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Located four miles north of Topeka. Devoted exclusively to producing high-class **POLAND-CHINAS.** Prices low. Write for them to **H. W. CHENEY,** Station A, Topeka, Kansas.

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The Prize-Winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District Fair, 1898; twelve firsts at Kansas State Fair, 1894; ten firsts and seven seconds at Kansas State Fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 28441, Black Joe 28603, World Beater and King Hadley. FOR SALE—An extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

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Growthy, strong-boned pigs. Tecumseh, U. S., Model, and Darkness families. Herd boars, Moorish King 25513 O., Tecumseh I Am 21595, and Darkness U. S., by Darkness Model, a grandson of Klever's Model. Write or call. **A. O. NORTHROP,** Boyle, Jefferson Co., Kans.

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Thirty-five Serviceable Boars and 45 Gilts for ready sale at reasonable prices; quality, style, and breeding considered. Most of these hogs are by the splendid herd boar Black Chief 42857, he by Black Joe out of Betty Risk, and are out of such sows as B nner's Pride (108706), Worldbeater Beauty (9484), Black Bessie (104224), and Darkness Model (104968). Address **HIRAM SMITH,** Colwich, Kans.

The Blood of Chief Tecumseh 2d

Is found perhaps more strongly in **MEADOW BROOK POLAND-CHINAS**

Than in any other herd of eastern Kansas. A thoroughly good lot of young boars for sale; also gilts and red sows. **J. R. KILLOUGH & SONS,** Farm one mile north of Ottawa, Kans.

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200 head. Twenty good spring boars, good bone, large and growthy. Also twenty "fall of '98" boars; a few very fancy. Thirty yearling sows and spring gilts, bred or unbred; good ones. We can furnish males and females, not related, of any of the fashionable and prize-winning strains. **WAIT & EAST,** Altoona, Wilson Co., Kans.

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Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

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Of Chief Tecumseh 2d, Guy Wilkes 2d, Lawrence Perfection, Black U. S., and King Butler blood. 100 head. A choice lot of spring boars; good bone, large and growthy. A few fall of '98 boars. A fine lot of yearling sows and spring gilts, bred or unbred. Can furnish males and females not related. Address **C. S. SNODGRASS,** Galt, Rice Co., Kans.

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Nine extra good gilts, weighing 175 to 200 pounds, sired by Hadley I Know 21402, dams Look Me Over, U. S. Chief and Wilkes blood. Also two good yearling sows, registered; weigh about 350 pounds, in breeding condition; have raised two litters each this year. I will make special price to immediate buyers, and guarantee them as represented. A few good boars yet. **W. B. VAN HORN,** Lawrence Kans.

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Large boned, broad backed, low down, good length yet early maturing type. The kinds that make the feeder money. We have for sale some extra good gilts and a few good boars. Write me your wants or visit the herd. **M. L. SOMERS,** Altoona, Kans.

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CENTRAL KANSAS STOCK FARM.—F. W. ROSS, Alden, Rice Co., Kas., breeds pure-bred Shorthorns, Poland-Chinas and Barred Plymouth Rocks. Stock for sale.

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

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Young Bulls For Sale. **W. L. BASS,** Eldorado, Kansas.

H. R. LITTLE, Hope, Dickinson county, Kans., breeder of Shorthorn cattle. Herd numbers 100 head.

FOR SALE: **TWENTY-FIVE SHORTHORN BULLS** OF SERVICEABLE AGE.

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BATES, BOOTH, and BEST AMERICAN strains. Baron Noxubi 127151, by Godwin, the sire at Lincoln heads our herd. Address **WILLIAMS BROS.,** Bonita, Kans.

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By using a Red Polled bull. **CHAS. FOSTER & SON,** EL Dorado, KANS. Breeders of Red Polled cattle. Herd headed by Powerful 4582. Pure-bred and grades for sale. Also, prize-winning Light Brahmas.

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Largest Herd in America. **S. A. CONVERSE,** Proprietor, Importer and Breeder. Cresco, Howard County, Iowa.

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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.,** Elm Dale, Chase Co., Kas.

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RED POLLED CATTLE

Herd headed by Harris 8948 and Prescott 5778 and contains seventy-five registered animals—some out of imported cows. A late purchase of the "Davy" strain of cattle has been made from Gillilan of Iowa, who won ten ribbons on thirteen entries at the World's Fair. Young bulls and heifers for sale. **B. F. MILLER,** Prescott, Linn County, Kans.

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KLONDIKE 42001 at head of herd. Correspondence or inspection invited. **ALBERT DILLON,** HOPE, KANS.

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SILVER CREEK HERD SHORT-HORN CATTLE.

Scotch and Scotch-topped, with the richly-bred Cruickshank bulls, Champion's Best 114671 and Gwendoline's Prince 180913, in service. Also high-class **DUROC-JERSEY SWINE.** Can ship on Santa Fe, Frisco and Missouri Pacific railroads. **J. F. STODDER,** Burden, Cowley Co., Kans.

REGISTERED Galloways FOR SALE!

IN LOTS TO SUIT. 12 2-year-old bulls, 20 yearling bulls, balance cows and heifers. Inspection desired. Call on or address, **J. M. LOWE,** J. R. LOWE, 311 Mass. Bldg. Kansas City, Mo. Blue Springs, Mo.

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Waterloo Duke of Hazelhurst 11th 130723 and the Linwood Golden Drop bull, Golden Victor Jr. 137875, head of herd. Thirty-odd young bulls and a few heifers for sale. Two of the bulls cross bred Scotch and Bates are good enough to head herds. **J. F. TRUE & SON,** Newman, Kans.

Newman is on Union Pacific R. R., twelve miles east of Topeka.

40 Shorthorn Bulls For Sale.

I wish to sell as soon as possible 40 young bulls, 6 to 15 months old. Will also spare a few females to customers. Prices will be right. Address, **GEORGE CHANNON,** Proprietor Lockridge Stock Farm, Hope, Dickinson Co., Kans.

Three miles "GREENACRES" One and a north of Quenemo on Santa Fe. | of Lomax on Missouri Pacific.

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Archibald 1st 39254 at head of herd. Young Archibald breeding stock always for sale. Herd always "at home." **J. C. CURRY,** Quenemo, Osage Co., Kans.

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Herd numbers 100 head of the best strains and combination of strains of breeding that has made Herefords famous. Herd foundation stock a specialty. For Sale:—Five cows and 10 heifers. Address **J. M. CURTICE,** 603 American Bank Building, Kansas City, Mo.

BELVOIR HERD HEREFORDS OF THE VERY BEST BREEDING.

Herd bulls: Princeps 66683, Ben Butler 54079, and McKinley 68226. Ten yearling bulls and a few females for sale. **STEELE BROS.,** Belvoir, Douglas Co., Kans.

THE VINEWOOD HERD.

SHORTHORNS THAT ARE FEEDERS. A herd of growthy, easy fattening Scotch and Scotch-topped cows headed by the Cruickshank bulls, Lavender King 4th 108682, from J. H. Potts & Sons' young herd of World's Fair prize-winners, and Gloster Vol. 44. Visit our herd. **D. K. KELLERMAN & SON,** Mound City, Linn Co., Kans. Vinewood Farm one and a half miles north of Missouri Pacific depot.

SUNFLOWER HERD

Scotch and Scotch-topped **SHORT-HORN CATTLE.** **POLAND-CHINA SWINE.**

Herd bulls, Sir Knight 124408 and Violet Victor 18754. Herd boars, Black U. S. 2d 22682 S., and L's Sensation 2d 18906. Representative stock for sale. Address **ANDREW PRINGLE,** Wabaunsee Co. Harveyville, Kansas.

Agricultural Matters.

CORN STALK HAULING DEVICE.

EDITOR KANSAS FARMER:—Baling corn shocks is only necessary when the fodder is to be stored in barns before it is threshed out, and it should be done early, or as soon as thoroughly cured, and should be put in the barn before any rains fall on it, as the very first rain will mildew the outside fodder and hurt it some, besides causing a very poisonous dust than when threshing.

Last March I illustrated in the KANSAS FARMER my device for lifting shocks whole on my wagon, and figure 3 is a very poor print of a load of 15 baled



[NOTE.—In preparing this photo-engraving the artist made it Fig. IV. instead of Fig. III.]

shocks at one load, the last shock hanging from the mast. This load had 22 bushels of shelled corn and one ton of fodder. When the picture was taken the wind blew 60 miles an hour and the trembling of the wagon made it impossible to get a good picture, but it goes to show how large loads can be hauled in a violent wind-storm when it is simply impossible to handle fodder at all the old way. I drive into my hay barn with these loads and put the shocks into the hayloft all alone, drawing the steel track hay-carrier by hand, as no horse is needed for less than 400 pounds. The shocks are dropped into the mow one on top of the other, and allowed to tumble over and stow themselves. It is best to have some one in the mow to jerk the shocks around with a hay-hook, but I am all alone in my work and I never got into the mow except to stow the last two loads. I put 12 acres of baled shocks in one mow that only holds 14 tons of clover hay, and out of the 372 shocks lifted on and off the wagon not one tie broke, and there was no waste and the fodder will keep bright for many years. I use this fodder when the weather prohibits threshing out of the field and my supply of threshed fodder has become exhausted. I then thresh from the mow and hold over what is left to use in warm weather for both meal, hay, and bedding.

Figure 4 shows a simple trip-hook used to hook into the wire bale of the shock. It is made of old steel wagon springs, is very strong, yet a slight



pull will trip it. The link on bottom of the hook makes it possible to lift bags, baled hay, or anything by tying into the link a rope that has a ring on the other end. It is extremely hard to insert a common hook under the wire bale on a compressed shock and harder to get it out, while this hook is opened out, the point pushed under the wire bale, then the hooker closed and locked.

J. C. NORTON.
Moran, Kansas.

Work of Agricultural Department During Past Year.

The annual report of Secretary of Agriculture Wilson summarizes an immense amount of work done by the Agricultural Department during the past year.

The Division of Entomology has done valuable work this year in showing fruit-growers on the Pacific coast the proper method of fertilizing Smyrna figs. It is believed that in a few years

the Pacific coast will be able to produce as fine figs as are now imported from the Mediterranean.

The Department has gathered much information regarding the plants which supply India rubber and gutta percha, and expects, during the coming year, to locate in our island possession zones suitable for the cultivation of this plant. The United States now imports about \$30,000,000 worth of rubber annually, and it is thought that a large portion of this supply can be raised in our new possessions. The same is true of Egyptian cotton, of which we import \$500,000 worth annually. Much work was done in the hydrodizing of grains to secure varieties which will resist drought, rust, and cold. The same methods are being used to produce hardy orange-trees and sea island cotton, which will be immune to the fungus disease now attacking that staple.

Practical forestry work is being done on a large scale among the lumber men of several States, and advice and assistance are extended to forest planters in all parts of the country.

Irrigation work in the West has been carried on and much alkali land has been reclaimed. The Secretary's recommendations in this line include irrigation experiments in the East and South outside of the arid regions. He thinks that congressional action may be necessary in the West on the subject of water rights and reservoir sites.

The experiment station work of the Department has been extended to Alaska, Hawaii, Porto Rico, and the Philippines, so that they may be enabled to supply the United States with the tropical products, of which our importations are now \$200,000,000 annually.

Extensive experiments are being carried on in road construction in connection with the local authorities of several States, including the building of sample roads from the materials found in different localities, and laying of steel track wagon roads.

The third year of experimentation with hog-cholera shows that from 75 to 80 per cent of the hogs injected with serum are saved.

The Secretary strongly recommends a more rigid inspection of our export dairy products, to counteract the injury that has been done to this trade by unscrupulous dealers in the past.

Regarding seed distribution, the Secretary says there is no need for the Department to come into competition with the sales of the seedsmen, but that there is room for valuable work in the collection and distribution of such foreign seeds and plants as are adapted to this country but would not be secured by private enterprise.

Tea-growing experiments in South Carolina are commended, and he notes that 3,600 pounds of good tea were raised in the gardens at Summerville in the past season.

Turkestan alfalfa, introduced by the Department, has been found a valuable forage plant in the Northwest for resisting both cold and drought. Its introduction, it is said, probably will add millions of dollars to the annual hay product of the country.

A valuable quality of rice has been introduced from Japan. It is superior to the domestic product, and should it succeed in Louisiana, hundreds of thousands of dollars will be added yearly to the rice-growing industry.

The Secretary asks for \$10,000 to prosecute a technical and scientific investigation of native drug plants in cooperation with the Pan-American Congress.


Some Nitrogenous Forage Plants.

A. S. HITCHCOCK.

It is well known that one of the most serious problems in stock-feeding is the production of nitrogenous fodder, and that one of the most serious problems in raising field crops is supplying nitrogen to the soil. The stock-feeder knows that in order to receive the best returns from the food given, the ration must be balanced; that is, the proportion of nitrogen must not fall too low. It is usually too expensive to furnish the nitrogen in the form of bran, oil-meal and other concentrates. On the other hand, all crops require more or less nitrogen, yet this substance is usually first to be exhausted in the soil, and the most expensive to add in the form of fertilizers. Fortunately, the growing of leguminous plants furnishes a solution for both problems at the same time.

Leguminous plants, those whose seeds are borne in pods like the peas and the beans, have the power to collect the nitrogen from the air where it exists in inexhaustible supply but yet can not be utilized by most plants. The nitrogen in the soil is chiefly in the form of nitrates. As there is comparatively little nitrogen in the original rock from which our soils come, the supply in the soil depends almost entirely upon what is washed down from the air in the form

A HINT FOR HUNTERS



YOU can get only two shots at the most with a double-barreled gun, but a

WINCHESTER REPEATING SHOTGUN.

gives you three, four, five, or even six shots before the game is out of range. The Winchester Repeating Shotgun is now made in "Take Down" style, and can be carried in a Victoria case like a double-barreled gun. It combines rapidity, reliability, and strong shooting qualities with a price within reach of everybody's pocketbook. For sale by dealers everywhere.

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Winchester Repeating Arms Co., 188 Winchester Ave., New Haven, Ct.

of various compounds of nitrogen, and from what is taken out of the air by the roots of leguminous plants, and a few others which have a similar power. As stated above, most plants are unable to use the free nitrogen of the air which exists in such abundance.

It will be seen that the raising and feeding of suitable leguminous plants constitutes one of the chief agricultural

Press Bulletin No. 46, Kansas Experiment Station. It can be used green as a soiling crop, but gives the best returns when raised for the seed. The beans are ground and fed with Kaffir-corn or corn. They are rich in oil and protein. This plant is also being bred by the Kansas Experiment Station with a view of increasing its yield and the quality of the seed.

Table showing percentage composition of the plants mentioned above, together with a few other standard feeding stuffs, for comparison:

	Soy-beans.	Dent Corn.	Linseed-meal.	Red Clover fresh.	Alfalfa fresh.	Timothy fresh.	Red Clover hay.	Alfalfa hay.	Timothy hay.
Protein (containing oxygen).....	34.0	10.3	33.2	4.4	4.8	3.1	12.3	14.3	6.0
Nitrogen free extract (carbohydrate).....	28.8	70.4	38.4	13.5	12.3	20.2	38.1	42.7	41.9
Ether extract (fat).....	16.9	5.0	4.0	1.5	1.0	1.2	3.3	2.2	3.0

problems of Kansas. It should be remembered that in the case of leguminous plants not only is there a larger supply of nitrogen in the foliage and the seed than in other forage plants, but the roots at the same time have accumulated a goodly supply which remains in the ground after the tops have been removed, and thus enrich the soil to that extent. It should also be remembered that there is a great advantage in turning under leguminous plants. Other plants return to the soil only what they have taken from the soil, while these return in addition what they have gathered from the air.

The nitrogen is gathered from the air by means of small nodules or tubercles upon the roots and easily visible when the roots of any leguminous plant are examined.

The three legumes which have thus far proved themselves worthy of cultivation in Kansas and suited to Kansas conditions are the red clover, alfalfa, and soy-bean. To these might be added the cow-pea, but though the latter is much used farther south it is scarcely as well adapted to our conditions as the other three. Like the others, it gathers in nitrogen but is not so good as a forage plant.

The red clover is grown more or less through the eastern fourth of the State. At Manhattan, 120 miles west of Kansas City, it is too uncertain to be at all generally used. It is often sown with timothy for both pasture and hay. It does not form a permanent pasture and hence must be renewed every few years. Alsike, or mammoth clover, is sometimes used but has no advantages over red clover. The other two legumes, however, can be cultivated in most parts of Kansas and are destined to take their place at the head of the list of forage plants.

Alfalfa can be cultivated in all sections of Kansas where the subsoil is not too compact, as is the case with gumbo. This plant is so familiar it is not necessary to go into the details of cultivation. The reader should consult Bulletin 85 and Press Bulletin 51, Kansas Experiment Station. Alfalfa is considered to be the cheapest source of protein (nitrogen containing substance) available for the Kansas farmer. The botanical department of the Kansas Experiment Station has started an experiment upon this plant with a view of increasing the amount of nitrogen and of increasing the yield. This is a part of the series under way looking toward an improvement of various agricultural plants by breeding and selection.

The soy-bean is not so well known as the preceding. Beans of various kinds are grown in other parts of the world to furnish a nitrogenous constituent in the food of stock, but in Kansas a drought resisting species is required and the soy-bean seems well adapted to our conditions. For a description of the plant see

Corn Shrinking Experiment.

JAMES ATKINSON, IOWA EXPERIMENT STATION.

In the fall of '98 an experiment was begun at the Iowa Experiment Station with the view of finding out the amount of moisture in ear corn. The difficulty usually met in an experiment of this kind is that the movement of the corn at intervals for weighing purposes removes it from ordinary "crib" conditions. To overcome this difficulty a crib was constructed upon the platform of a pair of scales. For this purpose a scale was furnished by the firm of Clawson & Noble, Pleasant Hill, Mo. This scale is so constructed that the works are above ground, thus affording an opportunity at all times to observe the workings of its parts and removing, to the greatest possible extent, any source of error in the weights. Seven thousand pounds of corn were husked and stored in the crib October 19, 1898. The crib was 13½ feet long, by 7½ feet wide, thus making the conditions normal for corn storage. After storing the corn was weighed once a week for a year. These weights show some variation due to weather conditions, which in all probability affected the crib more than the corn, but in periods of three months this variation was so slight that the following data may be considered shrinkage of the corn.

During the first three months, or from October 19, to January 19, the loss was 630 pounds or 9 per cent of the original weight. From January 19 to April 19, the loss was 390 pounds or 5.47 per cent of the first weight. During the next three months the loss was 220 pounds or 3 per cent of the original weight. During the last three months, that is, from July till October, the loss was 190 pounds or 2.57 per cent of the original weight.

The loss during the whole period was 1,430 pounds or a trifle more than 20 per cent. This means that a bushel of corn weighing 80 pounds in a condition similar to this will weigh 64 pounds at the end of a year, or if calculated to weigh 75 pounds at time of storing will weigh 60 pounds after having been stored for one year. At time of storing the crop contained 28 per cent moisture.

It would no doubt have been interesting to have allowed the corn to remain in the crib the second year, as the after drying of corn indicated that there still remained considerable moisture, but instead of doing this the crib was emptied and a fresh supply was stored, it being the intention to find out the variation to be found in corn from year to year. When this is determined a permanent supply will be stored and allowed to remain until the weight is constant.

TO CURE A COLD IN ONE DAY

Take Laxative Bromo Quinine Tablets. All Druggists refund the money if it fails to cure. E. W. Grove's signature is on each box. 25 cents.

Horticulture.

POISONOUS PLANTS OF KANSAS.

A. S. HITCHCOCK, BOTANIST KANSAS EXPERIMENT STATION.

V. STEMLESS LOCO-WEED.

This is similar in general appearance to the woolly loco-weed, but occurs chiefly upon the bluffs, sides of canons



STEMLESS LOCO-WEED (*Aragallus lambertii*).

a, flowering plant; b, seed pods; c, cross section of seed pod—all one-third natural size.

(Chestnut, Farmers' Bulletin No. 86, United States Department of Agriculture.)

and sterile hills. It extends through western Kansas over about the same range as the woolly loco-weed, but scattering specimens have been found as far east as Republic, Riley, and Marion counties. Its effect upon stock seems to be identical with that of the woolly loco-weed.

VI. RATTLEBOX.

A hairy annual a few inches high with yellow pea-shaped flowers and oblong seed-pods about an inch long. These black pods are puffed up and have thin, papery walls so that the small hard seeds rattle within, when they become



RATTLEBOX (*Crotalaria sagittalis*).

a, whole plant; b, cross-section of seed pod—both one-third natural size.

(Chestnut, Farmers' Bulletin No. 86, United States Department of Agriculture.)

detached from their fastenings. It occurs in low ground locally in some of the eastern counties. Excepting the two eastern tiers of counties, we have specimens only from Seward, Sumner, Riley, and Pottawatomie counties.

The poisonous principle is unknown, but lies in the leaves and seeds. Cattle and horses are occasionally killed by eating hay containing the plant. The symptoms produced are a general decline and gradual loss of flesh similar to that produced by loco-weed, but does

not generally produce the peculiar craziness.

Burning over meadows infected with rattlebox when the seeds are ripe, tends to materially reduce the amount.

VII. SNOW-ON-THE-MOUNTAIN.

An annual plant 2 or 3 feet high, with milky juice. At flowering time the up-



SNOW-ON-THE-MOUNTAIN (*Euphorbia marginata*).

a, whole plant, one-third natural size; b, seed capsule, natural size.

(Chestnut, Farmers' Bulletin No. 86, United States Department of Agriculture.)

per leaves are white bordered. It is sometimes cultivated in eastern gardens for ornament. It is common in most localities throughout the State, especially in sterile or hilly pastures. The milky juice is an irritating poison resembling poison-ivy in its effects. Honey derived from the plant has a disagreeable taste and in sufficient quantity may produce vomiting and purging.

VIII. POISON-IVY.

A familiar vine, attaching itself to the bark of trees by numerous rootlets and



POISON-IVY (*Rhus radicans*).

a, spray showing aerial rootlets and leaves; b, fruit—both one-fourth natural size.

(Chestnut, Farmers' Bulletin No. 86, United States Department of Agriculture.)

climbing high, or in Kansas more frequently an upright shrub, in which latter case it is called poison-oak. The leaves are divided into three parts, for which reason it has received the name of three-leaved ivy to distinguish it from the Virginia creeper, which has five leaflets. The poison is a non-volatile oil, which is found in all parts of the plant, even after drying.

