

KANSAS FARMER

ESTABLISHED IN 1863.
VOL. XXXVI. NO. 32.

TOPEKA, KANSAS, THURSDAY, AUGUST 11, 1898.

SIXTEEN TO TWENTY
PAGES—\$1.00 A YEAR.

BREEDERS' DIRECTORY.

Cards will be inserted in the Breeders' Directory as follows: Four line card one year, \$16.00; six lines, \$23.00; ten lines, \$30.00; each additional line \$3.00. A copy of the paper will be sent to the advertiser during the continuance of the card.

HORSES.

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

CATTLE.

ROCK HILL HERD OF SHORT-HORNS—Straight and cross-bred Scotch and Bates; good as the best. A No. 1, all red, 19 months old bull \$150. J. F. True, Newman, Kas.

FAIRVIEW STOCK FARM.—Registered Short-horn cattle. Royal Bates 2d No. 124404 at head of herd. Young stock for sale. E. H. Littlefield, Newkirk, Oklahoma.

ENGLISH RED POLLED CATTLE—PURE-BRED. Young stock for sale. Your orders solicited. Address L. K. Haseltine, Dorchester, Green Co., Mo. Mention this paper when writing.

NEOSHO VALLEY HERD OF SHORT-HORNS.—Imported Lord Lieutenant 120019 at head of herd. Young bulls and heifers for sale. Address D. P. Norton, Council Grove, Kas.

SWINE.

D. TROTT ABILENE, KAS., famous Duroc-Jerseys and Poland-Chinas.

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

KAW VALLEY HERD POLAND-CHINAS—One of the best sons of Chief I Know at the head. Pairs and trios not akin; of all the leading strains. M. F. Tatman, Rossville, Kas.

S. F. GLASS, Marion, Kas., breeder of thoroughbred Jersey cattle, Poland-China and Large English Berkshire hogs, M. B. turkeys, B. P. Rock and S. C. White Leghorn chickens, peacocks, Pekin ducks and Italian bees.

KANSAS HERD OF POLAND-CHINA SWINE.—Has five choice yearling sows bred to my black U. S. boar, and one Tecumseh boar and thirty-five fall pigs by Model Sanders (20492) by Kiever's Model. They have typical ears and show fine markings. Address F. P. Maguire, Haven, Kas.

POULTRY.

EXCELSIOR POULTRY AND FRUIT FARM TOPEKA, : : KANSAS.

We are now well established in our new location, with plenty of free range, and the finest lot of young chicks we ever had. Stock growing finely, and will be ready to offer October 1, 1898. Write your wants and I will quote prices. C. B. TUTTLE, Proprietor.

PURE-BRED POULTRY.

Barrad P. Rocks, White P. Rocks, Partridge Cochins, White Cochins, Light Brahmas, S. L. Wyandottes, White Wyandottes, Black Javas, Brown Leghorns, White Leghorns, Buff Leghorns, Silver Spangled Hamburgs, Pearl Guineas and Pekin Ducks. Two hundred this year's breeders for sale. Also 600 Spring Chickens, ready to ship after the first of July. Prices lower than any other time of the year. Circular free. A. H. DUFF, Larned, Kas.

ROCKS WHITE and BLUE BARRED Empire, Lash and Conger Strains.

Eight years experience in breeding Rocks exclusively. Have the best young stock this year I have ever raised. Perfect, high-scoring, prize-winning birds. Two hundred pullets and cockerels now ready for shipment. A few cockerels from E. B. Thompson eggs for sale. Write for descriptive circular and prices. Printed recipe for making and using Liquid Lice Killer, 25c. Address T. E. LEFTWICH, Larned, Kas.

SWINE.

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, Panola, Ill.

SWINE.

BOURBON COUNTY HERD BERKSHIRES.

J. S. MAGERS, Proprietor, Arcadia, Kas. Correspondence invited. Satisfaction guaranteed.

V. B. HOWEY, TOPEKA, KAS.

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

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.

"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 Banded Plymouth Rock chickens and eggs for sale. Correspondence or inspection invited. Mention FARMER. C. J. HUGGINS, Proprietor, Wamego, Kas.

VERDIGRIS VALLEY HERD PEDI- GREED POLAND-CHINAS.

Two hundred head, four herd boars, 150 spring pigs. An extra lot of September boars and gilts for sale. Prices reasonable. Farmers and Stock Hog Raisers cordially invited to write or visit us.

WAIT & EAST,
Altoona, Wilson Co., Kas.

SIXTEEN TO ONE HERD

REGISTERED POLAND-CHINA SWINE.

Herd boars, Gold Standard Wilkes by Guy Wilkes 2d 1777 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.

PURE-BRED POLAND-CHINAS.

Spring crop of pigs by Wren's Model, What's Wanted Wilkes and Tanner by Hiderstretcher. Dams by Black Corwin, Wren's Medium, Protection Boy, Moss Wilkes Tecumseh, Hadley M. Washington. Get a Corwin Sensation, Darkness 1st, or Moss Wilkes Maid boar before my sale this fall. Some extra fine gilts for sale now. Tanner pigs are marked perfectly and have fine finish. Write me for particulars. J. R. WILLSON, Marion, 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 19992 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.

PLEASANT VALLEY HERD REGISTERED POLAND-CHINA SWINE

King Perfection 4th 18744 S. at head of herd, assisted by Tecumseh Wilkes 12694 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.

M. C. VANSELL, Muscotah, Atchison, County, Kansas, Breeder of Pure-bred Poland-China Swine and Short- horn Cattle of the most desirable strains.

For Ready Sale Thirty Poland-China Bred Sows

One and two years old, bred for fall farrow; very choice; price low if ordered soon; must make room for 170 pigs now on hand. Come and see or write.

SWINE.

D. L. BUTTON, North Topeka, Kas., breeder of Improved Chester Whites.

Stock for sale. Farm 2 miles northwest of Reform School

RIVERDALE HERD of R Chester White swine and Light Brahma poultry. J. T. LAWTON, BURTON, KAS., proprietor. All stock guaran- teed. I can also ship from Topeka, my former place.

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.

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.

BLUE MOUND HERD
BERKSHIRE SWINE.
Herd boars, Victor Hugo 41799 (sire imp.), Barkis 30040 (weight 300 lbs.), Prince Jr. 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. Hiderstretcher 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 Cruickshank bulls as Craven Knight 96923, Thistle-top, Master of the Rolls, Earl of Gloster 74523, Viscount Richmond, Knight Templar 66658, etc. Forty very choice brood sows. Young stock for sale. ANDREW PRINGLE Harveyville, Kas.

POLAND-CHINAS.

Guy Darkness 18292 and Best Nims 19612, 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.

ROSE POLAND-CHINAS CREEK FARM READ THIS SPECIAL OFFER:

Will sell February and March pigs during August for \$16 each, delivered at any railroad station in Kansas or Nebraska. They will weigh 150 pounds. H. WOODFORD, Mgr., Chester, Neb.

Mains' Herd Poland-Chinas

Headed by the two grand sires, One Price Chief 20114, he by Chief Tecumseh 2d 9115, out of Alpha Price, she by One Price 4207; Model Combination 19853, grandson of Kiever's Model, on sire's side, and of Chief Tecumseh 2d on dam's side. I have pigs from other noted boars mated to a selected lot of sows as good as are known to the breed. A very fine lot of fall and spring pigs and quite an extra lot of bred sows of different ages. I will give very reasonable prices on all stock. Satisfaction guaranteed. James Mains, Oskaloosa, Jefferson Co., Kas.

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.

SHEEP.

SEVEN FIVE HEAD OF SHEEP FOR SALE—Pure-bred Cotswold and American Merinos. This includes our tops and show sheep; must be sold by October 1; rams and ewes, all five years old and under. Write at once to Hague & Son, Box 140, Walton, Harvey Co., Kas.

SHROPSHIRE, THE BEST FARM- ERS' SHEEP.

For sale, a few very fine early and large ram lambs from eligible to registry sires and high-grade ewes. Write for description and reasonable prices to L. A. Seely, Lyons, Kas.

SHROPSHIRE RAMS.

A splendid lot of yearling and spring lambs at low prices. Write your wants, or better, come and select. Address, J. C. STONE, JR., Leavenworth, Kansas.

CATTLE.

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, Frisco and Missouri Pacific railroads. J. F. STODDER, Burden, 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.

SUNRISE STOCK FARM.

C. A. STANNARD, Prop., Hope, Kas. Breeder of Hereford Cattle and Large English Berkshire Hogs.

Bulls in service: Kodax of Rockland 40731, 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.

ELDER LAWN HERD SHORT-HORNS.

THE Harris bred bull, GALLANT KNIGHT 124466, a son of Gallahad, out of 8th Linwood Golden Drop, heads herd. Females by the Cruickshank bulls, Imp. Thistle Top 83876, Earl of Gloster 74523, etc. Size, color, constitution and feeding qualities the standard. Address T. K. TOMSON & SONS, DOVER, KANSAS.

HEREFORD CATTLE

Of highest quality, both as to form and ancestry for sale—twenty cows and seven young bulls on hand. J. C. CURRY, Prop., "Greenacres" Farm, Quenemo, Kas.

Agricultural Matters.

KANSAS CROPS OFFICIALLY.

A press bulletin, giving the condition of growing crops in Kansas July 31, together with estimates by its correspondents of the yields of winter and spring wheat, rye, oats, barley and flax, and these applied to the acreages of each in the various counties, as ascertained by township assessors, was issued by the State Board of Agriculture last Friday.

The figures, and particularly those pertaining to yields, represent the best judgment of more than a thousand observant men on the ground in as many communities—growers, threshers and millers—familiar through daily contact with the matters on which they report and each cautioned to "make only safe, conservative estimates." "There is no attempt or pretense," the Secretary says, "that the figures agree with the superior 'estimates' of Mr. X, 'the expert,' Mr. Y, the oracle, who, to learn the exact situation, has 'been over the State' from Alma to Wamego at forty miles an hour, or Mr. Z, who, presumably occupied with other affairs 365 days in the year, kindly 'takes a day off' to tell a wondering world the exact crop yields and conditions in Kansas.

It is believed the results given will closely correspond with those arrived at later, when threshing is completed, and to which the present figures are but preliminary.

WINTER WHEAT.

The crop of winter wheat aggregates 60,570,656 bushels, being with one exception (1892) the largest ever grown in the State. The yield per acre is figured on the entire acreage sown, and is 13.51 bushels. The aggregate acreage sown was 4,481,637, or 35 per cent. greater than in the preceding year, and the product greater by 10,530,282 bushels. Wet weather, extreme heat resulting in rust and falling down when the heads were filling, cut the yield much below what had promised almost a certainty, while the quality of much of the grain that ripened was seriously injured; hence a consensus of the carefully analyzed reports indicates that probably 8 per cent. of that total, or about 5,394,894 bushels, is unmerchantable for flouring purposes; 36.33 per cent., or 22,009,187 bushels, can be rated as "medium," and 54.75 per cent., or 33,166,575 bushels, as "good." Thus, taking no account of that reported as unsuitable for flour, the State appears to have in sight 5,135,388 bushels more of milling winter wheat than was raised in 1897.

Four counties—Lincoln, Mitchell, Osborne and Wyandotte—report an average yield of 20 bushels per acre; Dickinson and Ottawa, 19 bushels; followed next by Elk, Ellsworth, Greenwood, Phillips, Reno and Smith with 18 bushels. Seventy-one counties produced 97 per cent. of the total, or 59,042,747 bushels. These, according to their rank in total product of each, as last year led by Sumner with 4,208,834 bushels, are Barton, 3,364,857; McPherson, 2,617,104; Rice, 2,279,190; Ellsworth, 1,995,714; Sedgwick, 1,961,232; Saline, 1,892,864; Russell, 1,878,352; Reno, 1,810,098; Harper, 1,718,340; Dickinson, 1,703,939; Mitchell, 1,626,680; Ellis, 1,607,203; Lincoln, 1,590,820; Pawnee, 1,548,840; Stafford, 1,521,898; Rush, 1,375,497; Osborne, 1,274,100; Ottawa, 1,243,949; Cowley, 1,164,566; Kingman, 1,110,900; Harvey, 1,036,126; Marion, 988,053; Rooks, 853,202; Pratt, 809,890; Thomas, 694,818; Rawlins, 685,244; Brown, 678,496; Montgomery, 671,680; Smith, 611,298; Ness, 594,032; Doniphan, 562,450; Marshall, 543,380; Cloud, 534,495; Jewell, 500,820; Decatur, 478,335; Clay, 469,455; Labette, 442,698; Sheridan, 422,664; Trego, 389,250; Edwards, 383,228; Logan, 371,345; Phillips, 370,224; Cherokee, 339,020; Graham, 337,125; Norton, 335,814; Barber, 307,160; Washington, 302,280; Ford, 293,550; Leavenworth, 272,459; Neosho, 271,766; Crawford, 267,480; Wichita, 258,072; Butler, 256,676; Chautauqua, 241,358; Lane, 241,092; Atchison, 237,292; Johnson, 232,410; Coffey, 186,214; Nemaha, 185,318; Republic, 181,237; Hodgeman, 179,574; Sherman, 178,548; Wilson, 176,928; Gove, 176,136; Wyandotte, 170,900; Kiowa, 164,256; Geary, 144,508; Elk, 130,428; Scott, 107,830; Lyon, 107,328.

About 33 per cent. is reported as likely to be marketed by October 1, and the acreage that will be sown this fall is slightly larger than last year's sowing.

SPRING WHEAT.

The yield of spring wheat is 1,380,291 bushels, or 11½ bushels per acre on 117,485 acres. This is about 40 per cent. more of this grain than was grown last year on a considerably larger acreage. Sherman is the leading spring wheat

county, with 338,445 bushels, followed by Decatur, Rawlins, Cheyenne, Thomas and Norton in the order named, each with more than 100,000 bushels. The quality is quite invariably reported medium or good.

RYE.

Acres, 153,600; yield, 2,379,841 bushels; yield per acre, 15.6 bushels. Reno county leads with a yield of 157,120 bushels, followed by Rawlins, Rooks, Decatur and Norton, as named.

OATS.

The yield of oats is 18.75 bushels per acre on 1,055,645 acres, or 19,832,731 bushels. The acreage was larger than last year, but the total yield less by 15 per cent. Very little good oats is reported. Sedgwick and Washington are the only counties reporting 1,000,000 bushels or more, with yields of 25 and 28 bushels per acre, respectively.

CORN.

The season throughout has been in most of the State adverse to corn. Weather too cool and too entirely wet interfered with planting, germination and cultivation up to the beginning of July, and since then the opposite conditions have prevailed to such an extent that the poor stand, late planting, rank growth of weeds and too dry, baked condition of the soil could not be overcome. Of course there are local exceptions and favorable situations giving ample promise, but the average condition for the whole State is 57, against 79 May 31. In forty corn counties it is higher, reaching 105 in Chautauqua and 100 in Linn and Rawlins. It is 95 in Woodson, 94 in Cherokee and 80 or above in Coffey, Cowley, Logan, Norton, Pratt and Sheridan. In thirty-nine counties the condition ranges at 70 or above. The worst showing applies largely in some of the very foremost corn-producing counties, where it is, for example, in Clay 28, Cloud 33, Ellsworth 25, Jewell 33, Mitchell 35, Osborne 25, Ottawa 26, Republic 30, Rooks 25, and Smith 43.

The area planted was 7,242,437 acres, or nearly 13 per cent. or 1,051,000 acres less than in 1897.

BARLEY.

Acres, 122,458; average yield per acre, 23.25 bushels; total yield, 2,848,144 bushels, or 65 per cent. more than last year. Ness leads in this crop, with nearly 10,000 acres, and Lane has more than 7,000.

FLAX.

The area in flax was 50,000 acres, or about 30 per cent. greater than last year, and the increase in output is 36 per cent. Total acres, 219,393; total crop, 1,638,415 bushels; yield per acre, 7.46 bushels. Anderson county had the most—19,366 acres. Allen, Bourbon, Cherokee, Coffey, Franklin, Johnson, Linn, Miami and Neosho are the other counties raising upwards of 10,000 acres each.

OTHER CROPS.

The condition of other crops is as follows: Broomcorn, 74; castor beans, 75; clover, 85; timothy, 80; alfalfa, 86; pastures, 90; Irish potatoes, 75; sweet potatoes, 80; millet, 78; Kafir corn, 83; sorghum, 84.

Selection of Seed Corn.

By Geo. L. Clothier, Assistant Botanist, Kansas Experiment Station.

Seed corn should be selected to secure the earliest ripening ears, to maintain a good type of both stalk and ear, and to secure a high percentage of germination. It should be selected when the corn is ripening, about the time of the first frost. The physiognomy of the stalk bearing the ear should be critically studied. The length and width of blades should be noted, the length of internodes of the stalk, and the height of the ear above the ground.

I believe the majority of our corn-growers are well enough acquainted with Kansas climate to expect a drought some time in July or August. An excellent method of "getting a start of the drought" is to plant early varieties of corn. We have often been told that an early variety of corn will not hold out in Kansas. We admit that our long, hot summers tend to lengthen the period of growth of the corn plant. In opposition to this tendency, Professor Shelton, formerly of the Kansas Agricultural College, for many years maintained King Philip corn at its original earliness, and at the same time changed it from a flint to a dent variety. His method was to select for seed only ideal ears that ripened two or three weeks ahead of the rest of the crop. Every corn field will have a few ears that ripen earlier than the average, and it is these that must be used in order to keep our varieties early. The tendency to become late in maturity can also be counteracted by importing seed from northern localities. The imported varieties can be bred upon our better accli-

mated varieties and good results obtained. Nebraska ought to furnish us with good varieties of early corn.

We must finally depend, however, upon Kansas to originate her own varieties by breeding. Each farmer should breed up a variety of corn that suits his own farm and his own purposes of feeding. I believe that, by selecting the earliest silks and protecting them, and artificially pollinating them from the earliest tassels in the field, an early variety of corn may be originated, even here in Kansas. That we need early corn for successful corn-growing of dry seasons, is proven by the fact that Leaming corn, last year, at the college averaged thirty-three bushels per acre, while St. Charles yielded only twenty-two and six-tenths bushels. Late varieties have yielded more than 100 bushels per acre on the college farm of wet seasons. A wet July and August comes so seldom that we can afford to accept a smaller yield in such a season in order that we may be insured a higher yield in the more frequent dry seasons. Every farmer should plan to have a field of early corn, even though it be impossible for him to have his whole crop mature early.

The farmer should also select seed corn that is perfect in germinability. The earliest ripening ears possess higher powers of germination than those ripening later. The importance of selecting good, germinable seed may be seen from the following experiments:

The parallel germination experiments were tried at the college last spring with corn furnished by thirty-three farmers from various parts of our State. The corn was selected as farmers select their own seed. One series of experiments was conducted in the greenhouse, under as nearly perfect conditions as we could obtain; the other was conducted out in the field, where unfavorable conditions could have their full effect. The seed selected for the tests was taken from the middle of the ears and each duplicate test had the same kind of seed, as nearly as we could select. In the greenhouse twenty-one varieties showed a germinability of 100 per cent.; eight showed 87½ per cent.; three, 75 per cent. and one, 62½ per cent. The average germinability of the thirty-three varieties under perfect conditions was 93½ per cent. Out in the field only five varieties showed a germinability of 100 per cent., and twenty-five of the varieties fell below 90 per cent. The lowest variety germinated but 25 per cent., while the average for the thirty-three varieties was only 71 per cent. If a farmer had planted a mixture of equal parts of each of these thirty-three varieties (which would have represented average Kansas seed corn), he could not have hoped for more than 71 per cent. of a stand of corn. If these varieties represent the kind of seed corn planted on the 8,000,000 acres of land reported planted in corn last spring, then 2,400,000 of those acres are now bare. I will venture the assertion that Kansas farmers annually lose the use of two and a half million acres of land, and also lose the labor of cultivating the same, because they fail to have a perfect stand of corn on the ground. A farmer had better pay \$2 or \$3 a bushel for seed corn than to run the risk of getting only 71 per cent. of his corn to germinate.

We should select the corn for seed early and put it up in some airy place to dry. It should not be piled up, but the ears should be scattered, only one layer deep. It would be better if it could be kiln-dried, providing the heat of the kiln is kept down to about 95° Fahrenheit. It should be thoroughly dried before freezing weather comes on and should never be allowed to get damp again until it is planted. There are millions yet to be made in Kansas out of good seed corn.

When you are out of sorts, feel tired, languid and dull you need Hood's Sarsaparilla. It will brace you up and give you strength and energy, vigor and vitality.

Hood's Pills are the best family cathartic and liver tonic. Gentle, reliable, sure.

Among the Ozarks,

The Land of Big Red Apples, is an attractive and interesting book, with views of south Missouri scenery. It pertains to fruit raising in that great fruit belt of America, the southern slope of the Ozarks, and is of interest to fruit growers and to every farmer and homeseeker looking for a farm and a home. Mailed free. Address J. E. Lockwood, Kansas City, Mo.

The electric fans now operated in Santa Fe Route dining cars are desirable and seasonable accessories to an already unsurpassed service.

Money in Squab Raising.

The only squab farm in Michigan is located about three miles south of Grand Haven. Squabs are young doves, or pigeons, and are esteemed great delicacies in epicurean and midnight luncheon circles. There are several large squab farms in the East, and one near Toledo, but the only one in Michigan, so far as known, is at Grand Haven, and is conducted by F. J. Bernreuther. He was for several years floor-walker in a large dry goods store. His health failed, and five years ago he took up squab-raising. It was originally a side issue to his floor-walking, but he now devotes most of his attention to it. His farm comprises about ten acres of land, but only a small portion of this is given to the squab industry, the rest being planted to wheat and corn, which form the staple diet for the old doves.

He has a big cage of woven wire. It is 80x120 feet, and twenty feet high, and the doves are kept confined by the wire netting on the sides and above. On the north side of the cage is a long, low building, in which the doves keep house. The roof has a southern exposure and a wind-break, and here the doves sun themselves. The building is divided by partitions into rooms about ten feet square. These rooms are banked up on three sides, tier above tier, with small boxes, and these boxes are the nests, where the eggs are laid and the young are hatched and grow to be squabs. The partitions and boxes extend upward to the eaves of the building, and above the space is open from end to end, allowing free passageway for the doves and a roosting place for those not busy with domestic duties.

After the two pretty white eggs are laid, the male takes his regular trick at sitting on them during the twenty-one days of incubation, and when the young are hatched he does his full share toward feeding them. Four weeks after the young birds are hatched they become marketable as squabs. The birds are in full feather, but not yet able to fly. A fast of twenty-four hours is the prelude to the flight into the dove heaven. This fast is imposed not to make them meek in spirit, but to clear their crops of food. Then a sharp knife point opens a vein in the throat, and as the life blood oozes out the bird's brief career closes with a flutter.

While the flesh is still warm the feathers are plucked out, the crop is washed out, and the denuded body is thrown into a tub of water to cool. The next day it is packed in ice for shipment. The squabs, dressed for market, weigh about half a pound, and the great market for them is New York. This city consumes very few of them. There is only a small demand for them in Detroit and Chicago, big and metropolitan as it is, is a poor market. Almost the entire product of Bernreuther goes to New York, and the shipments average three or four dozens a week the year round. The squabs command from \$1.50 to \$3.50 a dozen, and there is money in the business.

The best breed of doves for squab purposes is the homing pigeon. This is not due to any particular delicacy of the flesh, but to the fact that homers are the best breeders, are diligent in properly caring for the eggs during the incubating period, and keep their young well fed. But the squab farmer does not run much to fancy stock. Just plain, ordinary doves are good enough. They bring out six to ten broods a year, each of two doves, and often eggs are in the nest for hatching before the preceding brood has developed to the squab age. The doves usually rest two months in the year, but as there is no recognized season for resting, the market can be supplied the year around.—Chicago Inter Ocean.

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.

Electric fans to keep you cool are new and timely features of Santa Fe Route dining cars.

Cool and comfortable dining cars on Santa Fe Route are obtained by use of electric fans.

The Stock Interest.

THOROUGH-BRED STOCK SALES.

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

AUGUST 16—H. W. Cheney, Clifton George, E. E. Axline and H. C. Sydnor, Poland-Chinas, Fough's sale barn, Kansas City.

AUGUST 24—Henry Comstock & Sons, Poland-Chinas, Cheney, Kas.

SEPTEMBER 3—Hornaday, Young and Turley, Poland-Chinas, Fort Scott, Kas.

SEPTEMBER 8-14—W. H. Wren, Poland-Chinas, Marion, Kas.

SORE MOUTHS AND SORE NOSES OF YOUNG PIGS.

In an address to the Iowa Swine Breeders, Dr. W. B. Niles, of Ames, Iowa, spoke of several diseases of the pig. We reproduce here what he said about sore mouths and sore noses, together with some of the discussion by swine breeders who were present:

ULCERATIVE OR CANKEROUS SORE MOUTH.

This has prevailed to a greater or less extent for a number of years; was reported in many sections last season, and is causing considerable loss this year. This affection is usually seen in the very young, but occasionally older animals contract the disease. It occurs as an enzootic on many farms, almost all the pigs on the premises becoming affected. At other times, especially when proper precautions are observed, it is confined to two or three litters. Unless carefully treated at the outset a large per cent. of the patients usually die after lingering for several days. An examination of the affected herds and of a number of pigs that have been sent me for examination reveals the fact that while the symptoms vary somewhat in different herds in the main they are the same. The trouble is characterized by the appearance of ulcers on the inside and outside of the lips. Both the upper and lower lip are usually involved. The most frequent seat of the ulcer is the inside lip near the line of union with the jaw and in front of where the two lips unite. In one case examined the whole space between the gums and the lip and from one side of the mouth to the other was occupied by the gangrenous ulcer. Usually, however, this space will show three or four distinct ulcers on each jaw. Occasionally they appear on the outside of the lips, and will then be found about the nose or the extremity of the lower lip. These ulcers appear as circular, light-colored spots, at certain stages of the disease considerably raised above the surrounding mucous membrane. The ulceration does not alone involve the superficial tissues, but extends deeply into the lip, causing marked thickening of the parts.

As the disease advances the inflamed areas (ulcers) enlarge and the amount of dead (gangrenous) tissue increases until, in some cases, pieces as large as beans may readily be removed by scraping the ulcer. In appearance these spots resemble, except in color, those found in the intestines in hog cholera, and they enlarge in a similar way. Both begin as small points on the surface and gradually extend over a larger area and more deeply into the parts involved. When located on the outside lip the appearance is the same, except that it does not become so much raised above the surrounding surface. When located within the mouth the teeth may become involved, but in all cases I have examined the teeth were not at first affected. As the result of the soreness and thickening of the lip, the pig has great difficulty in suckling, and may be unable eventually to suck at all, this interference with the taking of nourishment no doubt causing a fatal termination of the trouble.

Large portions of the lip sometimes slough or rot away. In addition to these symptoms the eyes are sometimes involved. They become inflamed, the lids stick together and the eyes may fill with matter. The nasal passages also occasionally become inflamed and ulcerate the same as the lips.

