the time he began his railroad career as a brakeman, Mr. Horner became General Passenger Agent for the entire Nickle Plate road, which position he has since held. His value to this road can scarcely be estimated. Finding it poorly equipped, and with a passenger service notoriously wretched, he has gradually, step by step, brought this service and equipment to equal that of any railway in the country. No one conversant with the affairs of this line can doubt for an instant that a large part of the wonderful increase in the passenger business of the Nickle Plate road can be attributed to the untiring energy and resistless zeal of the General Passenger Agent. His work and thought and life have been so interwoven into this line that the name of B. F. Horner must be inseparably connected with the Nickle Plate road. Such men as Mr. Horner make the railways the potent factors they are in the nation to-day. Such energy and zeal as his are of incalculable worth to the corporations they serve.

Giants of Patagonia.

The tribes to the east of the Cordilleras, in southern Patagonia, belong to Araucanian stock, and are a superior race. The Tehuelches—as they call themselves—of southern and eastern Patagonia are the people whose unusual stature gave rise to the fables of the early days to the effect that the natives of these regions were giants averaging nine or ten feet in height. It is a fact that they are the tallest human beings in the world, the men averaging but slightly less than six feet, while individuals of four to six inches above that mark are not uncommon. They are in reality by no means savages, but somewhat civilized barbarians. They are almost unacquainted with the use of firearms, notwithstanding some contact with the whites, but they have plenty of horses and dogs.

Unsurpassed hunters, they capture the

guanaco and the rhea, or South American ostrich, and from the skins of these and other animals they make clothes and coverings for their tents. They make beautiful "capotes," or mantles, of furs and feathers which are highly prized by Europeans, and find a ready market, most of the proceeds being spent for bad whisky, which is brought into the country in quantities.—Boston Evening Transcript.

A Loyal American Girl.

When the soldier boys left yesterday there was one bright-looking girl standing on the depot platform. She wore one of the fashionable hats which appear like a garden of flowers. As she stood there, with tears coursing down her cheeks, she saw the other girls burying the brave boys in literal forests of flowers. One of the soldiers, stepping up to her, asked:

"Please may I have one of those flowers on your hat?"

She took his hand, and in a voice most womanly said: "Yes, sir, and may God bless you."

Then she told them all to come and select a flower from her hat. The boys, with hands grim and bronzed from camp life, carefully culled from the straw frame until they were all gone. Then she put on what was left of it and stepping back toward the car, said with emotion:

"Boys, I wish there were more. I hope you will all come back again, and that those flowers will remind you of the pleasant scenes of home, and guide you as your dear old mothers would have taught you to go."

There were several girls standing close by who whispered: "I wouldn't ruin my hat that way," but the wiser heads remarked, "There is a loyal American woman—God bless her."—Denver Times.

Curious Advertisements of London.

Curiously worded advertisements that are funny without intent are common in the London papers. Here are a few samples:

"Furnished apartments suitable for a gentleman with folding doors."

"Wanted, a room by two gentlemen about thirty feet long and twenty feet broad."

"Lost, a collie dog by a man on Saturday answering to Jim with brass collar round his neck and muzzle."

"Boy wanted who can open oysters with references."

"Bulldog for sale; will eat anything; very fond of children."

"Wanted an organist and a boy to blow the same."

"Wanted, a boy to be partly outside and partly behind the counter."

The Ottawa Chautauqua Assembly has arranged to furnish an abundant supply of pure spring water from covered steel tanks conveniently located on the grounds, properly cooled, and to be drawn from faucets. The program is excellent. Forest park is beautiful. The new closet on the east side, on the style of the house of public comfort, erected last year, will be a welcome improvement. The Assembly opens June 13, with Professor DeMotte's great lecture, "The Harp of the Senses." No one can afford to miss it.

"Is your wife literary?" "Yes; every time I step out of the house at night she says, 'Quo Vadis?'"—Chicago Record.

Low Farms for sale, \$2 per acre cash, balance crop until paid. J. Mulhall, Sioux City, Ia.

1898 BICYCLE \$3.00

Yes, \$3.00 takes our up-to-date, guaranteed bicycle on our great co-operative offer. You do a little work in your spare time. Write soon. OOOE CYCLE CO., Office, 67 4th Ave.; Factory, 16-18 Franklin St., Chicago.

Mothers! Mothers!! Mothers!!!

MRS. WINSLOW'S SOOTHING SYRUP has been used for over FIFTY YEARS by MILLIONS OF MOTHERS for their CHILDREN while TEething, with PERFECT SUCCESS. It SOOTHES the CHILD, SOFTENS the GUMS, ALLAYS all PAIN; CURES WIND COLIC, and is the best remedy for DIARRHEA. Sold by Druggists in every part of the world. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.

HOUSE PAINTS

Victory Implement and Wagon Paints, Nonpareil Carriage Paints. Home-made and the best made for all purposes. Window and Picture Glass, Hot-bed and Greenhouse Glass. If your dealer does not carry these goods send direct to CUTLER & NEILSON PAINT AND COLOR CO., Manufacturers and Jobbers, N. W. Cor. 11th and Mulberry Sts., Kansas City, Mo.

KANSAS FARMER

ESTABLISHED IN 1863.

Published Every Thursday by the
KANSAS FARMER COMPANY.

OFFICE:
No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

An extra copy free fifty-two weeks for a club of six, at \$1.00 each.
Address **KANSAS FARMER CO., Topeka, Kansas.**

ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch).
Special reading notices, 25 cents per line.

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

Annual cards in the Breeders' Directory, consisting of four lines or less, for \$16.00 per year, including a copy of KANSAS FARMER free.

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

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

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

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

Address all orders—
KANSAS FARMER CO., Topeka, Kas.

VALUABLE EXPERIMENTS WITH SOY BEANS.

A subject of prime importance is the restoration, the retention, or the increase of fertility of the soil. It costs as much to produce a poor crop on a piece of poor land as to produce a good crop on a piece of good land. If the crop on the good land pays expenses and a moderate profit, the crop on the poor land will surely pay less profit. If the land is decreasing in fertility, it is only a question of time when—other things being equal—the profit will disappear and be replaced by loss. If, on the other hand, the land is increasing in fertility, the margin of profit increases and with it the value of the land. These considerations illustrate the importance of the pursuit of such system of farming as shall at least maintain the present productive capacity of the land, or, if possible, increase it from year to year.

It has been found with reference to most Kansas farming lands that they possess some of the elements of fertility in such prodigal abundance that little apprehension need be felt for their depletion. But there is one element which becomes rapidly depleted, here as elsewhere, through waste and use in the too prevalent practice of farming exclusively for the production of grain. This element is nitrogen, an essential of plant growth. It has, for several years, been known that the clovers have the power to restore nitrogen to the soil, and that by a system of rotation including clover it is possible to maintain the productive capacity of the soil in a highly satisfactory degree. Not only have the common red and the white clovers this power, but alfalfa and other kinds of clover are potent fertilizers. Further investigation a few years ago led to the conclusion that the entire family of pod-bearing plants and trees, called by the general name of legumes, have this most desirable property. If this were true, all kinds of beans and peas should improve the soil upon which they are grown.

The manner in which, or, perhaps better, the agency by which the pod-bearing plants abstract nitrogen from the air and bring it into such combinations as to enrich the soil, is through certain little nodules which grow upon their roots. It is not believed that any enrichment takes place if these tubercles are absent.

Soy beans promise to become a valuable and successful crop under some conditions in which the clovers do not thrive. They are well liked at the Agricultural College, and their value as feed has been demonstrated both at the college and on private farms. But soy beans produce no nitrogen-assimilating tubercles in Kansas. In Massachusetts and some other States the tubercles are abundantly produced. It was suggested several years ago that, since the tubercles are produced by minute organisms, these might be introduced into a soil destitute of any particular kind of them. A most notable experiment of this kind was made at the Kansas State Agricultural College, and an account of it has been published by Mr. D. H. Otis, assistant professor of agriculture at the college. This account, with the illustrations, will be reproduced in the Kansas Farmer, beginning this week. The experiment of bringing from Massachusetts soil containing the peculiar kind of life required to render soy beans a fertil-

izing crop is a most interesting and important one, both on account of its purely scientific quality in establishing the practicability of introducing these fertilizing germs where wanting, and on account of the added value to soy beans as a Kansas crop.

Mr. Otis' paper marks a distinct advance in the science of agriculture. It should be read by every farmer who expects to keep up with the advances made in his profession and thereby be able to successfully meet the competition before which so many are reduced from independent farmers to the rank of laborers.

KANSAS STATE AGRICULTURAL COLLEGE.

When, a little over a year ago, it became apparent that radical changes were to be made at the Kansas State Agricultural College, there were misgivings as to the results. Friends of the college were surprised at the extent of the reconstruction of the organization, and a section of the press of the State declared that the college had been wrecked. It was stated by others that the continuity of the college had been destroyed and it was confidently asserted and really expected that few students would be enrolled.

The first annual commencement after the reorganization took place last week. To it came a graduating class of sixty-nine, the largest in the history of the college. The enrollment for the year was 804, the largest ever made. The successful management of such an institution is a work requiring no ordinary executive ability. No small degree of anxiety was felt at the risk involved in the loss of the recognized executive force of the former President. The success of the new head of the institution is but an added illustration of the truth that in this country no man or woman is indispensable, but that when any of us, for any cause, vacate the stations we have occupied, society closes up the gap with scarcely a ripple and with seldom a mistake.

The class graduated last Thursday was an exceptionally fine appearing one. The class exercises of the evening before showed a high order of ability and a degree of originality and spirit seldom displayed by young people who have but just reached the first degree in a course of education.