Its effects are well known, causing irritation of the skin, often to an extreme degree. The irritation appears on the skin a short time after contact with the plant, the time depending on the resistance of the individual, and spreads quite slowly. The poison is not carried by the blood, but produces its ef-

fect only in the vicinity of the infected part. There is considerable difference in the susceptibility of individuals to the poison of the ivy, but probably all persons are subject to its influence if the oil can penetrate the skin. The writer can handle the plant with impunity but is poisoned if the juice is brought in contact with the skin where it is usually not exposed.

The most effective remedy is to bathe the irritated portion of the skin with 50 per cent alcohol to which has been added as much sugar of lead as will dissolve. The solution is to be well rubbed into the skin and the operation repeated at intervals. Sugar of lead is a poison if taken internally.

Poison-ivy occurs in all timbered localities of the State, even the canons and draws of the western part.

Organize a Timber Company.

EDITOR KANSAS FARMER:—I wish to compliment you on your article in the KANSAS FARMER giving a description of Mr. Yaggy's 500-acre catalpa plantation. I was especially interested in the measurement of the 13 consecutive trees taken from the 10-year-old block. Four by 6 feet is too close for a future development of the best possible timber. For posts the distance will prove satisfactory. Timber for telegraph and telephone poles should stand about 8 and 12 feet. At that distance they will make fine specimens and produce poles worth from \$1 to \$4. The time required will depend on the land, distance apart, and cultivation. On good river bottom in this part of the State, trees planted 8 and 12 feet will make the growth in fifteen to eighteen years.

Your account of the 500 acres makes my little 40 acres seem very small, yet most of my trees are 14 years old. I have up to this date only taken out about 800 for posts. During the next three or four years I expect to cut 60,000 of my 90,000 trees. By doing so I will give balance of the trees room enough to make telephone poles. After two or three years time I hope to be able to devote all my time to the cultivation of the catalpa. It is a work I dearly love, and I believe eastern Kansas and western Missouri will see more catalpa trees planted than any other tree, except the apple.

In the spring I shall plant 20 acres adjoining my 40-acre grove. The ground is good prairie and has been in cultivation for fourteen years. I expect in a very short time to plant 20 or 30 acres of best river bottom land near Topeka to catalpa, and shall try and make it an ideal grove.

I have often thought why it would not be a good thing to organize a timber company, sell stock, reserve part to pay dividends, and use the balance to develop catalpa timber. Eastern people put money up on mining stocks, when they simply bet so much the stock will pay. With a tree company, after the first ten or twelve years, the income would be sure, providing such a company was in the hands of practical men, some of whom should know the nature, trials, and development of the catalpa.

I am thankful that I am yet a young man, for I believe the future of the catalpa will astonish those of us who believe it is a good thing. In my judgment the sandy bottoms of eastern Kansas is the best place in the United States for bettering the timber supply.

GEO. W. TINCHER.

Topeka, Kans., December 4, 1899.

Timber Cultivation.

EDITOR KANSAS FARMER:—Being much interested in the article in your valuable paper on timber-planting, I have concluded to plant 20 acres in the spring on good prairie soil which has been under cultivation for the last fourteen years. It was in corn the present season. I take it from observation that the hardy catalpa is the best tree for eastern Kansas, but am puzzled as to distance apart the trees should be planted. Some say 4 by 4 feet, 2,700 to the acre; others say 4 by 6 feet, 2,000 to the acre, and still more say 5 by 7½ feet, or 1,000 to the acre. I shall give the trees good cultivation for four or five years. I want to plant in such a way that the land will in a reasonable length of time return the largest profit. I expect to grow the trees for posts from first cutting, and telephone poles afterwards.

A READER.

"Honor is Purchased

by Deeds We Do."

Deeds, not words, count in battles of peace as well as in war. It is not what we say, but what Hood's Sarsaparilla does, that tells the story of its merit. It has won many remarkable victories over the arch enemy of mankind—impure blood. Remember

Hood's Sarsaparilla Never Disappoints

Hood's Pills cure liver ills; the non-irritating and only cathartic to take with Hood's Sarsaparilla.

PAINT TALKS, XXIII.

Why "Patent Paints" are In Disrepute.

It has been shown in these papers that when the ingredients are rightly selected, ready mixed paints should be both better and cheaper than any other kind of paint. It may be remarked, in passing, that there is, generally speaking, no such thing as "patent paint." Paints are finished as dry pigments to be mixed in the paint shop with the necessary oil, turpentine and driers; as paste paints to be thinned down with oil; or as ready mixed paints containing all the required ingredients ready for the brush. Some paste paints are supplied already incorporated with the tinting colors, while in other cases, especially pure lead, the color must be added to the white base.

Now if any one will take a little white paste paint (lead, for example) and add to it a small quantity of color, incorporating it thoroughly, he will find that he can apparently obtain a uniform tint; but if he will now take a small portion of this tint and grind it vigorously under a muller, he will see that the tint deepens and brightens as the grinding proceeds. This illustrates the fact that paints can not be thoroughly mixed without mechanical means.

The beauty of the so-called "patent paints" depends on this fact; for however good or however bad they may prove to be, the ready mixed paints are beautiful.

Now when the painter takes his white base and mixes with it the color, oil, turpentine, drier, etc., necessary to fit for application, he does at the expense of man-labor exactly what is done by machinery in the paint factory. He makes a ready mixed paint; but as the process is purely mechanical he can not do it either so well or so cheaply as it could be done by a machine; more color will be required to produce the same tint; and the paint will not be so homogeneous, and therefore not so good.

What, then, is the matter with "patent paints?" With some of them, nothing. Every one has seen ready mixed paints that answered every demand. Of the rest, generally speaking, it can be safely said that they have just one defect, and that is water. Water is not a good painting medium, but by the use of alkaline emulsifiers it can be made to mix with oil, and a cost of nothing per gallon, to replace linseed-oil at forty or fifty cents a gallon, such paint looks all right, but it does not wear.

The test for water in paint is to soak a strip of gelatine in it over night. If the gelatine swells the paint contains water; if not, there is no water present.

Good ready mixed paints all contain a large proportion of zinc white, and the valuable properties of zinc white in paints have frequently been pointed out. If it were not for water "patent paints" would never have fallen into disrepute. Good ready mixed paints can be obtained by buying only such as bear the name of a well-known manufacturer, and making sure that they contain no water.

STANTON DUDLEY.

SEEDS AND POULTRY SUPPLIES.

Seeds, bulbs and poultry supplies, T. Lee Adams, 419 Walnut street Kansas City, Mo.



Best by Test—74 YEARS. Largest annual sale. High quality—not high price. FINEST sorts. We bud 4 million Apple trees, whole-root graft 5 million—1- and 2-yr. Other Trees, Vines, etc., in proportion. 1400 acres Nursery. 43,000 acres Orchards. We PAY FREIGHT box and pack free, ask No Money until SAFE arrival—guarantee SATISFACTION. Fruit Book free. Write us.—VISIT us We PAY CASH each WEEK and want more HOME and traveling salesmen. STARK Market and Quality Kings PAY: Apple of Commerce, STARK LOUISIANA, MO. Black Ben Davis, Stayman Winesap, Delicious, STARK DANVILLE, N. Y. Senator, Champion; Gold plum; Kieffer; Elberta, STARK STARK, MO., etc.

The Stock Interest.

THOROUGHBRED STOCK SALES.

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

FEBRUARY 22-23—H. H. Harris, Galloways, Marshall, Mo.

THE HORSE USEFUL.

Secretary F. D. Coburn, of the Kansas State Board of Agriculture, has just issued another one of his peculiarly valuable reports. In this one is discussed the horse, his usefulness in the past, his production and uses now, and his prospects for future permanency. This report contains also population, crop, and live stock statistics of 1899.

It should be in the hands of every farmer in Kansas, and this notice should deluge Secretary Coburn with applications for the book. It will be well to enclose 6 cents for postage.

INTRODUCTORY BY SECRETARY F. D. COBURN.

In all the ages for which we have authentic history the horse has been the sturdy and esteemed servant of men. Equally in the avocations of peace and productive industry, subduing the wilderness and its savages, whether human or brute, the march of armies or shock of battle, he has borne a part conspicuous and potent.

Adapted and adaptable to innumerable forms of men's service thus long, as no other animal, the time for his displacement is not yet, although prophets of evil may proclaim the horseless age as already ushered in. No machine of steel and steam, of cog and cam, no vapor-fed motor, nor craft propelled by batteries or boilers, successfully supersedes the Percheron at the plow, the Hackney at the carriage, the Patchens in lighter harness, or the Denmarks and Thoroughbreds lazily cantering to my lady on healthful pleasure bent, or fiercely charging under such men as rode at Balaklava, Winchester, and San Juan. These invaluable latter-day developments of mechanical ingenuity profitably and properly supplement but do not supplant the horse, nor detract from his indisputable merits.

Until human nature becomes something else, the beauty, strength, intelligence, and utility embodied in a well-bred, well-trained horse will be admired of human kind, and profitable pleasure be found in his production, improvement, and varied use. In his better form possessing capabilities never before equaled, the appreciation of him has never been more genuine or more generous than now. It is impossible that this shall seriously abate, even though his production is, as a business, like all others, subject to vicissitudes of supply and demand, fashion and fancy, method and manner, time and place.

Some of the horses most noted for speed, endurance, and striking excellence, marvels of the equine world, and matchless, have been foaled or reared beneath the skies of Kansas; demonstrating beyond dispute that nature with lavish bounty has poured into her soil and sunshine, and through them into her grasses and grains, those elements out of which are evolved fine fiber and highest courage in horse no less than master. No seer can gainsay that her possibilities for future brilliant achievement in this line, with the world for a market, are immeasurable, and need but to be utilized—not in the production of one type alone, but every good type which business demands or pleasure's patronage gives countenance—to endow the State in greater measure with that prestige already hers by virtue of conditions made naturally so advantageous.

To help establish a renewed and enlarged faith in a worthy calling, strengthen affection for man's noblest dumb servant, encourage making the most of rich opportunities, and bring to Kansas the accruing benefits, has been the aim of the present publication.

JOE PATCHEN.

BY CHARLES RATHBONE, PEABODY, KANS.

Joe Patchen, pacing stallion, the iron race-horse of the age, so well known throughout the racing circles of the world, was foaled at Peabody, Kans., May 5, 1889, and was bred by C. and M. M. Rathbone, who also bred his dam, Josephine Young, by Joe Young. Patchen's untiring courage as a race-horse seems to be without a peer. In his first year on the grand circuit he raced against the great Robert J., who was barred from the free-for-all because

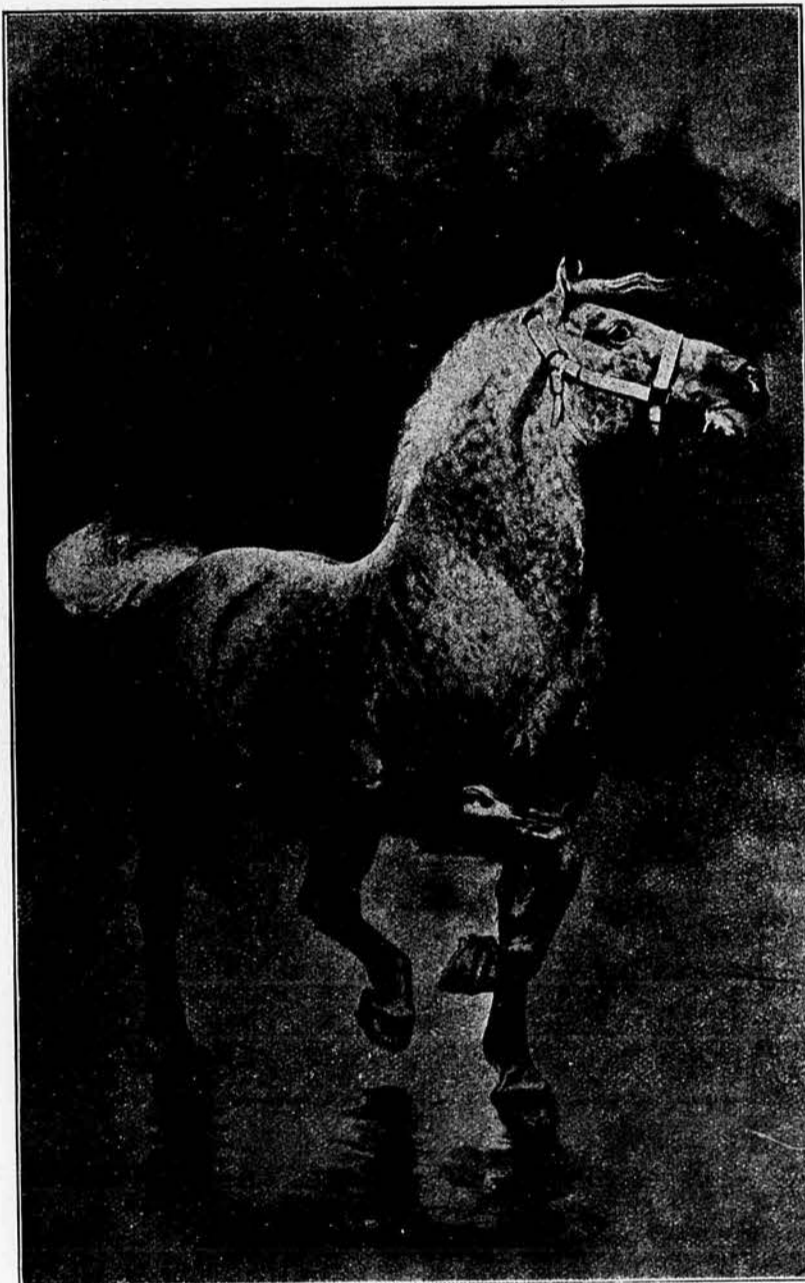
there was none to match him. Mr. John G. Taylor, who owned Patchen, always said his horse had much speed, and was willing to race him against any in the world. Robert J., being the champion, was of course the target to fire at. Patchen raced Robert J. all the season, forced him out at Indianapolis in 2:02½, and was timed separate in 2:02¾, which was a great showing for his first year.

Patchen and Robert J. were both shipped to California to winter, where they came together again, Patchen defeating Robert J. twice. Whenever they came together the following season the honors were easy, Patchen asserting his right to the championship honors not only with Robert J., but with all comers, until he became famous as a race-horse of great courage and stamina.

From the date of his birth, ten years ago, and after going through a severe course of training and racing for five years, he is as sound as the day he was foaled, which speaks well for the family he belongs to. Patchen Wilkes, his sire, has the Mambrino-Patchen Wilkes cross, so famous for the great race-

could stand any amount of grief. We bought her at the age of 17 years, after she had been worn out at farm work, and had never been bred to anything but common horses, although with only this opportunity her colts all showed speed at the trot. This is why we bought her, thinking if she was bred to some standard horse she would do better. Josephine, the dam of Patchen, was her first one by a standard horse. She was next bred to Westbrook, a son of Patchen Wilkes. From this union, at the age of 24 years, she dropped a horse colt, which we also sold to Mr. Taylor. At the age of 4 years, with ninety days' training, this colt could pace a mile in 2:15, but owing to wire cuts received in pasture he could not stand hard track work, and was used for driving purposes.

Kate Moody was black, with tan muzzle and flanks, about 15 hands' high, weighing 975 pounds, and of pacing conformation. Her daughter, Josephine Young, was black, 3 white feet, white in face, height about 15½ hands, weight 1,075 pounds. Joe Patchen is black, with



Imported Percheron Stallion, Nelson.

horse qualities as well as the high rate of speed that has come from this union through the various sires Wilkes Boy, Baron Wilkes, Guy Wilkes, Simmons, and many others.

However, we shall not give all the credit to Patchen Wilkes. Joe Young (2:18), the sire of Patchen's dam, was the champion trotting stallion of Kansas for several years, and was well known through the West as "the handsome trotting stallion." He, too, had the faultless limbs, free from any surplus, necessary to stand hard campaigning, his breeding being the Morgan-Bashaw cross, noted for handsome form and hardness of constitution. This gives Patchen the right to be a horse of great endurance on both sides, as far as the two top crosses are concerned. How long would the mammoth structures of the world stand were it not for their solid foundations? This holds as well in the animal kingdom. Wherever there is a foundation with hardy constitution it will show in the offspring for generations. Kate Moody, the grandam of Joe Patchen, possessed this. Her colts are all good feeders and

4 white feet, white in the face, height 16¼ hands, weighs 1,250 pounds, and has a race record of 2:01¼.

At this writing three of his get are in the 2:30 list; one in 2:28, one in 2:17½, and one in 2:15—all pacers.

SOME BREEDS OF HORSES IN MODERN USE.

PERCHERON.

This breed of horses was brought to a high state of excellence in the district which was known as Le Perche, in northern France, south of Normandy, corresponding in the main to the present departments of Eure et Loir and Orne, which, along with the other departments of Eure, Loir et Cher, and Sarthe, comprise the chief breeding ground or original home of the Percheron, and nowhere else are they found more purely bred or so nearly allied to the original type.

Horses from this region have been largely imported into the United States, where they are now bred and reared extensively, the first importation to attract wide attention being made nearly fifty years ago into Union and Pickaway

Cost a Little More, But!

A SHARPLES FARM CREAM SEPARATOR may cost just a very little more than others, but it's worth many times more. A \$75 machine that lasts but a year is over seven times as dear as a \$100 machine that lasts ten years. That is why we build the best farm separator that money and brains will produce.



Send for Catalogue No. 19.

The Sharples Co., P. M. SHARPLES,
Canal & Washington Sts., West Chester, Pa.
CHICAGO. U. S. A.

...WE SELL THE...

SHARPLES.

PETER HEIL & SON,
210 Sixth Ave., West, Topeka.

Counties, Ohio, where they were commonly known as French horses, but since, upon closer study of their origin and history, they have been designated as Percherons. From time to time other importations were made, and the appellation of Percheron has been firmly fixed upon these horses throughout the United States. Altogether, however, there has been much disagreement in this country as to the proper name of these horses, arising principally from the fact that earlier importations of French horses, especially to Illinois and adjacent States, had been called Normans, and these French horses have been variously known here as Percherons, Percheron-Normans, Norman-Percherons, Normans, and French horses, a superfluity of names exceedingly confusing and unsatisfactory; so much so, in fact, that several attempts were made to compromise on some suitable and popular abbreviation, none of which were successful until the organization of the Society Hippique Percherone in France, in July, 1883, and the publication of a Percheron stud-book in that country finally furnished an easy solution of the difficulty, and the American society, in November of the same year, decided to adopt and adhere to the only name by which the breed is said to be recognized in its native country, viz., the Percheron.

The lineage of a large percentage of the most noted of the modern Percherons seems to have been satisfactorily and definitely traced to the sire Gray Arabian, Gallipoli, imported into France about 1820, and to the Arab blood is generally attributed the more general gray color; the form, disposition, and general characteristics also being strong evidence of their being of Arabian descent, while their original size is believed to be derived from the large black horses of Flanders.

Mr. J. H. Sanders, in "The Breeds of Live Stock," says: "In that part of Normandy contiguous to the coast, especially north of the Seine River, the Flemish element seems to have made its influence more strongly felt, and there the horses possess more of the Flemish and less of the Percheron characteristics than those bred further south, in the heart of Le Perche, which will account for the diversity in the character of the horses brought to America by importers. Those who have purchased near the coast, or north of the River Seine, have usually obtained horses that leaned strongly toward the Flemish type. They are larger, coarser, and more sluggish, with less energy, endurance, and action than those bred in Eure et Loir, and the adjacent departments, and are better adapted to heavy draft purposes than their lighter, but more hardy, active, and stylish relatives of the interior, frequently weighing from 1,700 to 2,000 pounds in high flesh, and producing larger horses when crossed upon our common stock."

In France the original color of gray is the most popular, while in this country black is perhaps the favorite. According to high authority, the French breeders develop the blacks not especially for quality, but to suit the fancy of Americans; and if the quality feature is in the smallest degree lost sight of, there is great likelihood of not only producing an inferior animal but at the same time one altogether too large. Probably the most desirable horses of this breed at the present time will weigh 1,650 to 2,000 pounds.

The Percheron horse no doubt stands

among the first of the draft breeds of the world, his value having been thoroughly and successfully tested and demonstrated in the United States. They have excellent conformation, attractive style, activity and endurance, considerable speed united with power, amazing strength for their weight, and with their kind and docile disposition would seem to favorably recommend themselves to American farmers, stockmen, and breeders. They are especially adapted to the moving of immense loads at a rapid gait, and in the early days of France were largely used in drawing heavy diligences and post-coaches, before the introduction of more modern facilities for transportation.

CLYDESDALE.

The Clydesdales seem to have had origin in south-central Scotland, in the rich valley of the Clyde River, from which they take the name; Scottish authorities almost unanimously designate the Upper Ward of Lanarkshire as the place where they were first brought to any considerable degree of perfection and prominence.

According to records, and the views of various prominent writers on this subject, the breed undoubtedly has in its veins the blood of the great black horse of Flanders, and it is reasonably certain that the Clydesdale is the product of native mares of Lanarkshire bred to imported Flemish sires about the close of the seventeenth or the beginning of the eighteenth centuries. The

Their popularity is, no doubt, well merited, and they have exercised a potent influence in the horse stock of America. With our breeders the color has always been an especially strong point in favor of the Clydesdale, the prevailing colors being dark, with usually more or less white markings on face, feet and legs. Bays and browns predominate, although there are now and then blacks, grays, and chestnuts.

The approved modern Clydesdales have large, round, open feet, with particularly wide coronets, heels wide and clearly defined, and the presence of a heavy growth of long, silky hair from the knee and hock to fetlock is generally accepted as an indication of quality and good breeding. Pasterns long and set back at an angle, tail set well up, and the quarters and thighs should not be too sharply marked off; bones wide, flat, thin, and dense. They should have wide chests and low counters, with limbs planted well under them; oblique shoulders lying well back on high withers and arching high necks are also quite characteristic and very attractive. The head should be of medium length, and broad between the eyes and at the muzzle. An open, level countenance, vigorous eye and large ear are also greatly valued.