The most important feature of this trouble to the swine raiser is the necessary prevention and treatment. The theory that it is caused by the teeth is surely not correct. That it is due to a diseased condition of the sow I do not believe will prove true. It seems to me that the location and character of the ulcers, as well as the enzootic nature of the trouble, points to infection as the cause. I believe that some infectious agent, germ or fungus enters the mouth of the pig from the sow's udder or some other source. The sow may obtain the germ from the soil, manure, or other litter with which she may come in contact. In a majority of cases the disease-producing agent probably enters the mouth of the pig direct from the nest soil or other bed on which the young pigs may lie. While filthy yards are

most liable to contain disease-producing agents it is not unreasonable to suppose that reasonably clean quarters may contain at some time disease-producing germs. The udder of the sow is more liable than that of any other animal to come in contact with filth, and may consequently easily become contaminated.

A foreign authority upon veterinary matters has described an enzootic sore mouth in lambs due to bacteria, and I see no reason why pigs may not be similarly affected. Acting upon the theory that the disease is caused by some infectious agent which gets into the mouth, preventive treatment should consist of paying the strictest attention to cleanliness about pens and yards, the early separation of sows with diseased pigs from the rest, and, when the disease appears, washing the udder with some good antiseptic solution. For this purpose a saturated solution of boracic acid in water may be used. The diseased pigs, if successfully treated, must be taken in hand early. As soon as the ulcers appear, by means of a small swab touch them with a solution of tincture of iron, tincture of iodine, or a 5 per cent. solution of silver nitrate. In addition, the mouth should be washed out with the boracic acid solution. This treatment, if carried out early, will save many cases. More depends on a thorough using of the remedy than on the medicine selected. The ulcers and abraded spots must be touched with something strong enough to destroy the infectious agent and stimulate the healing process. Many preparations will do this. After the disease makes its appearance in a herd it is a good precaution to wash udders of all sows before farrowing and also to watch the pigs very carefully so that the first symptoms can be detected and treatment begun early. The thorough cleaning and disinfection of quarters where diseased litters have been kept should not be overlooked.

Recent observations have strengthened my belief in the course advocated above and I am firmly of the opinion that if we would always provide the sow and her pigs with as clean quarters as is usually given the mare and her colt, many of the serious affections of young pigs would become of rare occurrence.

SNUFFLES.

Another disease of young pigs sometimes observed, but not of as frequent occurrence as the one just discussed, and by some called the snuffling disease or the snuffles, is a disease that is not very well understood. The nose and nasal passages are the parts involved. The pig has difficulty in breathing—acts as though the nose was stopped up—there is more or less of a catarrhal discharge and eventually much deformity of the nose. It turns to one side or turns up. In very young pigs the disease is fatal in a large per cent. of cases. In older ones it runs more of a lingering course and the pig may recover.

Treatment is not satisfactory and it is considered advisable to destroy all affected pigs. Prevention is the remedy. I think this trouble, like the preceding, is infectious and that clean, dry quarters on high and dry ground will insure an immunity against disease.

DISCUSSION.

Mr. Meissner—Have you noticed that disease in a litter of pigs that did not fight? In other words, before the disease breaks out don't you always notice that the little pigs fight?

Dr. Niles—No, sir; I have not noticed that. I think it often begins before the pigs are old enough to fight, sometimes when they are two or three days old. In the majority of cases, of course, they are two or three weeks old. I am satisfied it is not necessary to injure the mucous membrane first, but if they had injured the membrane first, then this filth or disease will be more likely to cause the ulcer than if not injured.

Mr. Meissner: My idea was that in a litter that did not fight, the outbreak would be very seldom. They will sometimes fight when they are two or three hours old.

Dr. Niles—I do not believe, however, it starts from an injury in many cases.

Mr. Lytle—Have you noticed this outbreak in the fall of the year?

Mr. Jones—I believe it will make pigs fight that have this disease.

Dr. Niles—It is a disease that ought to be prevented, rather than cured. Quite satisfactory results attend treatment if you begin in early stages. If you treat the individual pig before these ulcers become very large you can treat it satisfactorily, but if a man has fifty or sixty of these pigs with sore mouths it is quite a task to apply individual treatment with every one. The treatment ought to consist of first washing out the mouth with a mild cleanser. In Germany they use 2 per cent. carbolic acid. I find good results from boracic acid. Then

each individual ulcer ought to be touched with some stronger substance, a 50 per cent. solution of carbolic acid, or a lunar caustic, something strong enough to destroy the infectious agent in the ulcer. You will find them heal quite readily sometimes after treating them that way. But it is easier to prevent the trouble than to give treatment. I believe preventive treatment is best had by placing the sow in clean quarters before farrowing, and then keeping her and the pigs as clean as possible. I saw a sow in my own yard this year where every teat had ulcerated, which could hardly allow the pigs to suck; the whole end of the teat was sore. That resulted from the sow walking through the yard where there was filth which got on the udder. Our worthy President began talking about germs, and you will pardon me if I follow up what he says.

Mr. Swallow—Don't you think where one pig is affected with that and runs around and sucks the sow and touches the other pigs that it inoculates them?

Dr. Niles—I think so. I believe I recommended last year that the sow and pigs be put by themselves. And it is not sufficient to treat the pigs simply, but the udder of the sow ought to be washed with the same solution that I would apply to the pig's mouth. While I believe local conditions, that is bad order and so on, have much to do with the cause, I believe there is an infectious agent present. One herd which may be very dirty may not have a case of this sore mouth, and in one herd where there is not so much filth the germ may be present and cause this same disease. It is not unreasonable to suppose that comparatively clean herds may contain the infectious agent. As our knowledge concerning the diseases of animals advances we will find that the number of these organisms in soil is greater than we suppose. Then I wish to speak of the nasal passage disease. That is not as frequent as sore mouth. I refer to what some call snuffles in young pigs. The nasal passages stop up and the pigs seem to suffer during respiration. Frequently you will find the nose turned to one side or turned up. I believe that to be an infectious disease. That has been studied in foreign countries and some have thought it to be due to an animal parasite. We do not know very much concerning the cause of it, but I believe it likely to be due to infection, and if we would keep the premises clean we would get rid of it to a great extent.

Mr. Prine—Would you recommend treatment in the feed in this scrofulous sore mouth?

Mr. Howard—Is that the same as canker sore mouth?

Dr. Niles—Yes, sir. I think most of this is when they are suckling. I do not think it is so important to treat the mother or the feed, but I think the best way is to wash out the mouth thoroughly and allow them to take some nourishment.

Mr. Prine—Isn't this caused partly by indigestion?

Dr. Niles—I do not think so. I believe it is entirely local and due to the cause I have referred to. I do not believe the pig himself is the cause at all—he contracts it from the outside.

Mr. Jeffrey—Is the nose affection contagious?

Dr. Niles—The diseased pig in suckling the sow I believe can contaminate other pigs, but I think we should look to the surroundings for the causes, as in sore throat.

\$100 Reward \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is catarrh. Hall's Catarrh Cure is the only positive cure now known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer \$100 for any case that it fails to cure. Send for list of testimonials. Address F. J. CHENEY & CO., Toledo, O.

Sold by druggists, 75 cents.

Do You Intend Moving?

Why not investigate southwest Missouri, southern Kansas, northwest 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.

Faith in Hood's

The Great Cures by Hood's Sarsaparilla Are Indeed Marvelous.

"My husband suffered with stomach trouble so bad at times he could not work. He has taken Hood's Sarsaparilla and it is helping him wonderfully. He also had a scrofulous humor but Hood's Sarsaparilla cured this and he has had no trouble with it since. My little boy, too, has been taking Hood's Sarsaparilla and it has given him a good appetite. We have great faith in Hood's Sarsaparilla." MRS. J. H. EDWARDS, 50 Edinburg St., Rochester, New York. Be sure to get Hood's because

Hood's Sarsaparilla

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

Hood's Pills are the best after-dinner pills, aid digestion. 25c.

Kansas Fairs in 1898.

Following is a list of fairs to be held in Kansas in 1898, their dates, locations and Secretaries, as reported to the State Board of Agriculture and compiled by Secretary F. D. Coburn:

Allen County Agricultural Society—C. H. Wheaton, Secretary, Iola; September 6-9.

Anderson County Fair Association—C. H. Rice, Secretary, Garnett; August 30-September 2.

Brown County Fair Association—John H. Meyer, Secretary, Hiawatha; September 6-9.

Clay County Fair Association—E. E. Hoopes, Secretary, Clay Center; September 14-16.

Coffey County Fair Association—J. E. Woodford, Secretary, Burlington; September 13-16.

Kaw Valley Fair Association—W. R. Stubbs, Secretary, Lawrence.

Finney County Agricultural Society—D. A. Mims, Secretary, Garden City; September 13-16.

Franklin County Agricultural Society—Chas. H. Ridgway, Secretary, Ottawa; September 20-25.

Greeley County Fair Association—I. B. Newman, Secretary, Tribune; October 12-13.

Jackson County Agricultural and Fair Association—S. B. McGrew, Secretary; Holton, August 29-September 2.

Jefferson County Agricultural and Mechanical Association—Edwin Snyder, Secretary, Oskaloosa; September 6-9.

Johnson County Co-operative Fair Association—J. M. Warren, Secretary, Edgerton; September 13-16.

Marion County Agricultural Society—F. H. Prescott, Secretary, Peabody; September 6-9.

Frankfort Fair Association—C. W. Brandenburg, Secretary, Frankfort; September 27-30.

Miami County Agricultural and Mechanical Fair Association—W. J. Carpenter, Secretary, Paola; September 27-30.

Montgomery County Agricultural Society—D. W. Kingsley, Secretary, Independence; August 30-September 2.

Southeastern Kansas District Fair Association—D. W. Kingsley, Secretary, Independence; August 9-12. (Fair to be held at Parsons.)

Morris County Exposition Company—E. J. Dill, Secretary, Council Grove; September 27-30.

Neosho County Fair Association—H. Lodge, Secretary, Erie; September 6-9.

Chanute Agricultural Fair, Park and Driving Association—Aug. Bares, Secretary, Chanute; August 16-19.

Ness County Fair Association—N. H. Stidger, Secretary, Ness City; September 1-3.

Osage County Fair Association—W. B. Davis, Secretary, Burlingame; September 6-9.

Riley County Agricultural Society—Jerome Walbridge, Secretary, Riley; September 6-9.

Rooks County Fair Association—David B. Smyth, Secretary, Stockton; September 13-16.

Wichita State Fair Association—H. G. Toler, Secretary, Wichita; September 19-24.

Fredonia Agricultural Association—J. T. Cooper, Secretary, Fredonia; August 23-26.

Osborne County Fair Association—F. P. Wells, Secretary, Osborne; September 20-23.

Saline County Agricultural, Horticultural and Mechanical Association—H. B. Wallace, Secretary, Salina; October 6-7.

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.

The Continental Limited

Is the name of the new fast train just put on the Wabash, running through to New York and Boston. The time is the fastest ever made by a high standard, wide vestibuled limited train.

Sleeping car accommodations can be secured through to New York and Boston at the Wabash ticket office, northwest corner Ninth and Delaware street, or wire to HENRY N. GARLAND, Western Passenger Agent, Kansas City, Mo.

Electric fans are cooling. You get them and other seasonable articles in Santa Fe Route dining cars.

WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending August 8, 1898; prepared by T. B. Jennings, Section Director:

GENERAL CONDITIONS.

Cooler weather with a much better distribution of rain were the beneficial conditions this week, yet the rains were light in Osborne and eastward, through Atchison, to the Missouri river, also in Lane and eastward into McPherson. The rains were heavy in the southwestern counties, and in Reno, Harvey, Sedgwick, Butler and Cowley, thence eastward to the Missouri line; they were also heavy in the northwestern counties, and in Dickinson, and the northern parts of Washington and Marshall.

RESULTS.

EASTERN DIVISION.

Corn in general has been much benefited by the weather conditions this week, and the early corn is now practically made, though unfavorable weather might lighten it in weight; the late corn is growing well and has been much improved. Yet in the northern part of Leavenworth and Jackson, the southern part of Brown, Nemaha and Marshall, and in Atchison, Pottawatomie and Riley the corn was injured to some extent by droughty conditions. Haying continues in most of the counties but is about finished in Woodson. Threshing continues, wheat yielding better, but flax has not come up to expectations.

Allen county.—A fine week for crops; threshing progressing well; all unthreshed grain well in stack. Anderson.—Good showers followed by cool weather have greatly improved conditions, but not enough rain for best results to corn crop; ground becoming too hard to plow; haying and threshing continue; grapes rotting on vines; peaches good crop. Atchison.—Corn growing well, but needs more rain, some corn injured by the dry weather; grain all stacked; pastures getting short; poor prospect for clover seed; early potatoes a poor crop; grapes rotting on vines. Bourbon.—Rains have put corn in fine condition, though the crop was shortened by the dry weather; hay fine. Brown.—Corn materially injured by dry weather, late corn suffering more than the early; threshing in progress, wheat fair yield; oats light; but little plowing done for wheat.

being put up; outlook for tomatoes more encouraging. Pottawatomie.—A cool week; rain much needed for corn and all crops, and the week closes with fair prospects of rain. Riley.—Temperature 4 degrees below normal and rainfall .29 below; corn has been hurt some but the cool weather prevented more serious injury; Saturday's rain very beneficial. Shawnee.—Corn much revived by the showers of the 2d and put in fine condition by the rain of the 6th; plowing for wheat; pastures good and stock doing well; late potatoes and apples benefited; haying progressing finely. Wilson.—Good rains first of week, benefiting everything; a fair crop of corn is assured; flax has not made as good a yield as expected. Woodson.—Corn doing well, early-planted will make a good crop, late planted in silk and doing finely; bugs are bad in many fields; haying about finished; threshing wheat, yield and quality fair. Wyandotte.—A full crop of early-planted corn assured, late corn growing finely; grapes rotting badly in many places; apples and peaches a failure; pastures good.

MIDDLE DIVISION.

Corn has materially improved in the southern counties, but in the central and northern part it has been much injured; early corn in the south is about made. Grasshoppers are damaging corn, gardens and alfalfa in some of the western counties. McPherson and Ottawa counties report some corn being cut to save the fodder. Haying and threshing still in progress; Mitchell reports wheat a good yield and fine berry. Barber.—A growing week; corn, Kaffir corn and pastures greatly benefited; cattle on range doing finely. Barton.—Corn drying very fast; not much feed in pastures; plowing waiting for rain. Cloud.—Good local showers; corn much damaged; fine progress made in plowing. Cowley.—Early corn crop now assured; plowing well under way and ground in fine condition. Dickinson.—Rain came too late to benefit corn; Kaffir and sorghum will be benefited. Edwards.—Stacking stopped by rain; haying in progress and a good crop being put up; grasshoppers destroying gardens and second crop of alfalfa in places; local showers will fill late corn in localities. Ellis.—Grasshoppers doing much damage to corn and vegetables; considerable hay being put up; plowing in progress.

alfalfa, sorghum, millet and all other forage crops; Kaffir and kindred grain crops excellent; range grass fine; some are cutting prairie hay. Ford.—Early corn crop about made, good crop; late corn looks very well; cattle in fine condition. Grant.—A good forage crop practically assured; hay best for several years. Gray.—Good rains first and last of week; very warm week with little wind; wheat far below expectations in quantity and quality; forage crops never better; grasshoppers very numerous on alfalfa fields. Hamilton.—A fine week for vegetation, and the corn is entirely restored and promises well; threshing is progressing and the yield is encouraging. Kearny.—Melons for seed and late crop of alfalfa as well as forage crops will be greatly benefited by the rains. Ness.—Dry and windy; corn, with a few exceptions, dried up and being cut for feed; fall plowing begun. Rawlins.—Two good rains; harvest over, threshing delayed by rain; corn unusually fine, yet grasshoppers will get a part of it; plowing begun. Sherman.—A good growing week, with heavy local showers, which nearly assures early corn; forage crops doing well; harvest about finished; threshing begun, yield better in south part than in north part of county. Thomas.—Harvest over, threshing begun, yield not quite as good as expected but quality is good; grasshoppers working on corn. Trego.—Forage crops revived somewhat by rain of 1st; much wind; no plowing to speak of; haying wild hay; threshing in full progress.

How to Keep Water Cool.

The man who expects to refrigerate the world with liquid air has taken advantage of a fact which the civilized world forgets, or does not know, namely, the fact that evaporation is refrigeration. Huge populations of the earth have lived on instinctive knowledge of that plain scientific truth for ages. The North American Indian, the East Indian, and all aborigines of countries that are at times excessively hot, know how to chill water without recourse to ice, and the same process that does that filters it without a filter.

When the water that all who lack the advantages of progress in sanitation drink comes often in the hottest weather from ponds and streams that lie in the sun all day, it is, if not absolutely hot, at least tepid. It is also apt to be unclean. Your aborigine—or camper-out, if he chanced to be among primitive settlements—fills a jar with the dirty, warm stuff. Around and over the jar he wraps a blanket, and then he sets the blanketed jar in the sun, having first soaked the blanket. The water may evaporate so fast as to necessitate wetting the blanket twice or more; but in time the impurities have settled at the bottom of the jar and the water is as cold as ice.

Railway travelers in hot countries hang porous jugs, with wet cloths around them, out of the windows of the trains in the sun, on the same principle. As the natives of most of the tropical countries eat little or no meat there is not the same difficulty in keeping supplies that we carnivorous eaters experience. But when they do have more meat than they can eat at the moment they partly cook the rest. The favorite way is to jerk or sun-cure it, by thoroughly drying. But most native populations are so poor they could not buy a supply of anything, and as they could not keep it if they did, they are to be envied for their humble condition.

One would suppose that the absence of means of refrigeration would teach cleanliness in such communities. When surplus meats decay it would seem a natural instinct to remove such instantly; but with indifference to perfect cooling of beverages and food comes insensitiveness to smells and that which causes smells. Besides that, natives—and by "natives" one means, of course, aborigines in a natural state—really like staleness and a condition of things known as "high" or "gamy."

Not in game, for they never touch it, but in butter and other articles of food which to a European palate should be otherwise. In India "ghee" is a favorite delicacy. Now ghee is a sloppy butter made from buffalo's milk, and is invariably rancid. All the little native cakes are fried in this rank concoction; and, judging from the odors that float in an oriental atmosphere, nearly everything else is permeated with it. But if Europeans do not like this, why do they go where "ghee" is?

If the richer class in an uniced community decides to entertain its alien friends with champagne, that article is drunk lukewarm. This may bring out the fruity flavor, but it is a nasty drink. One well remembers an afternoon call on a Chinaman at Singapore—an influential gentleman whose wife showed great store of jewels, drawer after drawer of them—and the refection on that occasion consisted of lukewarm champagne, in tea cups, tea at the same degree of insipidity, and very soiled sweetmeats, which looked parched as well as dirty.

To us it is a deprivation amounting to



Snow Balling.

About one young woman in ten nowadays would dare to run out bare headed and bare handed and frolic and snow ball in midwinter. They have to be muffled up like hot-house flowers before they dare venture out in severe weather, and even then would shudder at the thought of rollicking in the snow as their grandmothers did.

The trouble lies in the fact that too few women enjoy perfect health and strength of the special womanly organism. A woman who is not well and strong locally cannot enjoy good general health. Dr. Pierce's Favorite Prescription cures all weakness and disease of the delicate and important organs concerned in wifehood and motherhood. It is the most perfect and scientific remedy ever devised for the peculiar ailments of women. It restores womanly power, strength and virility. It tones and builds up the nerves which have been shattered by suffering and disease. It corrects all irregularities and derangements and stops exhausting drains. It restores weak, nervous invalids to perfect health. It is intended for this class of disorders and is good for no other. It is the discovery of Dr. R. V. Pierce, for thirty years chief consulting physician to the Invalids' Hotel and Surgical Institute, at Buffalo, N. Y. No other known medicine can take its place.

"I have been troubled with female weakness that my physician called catarrh of the womb," writes Miss Tean Conner, of Catfish, Clarion Co., Pa. "I doctored for it and did not get better. At last I commenced taking Dr. Pierce's Favorite Prescription. I got better right along and when I had taken four bottles was cured. I recommended the 'Favorite Prescription' to a friend of mine. She has been using it and thinks it is wonderful."

Constipation is a little illness that if neglected builds a big one. Dr. Pierce's Pleasant Pellets cure constipation. One little "Pellet" is a gentle laxative and two a mild cathartic. They never gripe.

distress to go without ice for one meal's length. A house left twenty-four hours in an iceless condition would almost disintegrate, for here there are no porous jars, and, worse than that, every one is ignorant of the first processes of refrigeration without ice. It would be worth while to learn a few expedients for emergencies. One of these is to keep clean coarse blankets, for they will not only make a small stock of ice last twice the time, but are useful in chilling water and also in preserving stores of all kinds. In a large porous jar wrapped with wet blankets a degree of coldness is attained that is equal to an ice chest for keeping milk and other perishables. So it is necessary also to have a jar.—Chicago Times-Herald.

Publishers' Paragraphs.

We desire to call attention to the advertisement of Lombard University, of Galesburg, Ill. This college is located in a pleasant portion of the State of Illinois, and students contemplating entering some institution outside the State of Kansas could not find one better than this at Galesburg.

Attention is called to the Old-fashioned Fair, at St. Joseph, Mo., which is to be held August 22 to 27, inclusive. Kansas Farmer readers are advised to write to Palmer L. Clark, Secretary, for the proper blanks for entering any fine stock, grain or household articles that may be desired to place on exhibition. The indications are that this will be one of the largest fairs of the Missouri valley and one that will be worth while attending.

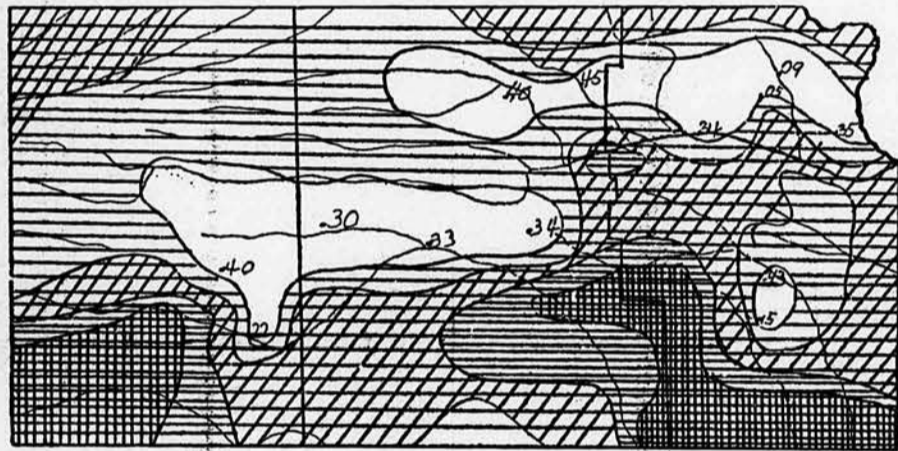
Grand Encampment, Knights of Pythias and Supreme Lodge Session, Indianapolis, Ind., August 22-29 and August 30 to September 10, 1898.

Round trip tickets on sale at Santa Fe Route ticket offices August 19, 20 and 21 for \$16.05, limited to August 30, with provision for extension to September 10. Depot 'phone 682; North Topeka 'phone 364.

Excursion to Boston.

The Nickel Plate road will sell excursion tickets from Chicago to Boston and return for trains September 16, 17 and 18, inclusive, at rate of \$19 for the round trip. Tickets will be valid returning until September 30, inclusive. On account of heavy travel at this particular time, those desiring sleeping car accommodations should apply early to J. Y. Calahan, General Agent, 111 Adams St., Chicago. 58

\$16.05 to Indianapolis and return via Santa Fe Route. Tickets on sale August 19, 20 and 21.



ACTUAL RAINFALL FOR WEEK ENDING AUGUST 6, 1898.

Chase.—Corn earing nicely, and Kaffir corn heading; wheat averaging well; plowing for wheat in progress; stock doing well. Chautauqua.—The rain has insured the corn, a very large crop; threshing, haying and plowing in progress. Coffey.—Corn and forage growing nicely; flax is nearly all in stack, some being threshed, yield fair; putting up prairie hay, good quality and quantity. Crawford.—Corn and pastures in fine condition; prairie hay unusually fine; plowing for wheat far advanced, ground in fine condition. Doniphan.—Corn needing rain; threshing in full progress, wheat turning out poorly, oats fair; fruit poor. Elk.—Heavy rain first of week; hail and wind damaged corn in places. Franklin.—Weather very favorable for growing corn, but delaying threshing. Greenwood.—Early corn improved in quality but not in quantity by recent rains, late corn helped greatly. Jackson.—Dry week in north part, fair to good rains in central and south parts; corn much improved in south and central portions, the cool nights preventing injury to it in the north part. Jefferson.—Haying well along; good rains last of week helped the late corn and insured the early. Johnson.—A cool week; stacking and threshing in progress, wheat in central part yielding better than in southwestern and western part; ground in fine condition for plowing; apples scarce and inferior. Labette.—Corn doing finely; bad week for threshing; ground fine for plowing. Leavenworth.—Fall plowing has been begun; threshing progressing; late potatoes fair; corn, good to entire failure; prairie hay good, mostly gathered; cattle looking fairly well. Lyon.—Corn in fine condition and a heavy crop; hay crop heavy; pastures excellent except in some places in the north part. Marshall.—Favorable to growing crops; the rain has revived and improved the corn; ground in good condition for plowing. Montgomery.—A fine week for corn, millet, fruit and plowing; pastures in good condition; stock in excellent condition; chinch bugs still plentiful in corn fields and millet. Morris.—Light showers on the 2d and cool nights since have helped to keep corn in fair condition; week ends with the best rain in six weeks. Neosho.—Corn doing finely; fall plowing in progress. Osage.—These rains are doing much to make the corn crop more certain; pastures taking fresh start; a large crop of hay is

Harvey.—Corn being greatly benefited, and threshing stopped by the rain. McPherson.—Corn being injured by the dry weather, the early-planted and kept clean will make half a crop, late corn a total failure, much of it being cut for fodder; too dry for plowing. Mitchell.—Corn and all other growing crops seriously injured by drought; wheat a good yield and fine berry; apple crop very light; peaches drying up on the trees; some plowing, but too dry; prairie hay and alfalfa good, second crop alfalfa very short; potatoes good in yield and quality. Ottawa.—Dry, with warm winds; corn is being cut for fodder; cane for fodder drying fast; Kaffir corn at a standstill. Phillips.—Hot, dry week; corn suffered badly; wheat disappointing; oats light; alfalfa drying up; everything needing rain. Reno.—Rains have improved corn so much that much of it will make a moderate crop; threshing still in progress, with continued reports of good yields and quality of wheat; plowing begun with ground in fair condition, though not wet deep enough for best work; grape crop good. Rush.—Hot, dry and windy; forage crop will be short; too dry for plowing; threshing progressing, yield disappointing. Russell.—Cooler week, but corn not improved. Saline.—Moderate heat by day, cool nights, light showers, copious dews, very helpful to corn and fodder crops; heavier rains needed for plowing. Smith.—But little rain the past week; no hot winds; corn still looking well, considering the dry weather; rain soon will make considerable corn. Stafford.—Good haying weather; local showers greatly benefited growing corn. Washington.—Drought broken in places by local showers; some corn cannot make anything; some late corn may make fair crop with favorable weather.

WESTERN DIVISION.

Corn and forage crops are in fine condition in the southern and northern counties, having been much benefited by the weather this week, but in the east-central counties corn is in a very precarious state, Ness reporting most of it dried up and being cut for fodder. Harvest is over and threshing has begun, the yield usually not being as large as anticipated but the quality, generally, is good. Prairie haying and fall plowing are in progress. Clark.—Corn and Kaffir corn growing nicely. Decatur.—Good week, rains came before corn was damaged; pastures and grass fine; grasshoppers doing some damage. Finney.—Another growing week for al-

Gossip About Stock.