The lines of study at the college have been greatly extended. Instead of one course to be pursued by all, as was formerly the plan, a number of optional studies were introduced a few years ago. The student might select which of certain studies he would take. This plan has, during the last year, been greatly enlarged by making optional courses, each of which is peculiarly adapted to the wants of those who desire to develop their capabilities for work in corresponding departments of human effort.

The crowded condition of the college is very noticeable. With comfortable room for an enrollment of 600, the actual enrollment is 804. The opportunities here offered for the kind of education wanted by farmers' and mechanics' sons and daughters are becoming quite generally known throughout the State, and it will not be surprising if there shall be witnessed next fall a rush of 1,000 students to avail themselves of the educational advantages afforded by the State free of cost to the student. There are in Kansas nearly 200,000 farm families. The advantages of an Agricultural College course ought to be enjoyed by an average of at least one from a family, so that instead of a possible 1,000 of farmers' sons and daughters being developed for greater usefulness and better living, there should be 200 times as many. The fact that only one in 200 are availing themselves of these opportunities suggests many reflections, most of which will be passed over at this time, while a few will be mentioned.

First, it will undoubtedly become incumbent upon the State to greatly extend the facilities of the college. Second, it is unfair to those who are not informed of what the State is willing to do for them, free of charge, that this information is not brought to their attention in a way to enable them to appreciate it. One of the anomalies of the case is the fact that this excellent institution, where it is fashionable to study hard and live economically, is so little known after so many years. But the college management will doubtless take measures to let the light shine.

The experiment station, which is a part of the Agricultural College and is supported by direct appropriations from Congress, is entering upon several series of experiments whose results must be valuable to farmers. The experiments for the scientific breeding of

wheat and corn by cross fertilization and by seed selection and by proper cultivation have been well begun. About 1,000 crosses of wheat have been effected during the present blossoming season. If these shall result in but one improved variety this will be ample compensation for the experiments. If the entire 1,000 crosses should yield no practically valuable result, even this would not be cause for discouragement. But there is good reason to anticipate the production of varieties of greatly increased vigor, some of which varieties are likely to be peculiarly adapted to Kansas conditions. Corn has been planted with a view to crossing when the proper time arrives. Many analyses of seed corn were made for the determination of the nitrogen content of the grain. Surprising variations were found. The principle that like produces like is doubtless true of corn. Doubtless the selection of seed by chemical test may itself be made to greatly enhance the value of the State's greatest grain. When to this is added the skill of the breeder, there can be no reasonable doubt of producing corn of superior excellence.

The conjunction of experiment station and college is a fortunate one. The inspiration of experimental development is one which the student cannot well afford to miss. A more extended review of the experiment station work would be interesting. This is fully reported in the bulletins of the station prepared by the men who do the work of original investigation. These are free to applicants in Kansas to the extent of the edition, and the Kansas Farmer condenses many of them or reviews them for its readers.

The Agricultural College is, to a large extent, the farmers' college of Kansas. It teaches not only those things needful to make the students more efficient as producers, but it also instructs in the science of citizenship. Those who go out from its halls cannot but be stronger, more efficient and better men and women and more able to secure their rights in the world and to accord justice to their fellow men on account of the instruction and development they have received.

KANSAS POLITICS.

Two political conventions have been held in Kansas and the third is in session this week. The Republican convention placed in nomination for Governor, Hon. W. E. Stanley, of Wichita. Personally Mr. Stanley is an excellent man. He possesses the rare quality of making friends at sight and retaining them. The platform is typical of the positions lately occupied by the party. It is entirely satisfactory to the gold standard Republicans except those who think a pledge to enforce the prohibitory law should have been made. Mr. Stanley has it in his power to remove much of the objection of this large and influential class of Republicans. These have become greatly dissatisfied with the way in which the metropolitan police system has been abused by several administrations, and are generally of the opinion that the police power should be referred back to the cities. The Governor is authorized to so refer it and, unless he intends to use the special power conferred upon him in a more creditable manner than it has been used since the administration of Governor Martin, the appointment of police commissioners should be discontinued. Mr. Stanley is a man of energy and ability and will make a campaign which will not drag in any quarter.

The Prohibition convention surprised the State by nominating ex-Senator William A. Peffer for Governor. Senator Peffer is a man of unimpeachable and unwavering honesty. He is a prohibitionist who needs no certificate as to his genuineness. He has accepted the nomination, announcing that his views on economic and financial questions will not be propagated, but that the enforcement of a better observance of the law will be the leading issue. Should Senator Peffer lead a campaign of such vigor, thoroughness and perfection of organization as that which he led eight years ago, and which landed him in the United States Senate, there will be witnessed in Kansas this year a three-cornered political fight of most formidable proportions and of exceedingly doubtful outcome.

At this writing there is little doubt of the nomination of Governor John W. Leedy by the Populist party, which party has become legatee to the People's party and the Democratic party of Kansas. Present indications point to the nomination of Governor Leedy almost without opposition. But one man can prevent it and that man is John W. Leedy himself. Should he express his gratitude at the indorsement of his administration evidenced in the selection

of delegates, and decline to be a candidate, asking the convention to choose a standard-bearer from the ranks, his own place in history would be secure and a strong man fresh from the people would be free from the causes of opposition which are inseparable from the administration of the chief executive office.

On the prohibitory question Governor Leedy's record has been made. It is not satisfactory to the very large prohibition element in the State. If Senator Peffer shall be able to draw largely from the Republican prohibitionists there is scarcely a doubt but that Populist prohibitionists will also express their dissatisfaction at the polls. But it will be the effort of "whippers-in" of both the Republican and Populist parties to show that the prohibition members of the opposite party are giving the marble heart to Prohibition nominees. If they succeed in this, the contest will be narrowed to two parties with very grave doubts as to the result.

MANUFACTURERS ORGANIZE.

The manufacturers of Kansas City, Mo., have organized themselves into a corporate body for purposes set forth in the second article of their articles of agreement, as follows:

"The purpose of the said corporation shall be educational, social, fraternal and beneficial. It shall have no capital stock, and it is not organized for pecuniary gain or profit. Its aims shall be: To promote the welfare of the manufacturing interests of Kansas City and vicinity and to contribute to the development and extension of such interests in all lawful ways; to encourage a deeper concern in, and a better understanding of, the importance of manufactures as a factor in our material development and prosperity, and to further educate public sentiment in respect thereof; to collect and compile records, statistics and other information concerning manufactures, commercial and kindred matters, pertaining to the proper understanding of the importance and mission of our common country, and to publish and disseminate the same; to establish a library of books, periodicals and other publications designed and calculated to inculcate a patriotic disposition and to inspire a deeper interest on the subject of our manufacturing industries, to impress just and equitable principles of trade, to foster the observance of the highest standard of commercial integrity; to approximate the cultivation of social relations and intercourse between its members; to facilitate the speedy and amicable adjustment of commercial differences; to secure an interchange of views and concerted action relative to all matters affecting the commercial development of Kansas City and the territory tributary thereto, and generally to take such steps as may conduce to an expansion of the manufacturing interests of the United States, thereby to emphasize the dignity and consequence of imperial America among the nations of the earth."

The great Leiter wheat deal, after an existence of nearly fourteen months, collapsed last Monday. It is stated that the young man had at one time a clear profit of \$4,500,000 on his operations, and that this was succeeded by losses aggregating \$9,500,000, leaving the late wheat king \$5,000,000 in debt. His father promises to pay the debts. Joseph Leiter is the one speculator whom farmers would have been willing to see retain liberal profits on his wheat deals. The millions upon millions of bushels which were scraped out of farmers' wheat bins and sent forward to feed a hungry world in response to the liberal prices, put many more millions of dollars into farmers' pockets than they would probably have realized had not young Leiter made his vigorous stand against the tactics of the bear speculators. But the weight of actual wheat which continued, and yet continues, to come forward, together with the reported phenomenal crop now maturing, proved effective weapons in the hands of the bear leaders. Resort was had to the usual tactics of offering to sell, for future delivery, unlimited quantities of wheat. The quantities offered for delivery in July and actually contracted to be delivered during that month were doubtless greatly in excess of the quantity which can possibly be brought forward. But the men who contracted to sell were able to guarantee to deliver more than those who had contracted to buy were able to guarantee to receive and pay for. The market declined and the buyers had to put up more margins until they were bankrupted. The load proved too heavy for the audacious young Leiter. It is a question of much moment to farmers whether the bears are to have their own way during the period of heavy marketing of the maturing crop.

WATER AND HOW TO DRINK IT.

The fact that the demands of nature require that men drink large quantities of water during the hot days of summer, and that this requirement is especially great for those who must work hard during hot weather, gives especial value to remarks recently published by the London journal, Health. These observations are applicable to all seasons and show how pure water may be so used as in many cases to obviate the necessity for the use of medicines.

The effects produced by the drinking of water vary with the manner in which it is drunk, says Health. If, for instance, a pint of cold water be swallowed as a large draught, or if it be taken in two portions with a short interval between, certain definite effects will follow—effects which differ from those which would have resulted from the same quantity taken by sipping.

EFFECTS OF SIPPING.

Sipping is a powerful stimulant to the circulation—a thing which ordinary drinking is not. During the action of sipping the action of the nerve which slows the beats of the heart is abolished, and, as a consequence, that organ contracts much more rapidly, the pulse beats more quickly, and the circulation in various parts of the body is increased. In addition to this, we also find that the pressure under which the bile is secreted is raised by the sipping of fluids—a fact the importance of which we shall notice directly.