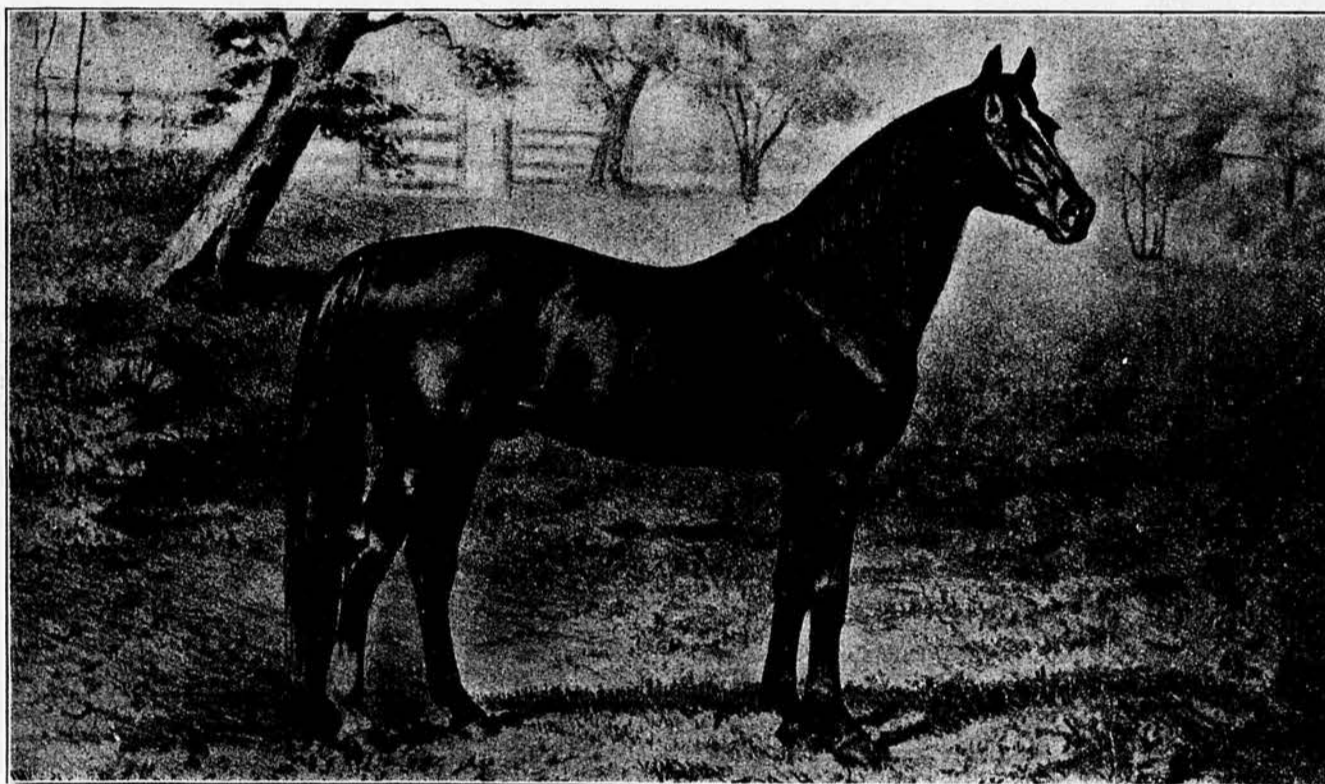
Clydesdales are as a rule, for such heavy horses, both fair walkers and trotters. "Individuals of this breed have shown action and speed in both the trot and walk equal to that of some of the

York (not far from the home of Rysdyk's Hambletonian), on May 9, 1871. During a visit to Orange County I bought him, on January 21, 1873, and shipped him to Topeka in March of that year.

The spring and summer he was 3 years old he made a season of 15 mares at the stable of this (Prairie Dell) farm, near Topeka. He made no more seasons in Kansas till 1879, from which year till 1884 he stood in Topeka. The fall of 1884, I stood him at Lexington, Ky., where he stayed until after the season of 1890, the spring of which year I sold him for \$33,250, cash, to John E. Madden, of Lexington, and William E. Spiers, of Glens Falls, N. Y. At the time of sale he had his book (full) to cover 40 mares, at \$500 each, closed. In 1891 he stood at Glens Falls, N. Y. He was afterward kept at Lexington, Ky., and latterly at Toledo, Ohio, where he died in the fall of 1898, the property of George H. Ketchum, who purchased him from Madden and Spiers.

This horse, with a record of 2:17½, and a credit of 53 heats in races of 2:30 and faster, was the sire of 79 trotters with records of 2:30 or faster, and of 4 pacers with records of 2:25 or faster. His sons (33) have sired 81 trotters with records of 2:30 or faster, and 30 pacers with records of 2:25 or better. He has sired the dams of 36 trotters with records of 2:30 or faster, and 7 pacers with records of 2:25 or faster.

Robert McGregor has been christened,



Kansas Trotting Stallion, Robert McGregor.

Clydesdale no doubt largely owes its present distinctive character to these native mares of Lanarkshire, known as the Lochyoch stock, mostly of brown and black color, with white faces and some white on their legs, gray hairs in their tails and occasionally scattering over the body, and invariably a white spot on their bellies, the recognized mark of purity of blood. Their progenitors were likely of English origin, and of a somewhat mixed character. There is, however, reason to believe that Flemish stallions had been introduced into Scotland long before this, and previous records show that Scotland was recognized as an excellent district for horse stock-breeding even during the early Stuart reigns. The earliest positive recorded mention of great horses in Scotland is July 1, 1352, when William, Earl of Douglas, obtained a special edict of "safe conduct" from King Edward I to take "10 grooms and 10 large horses from certain places in Scotland to certain places in Teviotdale in the King's dominion."

Available data and information fail to indicate when or where the Clydesdale was first introduced into this country, but as the Clydesdale Society of America was organized in 1877, it is not altogether improbable that they were quite numerous imported from some time prior to that year, at least to such an extent that a Clydesdale society and stud-book were very desirable and valuable, not to say well nigh indispensable, and, with the exception of the Percherons, there has been no other breed of draft-horses so extensively imported into the United States as these.

best Hackneys," says a British authority. In approach they should carry both feet absolutely straight and level.

The popular weight of the modern Clydesdale stallion is probably 1,700 to 2,000 pounds, while the mares are of course relatively lighter.

From the introductory to Volume II of the Clydesdale Stud-book the following is taken:

"It is well known that the Clydesdale owes its quality and many other good characteristics in a large degree to the pasture, sluggishness and coarse, greasy legs often being noticeable in animals reared in low-lying lands with moist pastures, while on dry hills or mixed sandy lands, the grass of which contains plenty of lime, active animals, with sound, clean legs and healthy durable hoofs, are bred and grazed to advantage. * * * Indeed, to the rich, sand-mixed lands of Kintyre, the healthy herbage which covers the thin soils of the Gallows and the nourishing blades of grass which cover the lime-containing hills of Lanarkshire the Clydesdale of the present day greatly owes his activity and quality, characteristics which have always rendered him superior in the eyes of the foreigner when viewed alongside of his more massive market competitor in the south, reared on the 'wershy' herbage of the fens."

ROBERT M'GREGOR.

BY R. I. LEE, TOPEKA, KANS.

The trotter, Robert McGregor, chestnut stallion, by Maj. Edsall, dam Nancy Whitman, by Seely's American Star, was foaled the property of Samuel Whitman, near Goshen, Orange County, New

York (not far from the home of Rysdyk's Hambletonian), on May 9, 1871. During a visit to Orange County I bought him, on January 21, 1873, and shipped him to Topeka in March of that year.

on account of his gameness at the finish of his miles, "The Monarch of the Home-stretch." He was the sire of more 2:15 trotters (this is exclusive of the pacers) than any horse, living or dead.

BE HOPEFUL.

EDITOR KANSAS FARMER:—In your issue of November 30 I saw that Judge Hook, of the Federal court for the district of Kansas, has decided that the law creating the Kansas Court of Visitation is unconstitutional. Why don't these judges decide that the trusts and other evils are unconstitutional? This leads me to think that these judges only work for the corporations and not for the people. What will become of us if this can't be stopped? J. F. SHUMP.

Herington, Kans.

Mankind works out its social problems slowly and with many seeming mistakes. But through discussion and questioning, and through the force of public opinion, some progress is made almost continuously.

To Wash Brushes and Combs.

To wash hair brushes and combs, dissolve a tablespoonful of Gold Dust Washing Powder in boiling water; when it is nearly cold, dab the bristles up and down, without allowing the backs of the brushes to become wet; when the brushes are clean, dip them in plain cold water, and dry them either by the fire or in the open air.

Soap turns the ivory-back combs or brushes yellow, but Gold Dust does not injure them.

GET Macbeth's "pearl top" and "pearl glass" lamp-chimneys; they are made of tough glass, tough against heat; they do not break in use; they do from accident.

They are clear, transparent, not misty. Look at your chimney. How much of the light is lost in the fog?

Be willing to pay a little more.

Our "Index" describes all lamps and their proper chimneys. With it you can always order the right size and shape of chimney for any lamp. We mail it FREE to any one who writes for it.

Address MACBETH, Pittsburgh, Pa.

THIRTY PER CENT DISCOUNT ON STEEL TANKS.

In the page advertisement in our special dairy issue of the Creamery Packaging Company, of Kansas City, there was omitted a very important line in that part of the advertisement in regard to steel tanks. Our readers will please add: "Always order by number. Discount from above list, 30 per cent."

A Three-Headed Cow.

If she were to be seen at North Topeka, most of us would hitch up our teams to go and see her, but what earthly good would she be to anybody?

You wouldn't change that Alderney of yours for her, would you?

What we see every day and what we expect to happen as a matter of course, becomes monotonous, that is the whole explanation. You sit down this evening in your easy chair, to enjoy yourself after a hard day's work; you read, chat, or smoke. If anybody were to ask you what was the most important article in the room, you would find it a difficult question to answer.

Pop!

Now you know. The lamp chimney of course. Blow out the lamp; run and get another chimney; don't cut your fingers; bring in the lamp from the kitchen.

We know all about it; we used to do this ourselves, but that was years ago. To-day we insist upon having a chimney that the heat won't break; it is naturally by far the most economical in the long run.

Ask the store-man to-morrow; he knows the kind—Macbeth's "pearl top" or "pearl glass."

Little drops of water,
Little piles of rocks,
Make the mighty trustlet
And big blocks of stocks.

—Puck.

THE WIZARD OF THE WEST.

Prof. S. A. Weltmer, the Great Magnetic Healer,
Astounds the World by His Remarkable
Cures.

Weltmerism, the Method of Magnetic Healing, originated by Prof. S. A. Weltmer of Nevada, Mo., in its wide scope of doing good for suffering humanity, does not only cure diseases of all nature but makes it impossible for disease to exist.

This is a fact that has been substantiated by the many thousands of cures made. All physicians, all scientists, in fact all who know the physiology of the human race, know that if the organs of circulation, secretion and excretion are in perfect condition, perfect health is attained. Weltmerism restores, without the aid of medicine, these organs to their natural function and the disease is banished. This great method cures dyspepsia, indigestion, stomach trouble, in fact, any disease known to man or woman, and this without the aid of medicine that so often ruins a constitution, which under the Weltmer method of magnetic healing is made strong.

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MEMPHIS ROUTE Holiday Excursions

On December 20, 21 and 22 the Kansas City, Fort Scott & Memphis R. R. Co., will sell round-trip tickets to points in Florida, Georgia, Alabama, Mississippi, the Carolinas and the Southeast generally at rate of one fare, tickets good thirty days for return.

On December 23, 24, 25, 30 and 31 and January 1, round-trip tickets will be sold between all local stations (except where rate is 50 cents or less) at rate of one fare, limited for return to January 2.

The Home Circle.

PUMPKIN PIE.

In the spring the eater's fancy
Lightly turns to rhubarb pie,
But a very modest portion
Of the stuff will satisfy.
Then he feels an inward longing
For some pastry that will please,
And impatiently he's glancing
At the green fruit on the trees.

By and by the cherries ripen.
And are made ingredients
Of a pie whose fine appearance
Is attracting compliments;
But although he likes it better
Than the one of rhubarb made,
Still that long-felt want he's noting
And it cannot be allayed.

Soon the berries are arriving
And to them he promptly turns,
With a hope that they will furnish
Pie for which his palate yearns.
But they make the crust so soggy
That with them he's soon displeased,
And the appetite for pastry
Is remaining unappeased.

Then the summer brings the peaches
And some ripened apples, too,
And the fragrant huckleberries
In their shining coats of blue.
Though he's finding them much richer
Than their predecessors, still
He is mournfully declaring
That they fail to fill the bill.

But at last, when days are cooler,
He is fully satisfied—
By the good, old-fashioned pumpkin
Is that long-felt want supplied.
For an extra slice he's calling,
Then another he will try,
And in perfect bliss he's feasting
On the home-made pumpkin pie.
—Pittsburg Chronicle-Telegraph.

WHAT OF THE DISTANT FUTURE.

Here are some of the most remarkable prophecies ever ventured by men of science. To learned savants in various scientific institutions lately this question was addressed: "Looking as far into the future as your mind's eye can see, what changes are likely to occur to our brains, bodies and environments?"

"Man of the distant future," said Prof. Otis Mason, a leading authority on racial problems, "will occupy a belt near the equator. The earth is cooling, and, as a result, the Eskimo must leave the polar regions. Later, the Yankee must quit New England. All savage peoples will be eliminated from the earth. The entire human race will be brunette. The blonde people were once brunettes and became as they are through some process of interbreeding.

"The convolutions of the brain will be larger and will admit a much greater blood flow to carry on the commerce of the mind. Man will be stronger physically. His hands and feet will be much smaller. Labor saving machinery will reduce physical labor, but an increase of athletics will make the race stronger. The hat will vanish and the hair will improve.

"The home of this age will be a great communal dwelling where all people of the same kinship will live under the same roof—children, parents, grandparents, uncles, aunts and cousins. Rapid transit will eliminate sky-scrapers. Increased artificialization of life will render cooperation more necessary. Chemically pure drinking water will free the cells of the body from mineral matter and permit man to live to the age of Methuselah. The death of an infant will be an exception, whereas to-day one-half of the human race never mature. The deadly microbe will suffer the fate of such dangerous animal pests as have already been made extinct. Dress will be more perfectly adapted to comfort, health, longevity, and beauty. It will never be deprived of ornamentation, and women and men will never dress alike."

"Man will lose his wisdom teeth utterly," said Curator Lucas (the anatomist of the National museum), "but modern systems of dentistry will probably save the other teeth. It is possible that there may be found the germ of a 'bird set, to be cut after the disappearance of the second. Mammals far back in the ages had a third set of teeth, and man shows indications of the same tendency. I might add that there is danger of the human race becoming homely rather than beautiful as a result of the growing tendency of man to marry for intelligence rather than beauty."

That man of the distant future would be minus a little toe was the only prophecy ventured by Dr. D. S. Lamb, the pathologist of the Medical museum.

Dr. Theodore N. Gill, biologist of the Smithsonian institution said that the wisdom teeth would disappear, as would possibly the veriform appendix and the little toe. "Man himself," said he, "is a striking evidence of the fact that he was not specially created. He is not only like the ape, but bears the impress of many inferior stocks. The appendix, for instance, was inherited from ances-

tors, to whom it was important, and came to us through the apes from primitive forms somewhat like marsupials. It may disappear to a slight extent. The gray matter of the brain may increase somewhat in bulk, but cerebation is not dependent upon size of brain. Some of the most intellectual have small brains. It is possible that the little toe will disappear, but doubtful. It has its use in giving greater basis to the foot. I doubt whether there will be any increase in stature, especially since in the future intellectuality will become more and more predominant over brute force. I doubt if the hair will decrease. The more civilized have a thicker growth upon their faces than lower orders of men. Undoubtedly there will be many changes which can not be foretold."

"The man of the remote future," said Prof. Elmer Gates, the psycho-physicist, "will develop into a creature as superior to man, zoologically, as man to-day is superior to the quadruped. His normal span of life will be 150 years, with a chance for greater prolongation. His head will not be relatively larger, but his brain cortex will be thicker and he will possess in his brain and other nervous centers a much greater number of cell layers. All bodily organs not needed will have disappeared. This creature will be much larger and stronger than man is to-day. His eyes will be larger and more mobile in expression.

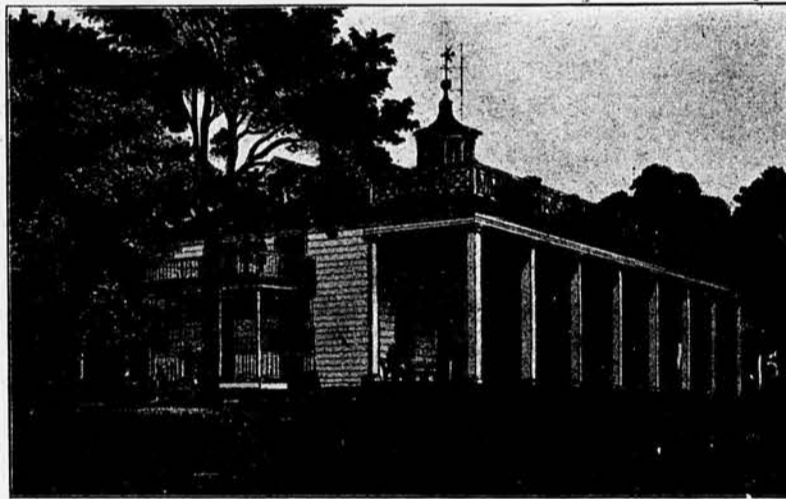
"I believe that acuteness of the senses will be increased from five to ten times during the next century alone. The man of the remote future will have senses which we do not possess. He will be able to hear higher pitches of sound and to recognize a greater number

imal and vegetable, which would answer the purpose.

"The large city will have ceased to exist. The number of villages will increase, and perfected aerial navigation will allow men to live hundreds of miles from their daily occupations. A man in one part of the world will be able to talk with and to see another in a distant part. The atmosphere will not be permeated with carbonic acid gas from the burning of fuels. Porous material will not be used in the construction of dwellings. Dust and germs will be completely screened out, and man will no longer waste his energy combating such things.

"Clothing will not interfere with the ventilation or motion of any part of the body. Language will be so simplified that when a man shall have learned from 1,000 to 2,000 simple vocables and syllables, he will have mastered the entire language. This mode of speaking will first become common among scientists. Science will be the propagandized religion. Ascertainment of truth by investigation will become a religious purpose. Children from infancy will be taught only veritable facts. Man will be afraid to express a hypothesis or theory, and will religiously search for veritable ideas. Man will develop more in the twentieth century than he has in the last 1,000 years."

Strawberries as cheap and plentiful for Christmas dinner as during June and July was one of the predictions for the American of the far future, made by Dr. Langworthy, the Government's food expert. He added that perfection of transportation facilities would make the season for all fruits and vegetables endless; that electricity would replace



MOUNT VERNON.

Where Washington Died One Hundred Years Ago To-day.

of tone qualities. He will be able to discriminate between colors below the red and above the violet. Five thousand years from now the human race will detect ten different steps in each fundamental color. The time will come when man's faculties will have increased from ten to twenty times in speed of functioning. He will then actually experience in a normal life time what it would take us, perhaps, 3,000 years to experience with our mental equipment. He will be rid of all depressing, evil, and malicious emotions, and because of an introspective knowledge of his own mind will be able to control himself in a manner now apparently impossible. He will be more affectionate and will love a greater number of things. He will be more artistic, more esthetic, more just, and more sympathetic. He will be, technically, more skillful in his trade or profession. He will not commit crimes or indulge in warfare.

"This future man will be able to definitely regulate the transmission of acquired characteristics to his children. His period of childhood will be much longer than now. Disease will not be handed down from parent to child. Ripe old age will find itself in possession of every faculty. It is possible that the tendency toward a second childhood will be stimulated into a natural, rejuvenating process, prolonging human life indefinitely. Approach of disease, of degenerative processes will be forecast in time to check their development.

"By artificial selective propagation foods will be made far more nutritive. The killing of animals will cease. Food will be derived from vegetables or microorganisms. Among these latter single-cell structures are notably the protista. They can be readily propagated in water. A ton will become two tons in a short space of time. Then there are many millions of single-cell species, both an-

cooking fuels; that homework would be done by cooperation; that the preparation of food would be dignified, rather than a degrading occupation, and that man's food would be vastly different from that of to-day, but that methods of storing and preparing it would be much more sanitary.

Ethnologist F. W. Hodge, prophesied that printing would become a lost art, and that a combination of graphophone and kinetoscope would replace it. Artificial eardrums would become as common as spectacles.

"In the first place, every man will be white," said Prof. W. J. McGee, another ethnologist. "His average height and weight will be decidedly greater. His head will be larger, absolutely and relatively. His hands and brain will be better coordinated, and, therefore, he will be a better mechanic. His vision will be stronger, his senses of smell more acute, and his hearing and sense of taste more delicate. On the whole, the man of the future will be stronger in relation to stature and weight.

"There will be a universal language—a composite of all present tongues, but, like the English, a language of vocables and syntax. Written and spoken language will be more similar. Phonetic spelling will affect great economy in both printing and writing.

"Fish will be relatively more important as food. Oceans and lakes will be the main source of food supply. Land will be almost entirely occupied for dwelling and for horticulture and intensive agriculture. Need of clothing will diminish. Control of temperature will be met by other than our present retail methods. There will be no serious exposure to cold. In the winter men will travel in well-heated vehicles, carrying them from one warm building to another. Ozone will be sold at drug stores and will be applied to kill bacilli as soon as they appear. The earth will be an

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endless succession of suburbs. Cities will meanwhile grow less and less dense.

"Transportation will be chiefly electric, and will be much more rapid as a result of straightening and multiplication of tracks. Aerial navigation will be valuable only for sports and amusement. It will not be a factor in warfare, because there will be no warfare. Submarine navigation will be valuable only as a means of escaping from storms. Vessels will be equipped with means of diving and remaining below the surface until storms blow over. Perfection of telegraphy will decrease mail business.

"Religion will be more of an individual sentiment. There will be an elimination of creeds. As progress of nature grows more complete man will rely less and less upon the occult. Punishment will be obsolete. All children will receive the foundations of their educations in public schools. Universities and private institutions of learning will give only special training. Children will have to study less, will learn spontaneously and will be encouraged to do what their minds naturally lead them to prefer. Sex of children will be predetermined."—Chicago Tribune.

Eyes, Ears and Brain.

"John, did you shut the stable door?" "Guess so; I'll go and see." John had just been through the stable, and ought to have known. Many people have never trained their minds, eyes and ears to work in harmony so as to be really certain of anything. Lots of time is wasted by this going back to make sure of things we should have known. Nearly every farming community has its hired man, who gets bigger wages than any one else. He is always in demand. He can take his pick of the best farmers. Not that he is a big, burly fellow who can shoulder four bushels of grain, break all the fork handles pitching hay, or do half a dozen other unusual things, but just because he is "handy." That is exactly the word. He doesn't have to stop and think five minutes to find out what he is doing. A farmer, speaking of one of these men, said: "When I hire Bob, I know that the horses won't be misused, the cows will be milked clean, the stock fed properly, the corn planted right, the tools won't be scattered all over the farm, the gates and granary doors won't be left open, and, when I am away from home, all the chores will be done in shape. I don't have to tell him twice to do a thing, and what he sees once he knows. We don't work so many hours a day as Neighbor Jones, but we accomplish more, and I'll give Bob the credit." Evidently Bob's mind was not full of cobwebs. This is largely a matter of training, and any young person who is falling into these careless habits should have a talk with his eyes, ears and brain, and impress upon them the need of doing their work properly.—Rural New Yorker.

