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BREEDERS' DIRECTORY.

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

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

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BUFF PLYMOUTH ROCKS EXCLUSIVELY
Eggs, per thirteen, \$1 and \$1.50. F. H. LARRABEE, Hutchinson, Kas.

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EGGS, \$1.00 PER 15.
Also, free with each setting, a recipe for making a cheap Lice Killer Paint. Send for circular.
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At Less than One-half Value.

Have sold my farm and MUST sell by April 10, one fine yard, eleven females and 92% point cockerel (cockerel cost me \$10), the twelve only \$20. Four other good yards, eleven females and one fine cockerel in each, only \$15 a yard. Eggs from my best, cheaper than dirt, only a nickel apiece (for fifteen or more). If you want some of the best bred Rocks and eggs in the West, this is your chance. Write at once and inclose order, as I can't write descriptions at these prices. One \$25 Jackson grade level, \$12.
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SWINE.

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

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Mated for best results. Also Barred Plymouth Rock chickens and eggs for sale. Correspondence or inspection invited. Mention FARMER.
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100 head. Foundation stock, Tecumseh. Boars in service, Tecumseh No. 13444 S., Chief 13840 S., Butler Wilkes 17764 S., U. S. Tecumseh 17850 S. 15 fall gilts, 30 spring pigs, 30 summer pigs. Inspection and correspondence invited.
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A choice lot of gilts sired by Ideal U. S. and bred to Tecumseh Chief. Also some good Tecumseh Chief gilts bred to Look Over Me (he by old Look Me Over) and some good fall pigs, both sexes. Write and get my prices or come and see.
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Verdigris Valley Herd Poland-Chinas.
125 head. The best individuals and most popular strains that money and judgment could buy and experience breed. Thirty choice spring pigs both sexes, by Black Stop Chief 16316 S., he by the great breeding boar Black Stop 10550 S., a son of the World's Fair winner, Short Stop. Write or visit us.
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D. L. BUTTON, North Topeka, Kas., breeder of **Improved Chester Whites.** Stock for sale. Farm 2 miles northwest of Reform School.

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Herd boars, Gold Standard Wilkes by Guy Wilkes 2d 1777 S. and Ideal Quality by Darkness Quality 2d 14361 S. Brood sows, Tecumseh, Black U. S. and Wilkes. Thirty spring pigs, both sexes, ready to go. Farm two miles north of Welda.
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BLUE RIBBON HERD PURE POLAND-CHINA SWINE
and Barred Plymouth Rock chickens. Tecumseh Short Stop 14750 at head of herd, assisted by Hadley Jr.'s Equal 15119 and King Tecumseh 16307. One hundred choice pigs for sale. Farm located three miles southwest of city. Calls or correspondence invited.
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60-Poland-China Fall Pigs-60

Both boars and sows, for sale reasonable. Sired by the noted Nox All Wilkes, Highland Chief by Chief Tecumseh 2d, and Look at Me by Look Me Over. Three fine young sows safe in pig for sale.
B. P. ROCK Eggs from high-scoring birds, \$1.25 for fifteen; \$6 per hundred.
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Nation's Poland-Chinas.

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

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Herd boars, Victor Hugo 41799 (sire imp.), Barkis 30040 (weight 800 lbs.), Prince Jr. 17th, from World's Fair winner. Forty-eight spring and summer pigs for sale. Also bred choice B. P. Rock hickens. Write.
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Brood sows by Wren's Medium, Hadley M. Washington, Protection Boy, Moss Wilkes Tecumseh (by C. T. 2d), Tanner 19212, a grandson of the famous Hidestrotcher, at head of herd, assisted by Prince Darkness, out of Darkness 1st. Corwin Sensation and Darkness 1st are very choice sows. Some October Tanner pigs for sale. Get one for a herd header. Also some One Price Medium 2d pigs for sale. Three young boars ready for service. Write for prices.
J. R. WILLSON, Marion, Kas.

ESTABLISHED 1882. SERVICE FEE \$50.
KLEVER'S 1st MODEL
18245 S.