Many individuals may have been at times unpleasantly unconscious of the fact that a glass of wine or beer sipped gets into the head much quicker than if drunk at a draught. They will now be in a position to understand why this is so; the explanation being that the temporary paralysis of the inhibitory nerve of the heart, and the increased stimulation of the circulation, favor the rapid absorption of the alcohol and the production of its consequent effects. The same thing occurs if the fluid be sucked through a straw, the effects of sipping and sucking being identical.

Swallowing in the usual way has not the stimulant effects of sipping, but it has one or two special effects not produced by sipping, the use of which we shall mention a little later.

EFFECTS OF DRINKING.

The effects of drinking cold water are these: If, say, a pint of cold water is swallowed straightway, the temperature of the body is slightly lowered—about 1° F.—the pulse rate is somewhat decreased (not greatly increased, as by sipping), and the respirations are slightly accelerated. The blood vessels in the lining membrane of the stomach are at first contracted. They very soon, however, rapidly dilate, the blood flow in them is increased, and the secretion of gastric juice is stimulated. There are, on the other hand, many persons who find that these effects are brought about better if they take warm water instead of cold, although at first sight it may appear somewhat strange that like effects are produced by both hot and cold water. The explanation is simple. The warm water acts exactly as does the cold, only without the previous contraction, its action being to at once dilate the vessels after its reception by the stomach. The practice of drinking at meals large quantities of liquid is bad, but small quantities may be taken without harm, although, undoubtedly, it is wiser to drink either before or after the meal, if we cannot limit our consumption of fluids to a distinctly small amount. Whenever a meal is particularly rich in fatty material it is a good plan to drink some time after the meal, as in this way the digestion of fat in the intestines is aided.

ITS PURGATIVE ACTION.

That water possesses a purgative action is a thing well known to many people. This particular effect is due to its power of stimulating the secretion of bile and also of increasing the peristaltic action of the intestines; bile being a natural purgative, and increased peristalsis being an enemy of constipation and sluggish bowel action. If plain water be taken, its purgative effects are best produced by its being cold; if natural mineral waters are taken they should be mixed with a small quantity of hot water so as to be at about the same temperature as the stomach. Warm water is more readily absorbed than cold, and moderate quantities than large ones, absorption being retarded if large quantities of either warm or cold water are taken at once. The best time to obtain the purgative effects of water is on rising in the morning. A glass of cold water taken on rising is often quite sufficient to procure an easy movement of the bowels, and this result will be the more certain if the water is sipped

while dressing. This sipping operation should not, however, be hurried, but should be gone through slowly and at short intervals.

Free drinking of water produces effects upon the kidneys and tissues of the body generally no less important than those we have been considering. There is every reason to believe, from observations, the nature of which it is unnecessary for me to state, that the increased excretion of urine which follows the drinking of plenty of water not only clears the body of many poisonous and effete substances, but is itself an index of changes within the body which have for their end the enhanced health and comfort of the individual. [But it is all-important that the water be filtered pure from organic and also mineral ingredients.—Editor M. M. S.] Much harmful material which has often to answer for malaise, want of energy, and various aches and pains, is undoubtedly washed out of the tissues and excreted by the kidneys as the result of free [pure] water drinking. This alone is decidedly beneficial, but, in addition, the drinking of much water causes the tissues to be changed, with the result that vitality is increased and strength augmented. So great in this direction are the effects of cold water, that persons leading sedentary lives may often obtain, by drinking plenty of water, much of the feeling of health and exhilaration which results from taking exercise—a fact not difficult of belief when we remember that a glass of cold water, slowly sipped, will produce greater acceleration of the pulse for a time than will a glass of wine or spirits taken at a draught. In this connection, too, it may not be out of place to mention the fact that sipping cold water will often allay the craving for alcohol in those who have been in the habit of taking too much of it, and who may be endeavoring to reform, the effect being, probably, due to the stimulant action of the sipping.

A Real Scramble for Wheat.

Beerbohm's London List of May 27 says of wheat:

"Fine weather on the whole for the crops of the world, and a consequent promise of future abundance as opposed to present scarcity, has, in view of the slackening in the Continental demand, brought about a further decline from the recent high point—a point which it would seem requires a continuous tonic in the shape of something exciting or abnormal to maintain it. For the moment France seems to be satisfied with her big purchases immediately after the declaration of the suspension of the duty, and Hamburg and Antwerp also appear to have 'bitten off more than they can chew,' seeing that they are offering to re-sell Indian wheats which they had bought previously. So it happens that although first-hand sellers remain perforce scarce, second-hand sellers are ruling the market. Two points are, however, evident in connection with the recent course of the wheat trade; the first is that the requirements of the importing countries are larger this season than was assumed even by the most sanguine in this respect; and the second is that there was apparently more old wheat 'invisible' in the world at the time of the last harvest than was generally believed; if this had not been so we could not have witnessed the immense shipments to Europe which we have done during the past two months—record shipments for the season—amounting to an aggregate for the past nine weeks as follows:

	Quarters.	Bushels.
To the United Kingdom direct....	2,825,000	22,600,000
To the Continent and for orders....	7,355,000	58,840,000
Total.....	10,180,000	81,440,000
Total last year.....	5,800,000	46,400,000

"These enormous shipments show at once that the requirements of the Continent have been extraordinarily large, and that the United Kingdom has suffered in consequence. The power of attraction possessed by high prices is evidently very great; everywhere we find that farmers have sold their stocks with unwonted freedom. Thus, making every allowance for under-estimates of these invisible supplies, it is clear that they are approaching a point of comparative exhaustion unknown in the recent history of the trade. It is not difficult to estimate what the principal countries are capable of holding in reserve, or at any rate the amount of wheat they have held in recent years when the new crop has come upon them. At harvest time in 1895, for instance, the world's reserves of old wheat were probably at their highest point, whilst at the time of the harvest of 1898, say on August 1 next, they will probably be at their lowest. Without pretending to be exact in matters of this kind, we can find sufficient reason for estimating that on Au-

gust 1, 1895, after the big crops of the previous four years, the world's invisible supply was not less than 40,000,000 to 45,000,000 quarters [one quarter is eight bushels]. We believe that we shall be equally near the truth if we estimate that on August 1, 1898, the world's invisible stocks will not exceed 10,000,000 to 15,000,000 quarters; in other words, the world's reserves have been reduced 30,000,000 quarters in the past three years. Under such circumstances a comparatively high level of prices was inevitable, and equally clear is it that the new crop will possess a far greater importance as a price-maker than it has for years past. Meanwhile the trade is proceeding slowly in a nervous, hesitating fashion, weakened on the one hand by the recent large shipments, and strengthened on the other hand by the great probability that before the new crop does really become available there will be a real 'scramble' for wheat."

Cornstalk Beetles.

Editor Kansas Farmer:—I mail you to-day several specimens of a beetle that is doing a great deal of damage in the corn fields in this county. They work on the corn at or just below the surface of the ground, sticking their hard bill into the heart of the stalk and sucking the juice. They are nearly always found head downward and cling tightly to the stalk. Have been in the bottom fields several years and are getting plentier every season. Please publish an article in the Farmer giving their habits and how best to fight them. They appear quite early in the spring and stay the season through, but do not do much damage after the corn is knee high. I have seen four or five fastened to the brace roots on one stalk after corn was in tassel.

E. N. HOWARD.

Hewins, Kas., June 9, 1898.

Referred to Prof. E. E. Faville, entomologist Kansas State Agricultural College.

The specimen sent by Mr. E. N. Howard, of Hewins, Kas., is the Sphenophorus sculptilis, the "cornstalk beetle." These beetles extend their depredations over a large portion of the United States, its work being found in Missouri, Illinois, Kansas and some of the Southern and Eastern States. The adults differ in size, and are observed attacking corn during the early part of June. The fact of their attack well as confined only to a short period of time is just as it their ravages will never be practically no larger quantities where corn planting follows grass lands. Here the attacks of the insects are most noticed. One of the best remedies is to take sand, well moistened with kerosene oil, and apply it to the young plants of corn at the base. The oil is carried into the soil by the rain, tending to destroy the insects. The same dressing applied earlier may, by its odor, prevent the insects from depositing their eggs. Rotation of crops is also helpful.

E. E. FAVILLE.

The Live Stock Situation.

The National Live Stock Association has issued the following bulletin for June:

"With the exception of southern California and western Oregon, the reports from the cattle ranges of the West and Northwest are more favorable than for years. With the exception of the drought section mentioned, Montana, Wyoming, the Dakotas, Colorado, Utah, Idaho, Nevada, eastern Oregon and Washington, and the grass-growing territory north of Montana and the British Northwest Territory, were, during the month of May, visited with frequent grass-making rains. The prospects are the best in twenty years, and so forward has this favorable weather made the ranges that the movement of cattle to Northern grazing grounds will commence at least three weeks earlier this year than last season. It is predicted that if these conditions continue and the ranges 'cure up' right and do not get too rank in vegetation, Utah, western Colorado, Idaho and the entire inter-mountain country will have cattle fat enough to go direct from the ranges to the market at an early date. It is estimated that the number of this class that will be sent from Utah and Colorado will reach 12,000 head more than in former years.

"The excellent condition of the ranges in the South, with the exception of a small district in the Panhandle, has not made the movement of cattle a necessity, and consequently the shipments from the South up to this time have been about one-third less than they were a year ago. As there is without a doubt a scarcity of cattle in many districts, particularly Colorado, New Mexico, Arizona and Texas, and what cattle there are being scattered over a wide terri-

tory, the condition of the ranges will continue to improve, making the prospects for abundance of feed during the coming winter most excellent.