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The Young Folks.

PATTER OF THE LITTLE FEET.

O, listen to the music
Of the childish voices sweet;
And hearken to the patter
Of the tiny little feet.

The pitter patter, pitter patter, through
The open door;
The patter of the little feet upon the oaken
floor.

They climb upon the sofa,
And make horses of the chairs;
They bring the yellow mud in,
And leave marks upon the stairs;
And yet there's nothing in this life that is
to us more sweet
Than the pitter patter, pitter patter of
those little feet.

They love to run and gallop,
And make a dreadful din;
They love to kick poor pussy,
Nor deem it is a sin.
But when at night the little eyes are closed
In sleep so sweet,
We miss the pitter patter of the restless
little feet.

Poor grandpa says: "Be quiet,
And let me read a minute;
No matter what the mischief is
You two are always in it."
But when he is away from home he always
longs to meet
The welcome pitter patter of those noisy
little feet.

O, little feet so eager;
O, little hearts so true;
Dear little hands so willing,
And little eyes so blue;
God grant that when we all shall meet
Upon the other shore,
We'll hear the patter of your feet upon
the heavenly floor.

—Washington Star.

SAINT ANTHONY.

BY ANNA MARIE NELLIS.
NUMBER 79.

The patron Saint of Padua is not that Saint Anthony who performed many miracles and cures in Egypt and Asia Minor; but this Saint Anthony was also a miracle worker, and cured many diseases, and raised to life several people who had died in northern Italy. I am not asserting that he actually performed these wonders, but I was told so in Padua, and it would not have been polite for me to deny it.

Our good old priest told us how Saint Anthony had preached, prayed and worked his wonders when the people of northern Italy were nearly all idolaters, and that because he did so many great things, they thought him possessed of the evil spirit; so they drove him away from other cities to which he had gone to preach when he was an old man, and he died while on his way home to Padua. The place where he died was thereafter considered holy, and a little chapel was built there over the grave of the saint. In after years the body of Saint Anthony was removed into the city of Padua, and an immense church was built and in its vaults the "relics" of the saint were entombed.

It was Saint Anthony's church we visited first after leaving the Victor Emanuel statue, and in this old church our old priest was one of the officiating clergy. He told us he had said mass there at 10 o'clock and that he was now free from duty for the rest of the day. The church is an immense structure, very irregular in shape, and has 6 domes with as many towers and steeples. It is 336 yards in circumference, our guide told us. There are 20 different chapels under the extensive roof, and eight of them are in the semi-circular choir.

The center chapel, or sacristy, is a very handsome affair. Its altar consists of three marble arches with immense brass doors in front, which shine like pure gold, and the whole is decorated with many beautiful marble figures. Above, in the center of the altar, is the image of the "Virgin and Child," and around them are many little angels with musical instruments. There is no large cross in the altar, except the one held in the gracefully folded arms of a very beautiful female figure in marble. But all the altars are beautiful here in Saint Anthony's church, and the one in Saint Anthony's chapel is the handsomest of all.

The principal altar in the nave of the church is a high affair, and is flanked by a semi-circular row of carved stalls, where the priests intone the mass sometimes, and hear confessional. As we entered the main church room, a mass was being chanted by several priests; but there were scores of people walking around sightseeing and apparently oblivious to the fact that religious services were being held.

Our guide led us at once to Saint Anthony's Chapel, which has the most gorgeous altar I ever saw. The front is composed of 7 arches supported by 4 columns and 2 corner pillars, all of beautifully carved marble. Above and

between the arches stand, in marble, life-size figures of the evangelists. In various niches are located 5 marble figures representing saints, whose names I neglected to record. Below the arches are hung most beautiful silver and brass lamps, with long chains, all shining as brightly as those metals can be made to shine. The altar itself is heavily laden with silver candelabra and other religious decorations.

The walls of the chapel are decorated with 9 relief scenes from the life of Saint Anthony, showing some of the miracles he performed. At the side of the altar is a pile of crutches and canes which our priest said had been left by cripples who had come there and touched the relics of Saint Anthony after praying at his tomb. He told us the last one cured was an old woman who had not walked without crutches for years, and had to be helped, in her pilgrimage to the shrine, by 2 men who held her up as she walked in on her crutches, up the steps to the altar. After praying and kissing the altar, or the box containing Saint Anthony's "relics," she arose and ran out of the church, entirely healed, and could talk as well as ever. This the old priest said he saw—with his own eyes.

While we were admiring Saint Anthony's Chapel, and learning so much about this truly good saint, the chimes in the towers began to ring most merrily. I asked the father if it were a "fest" day; he said it was not, but that years ago Padua had been afflicted terribly with a pestilence. Many people dropped dead in the streets; then the living ones prayed and vowed that if the plague were stayed, they would always observe this as a holy day. So each year on August 16 the citizens go to mass, and the bells ring hourly throughout the day.

Our priestly guide next escorted us to the cloisters, or rather to 2 rooms which belong to the oldest priest in San Antonio; he is 70 years old and almost blind, but still says mass every morning. The rooms are quite small, and the walls are covered with pen and ink drawings which the old father has made during his lifetime. The subjects are all religious, of course, such as "Abraham Offering Up Isaac," "The Torment of Flames Endured by the Lost," etc.

The old man had just received a new robe to wear at mass. It was a gift from a Countess in Padua, and she had made it herself. It was of white satin, heavily embroidered in gold and silks. It must have required many months of labor to work it. The old father was very proud of it, and showed it to us with as much delight as an 18-year-old girl could have done with her best frock.

We next crossed to the other side of the Piazza Vittorio Immanuele, and entered the church of Saint Guistina, famed for being the burial place of Saint Matthew and Saint Luke. I will not try to describe it generally, but will mention some of the points of interest about it. On the right, as we enter, is a beautiful monument erected over the remains of 6 of the babes which were slaughtered in Bethlehem by order of King Herod. How did those remains get there from Bethlehem? Why, I don't know, and it is best not to ask too many questions. I presume, however, that before the "age of miracles" ceased, it was comparatively easy to get together such interesting relics.

In the left transept is the marble sarcophagus of Saint Luke, and behind it is the iron-bound affair in which the saint's body was found and brought here some 1,200 years after his death, from Constantinople. In the right transept is the sarcophagus of Saint Matthew, whose remains were brought to Padua along with Saint Luke's. I believe these were miraculously found by Saint Helena, when she found so many other religious things, and they had been kept at the capital of Constantine's empire until Constantinople had been captured by Italians, and these relics were then brought to Padua as trophies of war. I have made up my mind to believe these are the genuine saints they pretend to be. Our old friend, the priest, was sure of it, and that settles it so far as I am concerned.

Behind the sarcophagus of Saint Matthew we entered the oldest part of the church. In a little chapel is a pretty picture of the head of the "Madonna," over the altar; this, the sexton said, had been painted by Saint Luke himself, from life; and our old priest corroborated the statement, so I know it is true—that he said so.

At the side of the altar we descended a flight of almost perpendicular steps to the catacombs underneath the old church. Down in the damp ground we found cells which had been occupied by early Christian martyrs, before Italy was Christianized. In many of the cells the prisoners had died and their bones

had been found hundreds of years thereafter, and this church had been built over the remains, in honor of the martyrs.

THE CITY HALL.

Not far from the Victor Emmanuel place is one of the most remarkable buildings in all Europe; not the grandest nor most beautiful, but it has the privilege of boasting the largest vaulted room between the North Sea and the Mediterranean. This room is in the City building, which is known as the Palazzo della Municipalita, and it was built over 700 years ago. It is also called the "Salone." The large hall is nearly 270 feet long, 90 feet wide, and 80 feet high, and is known also as the "Sala di Ragione," which latter name is also applied sometimes to the whole building.

The walls of the hall are covered with mystical and metaphorical paintings, and it also has statues and monuments for famous men, one of which is for Livy, the Roman historian. Our old priest seemed to expect us to be terribly astonished at the vastness of the room. Well, it was pretty large.

One ornament in this hall was certainly very peculiar. It was a wooden horse; not a clothes-horse nor a saw-horse, but just a wooden horse. Our old guide proceeded to tell us all about it, and we listened as though we never had heard of it before. His story was as follows: When the Grecian soldiers under the command of Col. Menelaus, 3,000 years ago, had besieged the ancient city of Troy for some ten or more years and had been unable to conquer it, some skillful genius built a large wooden horse, large enough to secrete in its wooden stomach a considerable number of armed soldiers. Then this genius went fishing for gudgeons, and induced the Trojans to believe the wooden horse was a famous god, and one well disposed toward Troy. He informed them that they ought to get it into the city where it could do some good. Then the foolish Trojans worked night and day and Sundays for a week or two, to haul it into the market place. No gate was big enough for its admission, so they tore down a section of the city wall and thus brought it to the corner of Sixth and Main streets. It proved to be one horse on them, the priest said.

Well, that night the Greek soldiers inside the horse turned themselves loose, and painted that town a deep crimson, being assisted by the army outside, which came pouring into the city through the hole in the wall.

When Prince Antenor, the Trojan, built Padua he built also a copy of that wooden horse, and it was that copy of the wooden horse we saw in the City hall—so the priest said. We all adjourned to the Cafe Pedrocchi, where we enjoyed delicious fruit ice, and we had the good old father to talk to us until late in the evening, while we sat in the large central piazza and heard the band play. Here we saw Italian life; everybody was out to hear the music. There were hundreds of beautiful women and handsome men, all dressed in their gayest clothes, and everybody seemed happy.

It was a pleasant picture to remember Padua by, for the next morning we said good-bye to the interesting city and to the kind old father who had interested us the day before.

Charge of the Lion.

After we had gone 15 miles, winding in and out among the mimosa bushes, the two horsemen pointed overhead to the blazing zone, and I saw hundreds of vultures flying at an immense altitude. Dismounting and advancing alone on foot with my rifle, I soon caught sight of the dead camel. The lion was crouching behind it, and appeared almost exactly of the same color as his prey. I was within 80 or 90 yards when the lion sprang out toward me and remained for some moments motionless in a defiant attitude, his forepaws extended, his head near the ground, but his back arched. Supposing he might be coming for me I reserved my fire—besides, the distance was too great for an absolutely certain shot—so that I might give him my two barrels at close quarters as he was charging down at me. After that I knew I must trust to luck, as I had no second rifle or gunbearer, and should have no time to reload.

After we had thus regarded each other for some seconds the lion turned slowly and lumbered heavily away. I was sorry, since he had not charged, that I had not fired and sent a bullet screaming after him through the bushes, as better late than never. I was soon in the saddle and away upon his tracks at a gallop, accompanied by the mountain guides. The lion soon stopped under a small mimosa bush, crouching and glaring at us with waving tail as we rode round. I then approached on foot. The



brute was now swaying his tail and body from side to side with much energy and clearly upon the point of charging down to kill me.

As I walked round to get a flank shot into his shoulder the lion moved so as to face me, keeping his body invisible, and rendering a chance shot very hazardous, the brain being the only vital part to aim for. If one of the horsemen had only ventured near, or if the lion's attention could have been distracted for a moment toward another foe, he might have turned and given me my opportunity of fatally crippling him. The only issue was now the death of the lion, or of myself, or of both. Which it was to be depended on the accuracy of my aim and the coolness of hand and eye. Every instant the beast, like a huge cat after a bird, was working himself up for the inevitable charge, lashing his great flanks with his tail. I remember wondering at that supreme moment whether the popular superstition that on the end of his tail a lion has a claw or sharp point wherewith to goad himself on to the attack could have any groundwork of fact.

I now gave up all hope of any easy shot, and feeling that further delay was impossible, as he might deliver his charge at any moment, I sat down and, resting my elbows on my knees, fired twice at his head through the bush at a distance of about 60 yards. These shots failed to kill, and, uttering coarse growls, the lion edged around the bush, facing me and keeping low upon the ground. I reloaded quickly and, standing upright so as to clear the grass, fired my right barrel downward at his head. The lion immediately rose to his feet and charged down upon me at full speed, running swift and low. Only my left barrel remained and, covering his chest with the sights of my rifle as he neared me, I pulled the trigger when he was a few yards distant. Exactly what the lion did no man will ever know, unless the natives saw. As I stepped hastily to one side, reloading, I was struck by a shower of stones and half blinded by a cloud of sand and dust. The lion must have passed close by me and swung abruptly round under cover of the smoke.

When the dust cleared away I saw the lion under the bush again—the same old bush. He had delivered his charge and it had failed. It was a sick and sorry beast and evidently disconcerted and wounded unto death. I now had an easy side shot into his shoulder, and quickly put two bullets through his heart. I had seen one of the grandest sights of Africa—the charge upon one's self of the wild African lion, practically carried home—a charge that few have sustained and yet come off unharmed. One can have too much of a good thing, and the sight is not one that I should desire to see frequently.—H. Seton-Karr, in The Royal Magazine.

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D. C. Nellis, Sec'y and Treas.

OFFICE:

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E. B. COWGILL, Editor.
H. A. HEATH, Advertising Manager.

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.

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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, Kans.

LIVE STOCK INSPECTION.

The paths of the live stock inspectors have ever been thorny. Last week the sanitary boards of several States met at Kansas City to take action "to secure better protection against Texas fever."

The chief trouble heretofore encountered by the inspectors had been in the collection of costs of inspection on cattle shipped from Texas or Oklahoma across Kansas and into Missouri. This constitutes interstate commerce and, while liable to spread disease in Kansas, was not clearly within the control of the Kansas board. The inspection fee is 3 cents per head, and, while the Kansas inspectors might, under some circumstances, determine whether the cattle were or were not free from fever ticks, they were without power to enforce payment of the inspection fee. Without this fee nobody wanted to go hunting for ticks. This difficulty was adjusted by an order from the Missouri board requiring that cattle coming into Missouri should be certified by the Kansas inspectors.

But now comes the United States Department of Agriculture and declares that it is maintaining an efficient system of inspection and quarantine, and that, where its agents have certified that cattle are fit to be shipped from one State to another, or through a State, they are legally fit, and there is an end of it.

There really seems to be little use of more than one class of inspectors. If Uncle Sam is doing the job well that ought to be enough. If his agents are doing it in an inefficient or corrupt manner the evil ought to be corrected by some method less expensive than the maintenance of several State inspection boards.

The death of Judge F. G. Adams, which occurred last week, left vacant the office of secretary of the Kansas State Historical Society. This place was filled temporarily by the executive committee by the appointment of Hon. Geo. W. Martin, of Kansas City, Kans. Mr. Martin is an old Kansan; has from the founding of the society been one of its staunchest supporters, and was a close personal friend of Judge Adams. He brings to the work of secretary an unexcelled acquaintance with Kansas affairs and Kansas people, and an enthusiasm for the work which will enable him to maintain the Kansas collection at the head of the list. The well nigh indispensable services of Miss Zoo Adams, the assistant secretary, will be continued. The election of a secretary by the board of directors will take place in January.

In these days of trusts and combines it is pleasant to find an occasional old friend who is able and willing to go alone. The Huber Manufacturing Company, of Marion, Ohio, whose engines and threshers are well known and highly appreciated by farmers, is independent of the trust and is likely to remain so.

Secretary Coburn, of the State Board of Agriculture, has received notice that an open round-trip rate of one and one-third fare has been made on all railroads in Kansas for the twenty-ninth annual

meeting of the Kansas State Board of Agriculture in Topeka, January 10, 11 and 12. The rate will also be applicable to those attending the annual meetings during the same week of the Kansas Improved Stock Breeders, the State Poultry Exhibition, and the State Temperance Union. These excursion tickets will be sold January 6 to 13, inclusive, and limited for return January 15.

THE GRANGE.

Annual address of Henry Rhoades, Worthy Master, before the Kansas State Grange, on Tuesday, December 12, 1899.

Officers and Members of the Kansas State Grange, and Members of the Order:—Another year has passed by, and we, as officers and members of the State Grange, are permitted to meet in this beautiful city for this, the twenty-eighth annual session, to take a retrospective view of the past, pointing out wherein we have failed; and, in legislating for the future, steering clear, if possible, of rocks and shoals that in any way would be a hindrance to the best interests of the order which we so love, and, if possible, bringing out some plan of work that will build up the order in the State. Other States whose citizens are no more intelligent or industrious than our own are increasing in new granges and membership, and why not ours? I think that if the proper means are put forth, ere another year rolls round, the number of granges and the membership can be materially increased.

This matter I hope will be given your undivided attention, to the end that we may take some action to bring about the desired end.

NATIONAL GRANGE.

The National Grange convened at Springfield, Ohio, November 15, 1899. Twenty-six States responded to roll call and others sent greeting. Dominion Grange, of Canada, was represented by Brother Jabel Robinson, worthy master. The Commercial Club, of Springfield, spared no pains to make the meeting of the National Grange (also of the Ohio State Grange which was in session at the same time) pleasant and entertaining. Among the many attractions made free to all was a visit to the industrial exposition of Springfield, and to the Champion Machine Works, an excursion to the Capital City, Columbus, the State fair grounds, the State university, and the masonic home of Springfield, all of which were interesting and instructive.

The seventh degree was conferred in full form Thursday evening so that delegates and visiting members of the Ohio State Grange could avail themselves of the opportunity of taking that degree. Among other work presented, was a special hour set apart for State lecturers and others to present their different methods and experiences in the organizing and reorganizing of granges, and methods of keeping up the interest in subordinate granges. There were numerous plans of work presented, all of which were good and it is to be hoped will result in much benefit. All of the methods presented require self-sacrifice, with lots of push and energy, and the coöperation of every patron in the State when the work is undertaken.

Resolutions were adopted, instructing the executive committee to do all in its power to extend the order in States that are weak. There were some slight changes made in the ritual, which will be put in the new edition when made.

The executive committee reported at the end of the fiscal year, September 30, that there were real estate securities to the amount of \$45,985; deposits with fiscal agency, \$9,122.33, and in saving's bank, \$725, making a total of \$55,832.33. The increase in the funds the past year were \$2,697.50. There was expended for lecture work last year \$2,981.35. There were very strong resolutions presented against subsidies and trusts, which were adopted and ordered printed in circular form for distribution. On the whole a profitable meeting was held.

PRESS.

It is a conceded fact that the press is to a great extent the educator of the people. We should be careful what papers we support. Patronize those that are advocating your interests as tillers of the soil. There are quite a number of papers doing this. I know none better than the *American Grange Bulletin*. The Patron is recognized as the official grange paper of the State of Kansas. There are others: the *KANSAS FARMER*, the *Advocate and Farmer*, and your local papers no doubt will be glad to publish anything you might write in the interest of the grange. Every subordinate grange should have a good correspondent to do this work. It will be in-

teresting to others to know what their sister granges are doing.

CO-OPERATION.

It is very evident that coöperation is one of the leading features of the order. In fact, I don't see how we could get along without it. It is the leading feature to success in organization.

At a recent session of the National Grange the committee on coöperation recommended a plan of coöperation between the several State granges, whereby they can handle the surplus products without the aid of commission houses. It might be well to give this matter careful consideration, whereby some plan may be brought about to accomplish the desired end.

FIRE INSURANCE.

Our Mutual Fire and Tornado Association has done a flourishing business the past year. While we have had several losses, all have been paid promptly and with satisfaction to the insured, which gives confidence that we, as members of the order, can carry our own insurance successfully and at the same time at nearly one-half what the old-line companies would charge. The secretary, Brother I. D. Hibner, will give a report in full at this session.

ORGANIZATION.

I feel that there should be made a strenuous effort to push organization. What membership there is in the State is principally confined to a few counties in the eastern part. Kansas has granaries overflowing and her citizens are as prosperous as those of any other State, and her educational institutions are as numerous and as well-equipped and attended. With all these and other advantages, it does seem that the farmers are slow to organize for their own protection. All other occupations and callings are thoroughly organized, and why not the farmers? Why be "hewers of wood and drawers of water?" Others know the value of organization and are not slow to take hold in matters that interest them. Why not the farmers? I hope this matter will receive the undivided attention of every member of the State grange, and that nothing be left undone that can successfully be done to push organization. We may get some help from the National Grange, but we must put forth an effort ourselves.

EDUCATION.

Education being one of the fundamental principles of our order, it is necessary to give it all the encouragement possible. We have as good a common school system as any State in the Union, and have as many colleges and seminaries, etc., as any State, according to population. Yet we have not reached that high standard, as a whole, that we should. A majority of our population are living in the rural districts. A great many have not the means to send their children to our high schools, therefore have to depend on common schools, which have not the breadth and scope to enable them to reach the high attainment sought for, which is necessary to build up a better manhood and womanhood throughout the State.

CONSTITUTION AND BY-LAWS.

I do not approve of much changing thereof, but it occurs to me there might be some changes for the better. In article 8, section 6, it makes the lecturer's compensation for organizing and reorganizing granges certain fees. Why not make it the same as to deputies? I would recommend the making of a uniform fee for reinstating dormant members.

LEGISLATION.

The question of levying and collecting taxes is far-reaching and as a rule oppressive to the agricultural people. The power to assess and collect taxes is almost unlimited and hardly subject to restriction except in the discretion of the power that exercises it. The agricultural class, which is largely in excess in Kansas, in their unorganized condition are unable to even make a protest, neither would it be their desire to do so if the taxes levied were equitable. In our organized capacity of the State grange, while we represent a minority of the agricultural class in Kansas, it does seem to me that we might attempt some legislation that would be of vital interest to the farmers of Kansas. It is a well-conceded fact that there is but little on the farm but what is visible for taxation. It is also evident that there are notes and other kinds of taxable property in the State that are overlooked or are not listed by the assessor, and go free. There would be but very little complaint upon the part of our

farmers if the property of each and every one were listed and each required to pay their just proportion. This to my mind will require legislation with severe penalties, and should be looked after at this session of the State grange.

Also that "octopus" called "trusts" should meet our severe condemnation. The grange on several occasions have put themselves on record on this important question, and our legislative committee should be instructed to use all honorable means to secure legislation to control the same.

THE GRANGE.

It is an organization exclusively for those whose leading interest is agriculture. And why it is that so few farmers can be made to realize the benefits they might derive by being associated together with their brother farmers, for no other purpose than the upbuilding of themselves and agriculture, I can not see; they are generally ready to take hold of any new thing that comes along, yet so very slow to do anything that would in a great measure benefit themselves.

The grange was instituted for the sole purpose of educating and elevating, through organization, those engaged in agriculture. And in conclusion will say that we trust that in your deliberations you may have an eye single to the best interests, and to the building up and extension of the order, and that prompt work, harmonious action, and good will be your motto.