Wilkie Blair, of Beulah, Kas., will hold a public sale of Red Polled cattle and Poland-China hogs on September 28, 1898.

J. R. Willson, of Marion, Kas., is the happy owner of some very fine Poland-China pigs of Tanner 19212, Wren's Model and What's Wanted strains. But he is willing to sell some of them at private sale and will offer a part at public sale later in the season. His famous Tanner is greatly admired by all who inspect him. Notice his advertisement on page 1.

On Thursday, August 25, 1898, Geo. W. Null, of Odessa, Mo., will sell eighty-two head of Poland-China swine, unsurpassed for breeding and individual qualities, of the leading strains, including the sensational litter of Anderson's Model, the \$1,575 sow and dam of the \$3,055 litter. Her litter in this offering consists of eight pigs by Chief Tecumseh 2d. Send for catalogue and note this exceptional and attractive Missouri offering.

The attention of Poland-China breeders is directed to the change in the advertisement of Rose Creek farm. Mr. Woodford is offering high-class fashionably bred spring pigs at a very low price during this month. A representative stock man who visited the farm recently writes that he saw the best lot of early spring pigs there he had seen this year. Although this stock is offered at farmers' prices, it is really on a par with the best, being bred from sons and daughters of Chief Tecumseh 2d, Chief I Know, Woodburn Medium and What's Wanted Jr. Mr. Woodford assures us that those who buy first will get the best.

C. J. Huggins writes: "The Wamego herd is in good health. I weighed to-day, at sixty days old, three Chester White boar pigs out of a litter of six. Sire is Jerry Simpson, dam Snowball. The combined weight, 125 pounds; the smallest, 38, the other two 43 and 44 respectively. They are heavy-boned and fine form and will make fine, large breeders to head some one's herd. I have last November boars of same breeding ready to sell now. Also Poland-China boars and a number of Poland-China gilts bred to a fine U. S. boar to farrow in September. Will be sold reasonable to immediate buyers. Correspond with me for anything in my line, as I am sure I can please in quality and price."

Since 1889 Mr. W. E. Spears, of Richmond, Kas., has maintained a herd of pure-bred Herefords, numbering about thirty-five head, and has at present ninety-five head of high-grades. The principal blood represented is Lord Wilton and Anxiety. One rarely finds a more uniform lot of cows than the matrons of this herd, combining, as they do, size, finish and feeding quality. The appearance of the calves proves the value of their dams, both as breeders and milkers. Mr. Spears last spring secured from Mr. Funkhouser the yearling bull, Dial 3d by Free Lance, to head his herd. In this selection Mr. Spears has made no mistake, for he will make an admirable cross on the females of the herd. The most active animal in the herd is the yearling heifer, Alice 78930, whose illustration will appear in a subsequent issue. Mr. Spears advertises for sale, in another column, twenty-five head, five of which are pure-bred. Four of the offerings are by Wildy 34th. The grades are of exceptional quality, having on the sire's side the same breeding as the full-blooded stock. Any one desiring a car-load of Herefords of high character will do well to correspond with Mr. Spears.

We are in receipt of the handsome illustrated up-to-date Poland-China sale catalogue issued by H. W. Cheney, E. E. Axline, H. C. Sydnor and Clifton George, which is in harmony with the stock included in the sale list. The sale will be held at Tough's sale barn, Kansas City, August 16. Owing to the long list of really meritorious animals in the combined offering, we will not make a detailed mention, for certain it is that no sale list heretofore has included more individuals, proportionately, of exceptional merit than this one. The sows are all bred to such boars as Chief I Know, the greatest sire of show stock; Model Boy, the most prominent son of Klever's Model; Chief (a notable son of Chief Tecumseh 2d), included in the sale; Sydnor's Tecumseh, by the same sire and claimed by Mr. Sydnor to be one of the largest-boned hogs in service; Cheney's Chief I Know by Chief I Know, dam Miss Corwin Tecumseh 45676, and U. S. 20606, sired by U. S. Chief 24609 and out of Lady Tecumseh 49026. Mr. George selected U. S. to cross on his Chief I Know sows. The sale females are not only carrying pigs from these notable sires, but are themselves sired by the leading boars of Poland-China-

dom, possessing rare individual excellence and sent into the sale ring in the best of health and breeding condition. Many of them are tried brood sows, dams of notable and high-priced pigs. The consignors, especially Messrs. Axline and George, have been liberal purchasers in the past, securing top breeding regardless of price, and many of this offering prove the wisdom of these investments. The breeder who is looking for a boar—one that combines a faultless pedigree with a perfect conformation, color right, and markings right, or one or more sows to raise the standard of his herd, will find a grand opportunity at this sale to select from more than seventy head which rank with the best that remain in these four leading herds. All correspondence should be addressed to Clifton George, Lathrop, Mo.

Mr. Geo. W. Null's annual August sale of Poland-Chinas for 1898 will be held at his famous Elm Lawn farm, near Odessa, Mo., on the 25th inst. His August, 1897, sale attracted breeders and farmers from all sections, all of whom not only enjoyed the trip but were glad they had taken the time to visit this well-known breeding establishment. The writer, who has been familiar with Mr. Null's breeding operation for some years and has recently inspected the consignment for his coming sale, is pleased to be able to state that in point of rich breeding, individual merit and condition, this gives promise of being easily the most attractive lot of hogs that has ever passed under the canvas at Elm Lawn. There is probably no Poland-China sow in history in which the public takes a keener interest than Anderson's Model, which cost Mr. Null the record-smashing price of \$1,575. Breeders from all over the country know about her, and many have journeyed to Elm Lawn to see her, yet we have the first one to hear from who has any but the highest words of praise for this great sow. Her litter last year by Hands Off sold for an aggregate price heretofore unheard of, and we believe will never be equalled again. Her litter of pigs farrowed last December are equals in every respect to the famous litter just mentioned. In view of the record made by her former litter, it might seem foolish to assert that this one is more valuable. This, however, is our opinion, and while it is not expected that they will bring as much money by a whole lot as did last year's litter, yet we believe those who see them on the sale day will bear us out in our asserted opinion of their individual merit and prospects of future development. The sow pigs are particularly handsome. Each one of them has at some time been selected as first choice of the litter by some admirer. Our opinion is that there is very little choice between two of the best ones. The male pigs are great, lusty, growthy fellows, of a stamp which indicates plainly that they are sons of Chief Tecumseh 2d, and will no doubt be sought after to head herds. The yearling boar, Model of '97, out of the last year's litter out of Anderson's Model, will also be included in this sale. A late sketch of him by Mr. Burke, which will appear in the catalogue, will give the reader a better idea of how he looks than we could possibly describe him. In all there will be seventeen head in the sale sired by Chief Tecumseh 2d, two sired by old Black U. S., and others sired by such boars as Chief I Know, Null's W. B., L's Spot, Hands Off, Zenith Chief and others. The show sows, Extra Tecumseh and Lady A., will be included. The latter was bred to L's Spot, and Extra Tecumseh is in pig to Model of '97. The total offering will include boars, sows and gilts of the different ages, which for variety and quality of breeding, backed by individual merit, should make this a most desirable sale to attend. For catalogues and other information address Mr. Null as per advertisement on page 16.

A Farmer representative recently visited the Glen Dale herd of Short-horns, owned by C. F. Wolf & Son, Ottawa, Kas., who have since 1885 been gathering a herd of cows of high character. Glen Dale farm, comprising 500 acres of rich bottom land, is four and one-half miles from Ottawa. Upon this farm, under its present management, was produced the 150 bushels of corn that won first honors at the World's Fair. The quality and quantity of feed grown on these fertile acres are calculated to produce good Short-horns. The four-year-old Cruickshank bull, Glendon 119370, by Ambassador 110811, dam Galanthus, which is the dam also of Galahad, of Linwood note, has been in service three years and is now assisted by the Dustin-bred bull, Scotland's Charm 127264 by Imp. Lavender Lad, dam Charmer 7th by Imp. Baron Cruickshank. As will be seen, the breeding of this young bull is superb. Individually he is thick, low-

down and meaty, of the feeder's type. Among the leading females of the herd are: 16th Rose of Geneva (Rose of Sharon) by Sharon's Geneva 53870, bred by Abram Renick, dam Bell Sharon. A heifer from her, being fitted for the fall fairs, is sired by Lavender King 108682 (exhibited by Potts & Son at the Columbian, and winner of third prize in the yearling class); 18th Duchess of Linn by Lord Warden 52506, dam 6th Duchess of Fairfield, tracing to Imp. Matilda, has three heifers in the herd—the three-year-old, a roan, by Armor Bearer, a two-year-old by Lavender King, and a choice yearling by Glendon. Butterfly 60th by Prime Minister, dam Butterfly 51st, granddam Butterfly 43d by Imp. Cupbearer. The most massive and showy cow in the herd is Rosedale Violet 12th by Imp. Thistletop, dam Rosedale Violet 3d, great-granddam Imp. Marsh Violet, that was imported by Jas. I. Davidson in 1882. She descends from Moss Rose (Vol. 6 E. H. B.), one of the foundation cows of the Sittyton herd. This family remained in Mr. Cruickshank's possession more than fifty years, which fact guarantees their merit. Rosedale Violet 13th, also by Imp. Thistletop, is of the same descent. 58th Moss Rose of Elm Grove by Imp. Grand Elector, dam 20th Moss Rose of Elm Grove, tracing to Imp. Ruby, is the dam of two heifers by Glendon. Lady Glen Dale by Lavender King, dam Lady Linn by Sharon's Geneva 4th, descends from Imp. Flora. Other families represented are Young Marys, Irene and Sonatas. A very attractive herd is being fitted for the home fairs. It is apparent that this herd of fifty head contains some of the richest breeding and individually reaches a high standard. The Messrs. Wolf have on hand five young bulls of fine breeding at salable age. One is a Butterfly by Baron Ury, two Matildas, one Rose of Sharon and one Violet, all sired by Glendon, also a few younger ones of Dale proprietors have not overlooked the similar quality coming on. The Glen need of good horses, and maintain a few Shires. The two-year-old chestnut stallion, Wenona Bar Not, bred by Burgess Bros., by the famous Knowl Light of the West, is at the head of the stud. River-view Queen (a prize-winner at Springfield) and Imp. Bess Wright are the principal mature mares. Mambino Onward 2:27½, by Onward by Guy Wilkes, is also in service. The Glen Dale advertisement will appear in our next issue.

\$16.05 to Indianapolis and return via Santa Fe Route. Tickets on sale August 19, 20 and 21.

The Coming Poland-China Sale at Fort Scott, Kas.

The attention of those interested in pedigreed Poland-China swine is called to the announcement, found elsewhere in this issue, of Messrs. G. Hornaday & Co., B. R. Adamson, J. R. Young and J. M. Turley, who will hold one of their combination sales at Fort Scott, Kas., on Tuesday, September 6, when will be offered over sixty head, consisting of specially selected brood sows and a few gilts and young boars. The writer lately looked over the four consignments, and knowing the history and character of each herd since their several foundings, he takes it on himself to state that at no time in the past have the public or private sale offerings equalled those that will go to the highest bidder September 6. There is no prominent Poland-China line

of breeding, scarcely, but what will have representatives in the offering. Another feature that commends these choicely-bred animals to the public, and especially the farmer and stock hog raiser, and that is, they have been handled and grown out practically "on the farm," thereby giving the strongest assurance of their future worth and profit in the hands of new masters. If a few young boars are wanted fit to head any herd, the prospective buyer will find them at Fort Scott on sale day.

\$16.05 to Indianapolis and return via Santa Fe Route. Tickets on sale August 19, 20 and 21.

The man who counterfeits a genuine dollar three times is a criminal, but he who counterfeits railway stocks in the same proportion, for the "dear people" to pay tribute to, is a genius.—Ex.

Long years ago it was written: "The world will not be what it should until the dynasty of labor is enthroned; until the creator of wealth directs its mission, and determines who shall enjoy its chiefest benefits."

Evidence is accumulating that a stick of stove polish rubbed over shoulder galls and sore backs of horses, two or three times daily, keeping the collar and back pad clean, will heal and cure when other means fail.—Ex.

It is a mistake to regard the soldier the only country saver; the salvation of a country must be looked after in times of peace as well as of war, by civilians as well as soldiers; and the former have the most to do, for the years of peace are more numerous than those of war.

Meeting Sovereign Grand Lodge.

Boston, Mass. September 19-24 inclusive. For this occasion the Nickel Plate Road will sell tickets at rate of one fare for the round trip. Tickets on sale September 16 to 18, inclusive, good returning until September 30, inclusive. For particulars address J. Y. Calahan, General Agent, 111 Adams St., Chicago. 59

Grand Encampment, Knights of Pythias and Supreme Lodge Session, Indianapolis, Ind., August 22-29 and August 30 to September 10, 1898.

Round trip tickets on sale at Santa Fe Route ticket offices August 19, 20 and 21 for \$16.05, limited to August 30, with provision for extension to September 10. Depot 'phone 682; North Topeka 'phone 364.

\$16.05 to Indianapolis and return via Santa Fe Route. Tickets on sale August 19, 20 and 21.

MEADOWBROOK HERD.

J. R. KILLOUGH & SONS,
Ottawa, Kansas.

We have for sale 25 pigs by J. R.'s Tecumseh of March and April farrow. Also a few females of choice quality not registered.

W. E. SPEARS

RICHMOND, KAS.

For Sale—22 Head of Herefords.

Five registered cows—Lord Wilton and Anxiety—bred to Dial 3d No. 71453; fifteen grade cows, all bred; one yearling bull, Lord Wilton and Anxiety; one five-year-old bull, sired by Banker No. 1324, by Illinois No. 920 (5896).

WRITE FOR PARTICULARS.**SUNNY SLOPE**

EMPORIA, KAS.

REGISTERED**HEREFORD****CATTLE.**

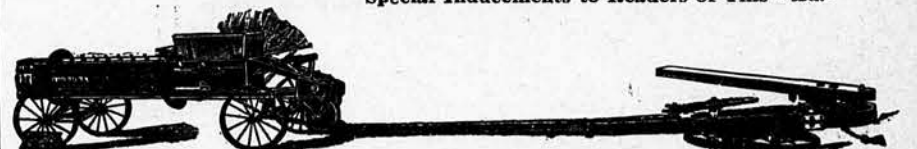
ADDRESS ALL CORRESPONDENCE TO.....

C. S. CROSS, Emporia, Kansas.

TWO TONS A DAY MORE THAN OTHERS OR NO SALE

THE FINEST PRAIRIE HAY MACHINE IN THE WORLD.

Special Inducements to Readers of This "Ad."



AMERICAN BALER CO., 1205 UNION AVENUE, KANSAS CITY, MO.

The Home Circle.

A MOMENT'S PAUSE.

A moment's pause for longing and for dreaming,
 A moment looking backward on the way;
 To kiss my hand to long-past turrets gleaming,
 To stand and think of life yesterday!

A little time to dream of sunlit hours
 Spent where white towers rise against the sky,
 To tread again that path of too sweet flowers,
 To hear again her greeting and good-bye!

What is there, say you, in that for-off city
 Of my past living and past loving left,
 Wrapped in its golden haze, to stir my pity
 And call the bitter sigh of the bereft?

The memory of a touch warm, trusting,
 clinging,
 The memory of that touch grown cold as
 ice?

A voice hushed that was pure as wild bird's
 singing?
 A love whose bright flame burned in sac-
 rifice?

Only a grave? Life of to-day will teach me
 Its stream fleets fast for sorrow and re-
 gret,
 Beyond this turn its sweeping wave will
 reach me,
 I must go with it, as we all go! Yet—

A moment's pause for longing and for
 dreaming,
 A moment's looking backward on the
 way;
 To kiss my hand to long-past turrets
 gleaming,
 To stand and think of life of yesterday!
 —L. Marion Jenks, in Donahoe's.

A COUNTRY CRAOKEE.

According to his city schoolmates, Bubber Ramp was a country cracker. And who knows better a child's social and financial standing than its school-fellows?

His face was not round and rosy, like other jolly, sweet-tempered boys, for Bubber was a slender child, with pale face, and lanky, straight hair, streaked in color with the shades of half-pulled molasses candy. He was subject to chills and fevers, which kept him away from school about half the time and gave his teacher an excuse for scolding him whenever there was no one else in particular for her to scold. His father was a section master on the Georgia railroad, and they lived in the "ten-mile shanties," which were built on the side of the railroad and on the edge of a deep cut, through which the wind blew a perfect gale the whole year round.

But if by living on the cut Bubber acquired the chill and fever habit he also gained the knowledge which enabled him to save the lives of some 500 people—Sunday school children with the friends and teachers. It was the picnic of Bubber's Sunday school, but because it fell on his chill day his mother said he could not attend. So he contented himself with walking five miles up the railroad to Belair, the nearest station where the train would stop, with a huge bunch of flowers for his Sunday school teacher. This teacher, be it known, was one of the people who did not know about Bubber's being a country cracker, but considered him a jolly, amiable boy.

After handing the bouquet through the car window Bubber stood for a while looking wistfully at the train-load of happy children. Then something occurred which made his schoolmates forget forever that he was homely and poor, and this is how it happened.

Southward from Brazelia the road drops down steadily for five or six miles. There follows the little rise to the top of Habersham hill, and then comes the sharp sag of a mile or more to Belair and the level valley of the Savannah.

John Johnson, or "Yucker," as he was called for short, was the most daring engineer on the Georgia and had the best run on the road until he joined the strike of the Knights of Labor. After the difficulty was settled and the strikers went back to work, Yucker, for the sake of discipline, was put to hauling way freight between Union Point and Augusta.

On this particular day, while his fireman was taking water at the big red tank at Thompson, Yucker went into the station for orders. He found out that there was nothing for him at Brazelia or Belair. He had nothing to leave at either station, so he climbed back into his cab, meaning to go through to Wheelless to meet the up freight. Sometimes he met it at Belair, but whenever he got the chance he ran by and trusted to luck that it would be held for him at Wheelless.

It was in the early summer, and the green grass and bright flowers made the earth seem like a great garden. Yucker was half out the window of his cab when his train passed through Brazelia. His feet were on the running board, his elbows on his knees, and his chin in his hands. He was absorbed in the beauty

of the landscape plunging past him, so he did not see the agent run out as the rear of the train reached the end of the platform and shout frantically at him.

Yucker had thirty cars behind him, so he climbed in from the window and gave the engine a bit more steam. Down the sag before Habersham hill the train thundered, gaining momentum every second. The engineer was getting ready for the rise to the top of the hill, and he meant to make the finest plunge down the other side that ever had been made. He meant to leave the agent at Belair dumb with astonishment and be half way to Wheelless before the operator could telegraph to the next station to hold the up freight. At the top of the hill he pulled the throttle out, hooked the lever up to the top of the gauge, and down Habersham hill he roared under a full head of steam.

But the agent at Brazelia had not caught the up freight at Wheelless, and when Yucker began to plunge down Habersham hill it was waiting for him at the bottom. That would have been all right, for the way freight had gone by dozens of times under just such circumstances, but there was the Sunday school excursion running special, and that was why the agent at Brazelia had tried so desperately to stop the heedless engineer.

The special waited on the main line with the up freight on the siding; when the way freight came they were to "saw by." But they had not reckoned how it would come. With the engine leaping and lurching over the rails, the loaded cars rocking and reeling, the train shot down the frightful grade. The roar warned the men at the station of the impending danger, but Yucker was engrossed in contemplation of the landscape while his fireman sat with his back to the cab.

The people at the station were benumbed with fright. They stared with horror-stricken faces at the oncoming engine as some great demon hurrying to destroy the excursion train with its load of human freight. Paralyzed with fear they could neither move nor call aloud.

In the whole crowd there was but one who could think and act. He was a slender, pale-faced boy, and he rushed up the track toward the oncoming train.

"Git out, git out," his shrill voice shouted to the men in the cab of the up freight. "Jump and run, jump and run."

He was tugging at a switch key, and they saw what he meant. So down the men jumped from the engine, while the boy ran on to the switch. His hands seemed paralyzed, so long did it appear before he forced it open; then he stepped back just as the way freight rushed by and ran full tilt into the up freight. There was a tremendous crash. The engine of the way freight rode over the other and smashed it into fragments. Then it sat down on its own cab with the forward truck in the air and one wheel whirling round like a millstone. The following cars piled up in a great cloud of dust.

The terrified excursionists scrambled from their own train, rushed over to the wreck, and stood for a time in speechless horror and amazement. Then the freight conductor came up, and, searching among the crowd, led out a slender, pale-faced lad.

"To this brave boy," he said, raising his hand to command attention, "you owe the preservation of your lives. But for his presence of mind—" Here his voice choked. With tears streaming down his face, he finished the sentence by motioning toward the excursion train.

"There were more than 500 on board," said the Sunday school superintendent. "The majority of them children."

"Not a life lost," cried one of the trainmen running up. "Yucker, his fireman and both brakemen jumped for their lives after shutting off steam and putting down brakes. They came off without a scratch."

"It was a miracle," said the preacher. "It was Bubber Ramp," cried a childish voice. "I seen him when he opened the switch."

Then the crowd surrounded the pale-faced lad, pushing and shoving to shake his hand, to touch him or even to get a look at him. What was said or who said it no one could ever tell, but in the midst of it all there sounded the shrill whistle of a near-by steam saw-mill.

"It's leven o'clock," said Bubber, looking up at the sun. "It's about time for my chill, so I'd better be gettin' home." And he hurried off down the track toward the ten-mile shanties as complacently as though nothing unusual had happened.

The following week the Sunday school superintendent accompanied the railroad official when he went to tell Mr. Ramp of his appointment to a better position on the road. The superintendent,

THE POWER THE BEHIND THE BRUSH

What is it—brain or brawn?
 Do you clean by main strength or do you use labor savers? Do you use the best labor saver? If you are undecided which is best try

GOLD DUST Washing Powder

THE N. K. FAIRBANK COMPANY,
 Chicago. St. Louis. New York. Boston. Philadelphia.

on behalf of the people on board the excursion train, presented Bubber with a bicycle and a gold watch.

"Why, Mr. Brand," said Bubber, regarding in awed astonishment the handsome wheel and timepiece, two things above all others he had most longed for, "I never done nothin' but turn the switch key. Anybody could've done that. I've been doin' it ever since I was goin' on 7 years old."—Chicago Inter-Ocean.

A Pleasant Custom.

A writer in Harper's Bazar says: "There exists at the South a happy custom, which is not so much in vogue in the Middle States, and which is rarely practiced in New England. It is the habit of an interchange of dainties among neighbors—the sending to a friend a plate of rolls or cake or salad that graces one's own board. At the North specially prepared delicacies are often sent to an invalid friend, but the habit of sharing every-day eatables with a neighbor is not pleasant. In some villages, however, this pleasant custom is still found. The wife of a certain country clergyman says that in the five years her husband has held his present charge not a day has passed without some dainty being sent to the parsonage from a parson's table. Only those who have lived in some such favored locality can appreciate the delicious and childish thrill of pleasurable anticipation that one feels when she sees brought into her home a dish covered with a napkin, and wonders what the lifting of the fair white cloth may reveal. It may be only a loaf of wholesome home-made bread sent from a neighbor's kitchen, but it tastes wonderfully better than 'home things.'

"Not long ago I was the guest of a friend in a pretty country town. On the evening of my arrival we had strawberry shortcake for dessert. When the meal was ended my hostess cut off a generous piece of the cake, poured rich cream over it, and handed it to the maid with the directions, 'Run over to Mrs. B.'s with this; she may fancy it for her dessert.' The next evening some hot muffins from my hostess' table were sent over to 'Mr. L., who, I know, likes warm bread.' At my amused look, my friend laughed merrily.

"That is a habit we have in this dear little old town, and you do not know how delightful we find it. There is always a pleasure in sharing something good with others, and things are unspeakably good when they come in unexpectedly. Often, when I have myself ordered a meal, and knowing just what it is to be, have sat down to the table appetiteless, an unexpected contribution from a friend's table will tempt my lagging appetite and warm the cockles of my heart by the thought of the kindness that prompted the sending."

"But in some parts of New England this practice of what one woman calls 'cooking interchange' is not understood. A Virginian, who had recently moved to the North, found that she had done the wrong thing when she sent a loaf of hot corn bread to one of her newly-made neighbors; for it soon reached her ears that the New Englander had told other neighbors of the little kindness and had resented it hotly. 'I really believe,' declared this descendant of the Puritans, 'that that Southern woman thinks that I keep a cook that can't make corn-bread!'

"Which only shows the versatility of feeling in this free land of ours."

Free to all Women.

I have learned of a very simple home treatment which will readily cure all female disorders. It is Nature's own remedy and I will gladly send it free to every suffering woman. Address Mabel E. Rush, Joliet, Ill.

Bills of Fare for Baby.

A writer in Good Housekeeping gives the following suggestions, which mothers will appreciate, for feeding the babies. These bills of fare will agree with any healthy child from 12 months to 2½ years of age:

Milk to drink. Half a saucerful of oatmeal with a little butter and salt. Half a saucerful of oatmeal with cream and sugar. A few teaspoonfuls of strained prune juice.

Thoroughly mashed potato, with a little butter, cream and salt. A thick strip of rare beefsteak to suck (should be allowed only the juice). A few teaspoonfuls of finely-scraped apple. Milk to drink.

Half of a soft-boiled egg. Milk toast. Baby tea—made of milk and warm water in equal proportions, with sugar and a drop of vanilla.

Bread and milk. Two teaspoonfuls of fine-grained apple sauce. Half a slice of bread with beefsteak gravy.

Half a saucerful of rice with butter and salt. Half a saucerful of rice with cream and sugar. Two or three teaspoonfuls of orange juice. Milk to drink.

Half a teaspoonful of beef tea. Crackers and milk. Third of a slice of bread with pure maple sirup.

A little strained fig sirup (if constipated), made by boiling figs in water with sugar. Mush and milk. Small slice of bread and butter without crust.

A teaspoonful of the breast of chicken or turkey, minced very fine. Toast and milk. Small lump of sugar for dessert.

Oatmeal, crackers and milk. Baked potato, cream and salt. Whipped cream, sweetened and flavored.

Half slice of buttered toast without crust. Bread and milk. Taste of custard, wine jelly, or melted vanilla, or chocolate ice cream.

Swiss Chimney Sweeps.

In Switzerland the chimney sweep is an official personage. He is the employe of the commune, receiving a fixed salary, his actions controlled by the government, and he himself holding on by the back straps to the car of state. He is also, as many tourists will have noticed, one of the few sons of the Helvetian republic who on Sundays and week days sports a tall silk hat. This he wears with dignity, but it is generally brushed the wrong way. On his official tour he takes it off blandly and informs the householder that he is "empowered by the state to inspect his flues." In the canton of Grisons recently the post and title of "ramoneur communal" was opened to competition. The salary was £32 a year, and the candidates were numerous. But the strange thing was that they were mostly village schoolmasters from Italy. A painful sign of the times in that unrestful land. "Better," says L'Italia del Popolo, "be a chimney sweep in Switzerland than a schoolmaster in Italy." But the Italia del Popolo has recently been suppressed. —Pall Mall Gazette.

SHORTHAND

Typewriting, Book-keeping and Penmanship thoroughly taught. Twelve teachers, 800 students, cheap board, and the finest Commercial College Building in America. Graduates readily secure situations. Illustrated 60-page Catalogue FREE. Address D. L. MURRELL, President, Gem City Business College, Quincy, Ill.