"Information received at headquarters from Kansas is to the effect that the importation of stock cattle from the South has fallen off two-thirds during the past forty-five days, but the shipment of mature animals to the river markets continues up to the standard. The conditions existing in the former branch of the industry seem to have been brought about by the advance in the price of corn, which makes its feeding to stock at the present prices of fat animals almost prohibitory. Another factor in stopping these shipments is the excellent and abundant crop of grass in the Indian Territory and Texas. Cattle contracted for Kansas and Nebraska delivery are now being held on these ranges in large numbers, to be driven to the feeding pens this fall. It is estimated that the number now in the Indian nations is 100,000 greater than last year.

"In this connection it may be said that if the price of corn continues to advance, or even remains where it is now, that feeders who purchase stock cattle at the prices ruling this spring have excellent reason to anticipate a substantial advance in the price of their fattened animals this fall and winter. There is a material shortage already in this class of stock, which will be another factor in bringing about this result.

"The recent action of the authorities in re-establishing the quarantine line in California so as to shut out cattle from the drought district of that State from going to other States has reopened a vigorous discussion between the stock owners and those in authority. The latter claim that their action was forced by the fact that 'fever ticks' were found on the cattle in question. The stockmen emphatically declare that the ticks are the ordinary wood ticks and not the *Boophilus bovis*. While the presence of the tick is not disputed, on the other hand it has not yet been decided by a scientific examination that it is the dread fever tick. Of these drought-stricken cattle, about 25,000 have been sent to other States; half of this number came out by the Northern route and the remainder by the Southern. There are about 7,000 more that will come, and 25,000 to 30,000 more that would come if they could pass the inspection.

It is estimated at nearly 100,000 head."

Kansas Horticulturists.

Program of summer meeting Kansas State Horticultural Society, at Coffeyville, June 22 and 23, 1898:

WEDNESDAY, JUNE 22.

9:30 a. m.—Welcome address, Hon. J. H. Keith; response, Fred. Wellhouse, President State Horticultural Society; appointment of committees; paper, "Horticulture in Southern Kansas," by O. J. Winters; discussion of paper, P. C. Bowen; reports on apple culture, and discussion led by Jacob Good and D. A. Cline.

1:30 p. m.—"Horticulture in Kansas," by William H. Barnes, Secretary Kansas State Horticultural Society; reports on peach culture, and discussion led by W. H. Allen and J. Seldomridge; "Foreign and American City Markets," by Prof. E. E. Faville, State Agricultural College; discussion on papers; reports and discussion on grapes, Paul Schultz, Henry Norton, Seelye Brown.

7:30 p. m.—Paper, "Horticulture," Prof. R. Y. Kennedy, discussed by John Lawhead; paper, "Floriculture," Mrs. J. J. Barndollar, Mrs. V. V. Hedges; paper, "Public School and Horticulture," by W. L. Hall, assistant in horticulture of Kansas Agricultural College; discussions.

THURSDAY, JUNE 23.

9:30 a. m.—Paper on "Value of County Horticultural Societies," by William H. Barnes; discussion; "Spraying Trees," by President Wellhouse; discussion; "Cherries and Plums," by J. F. White and Jasper Swan; discussion.

1:30 p. m.—Organization of local horticultural society; "Vegetable Garden," G. W. Akers; discussion, C. H. Kennedy.

7:30 p. m.—"Berries, and How to Grow Them," by Ed Wheller and F. L. Kenoyer; discussion; "Why and How I Grow Apples," by President Wellhouse; discussion; "Has this Meeting Been Profitable?" general discussion, everybody; a social hour and adieu.

The Kansas building at the Omaha exposition will be dedicated with appropriate exercises on June 22. All Kansans are invited. Through the untiring efforts of the Kansas commissioners this State is getting up a fine exhibition of Kansas products, so that no resident of the Sunflower State will feel like taking a back seat when he visits the exposition.

Experience teaches the value of Hood's Sarsaparilla. It is constantly accomplishing wonderful cures and people in all sections take it, knowing it will do them good.

Hood's Pills cure all liver ills. Mailed for 25 cents by C. I. Hood & Co., Lowell, Mass.

Horticulture.

BACTERIAL DISEASES OF PLANTS.

A bulletin published from the Office of Experiment Stations, United States Department of Agriculture, makes the following practical suggestions which will be found helpful:

Bacteria are micro-organisms which perform many important functions by the united energy of countless numbers. While exceedingly minute, they reproduce so rapidly that their abundance makes up for what they lack in size. It must not be supposed that all bacteria are injurious. Beneficial bacteria are found in the dairy, where they lend flavor to the dairy products. Many kinds of fermentation are brought about by bacteria or allied micro-organisms. To them clover and other leguminous plants are indebted for their ability to assimilate the free nitrogen of the air. It is thought probable that the peculiar flavor and aroma of some highly esteemed tobaccos are due to the action of some of these agents.

Although for some time past many infectious diseases of man and animals have been known to be due to bacteria, it is only within recent years that such plant diseases have been conceded. One of the first diseases of plants demonstrated to be due to bacteria was the fire blight of apples and pears, the first note of which emanated in 1882 from what is now the Illinois station. At the present time at least two score diseases of plants are either known to be or are suspected as being caused by the activity of bacteria. Many of these diseases affect plants, and some of them are briefly described below. All these diseases have been studied more or less by the agricultural experiment stations and by the Division of Vegetable Physiology and Pathology of this department.

APPLE AND PEAR BLIGHT.

This disease, which perhaps is commonest upon the pear, where it is known as pear or fire blight, also attacks apples, quinces, and allied fruits. Its bacterial origin was first demonstrated at what is now the Illinois Experiment Station, and later by the New York State Station and other stations, and the United States Department of Agriculture. The methods of infection and prevention have been well worked out. The parts affected are the flower clusters, the young shoots, and the woody tissues and foliage. The disease runs down the living bark to the larger limbs and trunk. While it attacks the leaves to some extent, the discoloration and wilting of the foliage is mostly due to the destruction of the twigs. The affected portions are quite conspicuous, and all portions below the point reached by the spread of the bacteria will be healthy. While the disease is progressing the discolored portion of the bark blends gradually with the normal bark, but when the disease has run its course the line is sharply drawn. From a long series of experiments conducted at this department it was learned that the chief means of spreading the contagion was through the visits of bees, the first point of infection seeming to be at the nectaries. The disease is accompanied by a flow of gum, and it is thought probable that the first flowers are infected by bees, flies, etc., that have visited gummy deposits.

Cutting away and burning all diseased twigs will prevent the recurrence or spread of the disease. In pruning, the twig should be cut a few inches below the dead tissue. In rapidly growing succulent tissues the disease spreads most rapidly, the bacteria there finding the most favorable conditions for their development. Anything that will check the growth will aid in preventing the spread of the disease. The use of nitrogenous fertilizers and severe pruning resulting in rapid growth should be avoided. In addition to pruning, some investigators recommend spraying trees thoroughly with Bordeaux mixture as an extra precaution. It will do no harm to the tree, and may result in good other than the prevention of the blight by destroying other fungi.

BACTERIAL DISEASE OF BEANS.

This disease, which was probably first described in 1892, manifests itself upon the pods in soft, water-soaked, spreading spots. The leaves or stems are said to be similarly affected, but as the pods are the portion most conspicuously attacked, the disease is sometimes considered a pod disease. The beans within the pod are also affected and, when ripe, if permitted to mature, are deeply wrinkled. It is thought that diseased seed may aid in the distribution of the trouble, and all distorted and wrinkled seed should be rejected when planting.

The exact kind of bacteria causing this disease has been carefully studied and named at this department, and it has been found that the disease attacks nearly all kinds of beans, lupines, and probably peas. Care in the selection of seed and spraying the growing plants with Bordeaux mixture will possibly tend to reduce the amount of injury.

BACTERIAL DISEASE OF CABBAGE AND ALLIED PLANTS.

The first published account of this disease appeared in the Kentucky Station Report for 1890. The investigator was not at that time able to complete his studies, but reported it as a serious disease of cabbage. Later, at the Iowa Station, an organism was found that attacked rutabagas, producing a peculiar browning or blackening of the woody tissue as shown in cross section of the root. Since then the disease has been studied at various places, notably at this department and at the Wisconsin Station. It has been found to attack cabbage, cauliflower, rutabagas, turnips, and quite a number of allied plants, some of which are common weeds. This disease causes the stunting, distortion, and wilting of the part of the plant attacked, finally resulting in a sort of dry rot. Sometimes a wet rot develops as a result of other causes. On the leaves the disease begins with a yellowing near the margins, the veins becoming brown or black. It spreads from the margin toward the stems. After reaching the stem it may spread to other leaves or up or down the plant. If the diseased stems be cut transversely, the woody tissue will be seen to be browned or blackened; hence the name, brown or black rot of cabbage. It is especially destructive to rutabagas, the loss in one locality in Wisconsin having been estimated at more than \$100,000 in three years. This disease has also caused heavy losses in western New York, on Long Island, around Washington, D. C., and elsewhere.

The disease is spread in a number of ways, entrance into the plant being secured through the bites of gnawing insects and through the openings along the leaf margins. The presence of these openings, called water pores, may be detected by the exudation of drops of water during cool weather. The agency of winds in the distribution of the bacteria is somewhat in dispute. There are indications that the plants may also become contaminated through the seed, the lines of soil. On this account great care should be taken in the selection of seed, and the choice of variety to be pursued by carefully looked after. No manure containing cabbage refuse should be used, as the seed bed should be in a new place each year. With these precautions, supplemented by the destruction of insects and removal during the season of diseased plants comparatively little loss need be sustained.