Farmers' Institutes in Central Kansas.

RHINEHART, KANS., NOVEMBER 29, 1899.

In an able paper entitled "How to Save Half the Milk-Hauling," A. H. Diehl showed the necessity of extra care in keeping the utensils clean, and the immediate cooling of the milk, and placing it in cold well or cistern water. It would then be necessary to haul only every other day, even in the hottest weather.

Prof. J. G. Haney, of the Kansas State Agricultural College, talked on "Alfalfa and Its Value," and placed special stress on its value as an article to make a balanced ration for milch cows, horses, or hogs.

J. M. Westgate gave a short synopsis of the methods at the experiment station, of originating new varieties of wheat. An especial effort is now being made to increase the protein content of the wheat grain from 10 per cent to 14 per cent. Also of experiments in cross-breeding with the new Russian varieties and others, with a view of producing a wheat suited to all Kansas conditions, as so far nothing has been found to take the place of the Zimmerman and hardy Turkey varieties.

The evening session was very well attended, and T. J. Borman, of Navarre, gave his interesting chart talk on "Feeds and Feeding for Milk."

"What the Kansas State Agricultural College is Doing for Kansas," by J. G. Haney, was an interesting subject to the young people.

HERINGTON, KANS., DECEMBER 1, 1899.

PROGRAM.

"The Kansas Dairy Cow," J. G. Haney, Kansas State Agricultural College.

"Alfalfa and Its Value," J. M. Westgate, Kansas State Agricultural College.

"The Dairy Business an Important Factor in Modern Farming," Frank W. Kurtenbaugh.

"Outlook for Kansas Cheese," J. H. Taylor.

Mr. Kurtenbaugh's paper was a well-digested article, illustrating the necessity of diversity in farm crops, and the cow as an important factor.

Resolutions were passed thanking the G. A. R. for the use of their hall, and thanking the college people for their attendance.

BRIDGEPORT, KANS., DECEMBER 2, 1899.

Owing to the inclement weather, the attendance was light, but the discussions and the papers read were greatly appreciated. "Alfalfa and Its Worth as a Feed," by Carl Wheeler, was well got up. His first alfalfa seed was brought from California, twenty years ago, and cost \$42 a sack. He stated that alfalfa, as part of a balanced ration, would save one-third of the corn, and a large part of the labor and time necessary in feeding steers.

The question box, conducted by H. T. Perril, was an instructive feature, and many points were brought out that were of interest to all.

The music by the young people constituted a pleasing feature.

CARLTON, KANS., DECEMBER 4, 1899.

"The Care and Handling of Milk Before it Reaches the Factory," was by J. G. Haney, who urged the utmost cleanliness in all operations necessary

in the dairy, and of the dairy utensils, in order that the factory operator should be able to secure the best price for dairy products.

"Kaffir-corn as a Feed," by J. M. Westgate, was a presentation of many facts concerning this feed.

"Alfalfa and Its Value," by J. G. Haney, was listened to with marked attention, as there is very little alfalfa grown around Carlton, and there were many things brought out that were new to the audience.

The committee on music, D. L. Holter and J. R. Callister, helped out the meeting, as did Mr. White with his German song.

KIPP, KANS., DECEMBER 5, 1899.

The attendance was over one hundred, and it was necessary to carry in some seats to accommodate the audience.

PROGRAM.

"New Varieties of Wheat," J. M. Westgate.

"Alfalfa and Its Value," J. M. Westgate.

"The Attractions of Farming as an Occupation," A. L. Miller.

"Selection and Care of the Kansas Dairy Cow," J. G. Haney.

"Outlook for Kansas Cheese," J. H. Taylor.

The people here were so pleased that they want the institute every year, once or twice. The discussions after each paper were participated in by all, and the interest was great. The result of this institute will be improved methods of farming and greater profits to the farmer.

The farmers who attended these institutes are now convinced that the legislature did a wise thing in providing for these meetings. The mistaken idea that the experience gained at the experiment station at Manhattan is of no value, is now exploded. A number of the young people are now looking into the benefits of the college, and are making preparations to take up the short courses in agriculture, domestic science, engineering, general science, etc., while some are preparing to take a full four-years' course. The people at large are looking to the college for exact information regarding black-leg, hog-cholera, and other diseases of animals, and feed problems, such as raising calves on skim-milk, whey, and other by-products. One of the best methods of distributing this information is by means of these farmers' institutes.

Minnesota appropriated last year, \$10,000 for these institutes, and Kansas has started well with \$2,000.

Harvey County Poultry Show.

Harvey County's fourth annual poultry show was held at Newton, December 4-9. The exhibit consisted of 913 individuals, of which 813 were scored birds, and the remaining were young chicks and pet stock. The following were the highest scores of the different exhibitors:

BARRED PLYMOUTH ROCKS—141 EXHIBITED.

M. S. Kohl, Furley; cockerel 91%, pullet 90%.

E. G. Topping, Sedgwick; cock 88%, cockerel 91%, hen 90, pullet 90%.

Mrs. P. J. Buehler, Moundridge; cockerel 91, hen 89%, pullet 90%.

Mrs. John Pipig, Newton; cock 85%, cockerel 86%, hen 89%, pullet 88%.

J. D. Marshall, Walton; cockerel 87%, pullet 90%.

H. C. Dick, Newton; cockerel 88%, hen 89%, pullet 90%.

Chas. Billau, Hesston; cockerel 90%, pullet 89.

L. L. Cross, Valley Center; cockerel 89%, pullet 89%.

C. L. Nelson, Valley Center; cockerel 89%, pullet 89%.

P. J. Morrison, Newton; cockerel 88%, hen 89, pullet 89.

Wm. Phillips, Newton; cockerel 87, pullet, 88%.

A. J. Partridge, Newton; cockerel, 89%.

WHITE PLYMOUTH ROCKS—34 EXHIBITED.

W. F. Willis, Eaton, Colo.; cockerel 93, pullet 94.

W. M. Congdon, Jr., Sedgwick; cock 91, cockerel 92%, hen 94, pullet 94%.

C. M. Davis, Walton; cock 85%, cockerel 87, hen 90, pullet 90.

C. W. Peckham, Haven; pullet 90 (pea combed).

BUFF PLYMOUTH ROCKS—17 EXHIBITED.

C. C. Wedell, Moundridge; cockerel 88, pullet 89%.

C. W. Peckham; cockerel 86, pullet 89%.

WHITE WYANDOTTES—79 EXHIBITED.

R. R. Hobbie, Newton; cock 86%, cockerel 93%, hen 95%, pullet 94%.

W. D. Congdon, Newton; cock 87, cockerel 91%, hen 94, pullet 94.

Willis Walker, Newton; cock 87%, cockerel 89, hen 92%, pullet 93.

J. W. Prouty, Newton; cock 86%, cockerel 89%, hen 95, pullet 94.

D. D. Perry, Newton; cockerel 88%, pullet 92%.

SILVER WYANDOTTES—39 EXHIBITED.

Mrs. J. W. Gause, Emporia; cockerel 91, hen 92%, pullet 93%.

R. R. Hobbie; cock 80.

John Murray, Putnam; cockerel 90%, pullet 91.

M. M. Ginnett, Florence; cockerel 86%, pullet 88.

C. D. Whitney, Newton; cock 84, pullet 87%.

GOLDEN WYANDOTTES—25 EXHIBITED.

F. B. Peters, Newton; cockerel 90%, pullet 89.

Arthur Walker, Newton; cock 85%, cockerel 89%, hen 86, pullet 90.

SINGLE COMB BROWN LEGHORNS—60 EXHIBITED.

Mrs. H. P. Swerdfeger, Wichita; cockerel 94, hen 93, pullet 92.

J. M. & C. M. Rose, Elmdale; cockerel 93%, pullet 93.

D. W. Wilcox, Newton; cock 90%, cockerel 91%, hen 91.

R. M. Wilson & Son, Annelly; cockerel 90%, pullet 92.

Geo. Topping, Cedar Point; cockerel 93, pullet 93%.

Will Herman, Newton; cockerel 90, hen 91, pullet 90.

SINGLE COMB WHITE LEGHORN—54 EXHIBITED.

H. Klinger, Newton; cockerel 90%, hen 92.

S. R. Smith, Newton; cockerel 94, pullet 94%.

J. W. Milne, Putnam; cock 91, cockerel 93%, pullet 95.

A. J. Beverlin, Elmdale; cockerel 92%, pullet 93.

ROSE COMB BROWN LEGHORN—13 EXHIBITED.

F. D. Munn, Wichita; cock 88%, pullet 93%.

J. W. Milne, Putnam; cockerel 88%, hen 91, pullet 92%.

Mrs. J. C. Morgan, Newton; pullet 93%.

ROSE COMB WHITE LEGHORN—12 EXHIBITED.

J. W. Milne; cock 87%, cockerel 92%, hen 92%, pullet 94.

BUFF LEGHORNS—8 EXHIBITED.

E. J. Buckwalter, Halstead; cock 88, cockerel 91%, pullet 90%.

BLACK MINORCAS—45 EXHIBITED.

Grant Puntney, Newton; cockerel 91%, pullet 93%.

J. R. Pruitt, Newton; cockerel 91%, hen 89; pullet 92%.

James Rebstock, Newton; cockerel 91, pullet 93%.

R. M. Wilson & Son, Annelly; cockerel 88%, pullet 90%.

PARTRIDGE COCHINS—34 EXHIBITED.

James Clark, Topeka; cockerel 91%, hen 93%, pullet 93.

E. F. Egy, Newton; cockerel 90, pullet 92%.

James Reno, Newton; cockerel 90%, pullet 91.

C. W. Peckham, Haven; hen 91.

Chas. Billau, Hesston; cockerel 89%, pullet 89%.

BUFF COCHINS—18 EXHIBITED.

D. W. Laver, Hesston; cockerel 92; pullet 94%.

Wesley Ragan, Newton; cockerel 90%, pullet 90%.

BUFF COCHIN BANTAMS.

Mrs. W. Peck, Cedar Point; cock 93%, cockerel 91%, hen 92%, pullet 93.

SILVER SPANGLED HAMBURGS—27 EXHIBITED.

R. M. Wilson & Son; cockerel 91%, hen 91, pullet 92%.

Arthur Walker; cock 88%, cockerel 90%, hen 91%, pullet 91%.

J. C. Morgan, Newton; cockerel 87, pullet 89%.

BLACK LANGSHANS—23 EXHIBITED.

Dennis Keefe, Newton; cockerel 95, pullet 94%.

F. D. Munn; cockerel 92%, pullet 93.

LIGHT BRAHMS—16 EXHIBITED.

D. W. Laver; cockerel 89, hen 91%, pullet 90%.

C. F. Yokley, Newton; cock 91, hen 90%.

Mrs. E. J. Ingram, Newton; cockerel 90, pullet 89.

DARK BRAHMAS—5 EXHIBITED.

A. R. Ainsworth & Son, Newton; cockerel 91%, pullet 92.

C. M. Glover, Newton; cockerel 90, hen 91%.

WHITE FACE BLACK SPANISH—8 EXHIBITED.

Chas. Billau; cockerel 92%, hen 93.

GOLDEN POLISH—12 EXHIBITED.

H. A. Kemper, Putnam; cock 89%, hen 92.

J. W. Milne; cock 87%, cockerel 89%, hen 89%, pullet 89%.

CORNISH INDIAN—12 EXHIBITED.

A. R. Ainsworth & Son; cockerel 93%, hen 93%, pullet 91%.

MAMMOTH BRONZE TURKEYS—30 EXHIBITED.

M. S. Kohl; adult cock, 94; hen 92, pullet 91%.

Geo. Topping; yearling cock 96%, cockerel 80, hen 91, pullet 94.

Mrs. E. C. Wayne, Newton; yearling cock 95, pullet 86%.

H. A. Kemper; adult cock 86%, pullet 89.

F. S. Morrison, Newton; pullet 87%.

John Pipig; adult cock 89, pullet 84.

C. W. Peckham; hen 88%.

WHITE HOLLAND TURKEYS—5 EXHIBITED.

J. R. Marshall; yearling cock 92%, hen 97 (highest score).

PEKIN DUCKS—12 EXHIBITED.

J. R. Marshall; cockerel 95%, pullet 97 and 96.

M. S. Kohl; adult cock 96%, cockerel 93%, hen 96%, pullet 95%.

TOULOUSE GESE—9 EXHIBITED.

H. A. Kemper; cockerel 87%, pullet 86%.

James Milne; cock 89%, cockerel 87.

The sweepstakes winners were the following:

American Class—R. R. Hobbie, first, White Wyandottes, 1884 points; Mrs. J. W. Gause, second, Silver Wyandottes, 183 13-16.

Asiatic—Dennis Keefe, first, Black Langshans, 1884; Jas. Clark, Topeka, second, Partridge Cochins, 184.

Mediterranean—Mrs. H. P. Swerdfeger, Wichita, first, Single Comb Brown Leghorns, 1874; J. M. & C. M. Rose, Elmdale, second, same, 1864.

Miscellaneous—A. R. Ainsworth & Son, first, Cornish Indians, 188 7-16; Arthur Walker, second, Silver Spangled Hamburgs, 181 13-16.

C. H. Rhodes, of Topeka, judged the

poultry and gave excellent satisfaction. He has 12 more appointments this winter. The following are the officers for the coming year:

W. D. Congdon, of Newton, president. Arthur Walker, of Newton, first vice-president; M. S. Kohl, of Furley, second; E. G. Topping, of Sedgwick, third; J. W. F. Hughes, of Topeka, fourth; Wm. Phillips, of Newton, fifth.

Mrs. O. B. Hildreth, of Newton, treasurer.

C. M. Glover, secretary; D. W. Laver, of Hesston, assistant secretary.

J. W. Milne, of Putnam, superintendent.

The Missouri's Black Chief Sale.

The most notable event in the line of swine sales this season closed with the early darkness on Friday last in the little town of Richards, Mo. It was the sale of J. R. Young and J. M. Turley, made pre-eminent in the hog annals for the year by an offering consisting almost wholly of Missouri's Black Chief and a choice lot of his sons and daughters. Of course the great boar, owned (excepting one-fourth interest) by Mr. Young, to whom all credit is due for his successful exhibition at the Illinois State fair this year, was the star of the occasion, but the young stuff by him possessed individual excellence enough to easily entitle it to the prices brought without borrowing any lustre from the illustrious sire.

In most respects the sale was quite satisfactory, the day being fine with a good crowd of representative breeders present, and every arrangement—thanks to Messrs. Young and Turley—the best for comfort and dispatch. As to prices, the old boar at \$500 was undoubtedly the cheapest thing sold and the greatest bargain for his buyer. As to the young boars the range was from \$15 to \$76, 10 head going at \$25 and better, and the average for the 17 head, including Missouri's Black Chief, was \$39.55.

The female offering contained a large number of quite young things, not one ever having produced pigs and only 3 or 4 having been bred, and yet an average was realized for the 45 head of \$22.55, with a top price of \$100, and 13 head going at \$25, and better. The whole offering of 62 head brought \$2,027.50, an average of \$32.70. The sale was opened by J. W. Sparks, introducing his brother auctioneers and excusing himself from further duty on account of ill health. The actual selling was in charge of D. P. McCracken, H. O. Correll, and A. R. Patterson.

The bidding on Missouri's Black Chief, who was brought into the ring fourth on the list, was neither lively nor general but was in earnest, and would undoubtedly have gone higher but for the conviction in the minds of all that E. E. Axline, who dropped in regularly with a \$25 raise, would "go his pile" before he would let go. Starting him at \$100 a half-dozen bidders entered the ring but withdrew as they came to understand what they were going against. Most reluctant of these was J. H. Kirkpatrick, of Connor, Kans., who is still unconsoled over the loss of his great Hadley Jr. He followed the man from Oak Grove to \$450 but gave up the chase when \$50 instead of the usual \$25 was put between them. Mr. Axline also took the best in the sow sale, buying Lady Tecumseh, a February gilt, by Chief Tecumseh 2d for \$100.

Other notable sales were: To Dietrich & Spaulding, Richmond, Kans., and A. M. Jordan, Alma, Kans., 2 boars, May farrow, by Missouri's Black Chief and out of a Chief Perfection 2d sow, for \$76 and \$60 respectively.

To H. E. Woodbury, Danville, Ill., boar, April farrow, by M. B. C. and out of a Chief Tecumseh 2d sow, for \$51.

To Horace Ruff, Pittman, Ark., Lady I Am, a January gilt, by Chief I Am, for \$50.

To J. L. Bigelow, Coffeyville, Kans., an M. B. C. gilt, out of a Kiever's Model sow, for \$46.

To John Bollin, Kickapoo, Kans., a gilt by Black Chief Again, for \$41.

To W. S. Combs, Yukon, Okla., an M. B. C., April farrow, out of a Chief Tecumseh 2d sow, for \$37.

To R. Fitzgerald, Chetopa, Kans., a King Hadley gilt, for \$34.

To F. B. McGuire, Haven, Kans., yearling boar by Perfect I Know and out of a Chief Tecumseh 2d sow, for \$35.

To R. Fitzgerald, Chetopa, Kans., boar, April farrow, by M. B. C., and out of W. B.'s Jewel, for \$32.50.

To John Bollin, Kickapoo, Kans., an M. B. C. gilt out of a Chief Sanders sow, for \$32.

To L. G. Wilholt, Drexel, Mo., yearling sow by Turley's Chief, for \$31.

To O. E. Morse, Mound City, Kans., and Dr. E. Harold, Platte City, Mo., 2 yearlings sows by M. B. C. and out of a W. B. Tecumseh sow, for \$30 each.

A good many breeders are now speculating on what Joe Young "has up his sleeve" to take the place of the great boar, sold to Axline and await the announcement expectantly, for Young is too good a breeder and has too rare a lot of sows to put up with anything not of the upper crust.

One Hundred and One Herefords Average \$344.50.

"The last public sale of Herefords for 1899 closed in a blaze of glory," is the way Colonel Woods, the auctioneer, put it, in referring to the great public sale of Herefords held at Kansas City, December 6 and 7, by Kirk B. Armour, of Kansas City, Jas. A. Funkhouser, Plattsburg, Mo., and John Sparks, Reno, Nev., who jointly sold at public sale 101 head of Hereford cattle at an average of \$344.50. Fifty-three bulls averaged \$271.22, and 48 cows and heifers averaged \$425.41.

The offering was a most representative lot of breeding cattle, but it was soon evident that bull buyers were not very numerous as the sales were quite draggy at much lower prices than prevailed at the earlier Hereford sales, while on the other hand cows were in brisk demand at long prices, as shown by the average results:

Mr. Armour sold 27 cows at an average of \$439.07, and 24 bulls at an average of \$282.50. His general average for 51 Herefords was \$365.39.

Mr. Funkhouser sold 15 cows at an average of \$385.60, and 17 bulls at an average

Your... Trip to Paris

has not yet reverted from a possibility to an impossibility. Many energetic agents can earn enough money this Winter to pay for a trip abroad by securing subscriptions to

The Ladies' Home Journal

AND

The Saturday Evening Post

and perhaps a good deal more. At the end of the season (April 15th) we are going to divide \$18,000 among 764 of our best agents.

This is in addition to liberal commissions on all subscriptions, and special rebates for large clubs.

The best agent will get \$1,000, the next best will get \$750, and so on.

Don't let 764 people outstrip you. But, if you should, the pay will be ample for all the work you do for us.

Write for particulars.

The Curtis Publishing Company, Philadelphia

of \$272.94. His general average for 32 Herefords was \$325.78.

Mr. Sparks sold 6 cows at an average of \$463.33, and 12 bulls at an average of \$246.25. His general average for 18 Herefords was \$318.61. The best individual sales made by each were as follows:

ARMOUR'S BEST SALES—COWS.

Lady Sunbeam 75110 by Beau Brummell Jr.; bought by H. G. Clark, Craig, Neb., \$725.

Quarantine Lady 75126 (imported); bought by Ikard Bros., Henrietta, Texas, \$555.

Angel 80084 (imported); J. L. Neal, St. John, Kans., \$400.

Albian 80083 (imported); H. G. Clark, \$300.

Charity 80106 (imported); Whittenberg Bros., Magua, Mo., \$255.

Deborah 3d 80115 (imported); H. G. Clark, \$345.

Lady Nora 80131 (imported); H. G. Clark, \$400.

Rosanna 80157 (imported); E. C. Weeks, Eldon, Mo., \$270.

Tea Rose 75140 (imported) b. c.; Ikard Bros., \$1,175.

Rosedrop 80159 (imported); Jas. A. Funkhouser, Plattsburg, Mo., \$700.

Saint Martha 80164 by Saint Louis 46428; H. G. Clark, \$575.

ARMOUR'S BEST SALES—BULLS.

Conquest 80110 by Saint Louis; W. H. Wildrum, Buffalo, Wyo., \$580.

Fairfaxon 80122 (imported); H. M. Satzler, Burlingame, Kans., \$620.

Montezuma 2d 80145 (imported); J. L. Neal, St. John, Kans., \$500.

Roseberry 80158 (imported); Capt. E. C. Scarlet, Ashland, Neb., \$500.

FUNKHOUSER'S BEST SALES—COWS.

Bera 76422 by Free Lance; H. G. Clark, \$500.

Ellen 77076 by Heslod 2d; H. B. Watts & Son, Fayette, Mo., \$500.

Estrella 71456 and c. c. by Free Lance; H. B. Watts & Son, \$475.

Harmony 78340 by Corrector; John Sparks, Reno, Nev., \$475.

FUNKHOUSER'S BEST SALES—BULLS.

Beau Dux 81593 by Beau Brummell; Sunny Slope, Emporia, Kans., \$460.

Heslod 60th 86468, by Heslod 2d; John Sparks, \$750.

Shadeland Dean 42d 78769; Henry Ackley, Wellsville, Kans., \$500.

Heslod 67th 91350 by Heslod 2d; W. E. Ringer, Ringer, Texas, \$375.

Bonfire 2d 81358; Fred Klaus, Bendena, Kans., \$205.

SPARKS'S BEST SALES—COWS.

Bella Alamo 83696; Ikard Bros., \$400.

Lady Alamo 7th 78911; H. G. Clark, \$400.

Lady Alamo 25th 73813; Whittenberg Bros., \$405.

Shepely Nell 73825 by Major 10th 61570; K. B. Armour, \$1,010.

SPARKS'S BEST SALES—BULLS.

Roseland 4th 61592 by Lamplighter; Capt. E. C. Scarlet, \$310.

Roseland Alamo 1st 83749; Ikard Bros., \$400.

Wilton Alamo 9th; Ikard Bros., \$350.

Roseland Alamo 4th 83752; Johnson Bros., Kansas City, Mo., \$270.