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 DIARRHOEA. 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.

The Young Folks.

THE RIVER.

The river lingers, loth to go,
Singing her country song, and slow
She winds amid the fields and clover,
Hither and thither, to and fro.

She knows that far in the mist and mirk
Lies the great sea with many a bark,
But would not the sweet day were over
Under this heaven of thrush and lark.

In the flowered field she lies at play
Half the length of a summer's day,
Like the long silver ribbon curving
To and fro in her wild sweet way.

Alas! thou little river, dost fear
What lieth past the alders sere—
Past the long channel, curving, swerving,
Bearing thy waters far from here?

Dost know this day is sweet and good,
Here in earth's meadows saffron-hued,
Where the birds sing and sing forever,
And the lark soareth o'er his brood?

But the deep calleth—even so
Calleth, and there is far to go,
Yet we would stay, I and the river,
Sweet is the meadowed place we know.
—Katherine Tynan, in Frank Leslie's Magazine.

Written for Kansas Farmer.

YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 33.

THE DRACHENFELS.

Leaving Bonn, after having seen all that we cared for, we continued on the splendid bicycle road southward—up the Rhine. Between Cologne and Bonn it is called "Bonn chaussee," but from Bonn southward it is known as "Coblentz chaussee," as it leads to the city of Coblentz, at the junction of the Moselle river with the Rhine.

In half an hour after leaving Bonn we came in view of the famous "Siebengebirge" (seven mountains), which loomed up across the Rhine—on the east side, as we were on the west. In a few minutes more we had reached Godesberg, a small town only known for its castle situated on a high hill. The tower of this castle is supposed to have been originally built by the Emperor Julian, A. D. 360; the castle itself is only a pile of ruins, but the tower, nearly one hundred feet high, affords a lovely view of the river and scenery beyond. Myself and brother climbed to the top of it as nearly as we could, for we did not wish to miss a single point made by any tourist along the river Rhine.

Again in the saddle, we wheeled a couple of miles, until we were opposite Koenigswinter, the central town of the seven mountains. At Mehlan, a little town on the west bank, we went aboard a scow in the river, and were pulled across the Rhine in as primitive a manner as ever J. Caesar himself enjoyed. We landed in Koenigswinter, from which point we were to ascend the famous Drachenfels (Dragon's rock).

Our guide-book informed us not to walk up, but take the "cog road" or go on horseback or via donkey conveyance. We chose the latter; and soon our party of four were seated on the smallest donkeys I ever saw. We had great difficulty in keeping our feet from dragging on the ground. Our procession started with several drivers, whose duty it was to compel the donkeys to go. Mine was the swiftest and his name was Max. I headed the procession, on account of my fast steed. He would often go nearly one hundred feet without stopping. A few well-directed blows with a hand-spike guided by our accomplished donkey propellers would be sufficient every five minutes to make our animals wag their ears and walk quite a ways. My Max evinced an inclination to sing occasionally, and his voice was dreadfully hoarse. From the depot where we went aboard donkeys to the top of the Drachenfels the road was lined with blind men, blind women, organ-grinders, photograph fiends, popcorn artists and other blessings, too numerous to mention. Our donkeys were in partnership with every one of them and permitted us to be worried every step of the way. From the first, I noticed that the crowd rushed up to me to do the buying and giving. I at first felt flattered, until I happened to hear my companions say: "Go to the fraulein in front; she speaks German; we do not," and that set the crowd after me, notwithstanding they were told in as good German as I could command.

One said: "Fraulein, have your picture taken; I will take you all for 3 marks." I told him we had a camera and would take our own pictures. He then offered to "take" us all for 2 marks, and then 1 mark, but failed to get the job.

Very little could be seen by us on the way up, as the road is very steep and rocky and the path extends through the dense forest. Eventually Max and I, with the rest of the party, reached the

summit and rode to the restaurant and terrace where the old castle used to stand, but was destroyed over one hundred years ago. Here, after having our much-sought-after pictures taken on board donkey, with castle ruins for background, we dismounted and the donkeys were allowed to trot off down hill again.

The Drachenfels is the most celebrated of the Seven Mountain range. It is about 1,100 feet high, from the river banks. On its summit are the ruins of the castle before mentioned, which was built about 1110, and the Dragon's rock is the highest point, and rises 100 feet above the summit of the mountain. We climbed to the top of the rock and had a most magnificent view of the Rhine country. All of the seven mountains appeared in finest attire—a background of mountains literally covered with trees of all the beautiful shades of green, in front the Rhine with its delightful windings, and to the left and right many small cities and villages could be seen. Across the river are beautiful chateaus and gardens, and beyond them the beautiful waving fields of grain which were laid out with the greatest geometrical exactness. The traveler who labors to the top of Dragon's rock and views the beauty of the scenery of the river and valley and the adjoining panorama of ruin-clad mountains, feels amply rewarded by a vision which can never leave the memory. Poets and writers of every land have gazed from the Dragon's rock and in ecstasy made mental note of the enchanting surroundings.

The poet Byron, standing here, wrote as follows:

"A blending of all beauties; streams and dells,
Fruit, foliage, crag, wood, cornfield, mountain, vine,
And chiefless castles breathing stern farewells
From gray and leafy walls, where Ruin
Greenly dwells."

We remained on the rock for over an hour and enjoyed the most beautiful panorama we ever had seen. The Drachenfels obtained its name from the legend of Siegfried, the hero of the "Nibelungenleid." It seems there was a great dragon which lived in a cave on the side of this mountain, and there was also a very beautiful maiden named Brunhilde, whose father was cruel to her and kept her shut up in a prison. Siegfried had learned somehow that if he killed the dragon and drank its blood he would be able to understand the birds and talk to the beasts of the forest, etc. He was not very busy that summer, so he went and killed that dragon and drank its blood, and then the birds told him about Brunhilde. He went and set her free and she was so handsome that he fell in love with her and married her next Christmas. Some say that Brunhilde was kept a prisoner in the dragon's cave and the dragon was her jailer. In either event, Siegfried "got away" with the dragon in fine shape and they ever after lived a happy life. The cave is on the side of the mountain toward the river. The path to it is very steep and it is almost inaccessible. We concluded to send a committee of one to inspect it and report. My brother volunteered, and while we rested he climbed down to the cave. On his return he reported that Siegfried had evidently killed the dragon all right, as he found the cave empty. We then descended the mountain by another route, enjoying beautiful views every step of the way. Getting our wheels, we rode around the base of Drachenfels and obtained a good view of the opening to the cave, which is marked by a large red cross painted on the rock, as though it might have been done with the dragon's blood, but I suppose it was ordinary paint.

ROLANDSECK.

The grandest scenery of the Rhine valley begins at the Drachenfels, or Koenigswinter, located at its base. The mountains rise on either side of the river, which becomes narrower, deeper and swifter; and castles and villages are more numerous and closer together. At no point need the traveler fail to see a modern castle or ruin of an ancient one.

From Koenigswinter we continued on the east side of the river to Honnef, where we again were ferried across to the west side, to the village of Rolandseck, which lies at the foot of the first considerable heights on the west bank of the Rhine.

This little village is one of the most beautiful and frequented spots in the Rhine valley. It is surrounded with numerous villas, belonging chiefly to the wealthy merchants of the lower Rhine. Here, perched on a basaltic rock 344 feet above the Rhine, is the last relic of the brave Paladin, Roland, one of Charlemagne's most valued warriors. It is the remains of his castle—only an arch left—called "Rolandseck" (Roland's arch). We, of course, mounted to the top of the rock and inspected that arch as though

we expected to build several like it in the "short grass" country of western Kansas.

The earliest historical mention of Roland's castle is in a legal document dated 1040, and it was probably built in the eighth century. In 1120 Archbishop Frederick partly restored the ruin for the purpose of defending his dominions against Henry IV. The fortress stood till the close of the fifteenth century, when it fell into decay, leaving only the one arch standing.

A pretty little story is connected with this ruin. Roland, who had been fighting with Charlemagne against the infidels, found a few months of leisure during which he had nothing to do but travel in search of adventure. Not having a bicycle, he went on horseback to view the beauties of the Rhine valley—this was some 1,122 years ago this summer.

On June 18, he found himself the guest of Count Heribert, Lord of the "Siebengebirge." According to custom, the daughter of the host, the beautiful Hildegunde, welcomed him with the offering of bread, wine and fish. Her beauty captivated the brave knight, and in about a week or ten days they became engaged to be married. But their happiness was brief, for the Emperor, Charlemagne, summoned Roland to start in a crusade against the infidels of Spain—just about like President McKinley summoned his knights for a similar purpose a few months ago. Roland went, promising Hildegunde to be back in six weeks, or so soon as they should succeed beating some sense into Spanish skulls. But shortly, sad rumors came to the Seven Mountains. It was said that Roland had been killed by infidel hands. Of course, Hildegunde was inconsolable, and she took refuge in a convent situated on an island in the river. She became a nun and none ever saw her again in the halls of the castle of the Seven Mountains.

The sad rumors concerning Roland proved unfounded, for he returned a few months later to claim his beloved Hildegunde, only to find her already "a

bride of the church," and thus lost to him forever. He never smiled again; but in despair he built the castle of which the crumbling arch first mentioned is the only remains, and there lived in solitude, occasionally catching a glimpse of Hildegunde as she passed from the convent to the chapel in her devotions, on the island in the river. His castle was so located that he could sit on the front steps and smoke all afternoon and look down upon the island and watch for his Hildegunde.

At length he missed her entirely, and the tolling of the bell at the convent, and the funeral procession which followed, told him that Hildegunde had died of a broken heart, for she, too, had watched daily for her knightly lover, whose castle she could see up on the rock and knew that Roland was ever watching for her. From that day Roland never spoke again; his heart, too, was broken, and one morning the boys found him lifeless, his glassy eyes turned longingly toward the chapel on the island in the river.

It is a very heartrending story, and, as we stood at "Rolandseck," we looked down on the beautiful green island in the river and imagined we saw the beautiful but sad-eyed Hildegunde looking up toward the castle to catch a glimpse of her beloved knight.

This story would fit better if there was not another story out about this same Paladin, Roland, to the effect that he was really killed at the battle of Roncesvalles, where he was "the last man out," and blew his hunting-horn after every one of his companions had been killed and he had killed every one of his opponents, and then he sat down and died, too, from the effect of the wounds received.

But, still, the story was very affecting to me and I allowed myself to imagine similar lovely tales about nearly every castle ruin we examined.

We spent the rest of the day in viewing this pretty place and St. Apollinaris church, and then had a fine night of sleep after a busy but very much enjoyed day of sight-seeing.

The True Keynote of Genuine Education is Individualization.

The elective system at Lombard University adapts the courses to the student's needs—a special course for each special case. Will match on to any preparatory course.

PERSONAL ATTENTION DOES THE REST.

A college of highest grade, new, modern buildings, thorough equipment—gymnasium, laboratories, museum, athletic field, etc. Preparatory Department, Music, Art, Education Schools, Divinity School, College of Liberal Arts. Low cost. Address

C. ELWOOD NASH, President, Galesburg, Ill.

A SERMON ON SAVING.

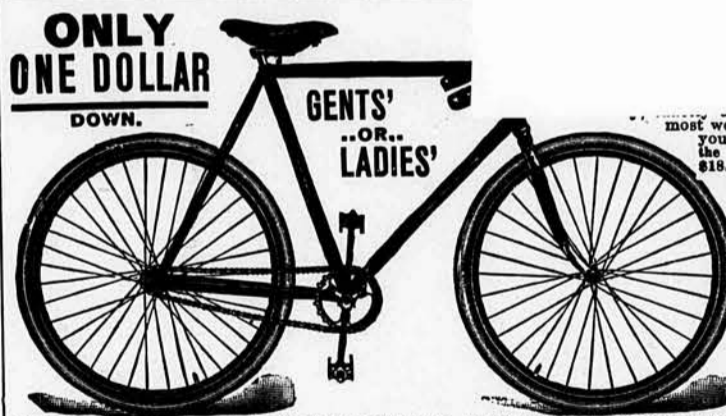
Our most important crop is the Boys and Girls we raise on the farm, and their proper training is a matter of vital interest to all. A proper training consists in the development of all their powers equally by giving them a thorough, well-rounded education of the mind while their eyes are taught to see and their hands to do.

The Kansas State Agricultural College

OFFERS A CHOICE OF FOUR COURSES:

Agriculture, Mechanical Engineering,

Splendidly equipped Iron and Wood Shops, I Cooking Rooms, Music Rooms, and Library. All Oratory free. Text books and stationery at cost. No fees or charges of any kind. For catalogu PRESIDENT THOS. E. WILL, M



most wonderful Bicycle Bargain you ever saw or heard of, pay the express agent the balance, \$18.75 and express charges. At \$19.75 we shall SPECIAL regular \$50.00 High-Grade, guaranteed, 1898 Model Bicycles in either Gents' or Ladies'. We Have Bicycles for 1898 at \$12.95, \$19.75 and \$22.50. Such values as were never offered before. THIS SPECIAL WHEKE at \$19.75 is a wonder of value, strictly high-grade and equal to any bicycle you can buy anywhere at \$40.00 to \$50.00. Strictly up-to-date. Covered by binding guarantee. Has all the good points and late improvements of all high-grade bicycles with the defects of none. Our SPECIAL Bicycle at \$19.75 is made by one of the largest, oldest, best known and most reliable bicycle makers in America. The identical same bicycle as is sold everywhere under their special name and name plate at \$40.00 to \$50.00, never less. The name of the maker is a household word among bicycle riders. You will recognize the bicycle the moment you see it as the same high-grade bicycle sold everywhere at \$40.00 and upwards. In offering \$,000 at the unheard of price of \$19.75, we are pledged not to use the maker's name or name plate. DESCRIPTION. OUR SPECIAL 1898 Bicycle now offered at \$19.75 is made from the very best material found only in the highest grade wheels. FRAME is 24 inches deep, true diamond, (Ladies' is 22 inches, curve shape with two center braces) 1 1/4-inch highest grade imported German seamless tubing. FORK CROWN, drop forged, highly polished and finished and nickel-plated. HANDLE-BARS, very latest and best wood or nickel, up or down curve or ram's horn. WHEELS, highest grade, 28-inch. SPOKES, highest grade, 14-16 swaged. HUBS, latest large tubular, turned from bar steel. RIMS, highest grade non-warpable wood. TIRE, our own special guaranteed strictly high-grade single tube pneumatic, complete with pump and repair kit. CRANKS, highest grade forging, 6 1/2-inch throw, highly nickel-plated. PEDALS, handiest and best rat trap. BEARINGS, highest grade tool steel, highly finished. SPROCKETS, finest forgings, heavily nickel-plated, detachable. SADDLE, strictly high-grade, padded. Weight, 25 lbs. Full ball bearing with ball retainers throughout. Finished in the highest possible enamel in blue, black or maroon, and shipped complete with tool bag, pump, wrench, oiler and repair kit. OUR GUARANTEE. We issue a written binding, one year guarantee, during which time if material, WE WILL REPLACE IT FREE OF CHARGE. State whether Ladies' or Gents', kind of handle bars and color of finish. SEND US ONE DOLLAR and we will send you the bicycle by express C. O. D. subject to examination, you can examine it at the express office and if you find it equal to any bicycle you can buy elsewhere for \$40.00 to \$50.00, and such a bargain as you never saw before, pay the express agent the balance, \$18.75, and express charges. OUR FREE BICYCLE CATALOGUE shows a complete line of Bicycles at \$12.95, \$19.75, \$22.50, etc. Also a full line of bicycle sundries, bicycle clothing, etc. SEND FOR IT. AS TO OUR RELIABILITY. We refer to the publishers of this paper, our customers everywhere, Metropolitan Nat'l Bank, Nat'l Bank of Republic, Bank of Commerce, Chicago; German Exchange Bank, New York; any business house or resident of Chicago. We occupy entire one of the largest business blocks in Chicago, employ 700 people, and we guarantee to save you \$20.00 to \$200.00 on high-grade bicycle. Order to-day. Don't delay. Only \$,000 to be sold for \$19.75. BEARS, ROEBUCK & CO., (Inc.) Fulton, Desplaines and Wayne Sts., CHICAGO (BEARS, ROEBUCK & Co. are thoroughly reliable and for \$19.75 this is surely a wonder bicycle.—Editor) In writing mention Kansas Farmer.

KANSAS FARMER

ESTABLISHED IN 1863.

Published Every Thursday by the

KANSAS FARMER COMPANY.

OFFICE:
No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

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

Address KANSAS FARMER CO., Topeka, Kansas.

ADVERTISING RATES.

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

Special reading notices, 25 cents per line.

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

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

Electros must have metal base.

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

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

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

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

Address all orders—

KANSAS FARMER CO., Topeka, Kas.

Excelsior Springs, the noted health and pleasure resort, will hold a Chattanooga, August 19 to 30, inclusive. Noted speakers have been engaged and arrangements have been made to entertain a large attendance.

An English authority, the Millers' Gazette, estimates the present season's wheat crop in Europe at 1,440,000,000 bushels, which that paper thinks will be about 226,000,000 below requirements before the next harvest. This is rather more than America will probably have to spare. It is this fact which inclines many farmers to market their wheat slowly.

Spanish estimates of the value of the vessels sunk in the two hours of the naval engagement off Santiago are, in round numbers, \$20,000,000. The value destroyed in Manila bay has not been so closely estimated, but the aggregate Spanish loss in vessels captured or destroyed by the American navy during the first three months of the war is placed at \$35,000,000.

Augustine Gallagher, editor of the Modern Miller, of St. Louis, has been appointed by Commissioner of Internal Revenue Scott as chief inspector for the enforcement of the law against adulterated flour. Mr. Gallagher was untiring in his efforts to have the law enacted and is in every way the best qualified man in the country for the position of chief inspector.

STILL NEGOTIATING.

Peace negotiations, which were opened with this country by Spain about ten days ago, are still pending at this writing (Tuesday noon). President McKinley's reply to Spain's first overtures brought out further inquiry as to some details. McKinley's reply to these was thought to be sufficiently explicit to preclude further parleying. Spain answered at length, and her reply reached Washington on Monday evening of this week and was presented to the President on Tuesday. It is said to be a lengthy document and to raise some points of detail which may cause some delay.

The triumphal march of our army through Porto Rico continues. General Blanco, Captain General of Cuba, has become quite pacific under the development of the war.

The war in the vicinity of Manila is taking on renewed activity. In an engagement with the Spanish, just reported, we lost thirteen killed and forty-seven wounded, but drove the enemy from his position with heavy loss. The Philippine insurgents have placed themselves on a proper footing with our forces, so that trouble with them is scarcely to be feared. But the Spanish seem inclined to make a stand for the Philippines, which may only terminate with the treaty of peace and that possi-

bly after we shall have utterly destroyed the last remnant of Spanish power in that quarter of the globe.

STORING A BREAD SUPPLY.

The suggestion of trouble leading in the direction of war between Great Britain and Russia, over the partition of privileges in China, is almost as pronounced at the close of our war with Spain as was the prospect of hostilities between this country and Spain a year ago. The very cordial relations which have been carefully cultivated between Russia and France leave little doubt of a coalition of forces in case of prolonged hostilities. Germany, under the presumptuous young man who occupies the place made vacant by the death of some of his illustrious ancestors, has been courting Russia, and can certainly not be counted on the side of the country of William's grandmother. England has been truly friendly to the United States in all stages of our present war. This will not probably be likely to break down our conviction against entangling alliances, so that while the mother country would have our sympathy and our good offices as a very friendly neutral, she could not depend upon armed intervention on our part. She will always find us willing to exchange our surplus breadstuffs for her gold, providing the two kinds of commodities can be safely delivered. But in case of such a war and blockade as European and Asiatic sovereigns have been prone to engage in over questions no greater than the building of a railroad in China, American wheat might rot in the bins before it could be placed within reach of the besieged of the British Isles.

True, England has a navy stronger than that of any other country. Her statesmen sometimes claim that it should be stronger than the combined navies of all other nations. But other nations are building war ships, too. Since the great feat of our Oregon in coming around the Horn and then immediately proving herself the most efficient floating arsenal of the fleet which destroyed, in two hours, the flower of the Spanish navy, she has been called the best battle ship in the world. It is reported that her constructor has accepted an invitation to service in building the new navy of the Czar.

The realization of the possibilities of the future has made John Bull increasingly anxious about his bread basket. The tenor of English thought on the subject is fairly illustrated by the following letter from Mr. R. B. Marston, published in a recent issue of the London Times:

"Having given a good deal of attention to this question for some years past, I was very glad to see from the letter of Mr. H. Seaton-Karr, M. P., in the Times of July 11, that both Lord Salisbury and Mr. Balfour have informed him that the matter is engaging the attention of the government.

"It is, I think, most earnestly to be hoped that the government will appoint a commission to consider the question; they have

appointed to consider matters of infinitely less importance, even the water supply of London is of less moment than the food supply of the country.

"I know many people consider a Royal Commission a waste of energy; they say it meets, considers, reports, and that is the end of it. This is doubtless true in a great many cases, but the evidence which would be forthcoming as the result of a government inquiry respecting our food supply in war time would be such a revelation of our weakness where we ought to be strongest that all parties in the state would unite in demanding a remedy.

"No one is a greater admirer or believer in our fleet than I am, but I cannot see how it can suddenly create enormous supplies of food for us because other enormous supplies have been cut off—as unquestionably they will be. Many of the leaders of our great corn trade say that it is perfectly possible to hold at any rate six months' instead of six weeks' supply of wheat in this country, and at no great cost. They also say that it may be impossible to get this supply into the country in war time.

"As to whether it is or is not necessary to make some provision against famine in these islands, in case we are compelled to use the splendid fleet we have created, surely that and the nature of the provision can only be settled by the highest authority, viz., a commission consisting of naval, military and corn trade experts appointed by the government.

"The first duty of a war fleet is to hunt up the enemy and destroy it if possible, not to be convoying or looking for food ships. Every naval officer admits that, supposing war broke out with no reserve of food in the country, our power of taking the offensive—so immensely important to us as the past has proved it to be—would be dangerously weakened.

"No one can say that we shall not require this foreign food in war time, no one can say if we shall be able to get it or not—nothing but the actual experience in a great war can settle that question.

"Why, then, leave the solution of the most momentous problem any nation ever had before it to the fortune of war, when we can solve it quietly and certainly and at infinitely less cost in peace time?

"Mr. Seth Taylor, of the Waterloo flour mills, chairman of the 'Baltic,' and the largest corn merchant in London, says our position is, and long has been, one of the gravest danger; he has gone fully into the cost to the country of keeping a six months' reserve of wheat, and says it would be less than the cost of a battle ship per annum. I make no claim to be an expert, and my arguments must be taken

for what they are worth, but I think, as I pointed out in an article on the subject in the Nineteenth Century of June last, that it is impossible to ignore the great body of experts who gave evidence before Mr. Yerburgh's Agricultural committee. They are farmers, millers, corn merchants, etc., and the very men the country would look to for food in a time of scarcity and panic, and almost without exception they tell us that they could not help us, and that the country is running a very grave risk by living from hand to mouth as it now does—a dangerous position even in peace time, for, as Mr. Seth Taylor pointed out only a year or two back, we were 'within an ace' of famine in consequence of failure of foreign crops."

Should John Bull conclude to provide a few months' supply against possible embargo, he could not find a more favorable time than the present to place his pounds sterling against a goodly number of bushels of wheat. Again, the American farmer can have no objection to any plan by which a little more receptive market may be made for wheat during the months immediately after harvest.

A BRIEF HISTORY OF THE "LEITER" DEAL.

The suggestion of a Harvey county farmer that the wheat-growers of Kansas contribute 1 cent from each dollar's worth of wheat sold this season to reimburse Joseph Leiter for his final losses in "bulling" the wheat markets, makes interesting the following sketch of the great deal, as found in a foreign journal: "There is abundant wisdom no doubt in hind sight, but it is quite as unavailable from a practical standpoint as is the proverbial pavement of good intentions; wherefore one suspects that in the floods of hindsight wisdom showered upon him during the past twenty days, more or less, the now famous Joseph Leiter, late wheat merchant extraordinary, will find little satisfaction save, perhaps, in the syllogism that 'experience is only disappointment.'

"The Leiter campaign in wheat begun April 2, 1897, by the purchase of 100,000 bushels of May at 70% cents, was one of the most remarkable transactions in that cereal witnessed by the trade in recent years, lacking only the single element of success to make it, in fact, the most remarkable speculative grain campaign of modern times. And this element had been conceded by the public, even after May 31, when the only question at issue was the degree of Mr. Leiter's greatness as a wheat merchant as measured by his profits.

"Having entered upon his campaign by his purchase of April 2, 1897, the market at once began to feel the effect of a powerful influence, not at first to be identified; but while the market fluctuated, buying orders came thick and fast, the cheapest line bought being 500,000 bushels at 64% cents, on June 13, 1897. Prices thereafter continued to advance, the holdings of Mr. Leiter meantime extending by leaps and bounds until, it is estimated, his interest at one time amounted to 35,000,000 bushels. To all appearances, the deal at its height had ceased to be a mere speculative campaign, and particularly after the sensational delivery to him by Armour & Co., late in the fall of 1897, of 6,000,000 of contract wheat, it had become a true merchandising campaign. Mr. Leiter, in fact, forwarded an immense volume of wheat to the seaboard, chartering vessels to carry the grain to Europe, in the meantime selling by sample to millers. The price of wheat advanced during the winter and spring all over the world; and as there was an unquestionable shortage abroad, the continued advance was looked upon as the natural result of physical conditions, and was, until early in May, at no time sensational. After May 1, however, the advances came very rapidly, the maximum price, Chicago, during the deal being reached May 10, 1898, when cash wheat reached \$1.85, closing May 31 at \$1.25.

"On the basis of May's closing and on the understanding that Mr. Leiter's campaign had closed with that month, the entire success of the deal was not doubted, while the profits were estimated at from \$4,500,000 to \$7,000,000.

"It is possible that had the deal been concluded May 31, as the public supposed it had been, it would have yielded a large profit and Mr. Leiter's reputation as a phenomenal operator been established. And for twelve days of June his reputation was, in fact, an almost tangible substance, so firm was the public conviction of his complete success. On the 11th, however, came the suggestion that he was still carrying an enormous load of cash wheat and options on a declining market, and on the 13th the most startling announcement was made that the load had proved too heavy for him, and that his father having withdrawn his support there was nothing for Mr. Leiter to do but liquidate. It then transpired that Mr. Leiter had not closed either his cash or his option deals with May, but that on the contrary his interests still involved from

6,000,000 to 7,000,000 bushels in options and cash wheat to the amount of 7,000,000 to 12,000,000 bushels, of which the larger part was in the Northwest, the balance being in Chicago, afloat and abroad, upon which the banks had advanced loans averaging about 85 cents a bushel. All of this wheat was affected by a decline in prices, which, from June 1 to June 13, had been 23 cents for cash wheat, 13 cents for July and 7% cents for September.

"The market behaved remarkably well on the 13th in the face of this collapse, and there were no failures of dealers or brokers. On the 14th it was announced that the entire line of cash wheat had been placed in the hands of Mr. Armour for liquidation for the benefit of the creditors and Mr. Leiter, should any equity remain after payment of loans; and by the end of the week the general decline had been recovered. On June 20 it was further stated that the market was still further strengthened by the formation of a pool of all the important lines of cash wheat in the country, all of which had been put in the hands of Mr. Armour and Mr. Peavy for marketing. The announcement was followed on June 21 by an immediate and decisive stiffening of prices, both for cash wheat and futures, including September, leading to the belief that no serious part of the holdings of the pool would be sacrificed.