BACTERIAL DISEASE OF CELERY.

Several diseases of celery have been described as due to bacteria, but sufficient study has not been given them to determine their identity or difference. A disease mentioned in a New Jersey Station Report for 1891 describes the affected leaves as badly blotched with brown, the diseased spots having a watery appearance. The disease spreads through the leaf in about three days, and when it gains entrance to the tender blanched stalks it causes their decay even more rapidly. It is thought that the thorough and timely spraying with any of the better known fungicides will probably keep the disease in check. A somewhat similar, if not identical, disease has been recently described in Italy, showing the wide distribution of the malady.

CORN BLIGHT.

This was first described in Illinois Station Bulletin 6 and is of bacterial origin. The first indication of the disease is in the dwarfed condition of the young plants over patches of varying extent. Later in the season a stalk or hill here and there may be affected. On close examination the leaves appear yellowish, and the roots, in bad cases, will be rotted away. The bottom of the stalk and the tissues of the joints will be discolored. The surface exhibits brown spots, with a nearly transparent jelly-like substance adhering to them. Later, the leaf sheath shows spots of various sizes, vary in color from red to brown, and appearing as though half rotten. If the leaf sheath be stripped off the inside will be found covered with the jelly-like mass. Occasionally the ears are attacked, the husks presenting the same appearance as the leaf sheath. The ear becomes soft and wilted. The most serious loss occasioned by this disease is to the young plants, as it stunts and kills them. No definite methods are suggested for its prevention.

A bacterial disease of sweet corn has

been lately reported by the New York State Station. The symptoms closely resemble those witnessed in the ordinary rolling of corn during dry weather. The affected plants wilt and the leaves wither and die. There is no discoloration and no rolling until after the plant is dead. Careless observers are liable to think dry weather is the cause of the trouble. As the plants die in wet weather as well as in dry, this theory is not tenable. If examined, the woody tissues will be found to contain masses of bacteria long before there is any indication of wilting, and by the time the plant appears affected the conductive vessels of the plant will be gorged with them. It is thought the chief method of dissemination is by diseased seed. It is also probable that stable manure, made by animals fed on diseased corn-stalks, may aid in spreading the infection. Varieties differ in their susceptibility. Only those known to be resistant should be planted.

COTTON-BOLL ROT

is a bacterial disease which has been described by the Alabama Station. As its name indicates, it attacks the bolls. There is no external evidence of its presence until the contents of the bolls begin to decay; then the outer portions of the boll also show signs of decay. Insects and the wind are thought to be instrumental in the dissemination of the disease. Picking and burning all diseased bolls as soon as discovered, and the selection of seed from uninfected regions are suggested as preventive measures. Some of the leaf diseases of cotton have also been attributed to bacteria, but more evidence must be presented before their bacterial origin will be accepted as conclusive.

BACTERIAL DISEASE OF CUCUMBERS AND MELONS.

This disease, which has been studied at several experiment stations, and particularly at this department, is characterized by the sudden wilting and collapsing of the plant. This is due to the clogging of the channels of water supply of the plant by the extremely rapid and abundant growth of the bacteria which live in these channels and cause the disease. Insects are instrumental in spreading the disease.

BACTERIAL DISEASE OF EGG-PLANT, TOMATO, AND IRISH POTATO.

This disease has been investigated at a number of stations, but the most important contribution to our knowledge of it was by this department, an account of which was published in Bulletin 12 of the Division of Vegetable Physiology and Pathology. The disease attacks the eggplant, tomato, Irish potato, and allied plants. The first conspicuous indication of this disease is the sudden wilting of the foliage. This may occur on a single shoot or the whole plant may become affected. It usually results in the death of the plant. If the plant is young, the stem generally shrivels, changes to a yellowish green, and finally becomes black. The disease seems to progress more rapidly in young than in old plants and in hot weather than in cold. If stems are transversely sectioned the woody tissue will be seen to be brown or black. In the case of the potato, the tuber is also attacked and destroyed, the dark ring being often very conspicuous in a section of the tuber. An offensive soft rot often follows the dark discoloration. Potato beetles and other leaf-eating insects are among the principal means of spreading the disease. By combating them it is believed that its spread may be checked to a considerable degree. The removal and burning of all tops and a rotation of crops is also recommended.

It is claimed there are other potato diseases in which bacteria attack the tuber, notably one causing a soft rot. This disease has proved very destructive, especially in Germany. It may be prevented to a considerable extent in stored potatoes by spreading them thinly in well-aired bins.

The foregoing are brief descriptions of some of the more important bacterial diseases to which economic plants are subject. So far as we know, none of these diseases are in any way injurious or infectious to man or animals, and need not be feared on that account. It will be observed that, like the contagious diseases of man and animals, the prevention of these diseases in plants depends to a considerable degree on what may be called the proper sanitary conditions.

DEAD SHOT for HOG CHOLERA is guaranteed to cure and prevent cholera in hogs or fowls. Never fails. 25 and 50 cents per bottle, by all dealers, or the Cannon Chemical Co., St. Louis, Mo., wholesale agents.

Dehorning.

Mr. R. M. Allen, general manager of the Standard Cattle Company, Ames, Neb., which handles cattle very extensively, writes as follows concerning his views upon the value of dehorning cattle for the feed lot, and his methods of operation. As shown in his remarks he has had large experience in this line, and his letter will be read with interest. He says:

"We have practiced dehorning very largely for the last ten years. In the fall of 1887 I got Mr. Haaff to come out here from Illinois, at which time we dehorned two bunches of steers, one of Westerns and one bunch of natives, sixty-five and fifty-five head, respectively. In the fall of 1888 we dehorned nearly 3,000 cows and heifers. Since the beginning we have dehorned some cattle every year, and I should have dehorned largely but for the excessive amount of work in the fall and the danger from files at a time when we wished to dehorn.

"Of late there have been some valuable antiseptics on the market, and after your statement that a certain New York firm declined to try to buy our cattle with horns on a year or two ago, I determined to try it again. Last fall we dehorned something over 4,000 cattle, most of them being four and five-year-olds with large horns. These cattle were partially on feed, and the disturbance to the cattle themselves was naturally very great. It had the peculiar effect of causing the Western cattle to bunch up more than they do with horns on, and on the whole made them a good deal wilder.

"While we believe that the advantages have offset the disadvantages, and that the gain of the cattle in spite of the very great disturbance has been as good or better than that of the cattle that were not dehorned and which have not been so disturbed, it still remains for some one to invent an easy application of antiseptics, which I think can best be done by some sort of a plaster made of thin cloth with a sticky application inside. In this way cattle can be safely dehorned in this climate during September and October. Some druggist can easily invent such a plaster, which I think will prove efficacious and very convenient. Last year we came across a very good cattle squeezer invented by Mr. Q. Bruton. We put in two chutes and two outfits, operating at the same time. These two outfits, when in full operation, dehorned about 350 cattle a day, it being remembered that our cattle were four and five-year-old steers wearing very large horns. These horns were sawed off with stiff-backed saws—the only efficacious method of dehorning cattle with such large horns. We have never dehorned any very young cattle, with the exception of 1,100 yearling heifers in the fall of 1888.

"The principal object to be accomplished by dehorning with cattle on the point of going on feed is to allow them to go evenly on feed, and I do not see that there is any great advantage in the case of people who have only a comparatively small number of cattle and plenty of room for them. In our case it is a very great advantage to dehorn, and last fall we put 9,100 head of cattle onto feed without any disturbance of digestion, and there was no scouring whatever in the entire number. It is more satisfactory for any one to handle and feed dehorned cattle, but I do not regard it as very necessary except with large numbers or under circumstances where plenty of space and feed boxes cannot be provided for horned cattle. In our experience we have hardly obtained a better price for dehorned than for horned cattle. In certain cases we have obtained a better price, leading us to think that they are worth more. I think probably now that in the long run dehorned cattle may be worth 10 cents more than the others, but this is not certain.

"We once made a very small experiment of dehorning with chemicals on a few calves, but it was not satisfactory. Where possible I think I should prefer to dehorn at the age of 1 year."

Forest park at Ottawa is in its loveliest garb, and preparations for the coming Assembly, June 13-24, are being pushed. The lecture platform is especially strong throughout, and the musical department is the very best. Eminent specialists have been provided in educational lines, and the special features are unusually attractive.

INSECTS

Will not touch trees treated with VITA-NOVA. One dollar's worth treats twenty-five trees; last four years. J. WILLIAMS BROS., Danville, Pa.

In the Dairy.

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

FOR DAIRY PRODUCTS.

Arrangements are being made by F. S. Hurd, of Meriden, to make a large exhibit of Kansas butter and cheese at the Trans-Mississippi exposition, which opened June 1.

Following are the rules governing dairy exhibits:

Dairy butter is understood to be butter from a single herd of cows, made on the farm or at the home of the owner, and the entry shall consist of one ten-pound tub; no other size accepted.

Creamery butter is understood to be butter made in a regular creamery or factory from the milk or cream of not less than ten herds of cows, from a churning of not less than 100 pounds, and the entry shall consist of one thirty-pound tub; no other size accepted.

There shall be five separate and distinct exhibits and entries of butter, one each in the months of June, July, August, September and October, on such day of the month as shall be determined by the manager of the department.

It shall be the duty of the commissioner of the bureau to notify, by registered letter, each exhibitor at least ten days in advance of the dates when such exhibitions are to be judged, and each exhibitor shall, within sixty hours after said notice is received, forward his exhibit either by express or refrigerator freight, all charges prepaid.