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In the Dairy.

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

THE MILKING QUALITIES OF THE GALLOWAY.

R. B. CARUSS, SAINT JOHN'S, MICHIGAN, BEFORE THE ANNUAL MEETING OF THE A. G. B. A.

I find the Galloways equal, as butter-producing animals, to any of the beef breeds. Some of them are extraordinary milkers. We have two cows in the herd, Rosy 4th 8655 is an extra milker. She has given through the milking season, a trifle over 40 pounds per day for three months. At one of the institutes held here it showed 6 per cent butter fat. This was a winter test, if it could be called a test. Mollie Jane 2d 5596 is an unusually good milker. I kept a daily record of her milk at the same time of keeping Rosy's and her milk was tested with a Babcock tester at the same time with Rosy's. She showed 7 1/4 per cent butter fat; the daily yield of milk was 41 1/2 pounds per day. Their feed was wild hay and 2 pints meal, equal parts of corn and oats, and 30 pounds beets. There is another cow in the neighborhood, but not recorded, that the lady who owns her tells me makes on an average 2 pounds per day during the summer. This I consider good. I also find the fat particles very fine, as a rule requiring a little longer time for the cream to rise. After you have secured what you can by the common method of standing from twelve to thirty-six hours, the milk is still rich. I have never seen a can or jar of poor-looking milk from a Galloway. I have been told by a friend of mine that the milk of the Galloway was the best of any he knew for feeding infants. The butter seems quite firm in texture, standing the heat of summer, keeping in form without melting or having an oily appearance. It has always recommended itself to our customers. I offer this with my regrets to the members of the association that I can not be there.

Be Humane.

The fall of 1899 has been specially favorable to the stock and dairy interests of the country. Last month was the warmest November we have had for forty years, and stock has suffered very little from the cold. But while the month of December is starting out warm, we have no assurance that it will remain so. Even before these lines are read we may be suffering from a cold blizzard. The dairyman who is milking cows for profit will do well to see that provision is made for their comfort when cold weather does come. It will pay him in dollars and cents. A good dairy cow will have a large flow of blood to the udder and a corresponding light flow to the outside of the body, and as her hide and hair are not so very thick she is very sensitive to climatic changes and always reports her feelings at the milk pail. The beef cow, on the other hand, has a light flow of blood to the udder and a corresponding heavy flow to the outside of the body, and with a thick hide and a heavy coat of hair is able to stand cold weather much better than the dairy cow. But even the beef animal will greatly appreciate and will usually pay for a sheltered nook in cold weather. The milk receipts of our creameries are a good many hundreds per cent less in winter than in summer, and that notwithstanding the fact that the price of butter fat is considerably higher in winter. One of the main reasons for this is undoubtedly the lack of

shelter and care. It is reported that during the severe weather of last February there were herds in Mitchell County, the banner dairy county of the State, that had nothing but the canopy of heaven for shelter, and in their efforts to find a somewhat protected spot in the valleys ran into ponds. Here they stood while the water froze around them and the snow-drifts covered them. In the spring when the snow melted these animals were found still standing in the ponds, frozen stiff. Such a condition of affairs is beyond the realm of profitable dairying or stock-raising.

It is a case for the humane society. The owners of such cattle ought to be made to dance barefooted on ice until they become impressed with the fact that the animal system is sensitive to cold. It is not always necessary to build high-priced barns. A straw shed, although not strictly sanitary, can be made warm and it is a vast improvement over the open sky. If nothing better is available, many men by planning ahead could construct a framework out of timber and place it where they intend to have their straw-stack, and while the wheat is being threshed the straw-barn could be made without any additional expense. If men can not shelter their stock for the money there is in it, they certainly ought to for the sake of the animal's comfort. At least be humane. D. H. O.

Acid for Testing Milk.

Mr. Wm. Hilton, Douglass, Kans., writes: "I would like some information concerning the acid in testing milk. When I received my tester there came with it a small bottle of acid that worked all right. The acid I get at the drug-store does not make the butter fat clear and light-colored as did the acid that came with the machine. There is something that looks like sediment at bottom of fat that interferes with reading the test."

The sulphuric acid of commerce, of the strength known as oil of vitriol, is the quality used by Professor Babcock in working out his method of testing milk. He states that it should be from 1.82 to 1.83 in specific gravity, the stronger being preferable. We have never had any trouble here with any that we have had, although the strength is seldom determined. Sulphuric acid has a very strong tendency to absorb water from the air, and unless kept in tightly closed bottles will become perceptibly weaker. It is possible that the acid you purchased was under strength from this cause. It is possible, too, that the acid had been purposely diluted by the druggist, the pure acid being too strong for many uses. An important point to observe in milk testing is that of mixing the acid and milk thoroughly together as soon as the acid is put in. If allowed to stand with the acid largely at the bottom, as it naturally is upon being introduced, a part of the milk is in contact with acid that is too strong. This is liable to produce too great carbonization, and possibly attacks the fat, and the reading is interfered with by the black substance produced. J. T. WILLARD.

Missouri Dairy Association.

The tenth annual meeting of the Missouri State Dairy Association was held at Holden, Mo., November 27, 28, and 29. Four Kansas people were represented on the program, Mr. and Mrs. M. E. King, of Altamont, Mr. E. W. Curtis, of Manhattan, and the dairy editor of the KANSAS FARMER. The association was called to order and presided over by Norman J. Coleman, who has been fighting for the interests of the agriculturists a good many years. Those in attendance were largely men who milked the cows, and the interest those men took in feeding and caring for the dairy cow was an inspiration to any one engaged in dairying. "A Profitable Dairy Cow," "The Jersey Cow," "From Beef-Raising to Dairying," "From Dairying to Beef-Raising," "Dairying as a Family Business," "Educating the Cow," "Butter-making on the Farm," and "The Dairy Cow Form" were among the interesting subjects presented and discussed. The latter subject was handled by Prof. F. B. Munford, of the Missouri Agricultural College, and was illustrated by living specimens.

The creamery side of the dairy business was represented by such subjects as "What Dairying Does for a Community," "Ripening Cream," "Kansas City as a Market for Dairy Products," and "Coöperative Cheese Factories." It was brought out at the meeting that there were men in Missouri who were being driven out of a local market for their butter on account of the introduction of oleomargarine. Missouri has a law against the fraudulent sale of oleo and the last legislature upheld the law, notwithstanding the fact that \$20,000

was behind a bill to repeal the law. The president of the association urged any one suffering from the unlawful sale of oleomargarine to write to the secretary of agriculture, Columbia, Mo., who has State funds in his hands to suppress the illegal traffic, letting him know of the injustice and urging his prompt attention in rectifying the evil.

The Missouri dairymen take a good deal of pride in their State. Last winter a bill had passed both houses granting a liberal appropriation for a dairy school at Columbia. This bill failed to become a law on account of the governor's veto. Strong efforts are being put forward now to secure this appropriation at the next meeting of the legislature. This with its natural advantages will place Missouri among the front rank of the dairy States.

Three Days of Excitement.

The large number of visitors at the barn during the dairy association caused more or less excitement, and as a result a number of the cows fell off in their milk yield, varying from 1/2 pound to 2 pounds at a milking. The average yield for the herd during the three days of the association was 10 pounds less per day than for the three days preceding the association. We find that, with but one exception, the cows falling off the most were those of a nervous temperament.

The cows are accustomed to having visitors around here more or less, for hardly a day goes by but what we have some sight-seers. The milkers are all allowed to talk or laugh while milking but not in a loud, boisterous manner. If our cows had not been used to some excitement and if we observed strict silence while working with them, the decrease in milk yield would have been much greater during the association.

This little circumstance shows how closely the milk yield is connected with the nervous system, and anything that excites the cow tends to lower her yield. Drinking cold water just before milking has a like effect on the quantity of milk secreted.

We wonder what must be the effect from the treatment that some of the cows in Kansas get; those that are sheltered by a 2-wired fence; that get ice-water to drink and are encouraged into giving milk by the use of the milk stool. J. A. CONOVER.

A new coöperative creamery and cheese factory opened up at Dwight, Morris County, Kansas, December 4, 1899. Mr. Stubbs, who has operated factories in Mississippi and Missouri, has been employed as operator. A dairy institute with basket dinner was held on the opening day. The building is equipped in excellent shape, and if the farmers take hold and patronize the creamery as they ought to the adventure will doubtless be a grand success.

Are Creameries Beneficial to the Farmer?

[The following paper was prepared by C. A. Austin, proprietor of the Burlingame creamery, and read by him before the Farmers' Institute held in Burlingame, November 9-10, 1899.]

Are creameries beneficial to the farmer? I answer, yes, most emphatically. The principal object of the creamery is the manufacture of butter. It is true, however, that many of our creameries which are located near cities of considerable size sell the most of their cream to consumers who use the raw material, such as hotels, restaurants, ice-cream factories, confectioneries, and so forth. But whatever the disposition of the product, the object is the same, namely, getting the greatest possible net returns for the milk. In the first place, I contend that the creameries are profitable to the farmers for this reason: That they furnish a home market for almost every crop grown upon the average farm. In this section, where corn is the staple and perhaps more depends upon the success of this than any other crop, this mixed with other feeds to balance the ration can be fed to the

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Sept. 1st marked the introduction of the Improved 20TH CENTURY "Baby" or "Dairy" sizes of De Laval Cream Separators and these newest "Alpha" disc machines are simply unapproachable by anything else in the shape of a cream separator. Overwhelming as has been the conceded superiority of the De Laval machines heretofore their standard is now raised still higher and they are more than ever placed in a class by themselves as regards all possible competition. Send for new catalogue.

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cow with great profit. Corn-meal with skim-milk makes an excellent feed for the calf as soon as a good start is made from the whole milk. Corn fed in connection with skim-milk to young swine is also used extensively and with equally good results. For raising poultry, skim-milk can be used in connection with corn, Kaffir-corn, or other products that are rich in carbohydrates and fat, and deficient in protein, which the skim-milk supplies. However, it is not necessary for me to take your time with this matter to which I wish to call your attention. The keeping up of the productiveness of the farm, or in case it is badly run down and needs rejuvenating to bring it back to its original fertility. In the East where fertilizers are manufactured and sold, and where the farms have been tilled for nearly a century, they find these compounds indispensable to successful farming.

The keeping of the dairy cow, housing her properly through all cold or inclement weather, will furnish you with a vast amount of natural fertilizer, which, if hauled out and scattered upon the land, will increase the crop from 20 to 50 per cent and at the same time



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Mr. Dairyman:

Are you getting all the cream from your milk by your present method? We should like to put an



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equally enhance the value of the farm. Another point to consider is the present price of dairy butter, compared with the price before creameries became so general. I am told there was a time when most of the country butter brought, during the summer months, only from 3 to 10 cents per pound. True, there were a few who kept a goodly number of cows, who went to the expense of fixing up cellars or milk houses, and bought churns, butter-workers and other dairy utensils, and made a very good article of dairy butter, and succeeded in obtaining fair prices. But what would have been the result if every farmer had gone to the same expense and effort and produced an equally good article? Competition in the local market always brings the inevitable result of lower prices, and profits are greatly reduced or entirely swept away. Some would answer, we could ship these goods to eastern consumers. So you could, but there would be only a small amount of each make and it would be necessary to either have one special customer or again suffer lower prices, because people are becoming more and more particular every year in regard to the butter they eat. Our taste becomes educated to like a certain flavor. The grocer gives you something else. You return it. He has nothing better. You try another store; result the same. Then the price must come down or you refuse to buy. This is no fancy sketch to suit the occasion, but a sample of the thousands of every-day experiences of grocers in every city where great competition places the keenest of business men at their wit's ends in order to hold customers, who, while being very particular as to just what suits them, are, nevertheless, of considerable influence in their respective wards or localities, and possessed of a liberal purse.

(To be continued.)

firm which he said was selling glucose for "pure clover honey." Col. G. W. Waters, of Canton, followed with many pointed and amusing illustrations of the deceptions practiced by the makers of adulterated foods and adulterated adulterants.

"After thirty years of time and an expense of \$3,000,000, Missouri is in a far worse condition as to good marketable horses than it was when we first learned the quality of our blue grass." This statement was made by E. W. Stevens, of Sedalia, who occupied a valuable half-hour in the meeting of the Horse Breeders' Association.

If the average boar could have heard the discussion on the subject of removing tusks he would have been "scared out of a year's growth," at least, of those natural but dangerous appendages.

The new list of officers elected by the Missouri Swine Breeders' Association for the ensuing year begins with J. C. Cannady, of Bogard, for president, it being the Chester White breeders' year for holding that office. The vice-presidents by breeds are as follows: Chester Whites, J. M. Ketchum, Lovelake; Poland-Chinas, Geo. W. Falk, Richmond; Duroc-Jerseys, W. L. Addy, Cornell City; Berkshires, N. H. Gentry, Sedalia. F. H. Schooler, of Rockport, continues as secretary, and H. C. Sydnor is treasurer.

H. C. Sydnor, in his response to the mayor's address of welcome, ran in a few hog statistics, telling of a litter of pigs which brought its owner over \$5,000; and also of a sow that represented an annual income, in pigs, of \$4,000. Next best to this came N. H. Gentry, a little later in the day, concerning a World's Fair show sow he had butchered. Her ham was so large he could not reach around it with both arm, and the slices from it were so large, fine-

grained, and contained so little fat that a well-posted visitor mistook them for round steak from beef.

D. A. Watts, of Coleman's Rural World, considers the pedigree of the breeders as important as that of a pig when it comes to making a purchase. Mr. Watts took the place of F. A. Scott in discussing "Value of Pedigree."

"It is not so difficult to breed fancy little hogs, but it is a great art to breed fancy big ones. Yes, I believe the tendency of Poland-China breeding has been toward smaller hogs."—Geo. W. Falk, Richmond.

"A fad in hogs," says Frank Winn, of Kansas City, "is a craze among breeders for, or a prejudice against, any character of a hog which does not in any way make it less valuable to the butcher, feeder, and packer. Included in this I would mention the case of the swirl, small 'off spots,' 'six points white,' little known, or too well-known ancestors, etc." Mr. Winn thinks a successful breeder must of necessity follow fads to a certain extent.

The swine-breeders endorsed the action of the State board of agriculture in recommending Sedalia for the State fair town.

Students Returning Home

for holiday vacations can, upon presentation of proper credentials, obtain tickets, to Central Passenger Association points, located on the Nickel Plate Road, at a fare and a third for the round trip. Tickets will be sold on day school closes and day immediately preceding closing date, with return limit to and including day school re-convenes, but not later than January 10, 1900. For information as to train service to Ft. Wayne, Cleveland, Fostoria, Erie and other points, call on or address General

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Notes From the Meetings Held at Sedalia, Mo., December 5 to 8.

The Sheep Breeders' Association held its second annual meeting on the last day of the week's session, and on the afternoon and evening of that day sheep, hog, horse, and cattle men united in discussing the subject of common interest—good roads.

The eighth annual exhibit of the Missouri State Poultry Association, held at Sedalia last week, was the largest and most successful of these shows yet held. The entries in poultry numbered 1,080, representing over 20 breeds, and in point of quality the birds showed even a greater gain over previous years. The judges were Theo. Hewes, of Trenton, Mo.; H. A. Bridge, of Columbus, Ohio, and J. W. Wale, of Archie, Mo.

"Cattle once inoculated," said Professor Connaway, "always carry the germs of the fever in their blood, and I would not advise inoculating cattle unless they are to go South where immunity is necessary. No animal—North or South—is a born immune, and all animals are liable (to a very small extent, indeed) to a recurrence of the disease after either natural or artificial inoculation."

A loss of 2 per cent from the "inoculation fever" was reported by Prof. J. W. Connaway in his paper on "Inoculation for Texas Fever." The loss from animals exposed to the disease after recovering from inoculation he gave as 8 per cent, making a total loss of 10 per cent, as against 65 per cent reported by some southern ranchmen who had taken northern cattle South without inoculating them.

The many feeding experiments of the Kansas station were turned to good account by Prof. F. B. Mumford, of the Missouri University, in his paper on "The Effect of Age and Period of Feeding in the Fattening of Farm Animals."

"Beware of the pedigreed scrub," said N. H. Gentry in his address of welcome to the Improved Stock Breeders' Association; "it is now a greater obstacle to the efforts of this society than the regulation scrub. If there is anything worse than a pedigreed scrub it is the scrub breeder who handles it."

The faculty and experiment station staff of the agricultural college furnished a prominent and intensely interesting part of the Improved Stock Breeders' Association program.

Cow-peas and soy-beans were placed higher than ever before in the estimation of Missouri breeders and stockmen by Col. G. W. Waters' paper on "Preserving Soil Fertility," and in the discussion that followed, testimony was added in abundance as to the wonderful efficacy of these nitrogen-gatherers.

Emerson T. Abbot, formerly of the KANSAS FARMER, but now editor of the Modern Farmer and Busy Bee, made a strong talk for pure food legislation, taking occasion to name a Kansas City

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Strictly All Wool

English Cheviot Suits

in dark, light and medium patterns; very best quality Italian Cloth lining; horn buttons; strong worked button holes; perfect shaped shoulders; a guaranteed suit in every way. Double breasted sack like cut. Send chest, waist and crotch measure. **\$5.75**

A Full Size COMPLETE 100 PIECE DINNER SET

in the latest shape and design, STRICTLY PERFECT. **\$4.**

Upon receipt of \$4 we will send to any address, carefully packed in a case, a complete full family size, pure white, latest shape and handsome 100 piece Dinner Set made of the highest grade Vitreous China warranted not to crack and exactly the following pieces: 12 Dinner Plates, 12 Breakfast Plates, 12 Tea Plates, 12 Fruit Plates, 12 Saucers, 12 Teacups with handles, 12 Saucers, 1 Medium Sized Platter, 1 Large Sized Platter, 1 Vegetable Dish, 2 Covered Meat Dishes, 1 Sauce Boat, 1 Covered Butter with strainer, 1 Sugar Bowl with cover, 1 Cream Pitcher, 1 Fancy Bowl and 1 Pickle Dish.

Brand NEW MEAT CHOPPERS

purchased at Sheriff's Sale. No more staple or useful article made. Will be shipped in original boxes just as they came from the factory. You will find this chopper complete, with more improvements than any other on the market; recently patented and with a complete new arrangement. It is not one of the old style machines—but made on brand new lines and cuts the meat slick and clean—the cutters working just like the snipping process of a pair of shears. Another thing that will please you is the rapidity with which it does its work—no faster cutter ever made. They have been sold in a regular way from \$2.50 to \$5.00, but our style of doing business is to move goods quickly; our prices will do this sure. It weighs 12 1/2 pounds; cuts 4 pounds per minute. Regulation family size, but can also be used for restaurants, hotels and butcher shops.

Price, each..... **\$1.00**

LUMBER AND MATERIAL AT HALF OF REGULAR PRICES.

We have just purchased the **Omaha Exposition Buildings**

and if you are in the market for any Lumber, Sash, Doors, Railing, Trusses, Timbers, Pipe, Roofing, Flag Poles, Builders' Hardware, Benches, Stair Cases, Iron Columns, Iron Rods, Iron Beams, Machinery, Fire Apparatus, Statues, Copper Wire, Electric Light Fixtures, Engines, Boilers, &c., &c. Write for Catalogue No. 61. **OUR PRICES WILL ASTONISH YOU.**

CHICAGO HOUSE WRECKING CO. West 35th and Iron Streets, CHICAGO.

Gossip About Stock.

Notice the change in the card of J. H. Taylor, Rhinehart, Kans. He offers some great things cheap.

W. L. Reid, of North Topeka, sold a fine Poland-China boar by Dandy Jim and out of a Chief I Know dam to head the herd of J. W. Vining, of Wilsey, Kans.

Andrew Pringle, of Harveyville, Kans., sold to J. B. McAfee, of Topeka, 6 fine yearling Shorthorn heifers by his grand Cruickshank bull, Sir Knight 124403, at \$100 each.

The Oard Bros., of Vassar, Osage County, Kansas, announce a public sale of Poland-China hogs to occur the latter part of December. Their offering will be a splendid one and strong in Black U. S. blood. Watch for further announcements, and make your application for catalogue now.

Breeders of pure-bred stock should make their plans now to attend the tenth annual meeting of the Kansas Improved Stock Breeders' Association, to be held January 8-10, 1900. It will be the most important breeders' convention ever held in the West. For further information address H. A. Heath, secretary, Topeka, Kans.

Mr. John G. Springer, of Springfield, Ill., has gone into the question of the number of sheep in Illinois. He shows that the total of Illinois sheep in 1893 was 919,635 head and the number decreased gradually to 468,638 in 1897. Last year the figures took a turn upward and amounted to 495,017 head, increasing again to 630,951 head during the present year. These are assessment figures showing the sheep on which taxes are paid.

The great snap of the season will be the sale of 200 Galloway cattle, the entire registered herd of J. M. and J. R. Lowe, to be held at Longwood Farm, near Blue Springs, Mo., on Chicago & Alton Railway, 20 miles east of Kansas City, on Thursday and Friday, December 14 and 15, 1899. These animals are not halter-broken and are only in good breeding condition, consequently will be the cattle-breeders' opportunity of the year. The offering consists of 160 cows and 40 bulls.

The National Duroc-Jersey Record Association will hold its eighth annual meeting at the Clifton House, Chicago, Tuesday, January 2, 1900. The members and all others interested in Duroc-Jerseys are requested and urged to be present. The past year has been most encouraging for breeders of Duroc-Jerseys and the National has done a splendid business. About 60 new members have been added to the already large list of active breeders as stockholders. The address of the secretary, Robt. J. Evans, is El Paso, Ill.

E. A. Eagle & Son, Rosemont, Osage County, Kansas, again place a card of Maple Lawn Herd of Hereford cattle in the Kansas Farmer. The herd is showing marked improvement and is now headed by Gudgeal, a son of Sotham's famous Correy. For ready sale there is now on hand 10 young bulls of serviceable age and 10 choice yearling heifers, all pure bred; also for present shipment one car-load of high-grade bull calves and 1 car-load of high-grade heifer calves, all of which will be sold at reasonable prices.

Nearly \$2,500 has been donated by cattle associations as premiums for the live stock and breeding show to be held at Fort Worth, Texas, in March. Among those who have contributed are the American Hereford Association, \$1,000; American Shorthorn Association, \$500; Red Polled Cattle Club of America, \$200; American Aberdeen-Angus Association, \$100; Shropshire Sheep Association, \$100; Union Stock Yards of Chicago, \$150; Union Stock Yards of Kansas City, \$100. Over \$5,000 in all will be given in prizes.