"This move in the campaign marks the final close of Mr. Leiter's episode in wheat, which, in view of the enormous advertising of his paper success, has now the appearance of a grand fiasco, the balance sheet of the whole transaction showing a net loss to him of \$5,000,000, more or less, thus making him in the public understanding of the case from \$8,000,000 to \$12,000,000 poorer than he was rated June 1. Nevertheless, such was the effect upon the market of his deal, or the physical conditions upon which the deal was based, which were without doubt rational, and upon the income of the growers of wheat, that it is safe to say no man ever came out of such a speculation winner or loser who at its close was able to count as friends so many farmers, grain merchants and business-men generally as may Mr. Leiter at this time, it being the general judgment that, while he may have been loser, the public has largely benefited by his transactions."

If Mr. Leiter had confined his operations to those of the merchant, buying and selling only actual wheat, his fortune need not have been sacrificed. It was the gambling in "futures" that sent wheat above reasonable prices, and it was because the gamblers who opposed Leiter out-gambled him that they broke him.

A FINANCIER'S VIEWS.

Henry Clews presents in his latest circular the following summary of reasons for expecting a great era of prosperity:

"An important factor in the situation will be the large increase of gold production. According to the Mint Bureau at Washington, the world's product of gold in 1897 was \$240,000,000, and the product of 1898 is estimated at \$275,000,000 an increase of \$35,000,000. Africa leads as a gold-producer, and is expected to turn out \$75,000,000 this year. Australia and the United States are close competitors as gold-producers, each being expected to turn out about \$60,000,000 this year. The Klondike is not proving of the importance anticipated. The most careful estimates are for a product of \$10,000,000 in 1898, which is smaller than either California or Colorado; California's product this year being estimated at \$17,000,000 and Colorado's at \$23,000,000. Ten years ago the world's gold product was \$110,000,000. Since then it has more than doubled, and now amounts, as just said, to about \$275,000,000. This does not look like an scarcity of the precious metal, especially considering the prospects of new supplies and the increasing use of other forms of money. Certainly there will be no scarcity of gold in the United States; for in addition to our own increasing output and the Klondike supply, we are likely to have a large influx of gold in settlement of our trade balance. The latter can be settled by returning our securities, which is not likely; by an outflow of American capital into foreign countries, which may occur to some extent now that the war is over; or by the sending of gold, that being the most probable outcome. Evidently, then, we are sure of having an abundance of gold in the country. At the same time the banks are anxious to expand their circulation, as soon as they secure sufficient of the new 3 per cent. bonds; so the prospects are for an abundance of cheap money for some time to come, and we need hardly inform our clients that this is a powerful aid to a rising market."

Kansas Vegetables of the Future.

Editor Kansas Farmer:—"Variety is the spice of life," and, like spices, comes high in the market. Any change from the routine, anything that is new, is always acceptable. This is particularly true in the line of food—any new dish or new vegetable usually becomes popular. A new plant in the kitchen garden usually returns to the one who introduces it many fold for his trouble and expense and there is a constant rivalry among seedsmen in regard to this line of work. The United States Department of Agriculture is also interested in the same line.

While the Department of Agriculture men are searching over all the other continents and all the isles of the sea for new fruits and vegetables, while the Kansas scientists are spending their time and money in trying to get new varieties, better suited to our dry regions, of the old staple crops that the world lives on because it can get nothing cheaper, and while the seedsmen are striving for their own sake to outwork both; while all this is being done, I say, why cannot some one stop to look at some of our own native plants that have been neglected since the savage left our prairies and streams? I wish to speak of the merits of three native Kansas plants that hold their own against the grasses of our prairies and the luxuriant plant growth along our streams; plants that, if taken from their native haunts to the vegetable garden, would soon conquer their "cultured" rivals of the old world and the tropics. Natives of our climate, they are already used to its extremes of heat, drought or cold. Kansas hot winds and cold snaps have been their playmates for ages gone by. All three have perennial roots, and last, but not least, all belong to the legume family—that of the pea and alfalfa, the one plant family that enriches the soil instead of depleting it, so that with their perennial roots, they can be grown year after year on the same ground. Plants of this family are richest in nitrogen and its protein compounds so necessary in the growth of the body. Instead of sitting down to a table loaded with 90 per cent. of water in the shape of tomatoes, cucumbers, potatoes and beets, the Kansas farmer of the future can feast on foods rich in proteids as beans and get the desired freshness of other vegetables. The vegetables of the present may be juicy and may have a good taste, but a farmer can't live on juice and taste alone.

The first of my trio is *apios tuberosa*, the wild wistaria of the Kansas streams. After a few years of careful selection it could probably be made to take the place of both our potatoes—sweet and Irish. In manner of growth it resembles the ordinary pole bean, and with its dark green foliage and rich clusters of flowers does not make a bad ornamental. The desirable feature of our vine is underground and consists of long chains of tubers or fleshy roots, resembling more or less a string of small sausages. The individual tuber often contains a cubic inch of very nutritious food, rich in starch, sugar and protein, the last a vital lack in the potato, and, when cooked, very agreeable to the palate. The tendency of the tubers to spread too far and deep can probably be overcome, as similar habits of the potatoes have been reduced or conquered. After a few years of careful breeding the writer hopes to see this plant take its place among the staples of our land. A recently discovered species of this genus possesses only one large tuber, and in this respect will probably be superior to the other. Its range is such that it may be found later on in Kansas.

A second root crop, one to rival the turnip, is *psoralea esculenta*, the common Indian bread of the prairies. Its common name and scientific name both indicate its edible properties. The plant above ground resembles clover in its leaf and flower, but has larger flowers and more numerous leaflets. The root in shape and size is much like that of the garden radish—the tough rind coming off easily and leaving the central portion ready for food, of excellent flavor cooked or raw, rich in muscle-building protein. After the first year the center of the root becomes pithy and tasteless, but the first season's growth is always tender. Old roots often get as large as apples, and a few of these in a corner will produce all the necessary seed for the annual crop.

"And the last shall be first," at least in point of time of fruiting. While not a rival of any of the early vegetables, it will fill a broad gap and perhaps supplant some of the later ones. It is the well-known buffalo bean (*Astragalus caryocarpus*), called by a host of common names in different localities, as squaw apple, prairie bean or pea, etc. In the past it has been known only as a pickling "fruit," but the possibilities of

the future may make it a rival of the tomato and others of our garden favorites.

It is one of the most characteristic spring plants of the Kansas prairies. Its thick circular mats of short stems, lying almost flat on the short grass, with their green leaves and violet-red clusters of flowers, give a peculiar green-spotted appearance to the fields in early spring before the grass gets well started. The flowers are soon followed by enormous crops of fleshy pods that, as they ripen, take on in the sun rich red cheeks like a red June apple. In the center of the pod is a small cavity containing the seeds lined with a tough membrane. Under cultivation this could probably be eliminated. In shape and size the pods are very much like wild plums and quite as variable in size and quality. The large yields, the known qualities and the possibilities of the future all go to indicate a very desirable substitute for the cucumber and plants of like nature which contain more water, more colic and less food elements to the square inch than any other vegetables.

Of all the Kansas plants that may have futures, these three are to be selected on account of their possibilities to come, as shown in their partially developed past. If, as botanists tell us, most of our vegetables of to-day have originated from mere weeds, and soon, if left alone, revert to their original types, what may we expect from plants that in their native state are already better than many from the garden?

The vegetarian should urge the cultivation of these plants, as they furnish good substitutes for meat; the non-vegetarian

has grown alfalfa for any length of time. The Kansas Experiment Station will be glad to furnish small quantities of soil containing alfalfa bacteria to those who will pay transportation charges.

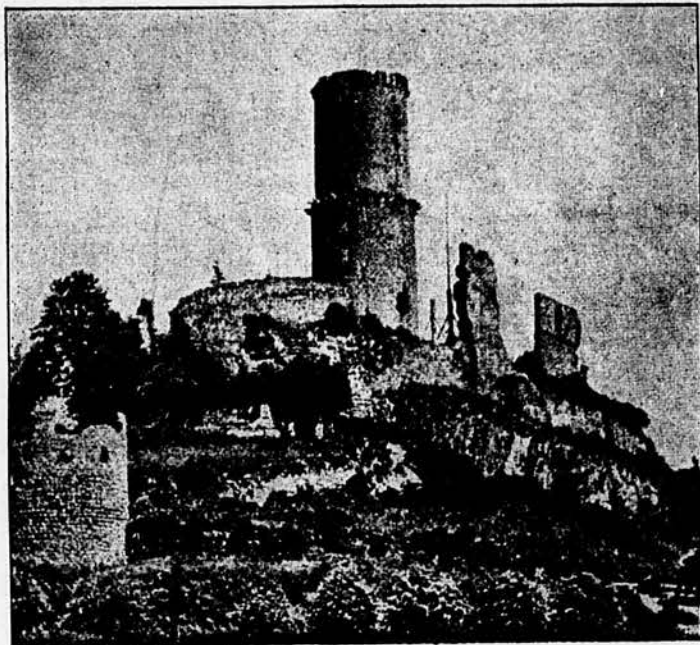
From the results of our experience with the soy bean it is very doubtful if it would pay to attempt to inoculate an old field. The best plan would be to secure a small quantity of the right kind of soil and inoculate a small bed of alfalfa. This could be done by spading up a thin spot in the old alfalfa field, but be sure to have it near the center of the field away from the ravages of the grasshoppers. Special pains should be taken to have the inoculating soil come in direct contact with the seed, as the bacteria do not spread readily without mechanical mixing. After this bed of alfalfa has grown and produced tubercles, the soil, together with the roots, can be thoroughly mixed and used to inoculate a larger patch. This process can be repeated until sufficient soil can be procured for inoculating a whole field. It makes no difference whether the alfalfa is planted in early spring or late summer. August would be an excellent time to start these bacteria to work and let them seize some of the nitrogen that blows across our prairies at the rate of sixty miles an hour.

D. H. OTIS.

Kansas Experiment Station.

Shawnee Horticulturists.

The Shawnee County Horticultural Society met Thursday, August 4, in a pleasant grove at the Reform School. Tables aggregating 200 feet in length were provided by the Reform School



GODESBERG CASTLE RUIN.

□ (See description on page 7—"Young People in the Old Country.")

arian should do likewise, as they furnish good accompaniments for his meat. The farmer needs them in order to have something on his table of equal rank with the alfalfa in the feed racks of his cattle.

While we do not claim in these plants a remedy for all the ills of our social, moral and political systems, yet they will probably go a long way in checking the ills of the digestive system, so long live the leguminous vegetables!

Manhattan, Kas. J. B. NORTON.

Root Tubercles for Alfalfa.

Editor Kansas Farmer:—M. T. L., Alva, Okla., writes: "I have read with interest the account of your experiments with root tubercles as published in the Kansas Farmer. We have a field of alfalfa sown in 1895. This has been examined carefully and not a tubercle is to be found on it. We have also examined some of our neighbors' fields with the same result. Our peas and beans are all without any sign of tubercles. We are particularly interested in alfalfa. Can you tell me if the alfalfa tubercle forming bacteria are commonly present in the soil of western Kansas? I had thought of trying to inoculate my field and would like to know where I can get soil containing the right kind of bacteria. Would it be wise to attempt to inoculate a field as old as mine, and should it be done at any other time than early spring?"

Root tubercles on alfalfa are common in fields around Manhattan. As to their distribution throughout the State, we cannot say at present. The Experiment Station is just ready to make investigation on this point this summer and results will be reported later. Soil containing these bacteria can doubtless be procured from almost any one who

and set in the grove. A bountiful dinner furnished by the members in attendance was spread, at which more than 100 persons partook, which number was increased after dinner to over 200. Fifty-five carriages and other vehicles scattered through the grove, and half a dozen bicycles, attested something of the attendance. Vases of beautiful flowers were furnished by the Reform School and by Mrs. A. J. Kleinhans and other ladies. Benches and ice-water were furnished by the Reform School. The day was a very pleasant one, clear and cool, which no doubt contributed to bring out the large attendance. Apples, peaches, and other fruits were furnished by A. M. Coleman, H. E. Goodell and other members.

The first paper on the program, "What I Know of Horticulture," by Hon. D. H. Hefebower, was called for, and a letter was read from Hon. Mr. Hefebower, who regretted that, owing to the pressure of his public duties, he was unable to be present.

"Physiology of Plants," by B. B. Smyth, was called for. Mr. Smyth stated that his paper was not yet ready, as the necessary illustrations were not prepared, and he asked for further time. On motion, he was granted until next January for the delivery of his paper.

The paper on "Horticultural Education in Schools" was called for, and was read by Dr. H. W. Roby. This is a paper of most excellent character, was carefully prepared and well delivered. It appears in this number of Kansas Farmer.

"A Schoolma'am's Dream of Horticultural Life" was read by Miss Belle Marple. A few extracts here follow: "John J. Ingalls tells us 'there is no State where the rewards of industry have been so ample and the conditions of prosperity have been so abundant, so stable, so

secure as in Kansas.' In the southern portion the peach, persimmon and plum grow to perfection; and the apple and grape grow luxuriantly in the warm sunlight and genial soil of nearly every portion of the State. The apple especially is one of the best-paying products raised, and one year with another more money can be made from one acre of apple trees than from one acre of any other crop.

"In eastern Kansas the general abundance of fruits at homes is a marked characteristic. Even as far west as Pawnee county a single tree has borne thirty-eight bushels in a season, and in western Kansas under irrigation eminent success has been had in the raising of fruits. An orchard of seventy acres, forty-five miles from the Colorado line, has given satisfactory results."

Discussion followed, by Messrs. W. P. Popenoe, Wm. Sims, Fred Wellhouse, Wm. M. Campbell, of Stafford county, and others.

The discussion reverted to the raising of orchards in western Kansas. The case of the orchard of Amos Johnson, in Barton county, was alluded to by the Secretary, Mr. B. B. Smyth, to show what could be done even in the arid region, and it was stated that that orchard was a vigorous, well-grown orchard, twenty years old or more, and a bountiful bearer.

Mr. E. B. Cowgill, who has a farm alongside of Mr. Johnson, stated that he has seen that orchard this year and that it is as full of fruit as an orchard ought well to be. The orchard is in the valley near the river, where the roots reach permanent water, and is protected by a row of cottonwoods surrounding it.

Judge Wellhouse, in reply to a question, gave his experience in protecting trees from rabbits. He had had much experience with traps and rabbit-proof fences, but is now experimenting with good success with a paint or wash consisting of hydraulic cement and skim-milk. Skim-milk is better than oil in preparing a paint for trees, as it does not check evaporation from the bark.

Mr. W. P. Popenoe said a few good words for the Chenango Strawberry apple, which he found on the table before him, raised by Mr. A. M. Coleman.

A hearty vote of thanks was extended to the officers of the Reform School for their generous provision for the entertainment of the society; and a vote of thanks was given to Dr. H. W. Roby and Miss Marple for their entertaining and instructive papers.

The next meeting of the society will be held September 1, at Tecumseh, at the residence of Mr. Horace E. Goodell. The following is the program: "Peach Culture," by B. F. Van Orsdal; "Irrigating Small Fruits," by J. F. Cecil; "Plums," by F. G. Tompkins; "Enjoying Life," by Mrs. Hepsy Higgins. S.

A Pleasant Arrangement.

The Omaha Christian Endeavor Union, representing some thirty Christian Endeavor Societies of that city, have a booth at the exposition grounds in charge of Endeavorers, who give out information and add in every way to the comfort of visiting Endeavorers and their friends.

Seeing the great need of a headquarters where young people and their friends could stop while seeing the Trans-Mississippi Exposition, they have arranged with the management of the Hotel Henryton, at Twenty-seventh and Lake streets, which is within walking distance of the exposition grounds, for the establishment of headquarters at that hotel, where the guests can have accommodations at from 50 cents to \$1 per day for rooms. This is the only official Christian Endeavor hotel in the city, and is under the management of the Christian Endeavor Union. It is home-like and has been newly furnished throughout, and street cars that pass the door connect to all parts of the city.

The members of the committee having this matter in charge are Chas. A. Mangum, A. L. Emmons and C. W. Hill, and any further information that may be desired can be obtained by addressing any member of the above committee, in care of the Y. M. C. A. Building.

Grand Encampment, Knights of Pythias and Supreme Lodge Session, Indianapolis, Ind., August 22-29 and August 30 to September 10, 1898.

Round trip tickets on sale at Santa Fe Route ticket offices August 19, 20 and 21 for \$16.05, limited to August 30, with provision for extension to September 10. Depot 'phone 682; North Topeka 'phone 364.

Don't forget the excursion to Boston over the Nickel Plate road, September 16 to 18, inclusive, at rate of \$19 for the round trip. Good returning until September 30, 1898, inclusive. 60

Weeds make good green manure. Plow them under:

Horticulture.

HORTICULTURAL EDUCATION IN THE SCHOOLS.

By Dr. Henry W. Roby, read before the Shawnee County Horticultural Society, August 4, 1898.

We live in the midst of a multitude of influences, silent, subtle, potential and irresistible, and they are forever shaping, directing and dominating our lives, whether we will or no.

LAW.

The corner-stone of the world is law. We have law for everything. You cannot lift a finger, or take a thought, or win a battle, or found a nation, but by obeying the behest of law. Every leaf that stirs in the forest, every blade of grass that waves in the meadows, every river that flows where gravity leads the way, every drop of dew that sparkles in the sunlight, every mist of morning and every down-pour from the clouds, are all the children and servants of law.

Every pound of pork, beef, butter and cheese, every pound of flour and meal, are all produced obediently to law and not otherwise. Every shock of corn, every stack of hay, every pile of straw in your fields, are the creatures of law. Every flower in your garden or on the wide prairies, every shade of color in the visible universe, every flavor that pleases or displeases the taste, every odor that attracts or repels your senses, every sound that assails your ears, from the hum of bees to the crash of thunderbolts, result from the operation of law. Every impulse and passion of the human soul, from the cooing of the child in its mother's arms to the wild shriek of a madman, are the sequents of law. Every apple that falls to the ground, and every seed that becomes a new tree, but obey the mandates of law.

Every nursery, school, college and university in the world is an inquisition into the domain of law. Every book that was ever written is an attempt at elucidation of some phase or phases of the universal law, known as the cosmic. Every teacher, preacher, doctor, lawyer; every man, woman or child who offers a hint or suggestion for the conduct of life and its affairs, does it obedient to some conception of law—the law of right action.

With the whole universe clamoring to be revealed to every son and daughter of the race, what wonder is it that the world is filled with newspapers and magazines, and books and charts, and globes and orreries; with philosophical and mechanical apparatus; with chemical and physical laboratories and polytechnic institutes? They are all intended to elucidate and demonstrate phases of the cosmic law. Why agricultural farms and experiment stations? To elucidate the law. Admitting that these things have the right scope and trend in the world, we may now consider the special topic of the hour—horticultural education in the schools.

THE MEANING.

Hortus means the garden, and includes the orchard, the vineyard, the shrubbery and flowers. Hortus cultura means the art of gardening. Let that suffice for definitions.

I am not informed whether I am expected to speak for or against horticultural education in the schools. But, as I am always in favor of every good thing in the world, I must favor the proposition.

First, on the ground that education itself is a good thing, anywhere and everywhere. The best return for life and labor is education. The best fortune any man can acquire is wealth of knowledge. It is the only wealth that cannot be stolen or squandered. Wealth of dollars makes man a slave; wealth of knowledge makes him a king.

USEFULNESS OF KNOWLEDGE.

In a broad sense all knowledge is useful. In some walks of life a knowledge of the classics is of the highest importance, while in other walks knowledge of the physical sciences is indispensable to success, while, in still other walks, logic and psychology or rhetoric and polemics are of the highest value. But there is a very large class of men in the world, the largest, in fact, of all classes, to whom horticultural knowledge, broadly understood and applied, is of paramount importance. To them Latin and Greek may truly be dead languages, and scientific courses in mechanics and natural philosophy may be dispensed with, and yet their lives and labors may be made happy and successful by a thorough knowledge of the science of horticulture.

In the home first and then in the school should that study be inaugurated and prosecuted. A vast majority of all peoples have some, more or less close, relation to horticulture. Hardly can a

man, woman or child be found who does not in some way contribute to the cultivation or distribution of some horticultural product. And no sane man will insist that anybody is armed for the battle of life who does not know at least the rudiments of his calling. It is an old maxim that, the more education the more knowledge, and the more knowledge the more power. And following up the thought, the more power the greater the human victory. It may not be victory of man over man or of man over beast, but it is victory of man over nature. Nature is a good friend of man, but she needs to be coaxed and urged and prodded, taxed and belabored before she will hand over to us her most cherished and splendid secrets and bounties. But we can make her do it and wear a smile at the same time if we but know how.

WORKS OF THE INFINITE.

Tillers of the soil are too often scoffed at for their ignorance and stupidity by people who know no more than they do. But to have a man justly charged with ignorance of his own calling is a disgrace that cannot be stated in good English. Horticultural education in or out of the school is one of the most delightful and worthy pursuits we can engage in. It is as noble a study as astronomy. It is acquainting one's self with some of the most beneficent laws of the same great First Cause that lit the lamps in the sky and set the great globes to wheeling in their orbits.

One can study the Supreme Architect of the universe as well in leaf and bud and flower and fruit as in gleaming planets and flashing meteors. The Creator dwells in the atom as well as in the globe, as well in the garden as in the fields of spaces, and it was in an orchard that the law of gravity was found. The falling apple revealed the law of wheeling spheres.

What a wonderful change would come over the habits and desires of men if all the children of school age to-day should at next school term take up the study of horticulture as a regular school study. Does any one dare think it would be a dry study? None other so full of juice, literally and figuratively. Let the teacher be wise enough to lead the way and point out all the delightful relations of that study, and I promise you that the dead languages would remain dead, except where they could be used to elucidate the terms of botany, chemistry and vegetable physiology. In true horticultural education there is vastly more than learning how to plant a tree and gather its fruit.

CONTAGIOUS ENTHUSIASM.

Set the boy to hunting out the answers to a few of the thousand questions that suggest themselves to the inquiring mind, and see how soon he becomes a rushing, rustling enthusiast, spying into a thousand nooks and crannies in God's great museum of wonders! Turn loose three such boys in any school and their example of enthusiasm will be as contagious as smallpox. Ask any bright boy how a tree or shrub grows, and see his eyes sparkle while his mind runs off on an errand of inquiry in the treasure-house of what he already knows, and if he cannot find the solution in his own store of knowledge, he soon tries to break into some greater treasure-house where it may be found. Ask him how a handful of earth is converted into a leaf, a flower, a peach, a strawberry, and see how eagerly he goes about finding out.

A MULTIFARIOUS STUDY.

A well-balanced general education can almost be acquired while pursuing this one study to all its final relations. Set the devotee of horticulture down to the study of an apple blossom, and see what marvelous problems he must work out in chemistry, in physics, in light and heat, in moisture and dryness, in form and color, in the laws of generation, incarnation and inflorescence. He must know practically the whole of botany, of chemistry, of geology, of meteorology, the laws of vegetable forms and combinations. How can our art transform the ancient sour, gnarly wild crabapple into a Pippin, a Winesap, a Greening, a Rambo, a Harvest Sweet? The thing that 200 years ago was counted impossible is to-day but by-play, on account of greatly increased horticultural knowledge. Lay the wild grape of the woods alongside of a Black Hamburg, and then ask for the changing steps of transition from the one to the other, and you challenge the keeper of the gates of knowledge. Lay out 100 plates of the finest apples, peaches, plums, prunes, apricots, grapes, raspberries, gooseberries, strawberries and other fruits, and then let the mind run back to the original wild varieties, and see what horticultural education has done for mankind; and then, if you can, suggest any better employment for a gen-

- ARMSTRONG & McKEELY Pittsburgh.
REYMER-BAUMANN Pittsburgh.
DAVIS-CHAMBERS Pittsburgh.
FAHNESTOCK Pittsburgh.
ANKOR Cincinnati.
ROKSTEIN Cincinnati.
ATLANTIC New York.
BRADLEY New York.
BROOKLYN New York.
JEWETT New York.
ULSTER New York.
UNION New York.
SOUTHERN Chicago.
SHIPMAN Chicago.
COLLIER Chicago.
MISSOURI St. Louis.
RED SEAL St. Louis.
SOUTHERN St. Louis.
JOHN T. LEWIS & BROS CO Philadelphia.
MORLEY Cleveland.
SALEM Salem, Mass.
CORNELL Buffalo.
KENTUCKY Louisville.

LET us send you a pamphlet giving information concerning paint—the kind that lasts. It is made from Pure White Lead and Pure Linseed Oil.

Pamphlet also contains samples of colors or shades made with Pure White Lead (see list of brands) and Tinting Colors, and gives full directions for mixing and applying them.

National Lead Co., 100 William St., New York.

eros portion of our school hours and tasks than to devote them to horticulture.

UTILITY OF KNOWLEDGE.

As the object of all education is to arrive at the primary laws of nature, it is clearly most important to know all we can about the natural laws that contribute most to our daily and universal needs. And since horticulture concerns so vast a proportion of the human race, it should be a part of the school studies of every child. Such study helps to develop all the useful faculties. We get a better view of this important subject when we observe what a large part of all the cultivated land on the globe is devoted to fruits, vegetables and flowers, and what a large part of the world's commerce originates in the garden and orchard.

What a world of beauty is opened to the mind through the study of fruits and flowers!

THE MYSTERIES.

By our knowledge of geology, gravity, reflection and refraction, we know quite well how that stupendous cataract of Niagara was formed, and yet, who can explain how the frost-riven granite of the mountains is transformed into flowers and fruits? We can explain with tolerable satisfaction how nature paints the rainbow, but who can tell how she paints the rose or the lily? We can explain how intoxicating spirits are distilled from the cereals of the land, but none of us can explain the processes by which nature distills from a handful of soil the perfumes of the rose or jasmine. Who can elucidate the mystery of twining tendrils, or the night-blooming habits of many plants, or the almost human attributes of the Mimosa? And yet these and a thousand other facts in nature all have a profound influence on man. They are so many voiceless tutors, pouring into our lives that flood of unconscious tuition that makes us mostly what we are. And yet this tuition, silent and mysterious as it is, is the mightiest that lays its hand unbidden upon us and shapes and directs our growth and destinies and hurls us on from change to change along the path of life.

Dr. Oliver Wendell Holmes was fond of quoting the statement of old Dr. Boeteler, that, "Doubtless God could have made a finer fruit than a strawberry, but he doubtless never did." And I say to you, that doubtless God could have made a better kind of education for man than horticulture, but he doubtless never did.

Is it any wonder that nearly all the great men of the earth, after having made splendid careers as statesmen, orators, commanders, journalists, inventors, merchants and professional men, should go back to the garden for that solace that merchant ships and tented fields and crowded senates and worshipping multitudes cannot give? They go gladly back to the garden to be near God and walk delighted in his living temples?

Doctor's Good Advice.

I suffered from felons and was given a prescription for my blood but it did no good. Other felons appeared and a physician advised me to take Hood's Sarsaparilla. I did so and it purified my blood so that I have since had no felons, boils or other signs of impure blood.—Charles A. Parkhurst, Oakland, Kas.