Each exhibitor shall forward by mail to the manager of the department, on blanks furnished by said manager, a statement showing the date and hour of receiving notice of required exhibit; date and hour of forwarding the same; if dairy, the number of cows in herd and number of pounds in churning from which exhibit is taken; if creamery, that the entry is from the product of ten or more herds, and the number of pounds in churning from which entry is taken.

Not less than ten days from the date of the mailing of the notices herein required the exhibits of butter shall be judged; said judging to be from a commercial standpoint, by recognized experts and according to the following Sheepscore, viz.:

Flavor	45
Grain or body	25
Color	15
Salt	10
Style of package and packing	5

Total, or perfection.....100

The judging shall be under such rules and regulations as may be prescribed by the managers of the department; provided the judges shall not be allowed to view any entry as a whole until judgment has been recorded as to the flavor, body or grain, color and salting of the same.

No exhibit scoring less than 90 points shall be entitled to any consideration other than an official copy of the scorecard.

As soon as the judging is completed, all exhibits, unless otherwise disposed of by the owner, will be sold to the best advantage by the manager, and the proceeds remitted to the owner, less a commission of 5 per cent., and accompanying said remittance shall be a copy of the score of said exhibit, signed by the manager.

In awarding premiums all entries made by the same person, from the same dairy or creamery, shall be considered, i. e., the points earned by each exhibit shall be added together at the close of the exhibit and divided by five, and if the result is ninety or over it shall be allowed to compete; provided, that no exhibitor shall be allowed to make more than one entry in each month, except that companies operating more than one separate and distinct creamery or factory may make entries from each of said creameries or factories.

Each exhibitor whose exhibit scores above ninety-five points shall be entitled to a medal for excellence of exhibit, and accompanying said medal shall be a diploma specifying the scores or degrees of perfection of said exhibit; provided, that no exhibitor shall be entitled to more than one such medal or diploma, and that to be given for the exhibit of greatest merit. When two or more entries tie in competition, each shall have awarded them diploma for gold medal.

The exhibits scoring ninety-seven points or over shall be entitled to:—

999. Premium—
Dip. for. Dip. for. Dip. for. Highly Com. Gold Med. Silv. Med. Brz. Med. Com.

CREAMERY BUTTER.

1000. One thirty-pound tub from churning of not less than 100 pounds:—
Dip. for. Dip. for. Dip. for. Highly Com. Gold. Med. Silv. Med. Brz. Med. Com.

DAIRY BUTTER.

1001. One ten-pound tub:—
Dip. for. Dip. for. Dip. for. Highly Com. Gold. Med. Silv. Med. Brz. Med. Com.

Persons desiring to exhibit and compete for any of these premiums shall file their entry with the department, on blanks provided, at least fifteen days in advance of the first day of each month in which the exhibits are to be made, except for the month of June, entries for which shall not be made later than the first day of said month. Each exhibit must be plainly marked with the name and address of the exhibitor.

CHEESE.

The exhibit of cheese will be made in the month of October, the date to be determined by the manager. Persons desiring to compete for premiums offered for cheese exhibit must make entries with the department on blanks, furnished, not later than September 15, 1898. It shall be the duty of the commissioner to notify by mail all parties making entries of cheese the date upon which their exhibit shall be forwarded.

All cheese exhibits shall be judged from a commercial standpoint, by recognized experts, and according to the following scale or score, viz.:

Flavor	45
Texture	20
Color	15
Salting	10
Finish	10

Total 100

No exhibit scoring less than ninety points shall be entitled to any of the premiums offered.

After the awards have been made, unless otherwise disposed of by the owner, all cheese shall be sold to the best advantage by the manager, and the proceeds remitted to the owner, less a commission of 5 per cent., and accompanying said remittance shall be a copy of the score of the exhibit, signed by the superintendent.

Each exhibitor of cheese whose exhibit scores above ninety-five points shall be entitled to medal and diploma, the same as provided for in exhibits of butter.

Each exhibit of cheese shall be confined to one cheese—if factory, weighing not less than thirty pounds; if dairy, not less than ten pounds; provided, that any exhibitor may make a separate entry of cheese not made in the same month; and provided further, that in exhibit styled "Young Americas," each entry shall consist of two cheeses weighing not less than eight pounds each.

FACTORY CHEESE.

1002. Premium—
Dip. for. Dip. for. Dip. for. Highly Com. Gold. Med. Silv. Med. Brz. Med. Com.

DAIRY CHEESE.

1003. Premium—
Dip. for. Dip. for. Dip. for. Highly Com. Gold. Med. Silv. Med. Brz. Med. Com.

Salting.

Whether or not salting butter adds to the weight is a disputed question. Most people seem to think that it does; it certainly would look, upon the face of it, as if it should add rather than diminish its weight to add one ounce or more of salt to each pound of butter. Whether this is true or not depends largely upon conditions. I have taken portions of the same churning, to one part added an ounce and a half of salt to the pound and had less weight when finished than before the salt was added; to another part added an equal amount of salt and had it weigh more than before the salt was added. What caused the difference? Simply this: The proportion of water held by the butter at the time the salt was added, writes Mrs. E. R. Wood in Jersey Bulletin.

To add to the weight of unsalted butter by salting it must be partially worked, excluding most of the moisture, before the salt is put with it, so that little brine will work out afterward. Take granular butter, for instance, and it holds a surprising amount of water even after it has stood to drain for some time. Weigh this butter, then without disturbing by working, add an ounce and a half of salt; then work it sufficiently dry and it will, when finished, weigh actually less than before it was salted. I have worked out eight pounds of brine from forty-five pounds of butter (the latter being weighed when the working was completed) and the butter

then held its full complement of moisture, 15 per cent. being allowable in the finished product.

This argument, pro and con, will undoubtedly continue indefinitely since so many seem to understand so little about the real cause of the difference.

Salting butter while in the granular form is, to my way of thinking, the very best method, and for this reason: Every tiny particle receives its rightful proportion of the salt, if this is properly applied. Being coated with water from its previous rinsing it dissolves this salt immediately, thus forming brine which is expelled as the working progresses. Far less of this is required than when the butter is in a solid mass when salted, and here again is another point in favor of this method of salting, since the great desideratum in working butter is to work it just as little as possible in order to give that pebbled appearance which shows the grain in the perfect butter.

While upon this subject of working butter, it may not be amiss to repeat what I have already said in these columns relative to streaks in butter. We are frequently asked the cause of this. There should be a thorough understanding as to what is meant by the term streaks, or mottles. These should not be confused with white specks, which are entirely different and have a different origin. Streaks or mottles are caused by the salt not being evenly distributed through the butter and may be remedied by additional working. Once get the salt thoroughly incorporated with the butter and there will be no streaks. To prove this, look at a quantity of butter which has been treated as some butter-makers are in the habit of doing, by working into a mass before salting, then cutting down through it with a ladle and putting in a handful of salt, letting it stand without further working for several hours. This will develop streaked butter of the very worst type. But the subsequent manipulation with the ladle will incorporate and blend the salted parts with the other until all is one shade of yellow and the mottles disappear. White specks which frequently cause so much trouble, especially to those who set their milk in pans, are of altogether different origin.

Farmers should not be alarmed at the steady increase of well equipped creameries in the West, for this is just as it should be. There are practically no more cows than there were three years ago, and if the product of these cows are made into creamery butter instead of farm dairy butter the net results to the farmers who take their milk to creameries will certainly be much greater than it was under the former system. In other words, the milk from these cows is being made into 15-cent butter instead of 10-cent butter. The monthly creamery check is a wonderful educator and stimulator. It quickly demonstrates that it pays to milk good cows, that it pays to feed intelligently and liberally, and so the patron begins to think and read and plan to so arrange his crops that the cow will be properly provided for. He begins to study the feeding problem, how to breed and rear dairy stock; he begins to study the merits of the different animals in his herd, and unconsciously he begins to inquire into the whys and wherefores, and so gradually becomes an educated man in the science and art of agriculture and animal husbandry. Surely the creamery makes for good farming, good and prosperous neighborhoods and good citizenship.

Send Kansas Farmer Co. \$1.20 and get one year's subscription to your State agricultural paper and Rand, McNally & Co.'s "War Atlas," containing sixteen pages of colored maps—Cuba and Havana harbor, Philippine islands and China, West Indies, Spain and Portugal, North America, United States, Europe, and one page showing flags of all nations.

"ALPHA-DE LAVAL" CREAM SEPARATORS.



De Laval Alpha "Baby" Cream Separators were first and have ever been kept best and cheapest. They are guaranteed superior to all imitations and infringements. Endorsed by all authorities. More than 125,000 in use. Sales ten to one of all others combined. All styles and sizes—\$50. to \$225.—Save \$5. to \$10. per cow per year over any setting system, and \$3. to \$5. per cow per year over any imitating separator. New and improved machines for 1898. Send for new Catalogue containing a fund of up-to-date dairy information.

THE DE LAVAL SEPARATOR CO.
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Tours in the Rocky Mountains.

The "Scenic Line of the World," the Denver & Rio Grande railroad, offers to tourists in Colorado, Utah and New Mexico the choicest resorts, and to the trans-continental traveler the grandest scenery. Two separate and distinct routes through the Rocky mountains, all through tickets available via either. The direct line to Cripple Creek, the greatest gold camp on earth. Double daily train service with through Pullman sleepers and tourists' cars between Denver and San Francisco. The best line to Utah, Idaho, Montana, Oregon and Washington via the "Ogden Gateway." Write S. K. Hooper, G. P. & T. A., Denver, Col., for illustrated descriptive pamphlets.