R. S. Cook, of Wichita, is evidently doing a slashing business in the way of Poland-China sales. Among the recent sales reported is another herd-header to Manis Bros., Edgerton, Ohio, one to hold the other breeders level. This male is by Banner Boy. Also sales made consisted of a fine trio to G. D. French, Beaumont, a pair to T. E. Fowler, Darella, Texas; a trio to John Sirocky, Chandler, Okla.; J. A. Hensel, Dayton, Okla.; a pair to A. A. Cone, Belleplaine, Kans.; a trio to M. J. Woodson, Darlington, Okla.; a boar to H. R. Taylor, Ness City, Kans.; a boar to J. T. Noel, Hukel, Kans.; and O. H. Bentley, Wichita. Evidently hogs are on the move, especially the good sorts like Bob Cook's.

G. W. Glick & Son, of Atchison, have sold the Shannon Hill Herd of Shorthorns and farm located near Atchison, Kans., and the purchasers are Walter Latimer, of Kansas City, Mo., and D. L. Dawdy, of Abingdon, Ill., both old and experienced breeders of Shorthorn cattle. Mr. Dawdy will have charge of the farm and Shannon Hill will soon have its proper place among the front ranks of the Shorthorn herds of the country. Gov. Geo. W. Glick, who founded this herd of Shorthorn cattle and loved them so much, will take a much needed rest. However, the Governor will continue a lively interest and will always be an able champion of Shorthorn interests.

P. L. Ware & Son, of Paola, Kans., begin this week advertising their Fairview Poland-Chinas through the columns of the Kansas Farmer. Ware & Son have for several years been in the hog business in a small way, raising high-class stuff and selling it readily in their own neighborhood. During this time they have gotten together a carefully selected lot of brood sows and expect to raise 150 pigs for next year's trade. The herd boar, W.'s Chief Again, a grandson of Chief Tecumseh 2d, has proven a success in getting uniform litters of fancy, good-colored, and especially well backed and footed pigs. This boar won sweepstakes at the Paola fair last fall in a ring of a half dozen. Fairview is directly south of the Memphis depot 1 1/2 miles, or 2 1/2 miles southwest from Paola court house.

A strong point, from a breeder's standpoint, in favor of the Sunny Side Herd of Poland-China swine, owned by M. L. Somers, Altoona, Kans., is the fact that he is enjoying a splendid trade from his old customers. This tells a significant story in a few words. Mr. Somers reports a good trade in males but not so good a

demand for gilts, of which he has an extra good lot, which he will sell bred or open, to suit purchasers, and at prices that should be a great inducement to buyers. This herd was established for the purpose of supplying strictly representative Poland-Chinas of the large-boned, broad-backed, growthy animals, and the young stock now offered for sale are predominant in these characteristics. Special inducements for early orders are offered by Mr. Somers.

W. P. Brush writes: "The fat stock show held at South Omaha December 5 resulted in a decided success. Many of the leading breeders and feeders in the territory embraced in that section of the country tributary to the Omaha market became interested, resulting in an exhibit creditable to any center within the great corn belt of our country. The judges were practical beef cattle men—buyers for the several packing houses at South Omaha. In the cattle division, the Galloways won first prize, Herefords second, and the Shorthorns third money. The Galloway winners were bred and owned by Mr. George Hau, of St. Edwards, Neb. They were 2-year-olds, and, notwithstanding the strong competition by the whitefaces and the 'reds and roans,' Mr. Hau's cattle were of that character and quality as beef animals that they won their honors strictly on their real merits. The prize-winners were sold and brought, Galloways \$7.25, Herefords \$6.50, and the Shorthorns \$8.75.

On December 6, Clay, Robinson & Co., of Chicago, sold for M. L. Evans, the well-known feeder and Aberdeen-Angus breeder at Emerson, Iowa, two loads (30 head) of choice 1,529-pound "doddies" at \$7.35, 25 cents higher than any other load on sale. The price is also the highest in fifteen years for the number of head. Although of course very fine, good judges did not consider these cattle quite equal to the blacks which sold on Monday at \$7.40. The Evans cattle were started on a light ration of ear corn last February but were not on full feed until the middle of March. During the summer they were on grass with all the shelled corn they wanted. For a month previous to shipping they were fed chopped corn (old) and whole new corn. In addition they received about a pound of oil-meal and 3 pounds of bran per head each day. Mr. Evans strongly favors the use of oil-meal and bran as appetizers and aids to digestion. The cattle were purchased by Swift & Co. for their Christmas trade. A year ago this week Mr. Evans had on the Chicago market 15 head of 1,578-pound Angus steers which were considered as fine as any cattle ever seen here. They brought \$6.25, the highest price for two years preceding the sale, and also the extreme top for car-load lots last year. This company also sold for Mr. Evans 91 head of prime grade Angus cows and heifers (about half of each) averaging 1,211 pounds at \$4.30. Mr. Evans was present on the market and expressed himself as highly pleased with both sales.

Publishers' Paragraphs.

In this issue the Chicago House Wrecking Company has a conspicuous advertisement of a regular feast of bargains that many of our readers will need at this season of the year. Don't fail to get free illustrated catalogue No. 61, and mention Kansas Farmer when you write.

As an evidence of the universal interest taken in artificial incubation, and the confidence which the whole world places in American-made incubators, we refer to an order recently received by the Des Moines Incubator Co., of Des Moines, Iowa, through their New York agents, for a shipment of fourteen machines to go to parties in Sydney, Australia.

The Hawkeye Incubator Company, of Newton, Iowa, is one of the younger concerns, full of vim and enterprise, manufacturing incubators. It makes very broad claims for its None Better Incubator, claims which we believe the machine and the company can make good. The company is making a special claim for simplicity and durability—points which every purchaser will readily appreciate. Send for free catalogue.

THE FARMER'S WORK-SHOP.—A writer in a recent agricultural paper emphasizes the value to a farmer of having a commodious and well-equipped shop, where various incidental repairs of farm appliances can be made at times when for various reasons out-door work can not be engaged in. One of the most useful of such an equipment is easily a portable forge and blacksmithing outfit. It is possible that the writer above referred to knew that there had been placed on the market a splendid forge and outfit of blacksmith tools, expressly designed for farm use by the C. R. Harper Mfg. Company, Marshalltown, Iowa, who has made a specialty of designing a forge, which, while neither a professional blacksmith's outfit, nor yet a toy, strikes the happy medium, and affords the farmer an opportunity for doing the thousand and one small jobs of tinkering which may come up from time to time. Our readers will be surprised to learn how cheaply these forges are selling, and we would urge those who wish to be well informed on all matters pertaining to their interest to correspond with the Harper Mfg. Company, mentioning this paper.

"The New Egg Farm"—Poultry keeping for profit by 20th century methods, by H. H. Stoddard, for 20 years editor of Poultry World; 12mo, 331 pp., 140 original illustrations, cloth. Orange Judd Company, New York. Price postpaid, \$1. A practical, reliable manual upon producing eggs and poultry for market as a profitable business enterprise, either by itself or connected with other branches of agriculture. The author has conducted great poultry farms both East and West and is familiar with conditions in all parts of the country. He compares the best locations for the business. Tells how to build the houses for layers, breeders, sitters or chicks, adapted to the colony system, the yard system and other methods. How to feed and manage. How to breed and select. Choice of breeds and crosses. Management for mild or severe climates. How to feed fowls and keep them at exercise without hard work. How to manage hundreds of sitters with little labor. How to raise brooder chicks and

keep them alive and growing. Essentials of duck raising, and how to insure growth and fertility. Various styles of incubators and brooders are described and their merits compared. Directions for an incubator cellar. Best methods of heating and ventilating brooders. This is an entirely new work containing the author's ripest experience. The remarkable new labor-saving devices alone render it an epoch-making book.

It is often a question to the farmer what fence he shall buy considering the large number of fences being regularly advertised and otherwise brought to his attention. Among those fences which stand out with special prominence, and which it would seem perfectly safe for the farmer



to buy, is the colled spring fence regularly advertised in this paper, and manufactured at Winchester, Ind., by the Colled Spring Fence Company. This fence is made in a variety of patterns, different sized meshes, different shaped meshes, etc. It takes up absolutely all expansion and contraction by reason of the natural spring placed in the long wires by the peculiar method of construction. It is strong and closely woven, and might be termed the great general-purpose fence, for it is close enough for the smallest pig or lamb, and strong enough for the strongest bull, and high enough for the "breecy" horse. The material used is the very best of galvanized steel wire of the sizes demonstrated to be the best for the purpose. The manufacturers of this fence have no agents, and have adopted the plan of selling direct to the farmer at first cost.

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small 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. Returns taken.

FOR SALE—One Percheron stallion, imported registered, black, weight 1,800 pounds. Also two high-grade stud colts. Joseph McCoy, Eskridge, Kans.

CHRISTMAS TREES FOR SALE—Evergreens, Norway and White Pine, and Arborvitae, 4 feet high, 30c; 5 feet high 40c; 6 feet high 50c; 7 feet high 60c, at express office. Old Douglas Co. Nursery, Lawrence, Kans. Wm. Plasket.

10,000 PLAYS and BOOKS for HOME AMUSEMENT; Charades Children's Plays, Negro Plays, Monologues, Monologues, Mrs. Jarley's Waxworks, Musical Sketches, Joke Books, Operettas, Shows, Fantomes, Tableaux, CATALOGUE SENT FREE. SAMUEL FRENCH 24 WEST 23rd STREET, NEW YORK CITY, the Largest Theatrical Publisher in the World.

WANTED—Would like to buy a second-hand clothesaw, without power. August Feis, Campbell, Neb.

ANGORA GOATS FOR SALE—Will sell one male and two female Angora goats for \$10 a head. Address C. E. Westbrook, Peabody, Kans.

RHEUMATISM—Cured in 5 days. Sample, 50 cents. This quantity has cured 10,000 people. Fits stopped in 24 hours. Brazilian Drug Co., Chicago, Ill.

M. B. TURKEYS FOR SALE—With and without score cards; also Banded Plymouth Rock cockerels and Pekin Ducks farm-raised from prize winners. M. S. Kohl, Furley, Kans.

FOR SALE—Scotch Collie puppies at weaning time; now three weeks old. Price only \$5 each. Inquire at C. G. Staley's, Moran, Kans. (Allen county).

SWEET PEAS FREE—Eckford's Mixture. Given for addresses of five neighbors on a postal. L. H. Cobb & Co., Perry, Okla.

TEN CENTS—Buys the Western Florist and Fruit Grower three months, and five packets choice flower seeds—Pansy, Phlox, Carnation, etc. L. H. Cobb & Co., Perry, Okla., publishers.

PURE-BRED POULTRY—Banded Plymouth Rock chickens and White Holland turkeys. Horace Normington, Rose, Kans.

FOR SALE—Jersey bull calf, nearly 1 year, sired by Stoke Potts Marigold. See out or breeding of sire in another column. Sayda Polo Jersey Farm, Parsons, Kans., or W. C. Moore, proprietor, Junction City, Kans.

FOR SALE—Jersey heifer, yearling, registered. Sired by Stoke Potts Marigold. See out and breeding in another column. Will be held and bred back to sire. Just one Marigold heifer for sale. Sayda Polo Jersey Farm, Parsons, Kans., or W. C. Moore, proprietor, Junction City, Kans.

S. C. BROWN LEGHORN COCKERELS—Only 15 birds left. Price \$1.50 each. Write me. Frank Tuttle, Ridge, Woodson Co., Kans.

WANTED—Fifty to 100 sheep or goats, breeding ewes, to handle on the shares, on a splendid farm near Topeka. Address "Vineyard Farm," care of Kansas Farmer, Topeka, Kans.

FOR SALE—Three hundred and fifty to 500 bushels sorghum seed. Will send samples. N. O. Waymire, Garfield, Kans.

FOR SALE—Poultry supplies, bran, shorts, and oil-meal, etc. W. F. Hebb, 412 Kansas Ave., Topeka.

CHANCE TO BUY A FARM.—The well-known Sawyer ranch in Jackson County is now offered for sale in tracts of 160 acres or more, as purchasers may desire. The tract contains 2,890 acres and is situated twenty miles northwest of Topeka, five miles west of Hoyt, on the Rock Island railway, and eight miles north of Silver Lake, on the U. P. railroad. The land is all choice farming land, is well fenced in sections, has about 1,000 acres in cultivation, and the balance is smooth prairie. There are extensive improvements on one section and a good school house near the center of the tract. Each section is well watered, and excellent water is obtained at from ten to thirty feet. For further description and prices apply to A. T. Daniels, Real Estate Building, Seventh and Jackson Sts., Topeka, Kans.

FOR SALE—Shorthorn bulls from 4 to 20 months old. All reds. Also, St. Bernard pups. F. H. Foster, Mitchell, Kans.

FOR SOMETHING GOOD—In Banded Plymouth Rocks of high quality and breeding. White Holland Turkeys, the best in Kansas. White Pekin Ducks that are right and prices according to quality of stock. Cheaper now than they will be next spring. Porter Moore, Parsons, Kans.

LOCKS OF THREE.—Two new subscriptions for one year for \$2, and in addition, a renewal for one year free to any old subscriber who sends two new subscriptions and \$2 in one order. Kansas Farmer Company, Topeka, Kans.

FOR SALE OR TRADE—A Mammoth Black Jack, coming 6 years old; good bone, style and action. J. H. Furey, Jewell City, Kans.

WANTED—Farmers and poultry breeders to buy their feed and poultry supplies of W. F. Hebb, 412 Kansas Ave., Topeka, Kans.

FOR SALE—Ten Red Polled bulls, from 7 months to 1 year old. Also one 75-barrel roller mill to sell or rent. D. F. VanBuskirk, Blue Mound, Kans.

Bronze Turkey Toms—For sale. John C. Snyder, Kildare, Okla.

FOR SALE—Standard-bred Silver Wyandottes and W. P. Rocks. R. F. Meek, Hutchinson, Kans.

HERN'S TEETH—Oyster shells, cut clover, and all kinds of stock and poultry supplies. W. F. Hebb, 412 Kansas Ave., Topeka, Kans.

FOR SALE—Registered Hereford cows and bull. Three Stone Mason, two Tom Hendricks and one Nimrod 4th cow. Also my herd bull, Lawson No. 72519. Cows safe in calf to Lawson. Will price the lot at \$1,050. Write or come quick. Wm. H. Rhodes, Tampa, Kans.

SALESMEN wanted to sell fruit trees; big waves to hustlers; no experience necessary; cash weekly. Write Manager Western Nursery Co., Lawrence, Kas. Mention Kansas Farmer.

FOR SALE—Fourteen high-grade Hereford, and 6 high-grade Shorthorn bulls. A bargain if taken soon. Hugh A. Hodgins, Topeka, Kans.

HEREFORDS FOR SALE—A fine lot of registered Hereford bulls, 9 to 14 months old; 18 head. Also 50 or 60 head of females all ages; well bred, prices low. Correspondence solicited. J. Q. Cowee, Grand Haven, Kans.

FARM FOR SALE—Two hundred acres—140 acres bottom land. Pond stocked with black bass. Good buildings. One mile to R. R. Station. T. A. Turner, Rock Creek, Kans.

W. F. HEBB, 412 Kansas Ave., sells bran, shorts, oil-meal. Fancy poultry, incubators, and poultry supplies of all kinds.

FOR SALE OR EXCHANGE—Carnish Indian Game, White P. Rock, for Poland-China sow pigs. W. W. Tibbitts, Richland, Kans.

RHEUMATISM—Cured in 5 days. Sample, 50 cents. This quantity has cured 10,000 people. Fits stopped free. Brazilian Drug Co., Chicago, Ill.

FOR EXCHANGE OR SALE—The pure Cruickshank bull My Lord 116563. Bred by Col. Harris, sired by Imported 'Spartan Hero' 77932; dam Imported 'Lady of the Meadow' vol. 30, page 615. Both from Cruickshank herd in Scotland. H. W. McAfee, Topeka, Kans.

WANTED—Cane, Millet, and Alfalfa seed; also limited quantities of Jerusalem Corn and Milo Maize. F. Barteldes & Co., Lawrence, Kans.

FOR SALE—Imported and full-blood Percheron, Clydesdale and Coach stallions. Good individuals, colors and ages. For further information address W. F. Mohr, Manager, Box 204, Topeka, Kans.

WANTED—To trade for, or buy, a first-class jack and four thoroughbred Hereford bulls. Ed Warner, Mullinville, Kans.

FOR SALE—What's Wanted Jr. 2d No. 18534, good enough in show condition to go anywhere. Extra fine breeder; am closing out. Sired by the show boar What's Wanted Jr., No. 10026. First dam Fanta No. (41534), and four dams back of her are prize-winners. F. W. Baker, Council Grove, Kans.

POLAND-CHINAS—No better anywhere. \$5 each. Write for breeding. M. C. Hemenway, Hope, Kans.

FOR SALE—Twelve yearling gawd Shropshire rams \$12 to \$15. Also breeding ewes. E. W. Melville, Eudora, Kans.

BOAR PIGS—Sired by Hadley Model T 1927 for sale. Walter Roswurm, Council Grove, Kans.

DUROC JERSEY SWINE—Choice registered stock from best of families. For sale by J. C. LEACH, Carbondale, Kansas.

BREEDERS' ANNUAL REPORT FOR 1899—The Great Kansas Live Stock Manual and proceedings of the Ninth Annual Convention of the Kansas Improved Stock Breeders' Association, contains 125 pages; price 25 cents. Address H. A. Heath, Secretary, Topeka, Kans.

FOR SALE—Imported English Coach stallion and F. Galloway bulls. W. Guy McCandless, Cottonwood Falls, Chase Co., Kans.

100 Duroc-Jersey swine for sale. On account of health will sell all my stock except 10 brood sows, at reduced rates next 30 days. Males old enough to use; gilts and pigs in pairs and trios. Pedigree with every pig. M. H. Alberty, Cherokee, Kans.

WANTED—Every breeder in Kansas to become a member of the Kansas Improved Stock Breeders' Association. Send membership fee of \$1.00 to H. A. Heath, Secretary, Topeka, Kans., and you will receive the Breeders' Annual Report for 1899.

REGISTERED SHORTHORN BULL CALVES.—Prices, quality considered, defy competition. D. P. Norton, Dunlap, Kans.

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

I WILL PURCHASE soldiers' additional homestead right where entry was made prior to June 22, 1874, of less than 160 acres and whether entry was cancelled or perfected. I also locate land warrants. Henry J. Adams, Attorney, 628 Kansas Avenue, Topeka, Kans.

Incubator Hatching and Raising Small Chicks. A new book by an expert and successful poultry raiser. Not a new edition of worn-out ideas nor a chicken doctor book. Tells how to hatch and raise chicks that need no doctoring. A chapter on operating incubators and brooders, and several chapters on the care of small chicks. Tells what and how to feed them, a chapter on the effect of lice, on damp and filthy quarters, tells what causes bowel trouble, etc. The book sent to any address on receipt of 25 cents in silver or stamps. Address Sure Hatch Incubator Co., Clay Center, Neb.

SHORTHORNS FOR SALE—Twenty-seven cows and heifers—12 calves—Cruickshank—Young Marys, Rose of Sharon, and others. Cows mostly sired by that grand Cruickshank, Royal Prince 100645; four bulls ready for service, sired by Young Mary bull, Glendon 119371, and by Jerry 125069; latter bull is head of herd. These are a fine lot, and as I have left the farm, must sell. Will take \$50 each, cash, if the entire herd is taken soon. All are registered except calves. Theodore Saxon, 222 West Eighth Street, Topeka, Kans.

MARKET REPORTS.

Kansas City Live Stock. Kansas City, Dec. 11.—Cattle—Receipts since Saturday, 5,479; calves, 355; shipped Saturday, 1,066 cattle; 437 calves. The market was generally steady. The following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include DRESSED BEEF AND SHIPPING STEERS, OKLAHOMA STEERS, NEW MEXICO STEERS, TEXAS AND INDIAN STEERS, TEXAS AND INDIAN COWS, WESTERN STEERS, NATIVE COWS, NATIVE FEEDERS, NATIVE STOCKERS, STOCK COWS AND HEIFERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include OKLAHOMA STEERS, NEW MEXICO STEERS, TEXAS AND INDIAN STEERS, TEXAS AND INDIAN COWS, WESTERN STEERS, NATIVE COWS, NATIVE FEEDERS, NATIVE STOCKERS, STOCK COWS AND HEIFERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include TEXAS AND INDIAN STEERS, TEXAS AND INDIAN COWS, WESTERN STEERS, NATIVE COWS, NATIVE FEEDERS, NATIVE STOCKERS, STOCK COWS AND HEIFERS.

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No. 3 mixed, 23 1/2c; No. 4 mixed, nominally 27 1/2c; no grade, nominally 27c. White, No. 2, 28 1/2c; No. 3 white, nominally 28c; No. 4 white, nominally 27c. Oats—Receipts here to-day were 14 cars; a week ago, 20 cars; a year ago, 8 cars. Sales by sample on track: Mixed, No. 2, 22 1/2c@23 1/2c; No. 3 mixed, 23c; No. 4 mixed, nominally 21 1/2c. White, No. 2, 23c; No. 3 white, nominally 23 1/2c@24 1/2c; No. 4 white, nominally 23c. Rye—No. 2, nominally 47 1/2c; No. 3, nominally 47c; No. 4, nominally 46 1/2c.

Chicago Cash Grain. Chicago, Dec. 11.—Wheat—Cash, No. 2 red, 62@63 1/2c; No. 3 red, 65@67 1/2c; No. 2 hard winter, 64@66c; No. 3 hard winter, 62@65c; No. 1 northern spring, 67@69c; No. 2 northern spring, 66@68c; No. 3 northern spring, 63@66c. Corn—Cash, No. 2, 80 1/2c; No. 3, 79 1/2c@80c. Oats—Cash, No. 2, 22 1/2c@23c; No. 3, 22 1/2c.

Kansas City Produce. Kansas City, Dec. 11.—Eggs—Strictly fresh, 15 1/2c per doz. Butter—Extra fancy separator, 25c; firsts, 22c; dairy fancy, 18c; store packed, 15c; country roll, 15 1/2c; packing stock, 14c. Poultry—Hens, 5c; roosters, 15@20c; ducks, 5 1/2c; geese, 5c; turkeys, hens, 7c; toms, 6c; pigeons, 6c per doz. Vegetables—Beans, \$1.25@2.00 per bu. Hubbard squash, 30@50c per doz. Pumpkins, 35@50c per doz. Turnips, 15@25c per bu. Onions, 55@65c per bu. Cabbage, home grown, 75c@1.00 per doz. Potatoes—Home grown, 35@45c per bu.; Kaw valley, sacked, 30@40c per bu. Sweet, 60@65c per bu. Apples—Choice to fancy, \$3.00@4.00 per bbl.; fair to choice, \$2.00@3.00 per bbl., 65c@1.00 per bu.; culls and wind falls, 25@40c per bu.