Hood's Pills cure nausea, sick headache, biliousness, indigestion. Price, 25 cents.

Santa Fe Route dining cars are equipped with electric fans.

ST. JOSEPH, MO.

OLD FASHIONED FAIR. August 22, 23, 24, 25, 26, 27.

THE GREATEST OF THE YEAR.

Send for Premium List Now Ready.

Liberal Premiums in All Departments.

Beat Mile Track. Ample Accommodations. Fair Treatment.

PALMER L. CLARK, Secretary.

The Farmer's Friend!

Farmers, keep prepared for accidents or sickness in your family or among your stock by keeping on hand a remedy that has been tried by thousands and proven in every case to be what it is represented.

DR. A. B. SEELYE'S

WASATUSA

The Great Healer,

Is the quickest exterminator of pain, both internally and externally, in man or beast, that can be found. If every family knew what Wasatusa does when tried, they would not be without it.

The Dr. Seelye Medicine Co. offered time and again to refund the money when Wasatusa is used according to directions, and no benefit is experienced. Few bottles are returned but commendation is plenty. It immediately and swiftly relieves all pain of every kind. Farmers need it. A safe remedy for every home in America. Insist on your drugist getting it from the wholesaler for you. Price 50 cents and \$1 per bottle, or address

DR. A. B. SEELYE MEDICINE CO., ABILENE, KANSAS.

WASATUSA, the Great Healer, successfully cures Rheumatism, Colic, Cramps, Sprains, Cholera Morbus, Accidents, Summer Complaint, Diarrhea, Headache, Catarrh, LaGrippe, Neuralgia, Scalds—all pain of all kinds whatever.

Elegant Sewing Machines. Buy direct Get the best. Factory prices. Warranted 10 years; all attachments for fancy work. No money in advance. FREE 30 day trial. The Elegant Atoka, \$19.50 to \$24.50; regular price \$50 to \$100. The Handsome, Durable Argyle, \$16.50 to \$19.50; regular price, \$40 to \$60. The Singer Models, \$8.25. Send for large catalogue before you buy, and save money. Address

P. ELY MFG. CO., 391 State St., Chicago, Ill.

BEARDED FIFE... OR RELIABLE MINNESOTA WINTER WHEAT. The only hard Winter Wheat, equal to the No. 1 Hard Fife Spring wheat for milling. We grow it here in Minnesota and it will not freeze out or winter-kill anywhere, and can always be depended upon to make a safe and sure crop. We will send a sample of this great wheat also our catalogue and full particulars to all farmers. Write to-day, reasonable. Farmer Seed Company, Fairbault, Minn.

YOUR FRUIT CROP

will make the most money if converted into Pure, Sweet Cider. This can be done cheaper and better with the Davis Cider Press than in any other way. Being made almost entirely of steel it is lighter and stronger than old style presses and at the same time cheaper. YOU CAN MAKE MONEY working up your own fruit and that of your neighbors. Don't buy until you get a copy of our illustrated catalogue. Write for it. J. E. DAVIS & CO., 835 Old Colony Bldg., Chicago, Ill.

In the Dairy.

Conducted by D. H. ORIS, Assistant in Dairying, Kansas Experiment Station, Manhattan, Kas., to whom all correspondence with this department should be addressed.

Temperature of Milk as Delivered at Creamery.

On July 26, which was a hot, sultry day, the Agricultural College made a test of the temperature of the milk delivered by the different patrons of the Manhattan creamery. Below is a tabulated account of the results:

DELIVERED BY PATRON.		
No. of patron.	Distance, in miles, hauled.	Temperature in degrees F.
1	1	86
2	1	81
3	3	90
4	2	78
5	1/2	77
6	1/2	78
7	5	80
8	2	80
9	1/2	83
DELIVERED BY MILK HAULER NO. 1.		
10	6	79
11	3	76
12	7	84
13	2	85
14	1	80
DELIVERED BY MILK HAULER NO. 2.		
15	8	81
16	5	81
17	7	84
18	7	83
19	7	81
20	3	77
21	2	85
DELIVERED BY MILK HAULER NO. 3.		
22	5	78
23	5	85
24	5	84
25	4	78
26	1	71
DELIVERED BY MILK HAULER NO. 4.		
27	14	81
28	6	84
29	1	82
30	1	84
31	11	82
32	11	78
33	11	81
34	7	86
35	9	78
36	1	80
37	7	80
DELIVERED BY MILK HAULER NO. 5.		
38	7	82
39	11	81
40	11	80
41	11	80
42	7	82
43	6	80
44	2	81
DELIVERED BY MILK HAULER NO. 6.		
45	9	85
46	7	84
47	6	84
48	5	76
49	10	88
50	4	82
51	11	83
52	11	86
53	6	81
DELIVERED BY MILK HAULER NO. 7.		
54	7	86
55	5	85
56	9	86
57	7	86
58	9	84
59	9	85
60	5	80
61	8	80
62	5	97
63	7	86

SUMMARY.

By whom delivered.	No. patrons.	Av. dis. hauled, miles.	Temp. in deg. F.		
			High.	Low.	Ave.
Patrons	9	2	90	77	81 4-9
Hauler No. 1	5	3 4-5	86	76	81
Hauler No. 2	7	4 4-5	85	77	81 5-7
Hauler No. 3	5	4	85	71	79 1-5
Hauler No. 4	11	7 2-11	90	78	82 3-11
Hauler No. 5	7	7 6-7	82	80	80 6-7
Hauler No. 6	9	7 2-3	88	76	83 2-9
Hauler No. 7	10	7 1-10	97	80	85 1-2

The above figures are interesting in that they show a great variation in the temperature and consequently an opportunity for great improvement in the handling of milk. It will be seen that temperatures varied from 71° to 97°, a difference of 26°. Even with the same milk hauler, there is a difference of 17°.

To have the milk in the best shape to produce good-flavored butter it should be kept at a temperature of 60° or below, and should never be allowed to go above 70° from the time it is cooled until it reaches the weigh can. With these figures before us, it is no wonder that so few creamery patrons are able to sell their Saturday night's and Sunday morning's milk, nor is it astonishing that Sunday night's milk is sometimes rejected on account of being sour.

Among the above list of patrons there are a few who deliver Sunday night's milk in a good, sweet condition without the use of ice. Every creamery patron who has trouble in keeping his milk sweet should study the above figures until his mind is thrown into a state of restless dissatisfaction, and then with heart and brain set about to make use of the opportunities around him. With proper care in the handling of milk and with cool well or spring water there is no reason why milk cannot be kept sweet during our hot summer weather at least thirty-six hours. It can be done; it has been done; the question now is, will you do it? D. H. O.

Testing Individual Cows by Patron and Butter-Maker.

The Chicago Produce gives account of a butter-maker in Minnesota who is taking a very active interest in the welfare and improvement of his community. He goes out among the patrons and tests individual cows, thus enabling the dairy farmers to fatten their poorest cows and to feed and breed their best ones to make them still more profitable. This is a laudable work and emphasizes very clearly that the interests of the creamery and patron are one. Whatever increases the production of butter fat without increasing the cost will mean a profit both to the patron and creamery. It takes a certain amount of milk to keep up running expenses, but every increase over and above this expense means a large percentage of profit. Measuring the ability of a cow by milk scale and the Babcock test is one of the surest and most permanent ways of securing increased profit.

Would it not be well for the patrons of creameries who cannot afford to buy a Babcock test to make some arrangement with the butter-makers whereby their cows can be tested individually? Perhaps it would be too much to ask the butter-maker to do this testing for nothing, but surely he ought to be willing to do it for cost, and this would be one of the best investments the patron could make. True, the butter-maker is a busy man, but by the use of preservatives the milk could be kept until a convenient time. The increase of milk would not be immediate but the permanent improvement of the dairy interests and the harmony and good will that would thus exist between the butter-maker and the patron would amply repay the effort.

The patron should bear in mind, however, that individual tests would amount to very little without a record of each cow's milk yield. The two factors always go together. By figuring the actual yield of butter fat and knowing the amount of feed consumed, the patron can tell which cows are yielding the most fat per pound of feed consumed, and he can either increase their feed or take part of the ration away from his poor cow and give it to those that can convert it into milk to better advantage. D. H. O.

Brandt & Essley, O. K. Creameries, Canton, Kas.

These creameries were established in 1890, H. M. Brandt and Elmer Essley, owners. The central factories and churning stations, with their respective butter-makers, are as follows: Canton, John H. Ratzlaff; Moundridge, J. M. Niles; Burlingame, C. E. Austin. All butter-making plants are equipped with ammonia refrigeration. Skimming stations are located at Auburn, Carbondale, Conway, Elyria, Lehigh, Lindsborg, Little River, McPherson, Roxbury, Spring Valley and Turkey Creek. The average number of patrons for 1897 was 1,200. Brandt & Essley received during 1897 19,272,370 pounds of milk, out of which they made 853,753 pounds of butter, and for which they paid the farmers in cash \$102,206.78.

The record shows an average of one pound of butter for 22½ pounds of milk and an average of 3.76 per cent. of butter fat. They report that among their best patrons they find there are some cows averaging \$4 per month, while other cows net less than \$2 per month. They believe that the Kansas dairymen need to pay greater attention to the care and grading of the cows in their herds, and that dairying in Kansas will be one of the chief industries of the State when the right grade of cows is secured. Mr. H. M. Brandt was formerly Secretary of the State Dairy Association.

State Dairy Convention.

The State Dairy convention meets in Topeka, November 16, 17 and 18, 1898. Secretary Hurd has arrangements nearly completed for the full program. The three-days' meeting will be especially devoted to the consideration of the selection and feeding of the Kansas dairy cow and the care of her milk that will give the most profit. A number of new features will be introduced in the program that will be of special value to Kansas dairymen. Full particulars will be published as soon as Secretary Hurd has the program ready. In the meantime, arrange your plans so that you can attend.

"Experiments with Forage Crops." (Bulletin No. 53, Nebraska Experiment Station.)—In this bulletin Prof. Lyon gives the results from pasturing a number of forage crops. He finds that a quick-growing variety of sorghum affords pasture fully equal to native or cultivated grasses, and that it has the advantage of affording more forage per

acre and in being green and succulent throughout the entire summer. One acre of sorghum furnishes pasture for ten cows twelve days. Prof. Lyon found that the most profitable time to pasture sorghum was after it had attained its height and before it headed. Sorghum pastured at this stage in July, August and September affords a large quantity of succulent forage that has a marked effect upon the milk flow. The best methods of seeding are given. Copies of the bulletin may be obtained free while the supply lasts by applying to Prof. T. L. Lyon, Lincoln, Neb. Write for it. It will help you to increase the amount of milk you deliver to your creamery this fall. H. M. C.

The Farmer's Dairy Cow.

Read before the Farmers' Institute at Valley Falls, Kas.

The first thing I wish to notice is, the difference between the farmer who makes a specialty of dairying and the man who is engaged in the different lines of farming with dairying in connection. Again, it is the purpose in the consideration of this question to bring out some thoughts that may be helpful to the general farmers in this locality. We do not need to concern ourselves about the kind of cow that is most profitable in New York, Ohio or Wisconsin, but what kind of a cow does northeastern Kansas need, and especially Jefferson county?

Ex-Governor Hoard and other dairymen of large experience will tell us there is no such animal as the general-purpose cow, and for certain localities, for certain purposes under certain conditions, I agree with them. As, for instance, a man located near some large city with a small farm of high-priced land who makes a business of supplying customers with milk or, if he has the skill and facilities for making high-grade butter for high-grade customers at high-grade prices, needs a high-grade cow built expressly for that purpose. But what of the large number of farmers who are not so situated? We must not overlook the fact that we are situated in one of the greatest corn- and grass-producing sections in the West, and within sixty miles of the second largest stock market in the United States, with farms ranging in size from eighty acres up to hundreds of acres, with single farmers raising thirty, sixty, one hundred, and sometimes more acres of corn. For this reason, ours is and will likely be for a long time to come more or less a stock-producing and feeding locality. My connection with the creamery business for the last few years has been such as to bring me into personal conversation with many farmers who have said they would like to have more stock to feed but could hardly keep a cow a year just to raise a calf and to go on the market as long as the prices were generally so high that the chances for realizing a profit was very uncertain. And this class of cattle are generally unsatisfactory, while if they could keep a few cows to raise what they wanted for the feed lot, and realize something from the cow besides, they would like to do so.

And now, to solve this problem, comes the creamery, and although it may be a little foreign to the subject in hand, I want to say a word just here for the creamery. It comes to us as our friend and not as an enemy. No wide-awake, intelligent creameryman but what recognizes the closely allied interests between the producer of milk and the manufacturer of butter; and he is always on the alert to protect the interests of his patrons, for upon them depends his success or failure. And no up-to-date creameryman but what will say to you to-day that he would prefer to be paying 25 cents per pound for butter fat rather than 18 if the market would justify it.

Having thus briefly outlined our conditions and surroundings, we come back now to our subject—the farmer's dairy cow. From an experience of eight or ten years, my ideal cow for the general farmer is one that will give milk for at least ten months of the year, producing in that time six to eight thousand pounds of milk that will test at least 4 per cent. butter fat, and as much more in quality as good feeding and management

CREAM SEPARATORS

De Laval "Alpha" and "Baby" Separators. First—Best—Cheapest. All Styles—Sizes. PRICES \$50 TO \$800. Save \$10 per cow per year. Send or Catalogue THE DE LAVAL SEPARATOR CO. Randolph & Canal Sts., CHICAGO. 74 Cortlandt Street NEW YORK.

can induce her to do. She should also be a cow that will produce a calf that with proper care will give satisfactory results in the feed lot. I do not wish to be understood as saying that we should be satisfied with the cow I have just described, but let us push forward, and if, by careful, intelligent management we can produce a cow that will test 4½ or 5 per cent., so much the better. Neither should we be discouraged if the ideal seems to some of us to be out of reach, but let us do the very best we can, ever striving to do better. I have no doubt there are cows in this vicinity that, if carefully handled, properly fed and sheltered and a record kept of their yield, would surprise their owners. Valley Falls, Kas. J. C. EVANS.

Mr. Evans milked twenty-seven cows for the year ending September 30, 1897. The milk was sold to the Meriden creamery. The calves were fed the skim-milk and were sold at an average age of seven and a half months. Below is the record:

YEAR'S RECORD OF TWENTY-SEVEN COWS.			
1896.	Milk. Lbs.	Test. Per cent.	Butter fat. Lbs.
October	18,070	3.7	668.5
November	19,393	3.7	717.5
December	19,797	3.5	692.9
1897.			
January	20,438	3.6	735.8
February	18,043	3.4	623.5
March	18,549	3.4	620.7
April	16,028	3.4	545.0
May	19,695	3.7	728.7
June	15,746	3.4	535.4
July	12,592	3.6	453.3
August	12,015	3.5	420.5
September	8,293	3.6	298.5
Total	198,659		7,040.3

Yearly average per cow—milk 7,357.5 lbs., butter fat, 260.7 lbs., equivalent to 306.7 lbs. butter per cow.

Cash received from creamery for milk of twenty-seven cows.....\$1,070.55
Cash received from sale of ten heifer calves 151.84
Cash received from sale of twelve steer calves 211.94

Total receipts for the year from twenty-seven cows\$1,434.33
Average income from each cow, milk and calf \$53.12

Spend Your Vacation in the Mountains. But first write the General Passenger Agent of the Colorado Midland railroad, Denver, for maps, views, and descriptive matter, so as to know where to go.

Have You Read These Books?

They are devoted to the wonderful sights and scenes, and special resorts of tourists and health-seekers, in the GREAT WEST.

Though published by a Railway Company,

THE SANTA FE ROUTE,

they are literary and artistic productions, designed to create among travelers a better appreciation of the attractions of our own country.

Mailed free to any address on receipt of postage, as indicated:

- "A Colorado Summer," 50 pp., 80 illustrations. 3 cents.
- "The Moki Snake Dance," 56 pp., 64 illustrations. 3 cents.
- "Grand Canon of the Colorado River," 32 pp., 15 illustrations. 2 cents.
- "Health Resorts of New Mexico," 80 pp., 31 illustrations. 2 cents.
- "Health Resorts of Arizona," 72 pp., 18 illustrations. 2 cents.
- "Las Vegas Hot Springs and Vicinity," 48 pp., 39 illustrations. 2 cents.
- "To California and Back," 176 pp., 176 illustrations. 5 cents.

W. J. BLACK, G. P. A., A. T. & S. F. Railway, Topeka, Kas.



The Improved U. S. Cream Separators

In thoroughness of separation take the lead. In completeness of design and ease of operation excel all others.

Are more substantially made and are superior in all points to all others.

All Styles and Sizes. \$75.00 to \$625.00.

Agents in all dairy sections.

Send for latest illustrated catalogues.

VERMONT FARM MACHINE CO., - Bellows Falls, Vt.

The Apiary.

Conducted by A. H. DUFF, Larned, Kas., to whom inquiries relating to this department should be addressed.

Cockroaches, Ants, Etc.

Apiary, Kansas Farmer:—I am bothered a great deal with ants and cockroaches in my supers. Is there any feasible plan to rid hives of them? I would be glad to have a reply, either personally or through the Kansas Farmer.

W. A. WADDELL,
Secretary Chase County Horticultural Society, Cottonwood Falls, Kas.

Answer.—The presence of ants, cockroaches and other insects of this nature about bee-hives and in supers is largely the fault of the hives used. Such hives usually have corners and unoccupied places in them wherein such insects harbor. If you have supers that the bees do not occupy on the hives, remove them, or learn why the bees do not go to work in them. Such supers have open places to admit of these insects. Ants, cockroaches and such are not considered damaging to bees to the extent of bothering with them, except in cases where the colony is weak and cannot occupy all the combs or the hives and supers. In this case the best remedy is to build the colony up strong by feeding or giving it brood from other colonies, and also removing for the time being all surplus supers or combs, and excluding these pests by shutting them out of such places. The latest, up-to-date hives and supers do not admit of insects, and the different parts of the hives are not added until the bees are ready to occupy them.

Ants get in their work of destruction most by getting on combs of honey unoccupied by the bees. They will soon destroy the appearance of sealed comb honey by cutting the cappings full of holes. They will thus congregate on combs of honey if the receptacles containing the same will admit of them. They may be entirely cut off from such by using a table with the legs set in pails of water or kerosene. Ants are very peculiar. They have their roadways from one hiding place to another, and frequently travel long distances, and they seem to act as though they had the right-of-way of these thoroughfares of theirs and do not even turn about from a hive of bees, but travel directly over the bottom-board of the hive. Bees cannot do much with them, but let them take their way, to some extent.

Powdered borax is frequently used for driving ants away from the hives, by sprinkling it about their haunts; but the best way to get rid of them is to locate their nests, which may easily be done by following their trail, and pour bisulphide of carbon into the nest by making a hole in the center, and plugging the hole to retain the fumes of same.

None of these insects will do any damage to good, healthy colonies of bees, and no empty supers should be left on the hives unoccupied by the bees for them to congregate in.

Notes for the Apiary.

Late summer is the best time to Italianize, and furnish queens to all stocks that have old or defective queens.

Queens may be reared in late summer and autumn by making queenless a hive that has the necessary young brood and eggs to produce queens.

Drones may be kept throughout the season in colonies that do not have queens, but brood should be given such colonies from others, and thus kept in condition.

Bees become irritable and cross after the honey season is past, and must be handled with more care. The smoker is now more brought into use, but it should not exceed necessity.

Some localities furnish considerable honey in autumn and frequently a surplus, but it is very exceptional if it is not needed in the brood chamber to place the bees in the best possible shape for wintering.

All unfinished comb honey in supers should be carefully removed from the hives and placed away securely and kept clean and bright for use the following season. Bees readily accept of these partly-worked supers in spring and fill them much earlier than others.

Empty combs that are not on the hives and protected by the bees are in danger of becoming destroyed by moth worms. If signs of them appear, the combs may be fumigated with burning sulphur, and should be confined in tight boxes. They are also liable to destruction by mice.

No swarming should be allowed or dividing bees done in late summer or autumn, but all colonies kept down to business in placing themselves in the

best possible condition for the winter. Late swarming or dividing will not prove successful, but losses will follow in winter, or weak, worthless stocks in spring at best.

Reports all over this country indicate a short honey crop the present season, especially from the East, West and North. Not much has been heard from the Southern States. Kansas seems to be as good as any. We have no reason to complain in our locality—indeed, we have not failed of a fair crop of honey for five years.

Queens over two years old are not, as a general thing, profitable to keep, and I prefer queens one year old only, if I wish to breed up rapidly with them at any time, especially in spring and just before the honey harvest. Old queens do not respond so readily, and frequently prove of but little value. It is a very exceptional case that a queen over two years old is valuable enough to retain.

A colony of bees that must be fed up for winter should be fed early, and if not thus fed early it will generally prove a loss. Two things must go together in building up colonies for winter, and that is feeding and breeding; and one without the other will not be of much avail. Late feeding may carry the colony through the winter only to dwindle out in spring. September is the proper month to feed bees.

To introduce a queen successfully, the colony should be made queenless some three or four days prior to presenting the new queen to it. Cages for introducing are always included with queens that are sent out by breeders, and these are so arranged that there is nothing but the food, which consists of sugar and honey mixed up into a solid mass, between the bees and queen, and when the bees eat through this food they liberate the queen. Hence the queen is liberated without the assistance of the apiarist, and in this manner the loss of many queens is prevented, as the bees are more inclined to take kindly to the queen by this process.

The Brave Yankee Tar.

A half-naked man sticking his head out of the forward eight-inch gun turret on the Brooklyn, to get a breath of fresh air, said to me as a couple of big shells whistled over our heads and struck in the water beyond: "Funny song they sing, sir," and then disappeared.

In the two hot engagements in which I have watched the fighting closely, I have never seen anything indicative of fear. True, everybody has a curious sensation as the first few shells of the enemy whistle overhead, and when one strikes, with its frightful explosion, you look around anxiously for an instant. If the smoke is cleared from your ship you will see a puff of smoke from a battery ashore. Then, just as you have forgotten the smoke, about three seconds later, you hear a sound like a swarm of bees humming over your head. Pretty soon the shells begin to come faster and faster. They drop in the water on both sides of you. One hits the military mast, and the debris of steel and rope and wood comes tumbling about you. You look up wonderingly, but give it merely an instant's thought. Then your mind reverts to the terrible roar of your own guns, and then comes the single idea of keeping outside the radius of fire, not of the enemy's guns, but those on your own ship, equally dangerous to your safety, the preservation of your ear drums and your life.

I stood by Commodore Schley's side, with Flag Lieutenant Sears, during the two first bombardments of Santiago, and we all found ourselves absolutely forgetful of peril, watching the shots from different turrets and telling the gunners whether to depress or raise the muzzle of the gun. We kept accurately the times of the movements, of opening fire, of good shots, of silenced batteries, and of "cease firing." The balls whistle about you with a nasty whine, as if they deplored not being able to hit you, but half the time the roar of the fusillade of your own ships drowns the complaint of the enemy's missiles. You experience at first a feeling of enjoyment not unmixed with terror. Then you grow animated and discover a peculiar sort of charm in the danger and in the game of life or death.—Leslie's Weekly.

Nickel Plate Excursion to Boston.

Tickets on sale for trains leaving Chicago September 16 to 18, inclusive, at rate of \$19 for the round trip, and good returning until September 30. Also cheap rates to all points east. Vestibuled sleeping cars to Boston, and solid trains to New York. Rates lower than via other lines. For further information, call on or address J. Y. Calahan, General Agent, 111 Adams St., Chicago.

BLACK LEG

PREVENTED BY

PASTEUR "VACCINE."

Write for particulars, prices and testimonials of thousands of American stockmen who have success fully "vaccinated" their stock during the past three years in Dakota, Nebraska, Wyoming, Colorado, Kansas, Texas, etc.

PASTEUR VACCINE CO., 52 Fifth Avenue, CHICAGO.

THE KANSAS CITY STOCK YARDS

—ARE THE—
FINEST EQUIPPED, MOST MODERN IN CONSTRUCTION AND AFFORD THE BEST FACILITIES

For the handling of Live Stock of any in the World.

THE KANSAS CITY MARKET

Owing to its Central Location, its Immense Railroad System and its Financial Resources, offers greater advantages than any other in the Trans-Mississippi Territory. It is the Largest Stocker and Feeder Market in the World, while its great packing house and export trade make it a reliable cash market for the sale of Cattle, Hogs, and Sheep, where shippers are sure to receive the highest returns for their consignments.

	Cattle and Calves.	Hogs.	Sheep.
Official Receipts for 1897	1,921,962	3,350,796	1,134,236
Sold in Kansas City 1897	1,847,673	3,348,556	1,048,233

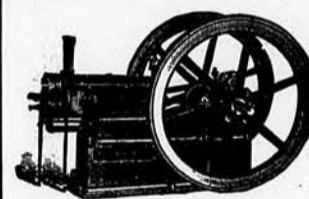
C. F. MORSE, Vice Pres. and Gen. Mgr. E. E. RICHARDSON, Secy. and Treas. H. P. CHILD, Asst. Gen. Mgr. EUGENE RUST, Traffic Manager.

FAIRBANKS' STANDARD SCALES

—FOR—
Stock, Hay, Coal, Etc.,
Mills, Elevators,
Warehouses.
Send for Catalogue.

WINDMILLS.

Eclipse Wood Wheel and Fairbanks' Galvanized Steel
FOR PUMPING OR GRINDING.
Towers, Tanks, Water-works
and Irrigation Supplies.
Send for Catalogue.



FAIRBANKS-MORSE GAS AND GASOLINE ENGINES.

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

FAIRBANKS, MORSE & CO.,
1217-19 Union Ave., KANSAS CITY, MO.

Superiority Under all Conditions

Has won the favor and approbation of all riders who have purchased

Columbia Bevel-Gear Chainless Bicycles, \$125.

It is generally admitted by them that the Columbia Bevel-Gear Chainless is over a mile faster in the hour on ordinary roads than chain wheels, and that it has 10% advantage in hill climbing.

Rides Easily, Smoothly and Silently.

COLUMBIA CHAIN WHEELS, - - \$75
HARTFORD BICYCLES, - - 50
VELETTE BICYCLES, - - \$40 AND 35

POPE MFG. CO., Hartford, Conn.

Culver & Bailey, Columbia Dealers, Topeka, Kas.

WHEN WRITING ANY OF OUR ADVERTISERS PLEASE MENTION KANSAS FARMER.

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the inquirer's postoffice, should be signed with his full name, and should be addressed direct to our Veterinary Editor, Dr. Paul Fischer, Professor of Veterinary Science, Kansas State Agricultural College, Manhattan, Kas.

SWINE PLAGUE.—I have been for some time a reader of the Kansas Farmer, and have been helped accordingly. We are on the Salt Fork river bottom. Myself and neighbors are getting out alfalfa and beginning to raise hogs. But hogs do not seem to do well. My neighbor on the north of me lost about a hundred head; others have lost more or less. Just now my neighbor on the south is losing some. He has a bunch of thirty to forty, three or four months old, weighing fifty to seventy-five pounds. They run on alfalfa and are fed slop from the house, including milk, with some corn. They seem to be healthy until attacked. The first symptom is a falling off in flesh; then a swelled joint in a leg or a swelled foot, or perhaps a sore ear. There is some fever, followed by general weakness, and death in from two to ten days. What is the trouble? It seems that such environment ought to be good for hogs. They have clean water, drawn every day from a well and served in clean troughs. They have shade. Can you help us in this matter? My neighbor who lost so many thought they had cholera, but the disease was too slow in its progress. It is important that we learn, if we can, what the trouble is and how to avoid it, as we have a fine bottom here for alfalfa, and with it wish to raise hogs. M. T. L. Alva, Okla.