The Empire Cream Separators.

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We would like to show you one of our Empire Cream Separators at work before you buy. Then you will know why they are superior to all others in closeness of skimming and ease of running.

All sizes for hand and power use at prices that will interest you. Agents wanted in territory where not represented. Write to-day for our 1898 catalogue. U. S. BUTTER EXTRACTOR CO., Newark, N. J.

C. E. HILL & CO., Western Agts., KANSAS CITY, MO.

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Get More Money Out of Your Cows By Getting More Cream Out of Their Milk.

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Improved U. S. Cream Separator.

Increase in yield 47 per cent.

LAGRANGE, ME., February 7, 1898. The Improved U. S. Separator I have is doing fine work, having increased the yield 47 per cent. It makes excellent cows of those which I considered ordinary under the old system.

CLINTON KENNEY (Chairman of Selectmen).

Send for Catalogues, free.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.



MARKET REPORTS.

Kansas City Live Stock. KANSAS CITY, June 13.—Cattle—Receipts since Saturday, 5,083; calves, 409; shipped Saturday, 433 cattle; 2 calves. The market was steady to a shade lower. The following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various cattle numbers and prices.

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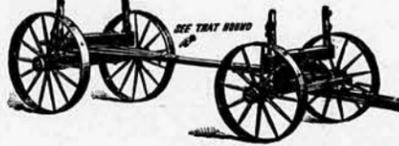
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15c; geese, 4c; hen turkeys, 6c; young toms, 5c; old toms, 5c; pigeons, 75c per doz. Berries—Strawberries, home grown, \$1.25@2.00. Blackberries, Texas, fancy, \$1.75@2.00 per 24-box crate. Gooseberries, home grown, 90c@1.00 per crate. Raspberries, red, Arkansas, \$1.50@1.75 per 24-pint crate; fancy, \$2.00. Vegetables—Cauliflower, 75c@1.00 per doz. Asparagus, 50c per doz. Tomatoes, \$1.00 per 4-basket crate. Cucumbers, 25c@35c per doz. Green peas, \$1.00@1.25 per bu. Wax beans, 50c@60c per peck basket. Lettuce, home grown, 50c per bu. Onions, \$1.25 per bu. Beets, 30c@50c per crate. Potatoes—New, Texas, 75c@90c per bu.; old northern stock, fancy, sacked, Burbanks, 75c@85c; choice to fancy mixed, bulk, 50c@60c; Minnesota and Dakota, bulk, 60c.

A Low Wagon at a Low Price.

The money-making farmer of to-day wants a low built, easily loaded, easily unloaded, light draft, powerful short turn "Handy" farm wagon; a wagon that will save the farmer's own back, save his horses, save his hired labor and save his money.



This wagon is built by the Empire Manufacturing Co., Quincy, Ill. It is only 25 inches high with 4-inch tired wheels, and is sold for the low price of \$19.95. This firm also manufacture metal wheels any size, any width of tire, hubs to fit any sized axle. Write for catalogue.

DIP YOUR SHEEP with Cannon's Sheep Dip (liquid and non-poisonous), easiest to use, cheapest and best made. Cures scab, kills ticks, lice, fleas and maggots. Used by the largest and best breeders. Satisfaction guaranteed. Write to the Cannon Chemical Co., St. Louis, Mo., wholesale agents, for circulars and prices.

Another Improvement in Train Service

on Nickel Plate road, train No. 6, leaving Van Buren street passenger station, Chicago (on the Loop), at 2:55 p. m., daily, for Buffalo and local stations, with Buffalo sleeper. Also New York sleeper via Nickel Plate and Lackawanna roads. Rates always the lowest. The excellent train service to Boston and New York city, with through day coaches and sleeping cars to New York city and through sleeping cars to Boston, and the excellent dining car service, will continue as heretofore.

THE STRAY LIST.

FOR WEEK ENDING JUNE 2, 1898

Nemaha County—F. M. Hartman, Clerk. MARE—Taken up by W. B. Henry, in Red Vermillion tp. (P. O. Corning), May 14, 1898, one brown mare, 2 years old, no marks or brands; valued at \$15. HORSE—By same, one bay horse, 2 years old, white face, white left hind foot, white spots on right side and neck; valued at \$15. Cherokee County—S. W. Swinney, Clerk. MARE AND COLT—Taken up by F. E. Bennett, in Crawford tp., May 9, 1898, one chestnut sorrel mare, 13 years old, 14 hands high, white stripe in forehead and shot all around. Bay colored suckling colt. Valued at \$20. Butler County—S. G. Pottle, Clerk. COW—Taken up by H. H. Welbe, of Whitewater, on April 29, 1898, one old cow, thin in flesh, yellow color with darker head and belly, dehorned, straight bar across hips, no other marks or brands; valued at \$20.

FOR WEEK ENDING JUNE 9, 1898.

Pratt County—John Mawdsley, Clerk. HORSE—Taken up by James Ricks, in Banner tp., April 14, 1898, one iron-gray horse, 5 years old, 15 hands high, weight 1,000 pounds, branded on right side of neck; valued at \$35. MARE—By same, one bay mare, 4 years old, 14 hands high, weight 1,000 pounds, branded on right side of neck; valued at \$25. Montgomery County—D. S. James, Clerk. COW—Taken up by J. H. Bates, in Sycamore tp., May 6, 1898, one red cow, medium size, branded on right hip, underbit on left ear, dehorned, about 4 years old; valued at \$25. Labette County—E. H. Hughes, Clerk. MARE—Taken up by George Benge, in Hackberry tp. (P. O. Bartlett), May 28, 1898, one medium sized brown mare, 8 years old, end of right ear split, collar and saddle marks; valued at \$20. PONY—By same, one bay mare pony, 5 years old; valued at \$10. MULE—By same, one brown mare mule, 3 years old, 14 hands high; valued at \$30. MARE—Taken up by W. B. Sallsbury, in Howard tp. (P. O. Valeda), April 9, 1898, one sorrel mare, 15 hands high, white hind legs half way up to hocks, blaze face, white on nose; valued at \$20. Coffey County—Dan K. Swearingen, Clerk. MARE—Taken up by J. S. Smith, in California tp. (P. O. Strawn), one sorrel mare, 3 years old, 15 hands high, white stripe in face, white on left hind foot, no marks or brands; valued at \$20.

FOR WEEK ENDING JUNE 16, 1898.

Smith County—Jno. A. Crabb, Clerk. MARE—Taken up by J. E. Jeter, in Pawnee tp., May 16, 1898, one bright bay mare, 4 years old, old scar on right hind leg at hock joint; valued at \$25. Pratt County—John Mawdsley, Clerk. HORSE—Taken up by Charles H. Miller, in Paxon tp., June 8, 1898, one gray horse, weight 850 or 900 pounds, harness marks, had leather halter on; valued at \$13.50. Linn County—C. O. Hoag, Clerk. MARE—Taken up by B. G. Iliff, in Mound City tp., May 28, 1898, one light bay mare, about 7 years old, about 14 hands high, weight about 850 pounds, broken to harness, mane roached and tail clipped, no other marks or brands; valued at \$20.

WOOL WOOL WOOL WOOL WOOL WOOL WOOL A. J. CHILD & SON, Wool 209 & 211 Market St., ST. LOUIS, MO. Over 30 years' experience. Highest market price obtained for consignments. Top Prices, Quick Sales and Prompt Remittances. Wool Sacks, Shipping Tags and Market Reports sent free when requested. SHIPMENTS RECEIVE PERSONAL ATTENTION.

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WHITMAN'S BALING PRESSES VICTORIOUS IN EVERY CONTEST. The largest and most complete line of Balers in America. Highest award at World's Fair, Chicago; Paris Exposition, and every other contest. Not the cheapest, but guaranteed THE BEST. See our "New Model Steel Beauty" and "Universal" Presses for this season. Also manufacture large line of strictly first-class Farm Machinery. Send for Catalogues and prices. WHITMAN AGRICULTURAL CO., St. Louis, Mo.

The Wrecked Maine. The American Navy. The Island of Cuba. The Island of Hawaii. A grand collection of 160 views bearing upon the subject which is agitating the minds of two hemispheres. The Kansas Farmer has perfected arrangements by which it is enabled to present to its readers an elegantly bound portfolio of views, consisting of fine reproductions of photographs of the wrecked Maine, the American Navy, Cuba and Hawaii. YOU WILL WANT ONE. Views are shown of the Maine, before the explosion and after, groups of the officers and crew engaged in various duties incidental to life aboard ship, photographs of the leading ships of the United States Navy, scenes in Cuba and Hawaii. Each picture is accompanied by descriptive matter beneath, besides 16 additional pages of text. 48 VIEWS OF THE U. S. NAVY. 112 VIEWS OF CUBA AND HAWAII. 160 VIEWS IN ALL. Handsomely bound in parti-colored silk, red and blue, and stamped in aluminum. The entire series bound in one volume, size of page 10x13 inches. Nothing is more instructive and interesting than such a picture album. The young people find this book especially valuable in entertaining company. Regular price \$2.50. OUR OFFER. Send to this office \$2.00 and we will send the portfolio, express prepaid, and will send the Kansas Farmer for one year. Any one who is now a subscriber can have his subscription advanced one year and receive the portfolio as above on sending \$2.00 to this office.

St. Louis Live Stock.

ST. LOUIS, June 13.—Cattle—Receipts, 2,400; market about steady; native shipping steers, \$4.20@5.15; light steers to dressed beef grades, \$3.90@4.80; stockers and feeders, \$3.25@4.70; cows and heifers, \$2.50@4.80; Texas and Indian steers, \$3.25@4.45; cows and heifers, \$2.65@3.75.