THE STRAY LIST. FOR WEEK ENDING NOV. 30, 1899. Pottawatomie County—A. P. Scritchfield, Clerk. STEER—Taken up by Al. V. Johnson, in Blue Valley tp., November 18, 1899, one red steer with white face. Pottawatomie County—A. P. Scritchfield, Clerk. STEER—Taken up by Pat Leonard, in Clear Creek tp., (P. O. Blaine), September 29, 1899, one spotted roan steer, right ear cropped, left ear slit, 3 years old. Greenwood County—Perry Clemans, Clerk. STEER—Taken up by S. D. Lack, in Otter Creek tp., (posted November 15, 1899), one white steer, 2 years old, weight about 900 pounds; valued at \$35. Cherokee County—S. W. Swinney, Clerk. HORSE—Taken up by J. M. Bennett, in Crawford tp., October 21, 1899, one gray horse, 15 hands high, dark mane and tail, collar marks on neck, 7 years old; valued at \$20. HORSE—Taken up by M. L. Painter, in Spring Valley tp., November 6, 1899, one gray horse, 4 years old, dark tail; valued at \$18. Wilson County—C. W. Isham, Clerk. STEER—Taken up by William Dulin, in Colfax tp., October 27, 1899, one brown steer, about 2 years old, branded on left side, and stripe on shoulder, some white spots, dehorned; valued at \$50. Atchison County—S. S. King, Clerk. STEERS—Taken up by Wm. Stirtion, (P. O. Muscotah), three 2-year-old steers, one red, one red with white spot in forehead and under body, one black, dehorned, with white face.

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FOR WEEK ENDING DECEMBER 7, 1899.

Montgomery County—D. S. James, Clerk. COW—Taken up by J. H. Etter, in Louisa tp., (P. O. Elk City), November 18, 1899, one red cow, 3 years old; valued at \$15. CALF—By same, one spotted bull calf, 3 months old; valued at \$5. Greenwood County—Perry Clemans, Clerk. STEER—Taken up by F. B. Stuber, in Fall River tp., one yearling steer, pale red, white face, white spot over shoulder, branded (not plain, X, or H) on left hip and a straight mark on left side; valued at \$25.

FOR WEEK ENDING DEC. 14, 1899.

Butler County—S. G. Pottle, Clerk. STEER CALF—Taken up by J. A. Surples, in Rosalia tp., (P. O. Rosalia), October 31, 1899, one red and white spotted steer calf, (last spring s); valued at \$16 to \$17. Elk County—J. A. Benson, Clerk. STEER—Taken up by James Moore, (P. O. Piedmont), November 3, 1899, one red and white 2-year-old steer, branded "L" on left hip, and "U" on right jaw; valued at \$20. Osage County—Wm. H. Thomas, Clerk. HEIFER—Taken up by W. H. Peard, in Olivet tp., (P. O. Olivet), November 23, 1899, one roan heifer, weight about 500 pounds; valued at \$12. Coffey County—Dan K. Swearingen, Clerk. MULE—Taken up by E. L. Shepley, in Pleasant tp., (P. O. Barry), November 13, 1899, one brown mare mule, 4 years old, weight about 1,000 pounds, unbroken; valued at \$30. Franklin County—J. A. Davenport Jr., Clerk. COW—Taken up by W. M. Finch, in Harrison tp., (P. O. Ottawa), one red and white spotted cow, about 8 years old, smooth crop and slit in right ear, under-bit in left ear; valued at \$20.

McINTOSH & PETERS COMMISSION CO., Live Stock Commission Merchants. Rooms 252-3-4 Exchange Building. KANSAS CITY STOCK YARDS. Correspondence and Consignments Solicited. Market reports furnished to FEEDERS and SHIPPERS. REFERENCES: National Bank of Commerce, Kansas City, Mo. Inter-State National Bank, Kansas City, Kans. Bank of Topeka, Topeka, Kans. Telephone 164 Security Bank, Eskridge, Kans. Hickory.

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Registered "BLACKLEGINE." Trade Mark.

"Pasteur" single treatment Blackleg Vaccine ready for use; (no set of instruments required.) No. 1 (ten head), \$1.50; No. 2 (twenty head), \$2.50; No. 3 (fifty head), \$6. Easily applied. No experience necessary.

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MAMMOTH CATALOGUE. In which is listed at lowest wholesale prices everything to eat wear and use, is furnished on receipt of only 10¢ to partly pay postage or expressage and as evidence of good faith the 10¢ is allowed on first purchase amounting to \$1.00 or above. OUR MONTHLY GROCERY PRICE LIST FREE.

Wanted, a Mate for a Black Driving Horse. Wanted, a mate for my black driving horse; stands 16 hands, weighs 1,100 pounds, stylish up-headed, all black, rather slim build and leggy, long tail. Will give \$150 for a good mate. Must have some speed and be well bred. J. W. HIGGINS, JR., Hope, Kans.

PERSONALLY CONDUCTED TOURIST EXCURSIONS TO CALIFORNIA Excursions Via the Santa Fe Route. Three times a week from Topeka. In Improved wide-vestibuled Pullman Tourist Sleeping Cars. Better than ever before, at lowest possible rates. Experienced excursion conductors. Also daily service between Chicago and California. Correspondence solicited. T. L. KING, Agent, The Atchison, Topeka & Santa Fe Ry., TOPEKA, KANSAS. CHOICE OF TWO ROUTES Scenic Route leaves Kansas City and Omaha every Friday via Colorado Springs and Salt Lake to California and Pacific Coast points. Southern Route leaves Kansas City and Omaha every Wednesday via Ft. Worth and El Paso to Los Angeles and San Francisco. These Tourist Cars of latest pattern are carried on Fast Passenger Trains, and their popularity is evidence that we offer the best. The lowest rate tickets are available in these Popular Pullman Tourist Cars. For full description of this service and the benefits given its patrons, address... E. W. THOMPSON, A. G. P. A., Topeka, Kans. JOHN SEBASTION, G. P. A., Ok. Caro, Ill. BLOSSOM HOUSE—Opposite Union depot, Kansas City, Mo., is the best place for the money, for meals or clean and comfortable lodging, when in Kansas City. We always stop at the Blossom and get our money's worth.

Save Money and Feed BY USING THE Economy Feed Cooker. The best and most durable feed cooker on the market. Built of the best materials, with heavy cast-iron lining in furnace. Boiler is made of heavy galvanized steel. Capacity 25 to 100 gallons. Guaranteed as representative and free catalogue. E. W. THOMPSON, A. G. P. A., Topeka, Kans. ECONOMY MFG CO., 425 Hampshire St., Quincy, Ill.

The Poultry Yard

Coming Poultry Shows.

Secretaries of poultry associations are invited to send announcements of coming poultry events for publication in this column.

Associated Fanciers of the Arkansas Valley—Mrs. H. P. Swerdfefer, secretary; W. S. Russel, of Iowa, Judge, Wichita, January 1-6, 1900.

Kay County Poultry Association—Geo. M. Carson, secretary; H. B. Savage, Judge, Blackwell, Okla., January 17-20, 1900.

Butler County Poultry and Pet Stock Association—John C. Hoyt, secretary; J. O. Snyder, Judge, Eldorado, Kans., December 28-30, 1899.

Republican Valley Poultry Association—Albert Smith, Superintendent, Cadmus, Nebr., December 27-29, 1899.

The Douglas County Poultry Association—Paul Learnard, secretary; Lawrence, Kans., December 28-30, 1899.

Winter Egg Production.

CORRESPONDENCE NATIONAL STOCKMAN AND FARMER.

Time was when the production of winter eggs was a highly remunerative business well fitted to raise up hopes and hen-houses, but the man who allows himself to be lured into the winter egg business now, influenced by the seductive cackle of an optimistic hen, has not properly canvassed the situation.

Times have changed. It is expedient now that winter egg literature be renovated and made over on a new pattern. There is too much of a disposition to throw around the subject the halo of "the olden golden glory of the days gone by." As a matter of fact a new element has now to be reckoned with, and the man who refuses to take it into account is not wise.

Cold storage has come to stay and the result of its coming has been to level prices by raising the summer price and lowering the extravagant figures which were formerly obtained in winter. It is practically impossible for eggs now to reach ruinously low prices in summer because of the constant cold storage buying which begins as soon as they reach 12 cents a dozen, while the unloading of stock which sets in when the price reaches 18 cents keeps the winter price so low that the winter egg man hardly gets a sufficient advance to pay for his cayenne pepper and diplomacy.

WINTER AND SUMMER PRICES.

Winter in a winter egg sense means December-February, inclusive. Last season the winter price averaged 17 cents. The summer price, March to November, was a little over 11 cents. (These are wholesale prices in my market town.) If any one thinks 6 cents is enough to cover the extra cost of feed, time, labor, and sorrow necessary to meet the exactions of a January hen his records have not been well kept.

I think the time has come when farmers should turn their attention to Leghorns and similar breeds. These are essentially summer layers and lay all summer. When winter comes they may be crowded in their quarters, kept simply in good health, fed mainly on corn and anything else that is cheap in cost and labor, and no effort made to get eggs. When winter is over and these hens can have their liberty they will begin laying at once and will lay nearly as many eggs from spring to fall as the heavier breeds, which must be kept for winter eggs, will lay in the year round, while the profit per dozen will be nearly the same, because the production of winter eggs costs more than double as much as summer production.

A hen is a great deal like some winter-flowering bulbs. You can supply artificial conditions and induce the bulbs to flower in winter and the hen to lay eggs, but neither the one nor the other will blossom again in the summer. There is a limit to the number of eggs a hen will lay in a year and the winter layer will find her limit earlier in the summer than the one that begins under more normal conditions.

The development of cold storage facilities is a distinct advantage to the average farmer who, being relieved of the necessity of maintaining a winter flock, finds the summer egg capacity of his farm nearly doubled so that he is able to produce winter eggs in the summer and allow the cold storage people to take the risk of handling them and delivering them at the psychological moment.

AUTUMN CHICKS.

It has thus become profitable to hatch chickens for summer layers in September and October, carrying them through

TURN EGGS INTO CHICKENS THE RESULTS.

ONE HATCH

often makes good the cost of a 200-egg incubator. Our line consists of the largest and most complete variety of incubators and brooders made by any one. Send 6 cents for 150 page catalogue published in 5 languages. Address

DES MOINES INCUBATOR CO.,
Box 83, Des Moines, Ia.



There must be one incubator superior to all others. We can demonstrate that

The Klondike Incubator

is that one. No other machine so perfectly reproduces natural conditions. No other machine has so perfect a moisture system. No other machine has so perfect a regulation and ventilation. We court investigation. Write for our free Catalogue.

KLONDIKE INCUBATOR CO., Box 300 Des Moines, Ia.

THE 20TH CENTURY POULTRY BOOK

is undeniably the best and most instructive publication of the kind ever issued. It opens up with a resume on the size and magnitude of the poultry industry and follows with "Poultry Raising on the Farm," "Poultry and Incubators on the Farm," "Feeding Specially for Profit," "The Pekin Duck Industry," etc. It tells incidentally about the old standard **RELIABLE INCUBATORS AND BROODERS** and the results their use have produced, the success to which they have helped their users, etc. Tells all about the new "wrinkles," new improvements, new machines, etc. We send **The 20th Century Book** to all. Inquiries on receipt of 10 cents to cover postage.

RELIABLE INCUBATOR & BROODER CO., BOX 1-62 QUINCY, ILL.

the winter as little chickens. When spring comes the pullets swell out quickly and they often begin laying before swelling. I have had fall chickens laying in March when they scarcely exceeded 2 pounds in weight, and laying eggs as large as those laid by pullets six months older. These fall pullets are persistent layers, and by the next fall are of good marketable size though not as large of course as spring pullets. My experience, however, does not warrant me in joining with those who say they lay much later in the fall because later in molting. I do not think there is much difference in the molting time.

I have no quarrel with winter egg farming. I do something at it myself. The specialist, the man with the necessary equipment all ready at hand—and the experience; those who are near a large city or have a good retail trade—all these can still do well with winter eggs. But nine out of ten farmers have neither the buildings nor the market, and the point I wish to make is that these need not be unhappy over the fact that they have no eggs when prices reach the top notch. Such things are not what they seem altogether, and their profits at the end of the year may be worth mentioning even to the man who has been henpecked all winter.

Catarrh Cannot be Cured

with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Catarrh is a blood or constitutional disease, and in order to cure it you must take internal remedies. Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces. Hall's Catarrh Cure is not a quack medicine. It was prescribed by one of the best physicians in this country for years, and is a regular prescription. It is composed of the best tonics known, combined with the best blood purifiers, acting directly on the mucous surfaces. The perfect combination of the two ingredients is what produces such wonderful results in curing Catarrh. Send for testimonials, free.

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Sold by druggists, price 75c. Hall's Family Pills are the best.

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Double Power
DEHORNING
CLIPPER.—V-blade.
Leavitt Mfg Co, Hammond, Ill., U.S.A.

FLEMING'S
LUMP JAW
CURE
Easily and thoroughly cured. New, common-sense method, not expensive. No cure, no pay. FREE. A practical, illustrated treatise on the absolute cure of Lump Jaw, free to readers of this paper. Fleming Bros., chemists, Union Stock Yards, Chicago, Ill.

SAVE YOUR CASH
You need fence. The ready made kinds cost from 60 to 75c. a rod. We tell you how to make the best fence on earth for **20 to 35 Cents per Rod.** Over 100 Styles, and from 50 to 70 rods per day. Send for our free Catalogue. **KITSELMAN BROTHERS,** Box 64, Ellettsville, Indiana, U. S. A.

SMITH'S STRAWBERRY PLANTS
60 VARIETIES.
Old and new. Sample—Excelsior, Lady Thompson, Bisel, Splendid, etc. Price list free. One copy of "Strawberry Manual" sent for 10 cents. Address, **B. F. SMITH,** Lawrence, Kas.

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. ERELL CO.,** QUINCY, ILL.

HATCH with the perfect, self-regulating, low cost priced first class hatcher—the **EXCELSIOR Incubator**
Hatches the largest per cent. of fertile eggs at the lowest cost. **GEO. H. STAHL,** Quincy, Ill.

\$5 50 EGG SIZE **A MILLION TESTIMONIALS** are not counting as the **30 DAYS' TRIAL** ending as the **30 DAYS' TRIAL** FREE we offer on every incubator we make. Every one self-regulating and guaranteed. Over 15,000 BANTAMS in use; hatching 45 to 50 chicks from 50 eggs. Send 4 cents for No. 95 catalogue. **Hawkeye Incubator Co.,** Springfield, O.

None Better
Everything necessary to make a good incubator is put into the new **NONE BETTER INCUBATOR.** The simplest incubator made. The most honestly constructed. Built to last. Lowest priced good machine on the market. Send 2c. stamp for catalogue. **Hawkeye Incubator Co.,** Box K, Newton, Ia.

Our Incubators
have all the latest improvements, are sold at very low prices and guaranteed to please every customer. Send 6 cents for our 150 page catalogue, which contains full descriptions of our extensive line and tells how to raise poultry successfully. Plans for poultry and brooder houses. **Des Moines Incubator Co.,** Box 83, Des Moines, Ia.

THE SURE HATCH INCUBATOR has late patented improvements that make them leaders. We make but one grade "the best." We have but one price "the lowest." We pay the freight. We make a good incubator. New Catalogue just out. It is chock full of practical information on the poultry question; tells how to raise broilers, or how to get eggs when eggs are high, etc. The book is finely illustrated. Until January 1, we mail the catalogue free to any address. **SURE HATCH INCUBATOR CO.,** Clay Center, Nebr.

Italian Bees.
Full colonies shipped any time during summer and safe arrival guaranteed. It will pay you to try my stock of Italian bees in the Latest Improved Hives. Nothing will double in value quicker. **A. H. DUFF,** Larned, Kans

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Any Place, 100 Candle Power.
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Makes its own gas. Write for particulars to **BRILLIANT GAS LAMP CO.,** 48 Clark St., Chicago. Agents wanted.

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No cutting, no pain, and no detention from business. You pay no money until cured. Consultation and examination FREE. **Dr. BENNET HENDERSON,** 103 W. 9th St., Kansas City, Mo.

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ADMINISTRATOR'S SALE OF REAL ESTATE.
The following real estate belonging to the estate of David R. Younge, deceased, in sections 26 and 27, township 12, range 15, Shawnee County, Kansas, is offered for sale upon the following terms and conditions:
1. The "Home" place, containing about 161 1-3 acres with good house and barn and other improvements too numerous to mention. A first-class farm. Price, \$6,700.00.
2. Eighty acres first-class land; about one-half plow land and balance good prairie-hay land. Price, \$3,000.00.
3. About 101 acres pasture land, well fenced and watered. Price, \$18,000 per acre.
4. About 101 acres first-class prairie-hay land. Not for sale until tract No. 1 is sold. For sale separately after sale of No. 1 at \$25.00 per acre, or with tract No. 3 at \$21.00 per acre for both.
5. All of the above land, amounting to about 443 acres and lying contiguous and constituting a large, complete and well improved crop, fruit and stock farm, situated about seven miles southwest of Topeka near the Burlingame road, for \$13,800.
TERMS OF SALE—One-third cash, one-third in two years and balance on long time. Interest on deferred payments at 6 per cent per annum, secured by mortgage. Possession given March 1, 1900, if sold before January 1, 1900.
COMMISSION ON SALES—To any one making a sale I will pay a commission of 5 per cent on any amount not exceeding \$3,000.00, and 3 per cent on any amount in excess of \$3,000.00 derived from any sale. Sales must, however, be made and reported by December 30, 1899.
CHAS. F. SPENCER, Administrator, with will annexed, Bank of Topeka Building, Topeka, Kans.

[First published in Kansas Farmer, December 7, 1899.]
SHERIFF'S SALE.
In the district court of Shawnee County, State of Kansas.
C. M. Parke, plaintiff, vs. **A. F. Hilton et al.,** defendant.
By virtue of an order of sale issued to me, out of said district court, in the above-entitled action, I will, on Tuesday, the 2d day of January, A. D. 1900, at 10 o'clock a. m. of said day, at the east front door of the court house in the city of Topeka, in the county of Shawnee, in the State of Kansas, offer at public sale, and sell to the highest and best bidder, for cash in hand, all the following-described real estate, to wit: A part of the southwest quarter of section number thirty (30), township number eleven (11), south of range number sixteen (16), east of the sixth principal meridian in Kansas, adjacent to the city of Topeka. Commencing at a point thirty-two and one-half (32 1/2) feet southerly from the intersection of the centers of First avenue in the city of Topeka extended upon the said quarter section and the east line of the alley between Fillmore street and Western avenue in said city of Topeka extended as aforesaid, said point being in the east line of said alley; thence southerly along said east line of said alley extended eighty-two and one-half (82 1/2) feet; thence at right angles easterly one hundred and eighty-five (185) feet; thence northerly at right angles eighty-two and one-half (82 1/2) feet; thence westerly at right angles one hundred and eighty-five (185) feet to place of beginning. The said property is appraised at twenty-five hundred dollars (\$2,500) and no bid less than two-thirds the appraised value will be taken. Lying and situate in the county of Shawnee in the State of Kansas.
The above-described real estate is taken as the property of said defendant, and is directed by said order of sale to be sold, and will be sold with appraisement, to satisfy said order of sale.
PORTER S. COOK, Sheriff of Shawnee County, Kansas. Neils & Neils, attorneys for plaintiff.

CANDY CATHARTIC
Cascarets
REGULATE THE LIVER



Meat smoked in a few hours with **KRAUSERS' LIQUID EXTRACT OF SMOKE.** Made from hickory wood. Cheaper, cleaner, sweeter, and surer than the old way. Send for circular. E. KRAUSER & BRO., Milton, Pa.

A MACHINE
to weave fence of coiled hard steel spring wire at half price of factory fence. \$25 buys wire for 100 Rod Fence. Catalogue Free. Address, Carter Wire Fence Mach. Co., Box 45 Mt. Sterling, O.

PAGE
How Would You Like to have a farm fence that would turn ALL KINDS of stock? Try ours. Send for Catalogue. **PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.**

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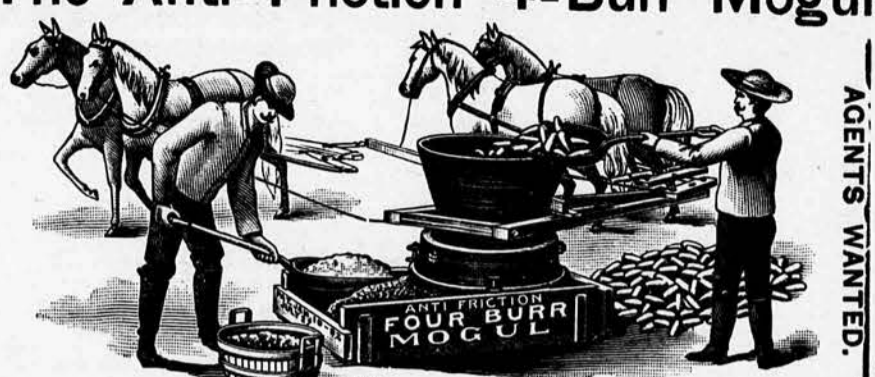
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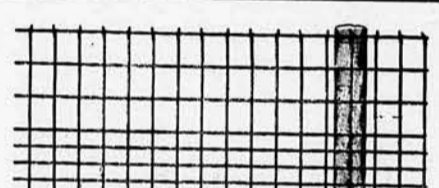
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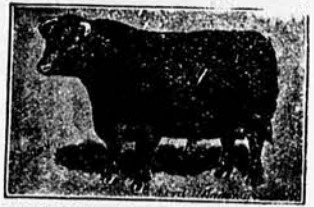
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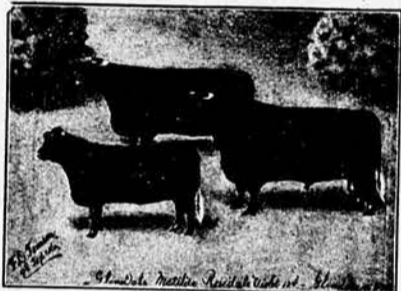
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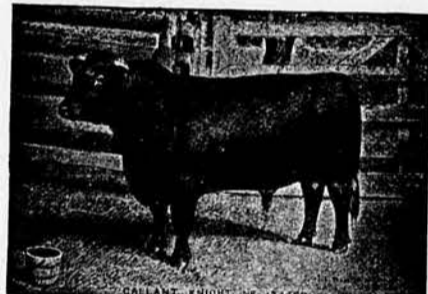
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