Answer.—Your neighbor's suspicion was well founded; your hogs have swine plague or hog cholera. The form in which it occurs is not the usual one, although it is frequently observed. As to its being slow in its progress, a single pig may be affected for months, or longer, or the disease may run its course in a very few days. There are so many conditions that influence the development and progress of this disease that it is not strange to meet with it under different forms. For treatment I would refer you to the Veterinary column of the Farmer of August 4, 1898.... The Veterinary department of the Agricultural College, at Manhattan, is making experiments along the line of protective inoculation for swine plague. The virus used in these experiments is manufactured and offered for sale by Dr. H. J. Detmers, Columbus, Ohio (formerly investigator of animal diseases for the Bureau of Animal Industry and later Professor of Veterinary Science in the Veterinary College of the Ohio State University). This virus has been successfully used in Ohio and neighboring States and in some States west of the Mississippi river for a number of years. It is not a patent nor a secret preparation, but simply a carefully attenuated culture of the swine plague bacillus inoculated in a scientific way. Its methods of preparation and application have been described by Dr. Detmers and published in pamphlet form. The practical part of the experiments that are being carried on at the Experiment Station consists of the inoculation of three- or four-months-old pigs, and after the inoculation has had sufficient time to protect the animals, the latter will be sent out, in pairs of differently treated animals, to infected herds and exposed in every possible way to pigs diseased and dying of swine plague. Any farmer who owns a herd of cholera-infected pigs, and who will agree to carry out instructions, may, by applying to the Veterinary department of the Kansas State Agricultural College, obtain a pair of these pigs. The only cost to any hog-raiser who obtains a pair of these pigs is their fair market value, and the obligation of exposing the animals to infection and giving a written report after the lapse of a certain time. Every Kansas farmer is invited to take part in this test and to write for further information to the Veterinary department of the Experiment Station, Manhattan, Kas. The number of pigs used for this experiment is at present limited, and for this reason the maxim of first come, first served, will be observed. Pairs of inoculated pigs will be ready to ship in about ten days.

DESCRIPTION IS INCOMPLETE.—I have some sick hogs; have them in the orchard and am feeding them alfalfa and dry corn. The first I noticed of them being sick was three days ago. They would come up to eat and would eat a little and then throw up all they had eaten. Now some will not eat at

Horse Owners! Use



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

all. I noticed some this morning that were stiff in their hind legs, and one could not get up. W. R. Silver Lake, Kas.

Answer.—Your description is too short. Observe your pigs a little closer and then write again. In the meantime study the articles under "swine plague" in this and the previous number of the Farmer.

INFECTIOUS CONJUNCTIVITIS.—I have a number of spring calves that have sore eyes. The first thing I noticed was a slight running of water from their eyes, then a white spot appeared in about the center, and increased in size until the eye began to bulge out and become white all over. Sometimes one eye and sometimes both are affected and become blind. The animals are kept in a stable. One of them is now entirely blind; the others have been affected from four to six weeks. I had some cases like these last fall, but they all recovered. P. McG. Ladore, Kas.

Answer.—This is infectious conjunctivitis, described in this column of the Farmer of last week.

THUMPS.—I have some fine thoroughbred pigs, three months old, which are suffering from what I have always been told is the thumps. Their sides will draw together every now and then and will give a thump; breathing is rather fast; they have very little appetite except for milk or water. They have been running on clover pasture, eating skim-milk and a little corn; drink has been cold water from a well. They have been indisposed for three days. I am a new subscriber, so please do not refer me to a back number. J. H. M. Admire, Lyon Co., Kas.

Answer.—Thumps may be due to a variety of causes. Your description is rather brief, but since this is a very common symptom of some forms of swine plague, and since that disease is at present very common over the State, I would advise you to read articles under that heading in the Veterinary column of this and last week's number of the Kansas Farmer, and you may then be able to draw satisfactory conclusions yourself.

ACTINOMYCOSIS — INFECTIOUS CONJUNCTIVITIS.—(1) I have a ten-year-old cow that has a lump on the side of her jaw and neck. The lump first appeared on the back part of the jaw bone and just below the ear, about the first of June. It was then the size of my fist, gradually increasing in size until about ten days ago, when it was almost as large as a water-bucket. Then it broke and discharged a watery fluid. Near the ear it again gathered and two weeks later broke on the inside, discharging a thick white substance. When I first noticed it I bathed it freely with turpentine, and after it opened, washed it with a solution of carbolic acid. I enlarged the opening with my knife and great chunks of stringy substance, which seemed to be flesh, came out. (2) Another cow, 14 years old, was affected in the same way as the above cow. This I treated with tincture of iodine and since then the lump has not increased in size. What is this and what can I do for it? (3) I have three cows with diseased eyes. First a thin scum appears on the eye; the eyes water and in a few days the animals become blind. What is this? Driftwood, Okla. Dr. F. S.

Answer.—(1 and 2). These are both cases of lumpy-jaw. Give each cow a drachm of iodide of potash three times a day, dissolving the medicine in their drinking water; paint the tumors (lumps) with tincture of iodine every night and morning. Continue this treatment for a week or ten days and then report their condition. (3) This is infectious conjunctivitis. See Farmer of August 4.

Grand Encampment, Knights of Pythias and Supreme Lodge Session, Indianapolis, Ind., August 22-29 and August 30 to September 10, 1898.

Round trip tickets on sale at Santa Fe Route ticket offices August 19, 20 and 21 for \$16.05, limited to August 30, with provision for extension to September 10. Depot 'phone 682; North Topeka 'phone 364.

MARKET REPORTS.

Kansas City Live Stock.
Kansas City, Aug. 8.—Cattle—Receipts since Saturday, 3,005; calves, 236; shipped Saturday, 1,022 cattle; no calves. The cattle market was firm in the native division and uneven in the quarantine division. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.			
No.	Ave. Price.	No.	Ave. Price.
52.....	1,438 \$5.30	69.....	1,331 \$5.20
33.....	1,331 5.20	21 yrl.....	866 5.00
23.....	1,175 4.90		

WESTERN STEERS.			
25 fdr.....	980 \$4.00	23 atk.....	860 \$3.85
23 stk.....	777 3.80	15 fdr.....	924 3.60
57 atk.....	790 3.50	34 T. stk.....	695 3.35

NATIVE HEIFERS.			
2.....	670 \$5.00	4.....	1,132 \$4.65
3.....	623 4.50		

NATIVE COWS.			
2.....	1,350 \$3.75	12.....	1,200 \$3.65
2.....	1,035 3.50	7.....	940 3.15
44.....	757 3.00	5.....	832 2.65
1.....	930 2.40	1.....	1,090 2.00

NATIVE FEEDERS.			
17.....	935 \$4.15		

NATIVE STOCKERS.			
1.....	440 \$5.00	30 yrl.....	698 \$4.65
2.....	580 4.50	46.....	762 4.35
2.....	885 3.75	1.....	630 3.60
40 s. & h.....	532 3.55	1.....	860 3.00

Hogs—Receipts since Saturday, 3,838; shipped Saturday, 597. The market was steady to 10c higher. The following are representative sales:

59...283 \$4.00	56...301 \$4.00	55...311 \$3.95
83...260 3.95	52...320 3.95	72...226 3.95
71...248 3.95	71...248 3.92 1/2	69...230 3.92 1/2
75...229 3.90	71...259 3.90	72...240 3.90
59...263 3.87 1/2	85...200 3.87 1/2	79...216 3.87 1/2
68...252 3.85	78...220 3.85	72...246 3.85
58...244 3.80	58...194 3.80	42...218 3.80
93...193 3.75	122...197 3.75	50...211 3.75
98...184 3.75	81...178 3.75	4...245 3.75
65...255 3.65	67...183 3.67 1/2	70...198 3.65
44...188 3.60	32...105 3.65	69...183 3.55
75...149 3.55	82...198 3.60	80...166 3.50
80...166 3.50	5...140 3.50	3...190 3.40
20...124 3.40	9...131 3.40	1...370 3.25
7...131 3.35	27...138 3.30	1...610 3.25
8...329 3.25	1...325 3.25	1...160 3.25
32...145 3.15	1...290 3.00	6...145 3.00
12...131 3.00	5...252 2.75	23... 86 2.75

Sheep—Receipts since Saturday, 580; shipped Saturday, 1,697. The market was steady to strong. The following are representative sales:

12 N. lms....	96 \$6.00	23 N. lms....	53 \$5.75
36 sw. lms....	67 5.25	45 sw. stk....	62 4.25
210 T. fdrs....	70 3.80	420 L. stk....	74 3.60
43 fdrs.....	75 3.85	11 stk.....	38 3.00

St. Louis Live Stock.
St. Louis, Aug. 8.—Cattle—Receipts, 3,500; market steady to a shade easier: beef steers, \$4.50@5.35; light and dressed beef and butcher steers, \$3.75@4.50; stockers and feeders, \$3.00@4.65; cows and heifers, \$2.00@4.65; Texas and Indian steers, \$3.20@4.50; cows and heifers, \$2.25@3.50.

Hogs—Receipts, 2,500; market 10c higher and active; yorkers, \$3.80@3.90; packers, \$3.90@4.05; butchers, \$3.95@4.10.

Sheep—Receipts, 1,400; market steady to strong; native muttons, \$3.30@4.00; lambs, \$5.25@4.00.

Chicago Live Stock.
Chicago, Aug. 8.—Cattle—Receipts, 16,000; market steady to shade higher; beefs, \$4.20@5.55; cows and heifers, \$2.20@4.75; Texas steers, \$3.20@4.50; western, \$3.80@4.65; stockers and feeders, \$3.30@4.75.

Hogs—Receipts, 21,000; market fairly active and 5 to 10c higher; light, \$3.70@4.02 1/2; mixed, \$3.75@4.05; heavy, \$3.70@4.10; rough, \$3.70@3.80.

Sheep—Receipts, 11,000; market strong to 10c higher; native, \$3.00@4.75; western, \$3.75@4.50; lambs, \$4.00@5.50.

Chicago Grain and Provisions.

	Aug. 8	Opened	High'st	Low'st	Closing
Wh't—Aug....	71	71 1/4	69 1/4	69 1/4	69 1/4
Sept....	68 3/4	68 3/4	66 3/4	66 3/4	66 3/4
Dec....	66 1/2	67	65 1/2	65 1/2	65 1/2
Corn—Aug....	32 1/2	33 1/2	32 1/2	32 1/2	32 1/2
Sept....	32 1/2	33 1/2	33 1/2	33 1/2	33 1/2
Dec....	33 1/2	33 1/2	33 1/2	33 1/2	33 1/2
Oats—Aug....	21	21 1/4	20 1/4	20 1/4	21
Sept....	23 1/2	24 1/2	23 1/2	23 1/2	23 1/2
May....	23 1/2	24 1/2	23 1/2	23 1/2	23 1/2
Pork—Aug....	9 02 1/2	9 02 1/2	8 75	8 87 1/2	8 87 1/2
Sept....	9 02 1/2	9 02 1/2	8 75	8 87 1/2	8 87 1/2
Lard—Aug....	5 35	5 37 1/2	5 22 1/2	5 25	5 25
Sept....	5 40	5 40	5 25	5 30	5 30
Oct....	5 22 1/2	5 22 1/2	5 15	5 15	5 15
Ribs—Aug....	5 30	5 30	5 17 1/2	5 20	5 20
Sept....	5 30	5 30	5 17 1/2	5 20	5 20
Oct....	5 30	5 30	5 17 1/2	5 20	5 20

Kansas City Grain.
Kansas City, Aug. 8.—Wheat—Receipts here for two days were 320 cars; a week ago, 483 cars; a year ago, 831 cars. Sales by sample on track: Hard, No. 1, 70 1/2@72 1/4; No. 2 hard, 68@72 1/4; No. 3 hard, 65@70 1/4; No. 4 hard, 60@63 1/4; rejected, 55c; no grade, 62c. Soft, No. 2 red, 75c; No. 3 red, 72@74; No. 4 nominally red, 60@67c; rejected red, 63@64 1/4; no grade, 66 1/4c. Spring, No. 2, nominally 65@66; No. 3 spring, nominally 64@65; rejected spring, nominally 59@62c.

Corn—Receipts here for two days were 82 cars; a week ago, 18 cars; a year ago, 82 cars. Sales by sample on track: Mixed, No. 2, 32@32 1/4; No. 3 mixed, 31c; No. 4 mixed, 29@31c; no grade, nominally 27@29c. White, No. 2, 32@32 1/4; No. 3 white, 31@31 1/4; No. 4 white, nominally 30c.

Oats—Receipts here for two days were 32 cars; a week ago, 14 cars; a year ago, 17 cars. Sales by sample on track: Mixed, No. 2 old, 23@24c; No. 3 mixed, old, nominally 24c; No. 4 mixed, nominally 18@20c. White, No. 2, new, 27, old, 25@26 1/4; No. 3 white, 24 1/4@25 1/4; No. 4 white, 24c.

Eye—No. 2, 48@49c; No. 3, 48c; No. 4, nominally 44c.

Hay—Receipts here for two days were 99 cars; a week ago, 41 cars; a year ago, 39 cars.

Kansas City Produce.
Kansas City, Aug. 8.—Eggs—Strictly fresh, 10c per doz.
Butter—Extra fancy separator, 18c; firsts, 16 1/4c; dairy, 16c; store packed, 13c; packing stock, 11c.

Poultry—Hens, 6 1/2c; broilers, 9c per lb.; roosters, 15c each; ducks, 5c; young ducks, 6c; geese, 4c; goslings, 7c; hen turkeys, 7c; young toms, 6c; old toms, 6c; pigeons, 50c per doz.

Vegetables—Roasting ears, home grown, 50c per doz. Tomatoes, home grown, 50c per bu. Cucumbers, 15@20c per doz. Peas, home grown, marrowfat, \$2.00 per bu. Green and wax beans, \$1.00 per bu. Lettuce, home grown, 30@50c per bu. Onions, new, 40@50c per bu. Beets, 25c per 3 doz bunches. Cabbage, home grown, 50@60c per 100-lb. crate. Celery, 40@50c per doz. Potatoes—Home grown, 35c per bu. in car lots. Sweet potatoes, home grown, \$1.75@2.00 per bu.

Grand Encampment, Knights of Pythias and Supreme Lodge Session, Indianapolis, Ind., August 22-29 and August 30 to September 10, 1898.

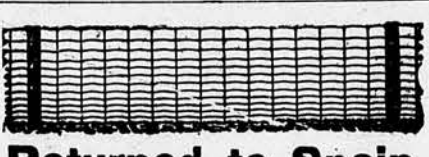
Round trip tickets on sale at Santa Fe Route ticket offices August 19, 20 and 21 for \$16.05, limited to August 30, with provision for extension to September 10. Depot 'phone 682; North Topeka 'phone 364.



\$145.00—All Steel, Full Circle Hay Press; three day trial. Plows, Cultivators, Wagons, Buggies, Harness, Scales, Sewing Machines, etc. Send for illustrated catalogue; free. Farm Implement Supply Co., Winona, Minn.

"ELI" Baling Press
33 Styles & Sizes.
It makes compact, even-sized bales that fit nicely in a car, admitting of heavy loading thus saving freight. Has 66x80 in. Feed Opening. Patent automatic block placer—no more crushed hands or arms. All Steel, Strong, Fast, Easy Power. Illustrated catalog free. COLLINS PLOW CO., 1120 Hampshire St., QUINCY, ILL.

WOVEN WIRE FENCE
With our Duplex Automatic Machine you can make a genuine Rabbit-Proof fence, and one that is also Horse-high. A Hog fence for 1/2c. A Stock or Chicken fence for 1/4c a rod. Plans, Colored Spring and Barbed wire to farmers at wholesale prices. Catalogue Free. MITCHELL BROTHERS, Box 66, Ridgeville, Indiana.



Returned to Spain.
She takes back her vanquished soldiers. We never took back a rod of Page Fence after a siege. They order more instead. PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

THE ONLY "QUICK REPAIR" PUMP
SQUIRTS tell the story. GET IT RED JACKET MFG. CO. DAVENPORT IOWA.

Celebrated "Des Moines" Equalizers
Four Horses For Plows and Binders
No experiment. Ten years on the market. Thousands in use. Prices right. Descriptive matter, prices, etc., on application. SPECIALTY MFG. CO., Des Moines, Iowa.

THE "HOOVER" DIGGER
DIGS POTATOES Rapid, Clean and Cheap. Price greatly reduced. Mention this paper and get book FREE.
HOOVER, PROUT & CO. Avery, Ohio.

Improvement in Pure Water Troughs.
OLD RELIABLE "NOVELTY"
EVER THE BEST MADE.
Galvanized Float. Note the Raised Center. Guaranteed Mud Proof or Money Back.
Price \$3
Freight paid to any point. Catalogue Free.
Novelty Mfg. Co., Rock Island, Ill.

The Poultry Yard

Conducted by C. B. TUTTLE, Excelsior Farm, Topeka, Kas., to whom all inquiries should be addressed. We cordially invite our readers to consult us on any point pertaining to the poultry industry on which they may desire fuller information, especially as to the diseases and their symptoms which poultry is heir to, and thus assist in making this one of the most interesting and beneficial departments of the Kansas Farmer. All replies through this column are free. In writing be as explicit as possible, and if in regard to diseases, give symptoms in full, treatment, if any, to date, manner of caring for the flock, etc. Full name and postoffice address must be given in each instance to secure recognition.

KANSAS STATE POULTRY ASSOCIATION.
President, A. M. Story, Manhattan.
Secretary, J. W. F. Hughes, Topeka.

Coming Poultry Shows.

Wichita, State Fair, Kansas.—H. O. Toler, Secretary, Wichita, Kas. September 19-24, 1898. C. H. Rhodes, Judge.
Garden City Poultry and Pet Stock Association.—A. S. Parson, Secretary, Garden City, Kas. Show September 12-16, 1898. C. H. Rhodes, Judge.
Abilene Poultry and Pet Stock Association.—Roy O. Shadinger, Secretary, Abilene, Kas. Second annual exhibit, at Abilene, January 25-28, 1899. Theo. Sternberg, Judge.
Butler County Fanciers Poultry and Pet Stock Association.—C. H. Pattison, Secretary and Treasurer, El Dorado, Kas. Second annual exhibit at El Dorado, Kas., December 20-23, 1898. C. H. Rhodes, Judge.
Topeka Fanciers' Association.—L. V. Marks, Secretary, Topeka. Exhibit January 9-14, 1899, in connection with State show.

THE PRACTICAL DEPARTMENT IN SHOWS.

All departments of a poultry exhibition are practical. Even that devoted to the exhibition of the smallest and finest specimens of exhibition bantams is practical, because it illustrates the results of the art of breeding, and presents a comparison of these dwarf specimens with the larger breeds. But the department which, above all others, is known as practical, is the one wherein are displayed the eggs and the dressed specimens of various breeds.

This department ought to appeal very strongly to the practical poultryman as distinguished from the fancier. Here is a field where purity of breeds and the art of feather-breeding is subordinated to the results of skill in producing products for market, where the appeal is made to utility rather than to beauty. This department ought to be filled with the choicest specimens of dressed poultry, and with the largest and finest displays of eggs.

HARD TO FILL.

Every manager of a poultry show will corroborate me in the statement that this is, of all departments, the one most difficult to fill. While the classes provided for fanciers are filled readily, the practical poultryman seems loth to make a display of his products.

Probably one of the reasons for this reluctance is that practical poultrymen have not been accustomed to exhibit much, and they find it difficult to overcome the long-acquired habits of their lives. They do not seem to realize, like other business men, that such an exhibit is the best kind of an advertisement, and that, in time, irrespective of the prizes which may be won, it will add to their business and prove a profitable investment of time and money.

But there is, it seems to me, an even more potent reason for this reluctance on their part. At the time the premium lists are ready for distribution, the opportunity to get ready for such an exhibit has generally gone by. The poultryman who intends to exhibit dressed poultry and eggs needs to make his preparations long in advance of the time of holding the exhibition. He should begin early in the season by selecting and reserving for the exhibition a number of his finest specimens. These should be grown carefully and put up for fattening so as to have them in the finest condition at the time when the exhibition opens. Eggs should be saved from the fowls when they are laying freely, so as to be able to make a proper selection of them. The practical poultryman cannot get ready on a short notice—such a notice as a fancier requires.

OBVIATE THE DIFFICULTY.

Two means of obviating this difficulty suggest themselves: First, the practical poultryman can keep himself posted upon the dates of the exhibitions. Such a list as this publication will be of service to him. He can easily ascertain whether any particular exhibition will have a practical department or not by writing to the Secretary. The New York, Boston and Rhode Island associations always provide such a department, and many, if not all, of the other societies offer premiums upon such exhibits.

Second, associations might send out, in advance of the exhibition, a circular announcing that such a department would be provided for, and, if the plans were sufficiently mature, what the premiums would be. The great difficulty in doing this lies in the fact that the Secretaries seldom know to whom such circulars should be sent. To remedy

this, the expectant exhibitor could send a postal card requesting the circular.

INDUCEMENTS TO EXHIBIT.

As an illustration of the inducements to exhibit, I copy the following (which is a fair specimen of the annual offerings of the Rhode Island Poultry Association) from last season's premium list of that association:

Class 13, dressed poultry. Entry fee for collection, \$3. Best collection of not less than ten pairs exhibited by market men, 1st premium, \$15; 2d, \$10; 3d, \$5; exhibited by producers, \$15, \$10 and \$5.

Entry fee for the following specimens, \$1—each specimen, pair or dozen, as the case may be: Best dressed turkey gobbler, 1st, \$8; 2d, \$4; 3d, \$1.50; 4th, H. C.; hen, \$8, \$4, \$1.50 and H. C. Pair dressed chickens, broilers, \$4, \$2, \$1 and V. H. C.; pair dressed chickens, roasters, \$4, \$2, \$1 and V. H. C.; pair dressed capons, \$4, \$2, \$1 and V. H. C.; pair dressed fowls, \$4, \$2, \$1 and V. H. C.; pair dressed geese, \$8, \$4, \$1.50 and H. C.; pair dressed ducks, \$4, \$2, \$1 and V. H. C.; pair dressed guinea fowls, \$4, \$2, \$1 and V. H. C.; dozen dressed squabs, \$4, \$2, \$1 and V. H. C.

Each carcass must be labeled, giving sex and breed or combination of breeds, so far as known, from which it was produced.

Class 19, incubators. Entry fee, \$5 for each machine. For the machine which shall hatch during the show the largest per cent. of fertile eggs and not less than fifty chickens, 1st, \$20; 2d, \$10; 3d, \$5; 4th, V. H. C. Exhibitors of machines not in operation will be charged floor space.

Class 20, brooders. Entry fee, \$2 for each machine. For the best brooder, 1st, \$10; 2d, \$5; 3d, V. H. C.; 4th, H. C.

Class 21, eggs. Entry fee for each lot, \$1. Exhibitors must give name of variety, and state whether the eggs were laid by old or young. For best dozen brown eggs (hens'), 1st, \$3; 2d, \$2; 3d, \$1; 4th, V. H. C.; white eggs, \$3, \$2, \$1 and V. H. C.; largest dozen hens' eggs, \$3, \$2, \$1 and V. H. C.; smallest dozen bantam eggs, \$3, \$2, \$1 and V. H. C.; best dozen turkey eggs, \$3, \$2, \$1 and V. H. C.; best dozen geese eggs, \$3, \$2, \$1 and V. H. C.; best dozen duck eggs, \$3, \$2, \$1 and V. H. C.; most interesting and instructive collection of not less than 100 eggs, \$5, \$3, V. H. C. and H. C.

SPECIAL PREMIUMS.

In addition to the regular premiums, special premiums were offered—one of \$25 in cash for the best exhibit of White Wyandottes, including specimens dressed for market, and eggs—in which it was distinctly stated:

"The judge will give preference to fowls having the most useful or utility qualities, and disregard all standard or fancy points not necessary to insure these qualities. To secure this premium, exhibitors are required to show a pair of both old and young dressed fowls, as well as one dozen eggs, properly labeled, from both pullets and hens."

Two specials were offered for cross-bred fowls; one for the largest and best exhibit of turkeys, "without regard to the purity of the breed," each \$10; four specials, valued at \$5, \$5.60, \$1 and \$1, for dressed poultry; and a like number for eggs, valued in the total at \$13.50, and still another cash one of \$5.

Boston did equally well, or better, and I presume will make equally large and liberal offerings at its next exhibition.

Such prizes are well worth competing for, if one had nothing else in view. But the object of the practical department in poultry shows is to stimulate and encourage the practical poultry-grower, to the end that more and better poultry products may be produced annually.

A DUTY TO PERFORM.

The practical poultryman has a duty to perform. Poultry shows cannot be run successfully unless they are patronized. Departments are made to be filled. If the management of poultry shows offer such liberal inducements, practical poultrymen ought to see to it that the practical department is made one of the most interesting and valuable departments in the exhibition. If it is properly filled it will be, but if one poor turkey and a pair of lean chickens mount guard over a paltry dozen of eggs, the department will be a failure, and the management of the exhibition will not be to blame.

The moral of this is for practical poultrymen, knowing that their pursuit is receiving encouragement, to begin early in the season to make preparations for exhibiting at least at their local show, and, if possible, at one of the larger exhibitions. It seems a pity that the practical department usually makes so small a part of our exhibitions, and it seems strange that it should be so when it is considered that in the total output of poultry products the fancier furnishes such a small percentage. It is a practical illustration of the tail "wag-

ging the dog," instead of the dog "wagging the tail." The fancier is fully alive to his interests, and the practical poultryman ought also to be alive to his interests. Early preparation of exhibits, and a liberal showing of the same, are needed to secure a proper representation of the practical side of the great poultry industry at our leading poultry shows.—H. S. Babcock, in Country Gentleman.

The above article we reprint from the Country Gentleman, as it covers a point of special interest to our farmer poultry men and women. Here is a place, as the writer well says, that fine feathers do not count, but the practical side, the one appealing most strongly to our inner man, the table qualities. We are informed that there is an effort on foot to have this department represented at the next show of the State Poultry Association, to be held at Topeka, January 9-14, 1899. We sincerely hope it will succeed, believing, as we do, that it will be an immense benefit to the poultry interests at large, and also redound to the glory and success of the State show. Notice what Mr. Babcock says in regard to the time to begin to get ready. It is none too early now. Whether there are premiums offered or not, let us make this a show long to be remembered from the fact that it inaugurated this feature, and if properly filled and it proves a success, as it must, it will hereafter, no doubt, be made a permanent feature of all our State shows. How many will enter into this contest? All who will, please notify this department of the Farmer, and we will render all assistance possible. Later on we will give full instructions as to best methods of dressing and preparing the fowls for exhibition. All with whom we have talked favored the idea, and we feel assured it will be a go.

POULTRY EDITOR.

Kansas State Poultry Show.