Hogs—Receipts, 5,000; market 5 to 10c lower; yorkers, \$3.70@3.80; packers, \$3.65@3.85; butchers, \$3.85@3.95.

Sheep—Receipts, 4,000; market steady; native, \$3.50@4.70; lambs, \$5.75@6.20; Texas sheep, \$3.80@4.25.

Chicago Live Stock.

CHICAGO, June 13.—Cattle—Receipts, 18,000; market steady, 10c lower; beefs, \$4.00@5.20; cows and heifers, \$2.50@4.35; Texas steers, \$3.65@4.40; stockers and feeders, \$3.85@4.80.

Hogs—Receipts, 35,000; market slow, 10c lower than Saturday's average; light, \$3.65@3.95; mixed, \$3.65@3.95; heavy, \$3.75@4.00; rough, \$3.75@3.85.

Sheep—Receipts, —; market strong to 10c higher; native, \$3.50@5.10; western, \$4.30@5.15; lambs, \$4.25@5.55.

Chicago Grain and Provisions.

Table with columns: June 13, Opened, High'st, Low'st, Closing. Rows include Wheat, Corn, Oats, Pork, Lard, Ribs.

Kansas City Grain.

KANSAS CITY, June 13.—Wheat—Receipts here to-day were 23 cars; a week ago, 99 cars; a year ago, 6 cars. Sales by sample on track: Hard, No. 1, nominally 90c; No. 2 hard, 89 1/4 @90c; No. 3 hard, 88 1/2@87c; No. 4 hard, nominally 85@85c; rejected hard, 77 1/2c. Soft, No. 1 red, nominally 85@86c; No. 2 red, 85c; No. 3 red, 83c; No. 4 red, nominally 80c; rejected red, nominally 75@78c. Spring, No. 2, nominally 85@88c; No. 3 spring, nominally 83@85c; rejected spring, nominally 75@80c.

Corn—Receipts here to-day were 33 cars; a week ago, 110 cars; a year ago, 49 cars. Sales by sample on track: Mixed, No. 2, 30 1/4@31c; No. 3 mixed, 29 1/4@29 1/2c; No. 4 mixed, nominally 25 @29c; no grade, nominally 26c. White, No. 2, 31@31 1/4c; No. 3 white, nominally 29 1/2c; No. 4 white, nominally 28@29c.

Oats—Receipts here to-day were 25 cars; a week ago, 18 cars; a year ago, 9 cars. Sales by sample on track: Mixed, No. 2, 22@23c; No. 3 mixed, 23c; No. 4 mixed, nominally 20@21c. White, No. 2, 24@24 1/4c; No. 3 white, 23@24c; No. 4 white, 21c.

Rye—No. 2, 44c; No. 3, nominally 42c; No. 4, nominally 41c.

Kansas City Produce.

KANSAS CITY, June 13.—Eggs—Strictly fresh, 7 1/2c per doz. Butter—Extra fancy separator, 14 1/4c; firsts, 12c; dairy, 10@12c; store packed, 9 1/2c.

Poultry—Hens, 6c; broilers, 12 1/2c per lb.

We make Steel Windmills, Steel Towers and Feed Grinders and are selling them cheaper than the cheapest. Our productions are standards; are first-class in every respect and are sold on trial. Send us a postal and we will tell you all about them.

CURRIE WINDMILL CO.,
Manhattan, Kas.
AGENTS WANTED.



Buggies, Phaetons, Surreys, Traps, Harness

Buy direct from factory at Wholesale Prices. 30 per cent saved. Guaranteed for two years. Write-to-day for new beautifully Illustrated Catalogue, send 2 cents in stamps. Highest awards given us at World's Fair, Atlanta Exposition, Nashville Centennial Exposition.

Price \$44. **Alliance Carriage Co. 287 E. Court St. Cincinnati, O.** Price \$60.



The trial is what makes the Kitchman Fence famous. With our Duplex Automatic Machine you can make 100 rods and 60 rods per day of the Best Woven Wire Fence on Earth. Horse-high, Ball-strong, Pig-tight.

FOR 18¢ PER ROD

Children fence 1 1/2. Rabbit-proof fence 1 1/2 and a good Hog fence for 1 1/2 per rod. Faint, Colored Spring and Barbed Wire in various sizes at wholesale prices. Catalogue FREE for the asking. Address: **ADVANCE FENCE CO., 18 Old St. Peoria, Ill.**



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1004 Ninth St., Council Bluffs, Iowa.



LIGHTNING HAY PRESS

STEEL

Special prices.

Kansas City Hay Press Co., 403 Mill St. Kansas City, Mo.

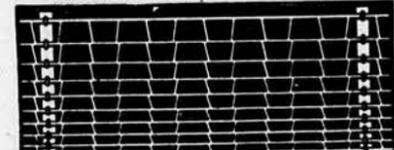


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With a Good Fence Cheaply.

THE ADVANCE WOVEN WIRE FENCE which is sold direct to the farmer, freight paid, we believe to be the best fence made for the money. Our plan of selling saves the farmer the dealer's profit and brings the fence to a price that beats the hand fence machine both for cheapness and quality of fence. A continuous fence; all the wires being interwoven—no loose ends; the wires can't slip. Prices way down. Send for our new circulars and extra special discount to farmers.

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Established 1867. Covered by patents. Machines drill any depth both by steam and horse power. Twenty different styles.

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WINDMILLS.

Eclipse Wood Wheel and Fairbanks' Galvanized Steel FOR PUMPING OR GRINDING.

Towers, Tanks, Water-works and Irrigation Supplies.

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Especially built for Threshing, Pumping, Grinding and general services. Estimates made and complete plants installed.

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Chautauqua Assembly, Winfield, Kas.,

Opens its session June 14th and the exercises continue until June 23d, 1898. Tickets with return limit of June 24th, 1898, will be on sale June 13th to 19th, at the rate of

ONE FARE (\$5.75) FOR ROUND TRIP.

Particulars on application to **W. C. GARVEY,** Agent A., T. & S. F.

THE ONLY "QUICK REPAIR" PUMP

SQUIRTS tell the story

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DAVENPORT, IOWA.



Large inside burr revolves twice as sweep's one. Ordinary length sweep.

Pressure between burrs in grinding is carried on chilled roller bearings.

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Young stock for sale. Your orders solicited.

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DAIN MFG.

Improvement in Pure Water Troughs.

OLD RELIABLE "NOVELTY"

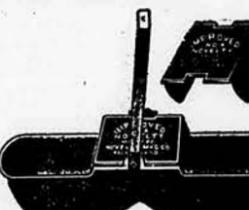
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Galvanized float. Note the Raised Center. Guaranteed Mud Proof or Money Back.

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Freight paid to any point. Catalogue Free.

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The present offering of **Route** per and October pigs.

BEST TRAINS

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FREE CHAIR CARS, LATEST PATTERNS OF SLEEPERS.

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Brass, Aluminum, Grey Iron Castings

Patterns, Models, Machine Work.

TOPEKA FOUNDRY,
TOPEKA, KAS.

\$18.00 and \$22.00

Wind Mills and Towers, Complete, Set Up

THE SHURTLEFF CO.,
MARIETTA, ILL.

THE Blower Wind Mill

For farmers who cannot afford one of the high-priced steel mills.

Pumps, Pipe, Cylinders and Screen.

Send for illustrated circulars and price list before buying.

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Columbia

Bevel-Gear Chainless Bicycles

Price \$125 to all alike.

There has been no guesswork in making them. There will be no guesswork in your buying one.

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Over one-half the canal completed to a depth of sixteen feet.

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Send us ten names and we will deduct 50 cents. Mention this paper.

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\$60.00 "Success" for only \$25.00
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M. & W. and Standard Tires, up-to-date Saddles and Handle Bars.
SHIPPED ON APPROVAL. Write for free illustrated catalog.

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COWS FOR SALE—By all the great boars. Write for what you want. I will price right; going to sell. F. W. Baker, Council Grove, Kas.

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STRAYED—June 8, from the barn of the undersigned, a small bay mare, black mane and tail, newly shod, slight tilt in left ear, picket rope marks between hoof and fetlock on both front legs, small white harness or saddle mark on left side near withers. Suitable reward will be paid for her recovery. J. G. Mohler, Salina, Kas.

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USE THESE—By my system of usage glasses are useless. Treatment at home without cost. Send 25c. A. E. Jones, Topeka, Kas.

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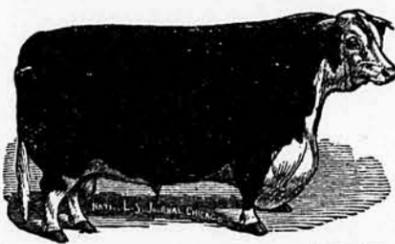
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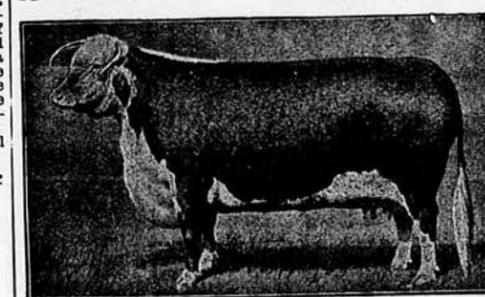


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Slaughtered in Kansas City	965,287	3,084,623	805,268	
Sold to feeders	665,615	341	151,389	
Sold to shippers	216,771	265,592	91,578	
Total Sold in Kansas City 1897	1,847,673	3,348,556	1,048,233	

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