It is not too early to begin to think of the State Poultry Show, to be held at Topeka, January 9-14, 1899, and to begin to get ready for it. From present indications it will be the biggest thing the State Association has yet given us. Everybody is waking up to the fact that it is a good thing and is showing a willingness to help it along. The present expectation is that there will be fully 2,000 birds of the various varieties on exhibition. Think what a sight this would be of itself. Then add the many up-to-date appliances, such as incubators, brooders, bone mills, feed-cutters, etc., and the various kinds of supplies, and it will make a sight well worth going far to see, and worth far more to any one than the paltry sum of 10 cents, which will, as usual, be the admission fee. Secretary Hughes informs us that he has already over \$350 in special premiums offered by the merchants and business men of Topeka, and has not canvassed more than two-thirds of the city. Besides, the local poultrymen are still to be heard from when this canvass is completed, and they always do the handsome thing. We see no reason, if the proper effort is made and all interested take hold and work to this end, why we, at Topeka, should not have as good a show as the Chicago, Mid-Continental, Boston or Madison Square, or at least compare very favorably with them. Kansas never does anything by halves, and with the present wide-awake officers, especially the Secretary, we are bound to succeed. Now, let every shoul-

A College Education



Is the best life equipment that can be provided for a young man or a young woman. Everybody can't afford it, but every man who keeps a dozen or more cows can easily do so. A SHARPLES SEPARATOR of the Little Giant or Safety Hand pattern will, in a short time, make extra butter enough to pay for a college education for each member of your family. Look into it.

BRANCHES: **P. M. SHARPLES,**
Elgin, Ill. West Chester, Pa.
Omaha, Neb.
Dubuque, Iowa.

der be put to the wheel, and all give a push, push together, and keep pushing, and Hamilton hall, which is talked of, or the new auditorium (?) will not hold the crowd.

Inquiry Corner.

Under this head we will answer free, each week, such inquiries as are received pertaining to any point in poultry culture. We invite inquiries and answers from all our readers.

I am a reader of the Farmer, and am interested in poultry-raising. I have been caponizing some young roosters, but have not had the success I would like to have. Can you refer me to any good work on caponizing? Any information you can give me will be very thankfully received.

W. R. BROWNING.

Padonia, Kas.

Answer.—As Mr. Browning enclosed self-addressed and stamped envelope, we answered by mail, as follows: Send 15 cents in stamps to Poultry Keeper Co., Parkersburg, Pa., for issues of Poultry Keeper for January, 1897, March, 1892, and July, 1892. These issues contain illustrated articles showing proper methods to pursue, and will probably help you out. You might also write to G. P. Pilling & Sons, 1229 Callowhill St., Philadelphia, Pa. (enclosing 2-cent stamp), for their "Capon Book." Also, W. H. Wigmore, 912 Rementer St., Philadelphia, and Allerton Caponizer Mfg Co., Allerton, Iowa, who are manufacturers of caponizing instruments and issue books of instructions from which you might get pointers. There is also a book, "Capon and Caponizing," by Geo. Q. Dow, that is the best thing I know of, John B. Alden, New York, publisher.

In the Farmer of the 28th ult. you invite all readers to consult you on any point pertaining to poultry. I had eight young turkeys, all doing well. One morning the two youngest (about three weeks old) looked drooping. I examined them and found under the wings and on body small red clusters that looked like the eggs of some insect. I greased them with pure lard, but they died within forty-eight hours. My six larger ones I examined and found in the same condition. They were bright, but I greased them and now the clusters have disappeared and they never seemed to be affected by them in the least. What should I have done for the small turkeys, and what were the red clusters?

MRS. F. A. BATES.

Parisville, Kas.

Answer.—This correspondent leaves out one very vital point in her letter, that of caring for the flocks previously—whether they were confined or had free range. Yet, from the symptoms given, we feel sure the latter. It is almost impossible (sometimes, at least), to form a clear idea as to the trouble unless all the story is told. In this case, however, we think we can reason out the case from our own experience this spring. We had one lot of brooder chicks which, when warm enough, we gave the run of the lawn, for exercise. Probably 100 feet away a pasture joins the lawn, separated by wire fence. Owing to rush of work during berry-planting and cultivating time, this pasture was allowed to get quite weedy. No place seemed to suit these brooder chicks quite as well as among these weeds. At feeding-time one evening we were examining some of the chicks, as we nearly

Many people are skeptical regarding testimonials. We offer

\$5,000.00 Reward

to any person who can prove bogus one letter that we publish in praise of the famous veterinary remedy

Tuttle's Elixir.

Send three 2-cent stamps for postage on sample bottle, and list of testimonials.

DR. S. A. TUTTLE, 27 Beverly St., Boston.

"Wide Tires Make Good Roads."

You can't overload a wagon that is equipped with

GOSHEN LOW WAGON WHEELS

Look like this on a Common Wagon.

Can't Rot, Get Loose or Break Down.

They are built of wedge-shaped layers of kiln dried Indiana White Oak with the grain running from the hub to the tire. They fit any wagon, are 18 to 36 in. high and 8 1/2 to 6 in. tire. Low wheels save half the lift—easy to load logs, hay, grain, stumps, stones, corn fodder, manure, anything. A set of these wheels makes two wagons out of one.

Circulars free. Kelly Foundry & Mach. Co. 64 Furl St. Goshen, Ind.

always do, and found some of these same clusters or red spots, and, on further examination, found the entire flock more or less affected, the seemingly weaker ones the worst. We adopted the same line of treatment as did Mrs. Bates, keeping them out of the weeds thereafter, and had no further trouble. After considering the matter thoroughly, we attributed the trouble to chiggers. If these turkeys had free range and ran among the weeds and grass we feel morally certain that the chigger was the cause. In this case, the treatment, in our estimation, was the best that could have been used. Probably the reason of the difference in the two lots—one being affected more seriously than the other—was that the older ones were more vigorous and withstood the attack better. If the younger and weaker ones had been treated sooner, no doubt they could have been saved. It pays to watch your flocks closely.

Ticks! Lice! Fleas! Screw Worm!
CANOLINE.—Antiseptic and disinfectant—prevents all contagious diseases by destroying all bacilli, microbes, disease germs, foul odors and gases; it will kill ticks, lice, fleas, screw worms, bed-bugs, ants and all vermin; cures scab, mange, foot rot, cuts, sores, galls, bites and stings; keeps off flies, gnats, mosquitoes. It is non-poisonous. Cheapest and best on earth. One bottle makes twenty or more ready for use. Twenty-five or 50 cents per bottle, or in gallon lots, by all dealers. Or send 6 cents in stamps to Cannon Chemical Co., St. Louis, for sample, to make a pint.

THE IMPROVED VICTOR Incubator
 Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class Hatcher in the market. Circulate FREE.
GEO. ETEL CO., QUINCY, ILL.

ITALIAN BEES.
 Bred from queens imported from Italy. Full colonies; two, three and four frame nucleus shipped anywhere and safe arrival guaranteed. We ship Bees any time from March to November. Queens, hives and supplies generally.
A. H. DUFF, Larned, Kas.

Port Arthur's Prosperity Is Based on Business.

Over 12,000 tons of export and import freight now being handled over its docks per month.

Three steamship lines now running to British, Continental and Mexican ports.

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

One hundred thousand dollars' worth of property sold in March.

Go to Port Arthur and see what the backing of a 1,227 mile trunk line means.

For information write to
F. A. HORNBECK,
 General Manager
 Port Arthur Townsite Co.,
 KANSAS CITY, MO.

MICA AXLE GREASE lightens the load—shortens the road.
 Makes the wagon pull easier, helps the team. Saves wear and expense. Sold everywhere.

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.,
 AGENTS WANTED. Manhattan, Kas.

PORTABLE WELL DRILLING MACHINERY.
 Established 1867. Covered by patents. Machines drill any depth both by steam and horse power. Twenty different styles. Send for free illustrated catalogue. Address,
KELLY & TANEYHILL, Waterloo, Iowa.

Large inside burr revolves twice to sweep's one. Ordinary length sweep.
DAIN DOUBLE MILL
 Sold under an absolute guarantee to do double the amount of work of any other mill of same size or money refunded. Write for circulars and prices.
DAIN MFG. CO., Carrollton, Mo.

The Test of Time
 is severe and infallible, and the verdict is always convincing. The **Perkins Wind Mills** have stood the test of time in wheel, rudder, regulator and all parts, they are strong, durable, efficient and easy working. Built in many sizes. Meet every requirement for every purpose. Catalogue sent Free.
PERKINS WIND MILL CO.
 81 Race St., MISHAWAKA, IND.

Brass, Aluminum, Grey Iron Castings
 Patterns, Models, Machine Work.
TOPEKA FOUNDRY,
 TOPEKA, KAS.

WE SELL DIRECT TO THE FARMER AT ONE-HALF DEALERS' PRICES.
 New Disc Harrow, Grain Drill and Broadcast Seeder.
 Throwing the earth all one way. Revolutionizes the method of seeding, as the twin binder did the harvest. Discs 6 1/2 in. and 9 in. apart. Send for circular.
DEATH TO HIGH PRICES.
 16-in. Sulky Plows, \$25. 16-in. S. B. Plows, \$9. Rolling Coulters, Extra \$1.50. 64-T. Lever Harrow, \$7.50. Mowers, \$29.40. Riding Gang Plows, \$35. 12-16 Disc Harrow, \$16. Hay Rakes, \$11.50. Wagons, Buggies, Harness, Sewing Machines, Cane and Older Mills, Hay Tools and 1000 other things at one-half dealers' prices. Catalogue free. Happedow Plow Co., Box 2, Alton, Ill.
 NOTICE—This ad. will appear until Aug. 13, '08.

\$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, Pipes, Cylinders and Screens.
 Send for illustrated circulars and price list before buying.
THE SHURTLEFF CO., Marietta, Ill.

GREAT PREMIUM OFFER!

Bagster Art Bible

PROFUSELY EMBELLISHED WITH
 Full Page Half-Tone Illustrations from Photographs of Paintings of the
WORLD'S GREATEST MASTERS.

INCLUDED IN OUR LIST ARE
 DORE, RAPHAEL, RUBENS, MURILLO, HOFFMANN, PLOCKHORST, MUNKACSY, MICHAEL ANGELO, SCHOPIN, and many others.

Price within reach of all.
 (ABOUT HALF PRICE OF FORMER ART BIBLES)

Fine Divinity Circuit Binding, Extra-Large Self Pronouncing Type, Fine Paper, References, Concordance. Size of Page, 5 1-2 x 8 3-8 inches.

Advantages of the ART BIBLE.
TEACHERS OF CHILDREN'S CLASSES in Sunday School can instantly gain the attention of their scholars by showing these beautiful pictures and then relating the story illustrated.

CHILDREN AT HOME, attracted by these illustrations, will love better the "Sweet Story of Old" and learn more of Him, who said: "Suffer the little children to come unto me."

A REAL WORK OF ART speaks to the heart and understanding of all. Thus, the leading events of the Old and New Testament are made more real and life-like, and young and old alike learn to love the Book of the world.



MADONNA AND CHILD JESUS. GROSSE.
 (This shows one of the illustrations from the Bagster Art Bible, but reduced to about one quarter size. The paper and printing in this Bible is superior to most newspaper and magazine work.)

Specimen of Type in Art Bibles and Style F Bagster Teacher's Bible:
 Exhortation to all goodness. PHILIPPIANS, 4. *Liberality of the Phil*

prehend that for which also I am apprehended of Christ Jēsus.
 13 Brethren, I count not myself to have apprehended; but *this one thing I do*, forgetting those things which are behind, and reaching forth

6 Be careful¹⁸ for nothing every thing by prayer and tion, with thanksgiving, let, quests be made known unto 7 And the peace¹⁹ of God passeth all understanding, st

OUR GREAT OFFER!
 Style G, Bagster Art Bible.—Fine Morocco, Divinity Circuit Binding, linen lined, long primer type, self-pronouncing. Publishers' list price \$6.00 } FOR ONLY \$3.00
 Subscription One Year to this publication, }
 Style H, Bagster Art Bible.—Fine Morocco Binding, Divinity Circuit, leather-lined to edge, (Publishers' list, \$8.00), can be had for 75 cents additional.
 Style F, Bagster Teacher's Bible.—Long primer type, self-pronouncing, Divinity Circuit, (same type as Art Bible), and subscription One Year to this publication } ONLY \$2.25.
 Style B, Bagster Teacher's Bible.—Full, regular size, clear, minion type, Divinity Circuit, and subscription One Year to this publication, } ONLY \$1.90.
 Patent Thumb Index with any Art or Teacher's Bible, 50 cents additional. We pay postage.

Address **KANSAS FARMER CO., Topeka, Kas.**

LIGHTNING HAY PRESS
STEEL
 Special prices.
 Kansas City Hay Press Co., 403 Mill St. Kans City Mo.

WHEN WRITING ANY OF OUR ADVERTISERS PLEASE MENTION KANSAS FARMER.

Burlington Route
BEST TRAINS
VESTIBULED "ELI" TO CHICAGO.
VESTIBULED LIMITED TO ST. LOUIS.
 FREE CHAIR CARS, LATEST PATTERNS OF SLEEPERS.
 W. WAKELEY, G. P. A., St. Louis, Mo. J. O. BRANHALL, T. P. A., St. Joseph, Mo.

THE BEST
CREAMERY BUTTER SALT

In the world is manufactured in Kansas. INSIST on having RIVERSIDE brand.
A free sample will be gladly furnished on application by... **Kansas Salt Co., Hutchinson, Kas.**

Special Want Column.

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

SPECIAL.—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with order. Stamps taken.

JERSEYS—Two pure-bred Jersey heifer calves, six months old, each, or the two for \$25. J. H. Slemmer, Eureka, Kas.

FOR SALE—The best seven out of a litter of ten Poland-China pigs, farrowed April 26, sired by Duke of Weston No. 16974 S., dam Channon's Choice No. 86264, five sows and two boars, weighing from 50 to 60 pounds each; \$60 takes the lot. J. H. Slemmer, Eureka, Kas.

FOR SALE AT HALF PRICE—To make room for young stock, eighteen B. F. R. hens and two cocks, seventeen Buff Leghorn hens and two cocks; part of the birds are scored. Mrs. E. E. Bernard, Dunlap, Kas.

FOR SALE OR EXCHANGE—Two incubators, new this spring; one Standard, 165 egg size, one Noxall, 200 egg size, both in good repair; will sell the Standard for \$10, Noxall \$15, or will exchange for Brown or White Leghorn pullets. Mrs. E. E. Bernard & Son, Dunlap, Kas.

MEN WANTED—I want to employ two good men for my ranch at Arlona, Wyoming. Address me in care of Kansas Farmer Co., Topeka, Kas. I will be at Kansas Farmer office September 1. Edgar Bolcoe.

FARM FOR SALE—Sixty, eighty or 160 acres in Miami Co., Kas., within five blocks of three churches, two schools, postoffice, depot, skimming station, elevator, lumber yard, three stores, etc. L. F. Brost, Fontana, Kas.

WANTED—To buy a French Coach stallion. Box 14, Wilmot, Kas.

FOR SALE OR TRADE—Three Shetland ponies. Call or address H. W. McAfee, Topeka, Kas. (Prospect Farm, three miles west of Kansas avenue.)

TWO YOUNG BULLS—By Duke of Kansas 123126, fit for fall service, for sale; one a roan, a Constance, and one red, an Imp. Golden Galaxy. C. E. Chambers, Mont Ida, Kas.

HIGH-GRADE SHROPSHIRE RAMS, lambs and yearlings. E. W. Melville, Eudora, Kas.

SHORT-HORNS FOR SALE—Forty-six cows and 8 heifers, Cruikshank, Young Marys, Rose of Sharon and others; an extra lot. Nearly all were sired by that grand Cruikshank, Royal Prince 100646. Six bulls ready for service, sired by Young Mary bull, Giendon 119371. Parties met by appointment. Theodore Saxon, St. Marys, Pottawatomie Co., Kas.

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.

CHELERY PLANTS—White Plume. 25 cents per 100. \$2 per 1,000. J. H. Shaw, market gardener, Florence, Kas.

PIGS—Out of Victor Free Trade 38325, sired by Kiever's First Model 18245, \$20. F. W. Baker, Council Grove, Kas.

BERKSHIRES—Choice bred sows by Imported Lord B Comely, and boars ready for service. Wm. B. Sutton & Son, Russell, Kas.

BERDEEN-ANGUS BULLS—Three individuals of serviceable ages; registered. Wm. B. Sutton & Son, Russell, Kas.

FOR SALE—Five first-class registered Clydesdale stallions. H. W. McAfee, Topeka, Kas.

MACLEAN FARMERS' SUPPLY CO., Kansas City, Mo. (Between Union Depot and Stock Yards.) Sell machinery and other supplies to farmers direct, saving the consumer middlemen's profits. Send now for 1898 Spring Price List.

DAIRY WAGON FOR SALE—Good two-horse covered dairy wagon, custom made. A. E. Jones, Topeka, Kas.

PIGS—Out of a Hadley Jr. sow and sired by Kiever's First Model 18245 at \$20. F. W. Baker, Council Grove, Kas.

WE MAKE A GOOD FARMER'S SPRING WAGON, two lazy-backs and let-down end-gate, for \$65. Warranted. We will ship on approval to responsible parties. Kinley & Lannan, 424-426 Jackson street, Topeka, Kas.

YEARLING SHORT-HORN AND GALLOWAY BULLS—Registered and high grades, of Bates and Cruikshank stock, at bedrock prices, either by carload or singly, time or cash. J. W. Troutman, Comiskey, Kas. (Northern Lyon county, Mo. Pacific R. R.)

FOR SALE—A few October pigs of 1897 farrow, and some bred sows to Kansas Boy and Success Know. Also B. P. Rook eggs, \$1 per setting. E. Davison & Son, Waverly, Kas.

FOR SALE—Thirteen fine Poland-China boars. Call for or address H. W. McAfee, Topeka, Kas. (Farm three miles west of Kansas avenue.)

WRITE TO ALEX RICHTER—Hollyrood, Kas., how to sub-irrigate a garden, etc., and cost of same. Send him the size or dimensions of your garden, and he will give full information.

FOR SALE OR EXCHANGE—Two Galloway bulls. Address W. Guy McCandless, Cottonwood Falls, Kas.

640 ACRES ARKANSAS LAND—Two miles from station, to trade on Kansas farm. Will pay balance or assume incumbrance. E. W. Melville, Eudora, Kas.

BLOSSOM HOUSE—Opposite Union depot, Kansas City, Mo., is the best place for the money, for meals for clean and comfortable lodging, when in Kansas City. We always stop at the BLOSSOM and get our money's worth.

SHORT-HORN BULLS—Cruikshank-topped, for sale. Choice animals of special breeding. Address Peter Slim, Wakarusa, Shawnee Co., Kas.

FANCY BRED PIGS—Six by Hadley Jr. 18314, dam Kiever's Model Tecumseh 4244. Price \$15. F. W. Baker, Council Grove, Kas.

FOR SALE—Hereford bull, Rock 2d 57420, also forty calves sired by same. E. W. Thoes, Alma, Kas.

WANTED—NOW—Agents to sell Sash Looks and Door Holders. Sample Sash Look free for 2-cent stamp. Immense; better than weights; burglar proof; \$10 a day. Write quick. Address **BROHARD & CO.**, Dept. 108, Philadelphia, Pa.

THE STRAY LIST.

FOR WEEK ENDING JULY 28, 1898.

Dickinson County—R. B. Jacobs, Clerk
COW—Taken up by F. J. Devane (P. O. Chapman), June 25, 1898, one red cow, about 4 years old, branded S. L. on left side.

FOR WEEK ENDING AUGUST 4, 1898.

Cherokee County—S. W. Swinney, Clerk
HORSE—Taken up by John W. Carman, in Garden township, Cherokee county, July 12, 1898, one bay horse, 3 years old, left hind foot white, saddle marks, small scars on both front feet under fetlock, few white hairs in forehead, roached mane; valued at \$12.
MARE—Taken up by L. Mishler, in Spring Valley township, Cherokee county, July 15, 1898, one brown mare, 7 years old, 15 1/2 hands high, shod all around, scar on right front foot, black mane and tail; valued at \$40.

FOR WEEK ENDING AUGUST 11, 1898.

Wyandotte County—Leonard Daniels, Clerk
MARE—Taken up by William Barrett, whose residence is one and three-fourths miles west of Turner, in Shawnee township, Wyandotte county, July 14, 1898, one bright bay mare, 5 years old, 14 1/2 hands high, black mane and tail, white spot in face, right hind foot white; valued at \$25.
MARE—Taken up by same, July 14, 1898, one dun-colored mare, 9 years old, 15 hands high, dark mane and tail, white spot in face, right hind foot white, splint on left front leg; valued at \$5.

Pottawatomie County—A. P. Scribner, Clerk
MULE—Taken up by E. B. Sherman, April 14, 1898, whose residence is Lone Tree township, Pottawatomie county, one mouse-colored mare mule, 3 years old, mark in right ear, weight 650 pounds; valued at \$25.
OSAGE COUNTY—William H. Thomas, Clerk
COW—Taken up by J. C. Lawson, whose residence is Quenemo, Agency township, Osage county, July 19, 1898, one red and white cow, 9 years old, ears cropped; valued at \$25.
HEIFER—Taken up by same, July 19, 1898, one white heifer, 3 years old, no marks or brands; valued at \$20.
SHAWNEE COUNTY—John M. Wright, Clerk
MARE—Taken up by W. E. Corbett, Mission tp. (P. O. Seabrook), July 13, 1898, sorrel mare, 5 years old, five feet two inches high, star in forehead, right hind foot white, foretop clipped.
HORSE—Taken up by M. Cole, in Soldier township, June 27, 1898, one brown horse, 8 or 9 years old, white hind feet; valued at \$35.

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.

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

Live Stock Artist.

F. D. TOMSON, 514 Monroe St., Topeka, Kas. Portraits for framing and cuts prepared for advertising purposes. Breeders' correspondence solicited.

HARNESS Write for illustrated catalogue. Largest Harness and Carriage house in the Northwest. **NORTHWESTERN HARNESS & CARRIAGE CO.**, 172 6th St., St. Paul, Minn.

20 BUSHELS MORE PER DAY is what you can husk and save your hands by using **Kees Improved Corn Husker**. See your dealer or sent postpaid on receipt of 50c. (No stamps.) Address, **F. D. KEES**, Beatrice, Neb.

The American Steel Tank Co. is making the same high grade Tanks, all shapes and sizes. If you are interested, write for prices and catalogue "A."
Farmers' Stockmen, Creamery, TANKS
Dairy and Sheep-Dipping
AMERICAN STEEL TANK CO.,
3119 West Eighth St., Kansas City, Mo.

J. G. Peppard MILLET OATS SEEDS
1400-2 Union Avenue, CLOVERS TIMOTHY KANSAS CITY, MO. GRASS SEEDS.

VERNON COUNTY HERD OF REGISTERED POLAND-CHINAS.

125 head in herd. Herd boars, King Hadley 16766 S. and Turley's Chief Tecumseh 2d 17978 S. Forty-six head of fall pigs that would be considered "the best" in any herd in United States. Write for particulars. Prices right and stock guaranteed.
J. M. TURLEY, Stotesbury, Vernon Co., Mo.

R. S. COOK, WICHITA, KAS., Poland-China Swine
BREEDER OF

The Prize-winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District fair, 1893; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 23441, Black Joe 28603, World Beater and King Hadley. For Sale, an extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large richly-bred sows. Inspection or correspondence invited.

Sir Charles Corwin 14520 and Harry Faultless, Jr.
HEADS OF HERD.

We have been in the show ring for the last three years, always winning the lion's share of the premiums. If you want prize-winners and pigs bred in the purple, we have them. All ages of Poland-China swine for sale. Write or come and see us. We have an office in the city—Rooms 1 and 2 Firebaugh Building.
ELM BEACH FARM, Wichita, Kas.,
C. M. IRWIN. **S. C. DUNCAN, Supt**

VALLEY GROVE SHORT-HORNS.

THE SCOTCH BRED BULLS
Lord Mayor 112727 and Laird of Linwood 127149
HEAD OF THE HERD.

LORD MAYOR was by the Baron Victor bull Baron Lavender 2d, 1d out of Imp. Lady of the Meadow and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahad out of 11th Linwood Golden Drop. **Lord Mayor** heifers bred to Laird of Linwood for sale. Also bred Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

Address **T. P. BABST, PROP., DOVER, SHAWNEE CO., KAS.**

THURSDAY, AUG. 25, 1898,
AT

Elm Lawn Farm, Odessa, Mo.,

The Anderson's Model and Chief Tecumseh 2d Litter Will Sell 4 Boars and 4 Sows.

I have seventeen head by Old Chief Tecumseh 2d in this sale; two by Old Black U. S. Eighty-two head in this sale unsurpassed in breeding, matchless in individuality and prolificness. Most all the Leading Families of the Poland-China Breed are represented. Model of '97 20158 also will be offered. Send for illustrated catalogue and come to the sale. You will never regret it. But if you can't come, send bids to either of my auctioneers or myself.

AUCTIONEERS:
Col. F. M. Woods, Lincoln, Neb. | Col. James W. Sparks, Marshall, Mo.
Col. H. O. Correl, Mechanicsburg, Ill. | Col. D. P. McCrack, Paxton, Ill.
Col. Corey M. Jones, Davenport, Ia. | Col. W. F. Merriman, Williamsville, Ill.

GEO. W. NULL, ODESSA, MO.

Grand Combination Sale
AT KANSAS CITY, MO., AT THE STOCK YARDS
HORSE AND MULE BARN, ON

Tuesday, Aug. 16, 1898.

Over sixty head of the best individuals as well as the best bred hogs we own, every one of them choice and selected for their future usefulness.

Sows sired by such boars as Chief Tecumseh 2d, U. S. Chief, Hands Off, Missouri Chief, Look Me Over, Dandy Wilkes, Chief I Know, Model Boy, Western Wilkes, Comet Medium, Broadgauge, Moore's Chief I Know, World Beater Gem, Best U. S., The Col., Chief They Know, Hadley Jr., Priceless, Prince Hadley, Heyl's B. U. S. and others.

Most of them bred to our herd boars, Chief I Know, Model Boy, Sydnor's Tecumseh, Cheney's Chief I Know, U. S. & A.'s Chief.
Also three or four fine boars by Chief I Know, Model Boy, and a line-bred Wilkes.

Terms: Cash or a bankable note. Write to Clifton George for a handsome catalogue containing more than a dozen fine cuts, three artists being represented.

E. E. AXLINE, Oak Grove, Mo.
H. G. SYDNOR, Corder, Mo.
H. W. CHENEY, North Topeka, Kas.
CLIFTON GEORGE, Lathrop, Mo.

SHROPSHIRE RAMS.

Single or car lots. First-class, all ages, at prices that will sell them. Will spare 50 breeding ewes—grand, useful, high-class ewes. Write your wants.
KIRKPATRICK & SON, Connor, Wyandotte County, Kansas.

GRAND COMBINATION SALE OF PURE-BRED POLAND-CHINA SWINE!
FORT SCOTT, KAS., TUESDAY, SEPTEMBER 6, 1898.

This offering of sixty or more head will include Open and Bred Sows, some Glits, and a few Boars that represent the Prominent Families of the Breed. Further particulars in next week's issue. Write for a free copy of the sale catalogue. Address.....
Visitors entertained at Tremont Hotel. Lunch at noon. Terms of Sale—Cash or Bankable Paper.
B. R. ADAMSON, Fort Scott, Kas. **G. HORNADAY & CO., Fort Scott, Kas.** **J. R. YOUNG, Richards, Mo.** **J. M. TURLEY, Stotesbury, Mo.**