Sired by Klever's Model 14694 S., the \$5,100 king of boars; first dam Graceful Maid (43851); second dam Graceful F. 3d (29670), litter sister to Old Look Me Over 9011, the \$3,600 boar. This gives Klever's 1st Model all that could be asked in breeding and sale ring backing. He is black as ink, low down, deep and broad, extra head and ears. His get follows the pattern perfectly. He will be assisted by other good boars in service on thirty matured sows of modern type and breeding. I sell nothing but tops; keep my knife sharp for culls. Free livery at Roberts' stables.
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Herd boars are H's World's Fair No. 2 11930, grandson of Seldom Found 7815, Klever's Model 3d 19789, King Hadley 15057 (C). This hog is not only a show hog, but a prize-winner, breeding Hadley Blood, One Price Imitation, Guy Wilkes 2d, Black U. S., L's Tecumseh and Chief Tecumseh 2d.
Did you ever see such a combination? Where can you get more of the blood of the great sires combined in so grand an individual?
Choice gilts and fall pigs for sale.
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H. W. CHENEY, Prop., NORTH TOPEKA, KAS.

Cheney's Chief I Know, assisted by Model Hadley, at head of herd. Topeka is the best shipping point and my stock the best kind to buy. When in Topeka call at 1132 N. Harrison St. and be shown stock.

MILES BROTHERS' HERD Registered Poland-Chinas.

Peabody, Marion Co., Kas.
We have for sale now some choice fall pigs by Miles' Look Me Over and out of a full litter sister to Corwin Sensation, that sold February 2, 1898, at Mr. Wren's sale for \$167.50. Also some nice ones by Hadley Corwin Faultless, and by a son of Chief Tecumseh 2d. We can suit you in quality and price. Write us.

PLEASANT VALLEY HERD REGISTERED POLAND-CHINA SWINE

King Perfection 4th 18744 S. at head of herd, assisted by Tecumseh Wilkes 12684 S. and Lambing Ideal 14050 S. The sire of last named is Gov. C. by Black U. S. We have for sale an extra fine male of June, 1896, sired by him. We have added several very finely bred sows to our herd. Write for particulars. Address either W. E. JOHNSON, E. A. BRICKER, Colony, Kas. Westphalia, Kas.

HIGHLAND FARM HERD PEDIGREED POLAND-CHINAS.

Herd headed by Corwin I Know, a son of the noted Chief I Know 11992 S. Corwin I Know won second as a yearling at Iowa State fair in 1897. Weighed 600 pounds at 18 months. Assisted by Hadley U. S., a son of Hadley Jr. 13314 S.; dam by Mosher's Black U. S. 25 Brood Sows—Kiever's Model, Look Me Over, Chief I Know and What's Wanted Jr. breeding. Inspection and correspondence solicited.
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Headed by the three grand breeding boars, Model Combination—his sire was J. D. Model, he by Kiever's Model 14694 out of McKelvey's Lass 42107; his dam Lady Chief 42919, she by Chief Tecumseh 2d 9115 and out of Ralph's Pet 42788; One Price Chief—his sire Chief Tecumseh 2d 9115, his dam Alpha Price 38785, she by One Price 4207; Kansas Chief 33615—he by Royal Chief's Best and out of Bell O. 74594. The sows are all selected and equal in breeding and quality to any. A few sows bred will be offered. Young males and gilts ready. Satisfaction guaranteed.
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150 PIGS FROM PREMIUM CHESTER WHITE

stock; choice breeding, good length, bone and ham. Young stock not akin from five grand boars and twenty-five sows. Special offering now of best breeding. Also B. P. Rocks and Buff Cochins eggs for sale from best strains. Prices right.
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Bulls--Aberdeen-Angus.

Seven head of choicest breeding and individuality. Twenty to thirty-six months old. In fine condition. Weights 1,200 to 1,600 pounds. Prices reasonable.
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Scotch and catch-topped, with the richly-bred Champion's Best 114671 in service. Also high-class DUROC-JERSEY SWINE. Can ship on Santa Fe, Frisco and Missouri Pacific railroads.
J. F. STODDER, Burden, Cowley Co., Kas.

PURE-BRED SHORT-HORNS.

I have for present sale thirteen pure-bred Short-horn bulls old enough for service, including my herd bull, Imperial Knight 119669, a pure-bred Cruickshank, which I can now spare. I have also twenty cows and heifers bred or will have calves at foot, all of my own breeding. For sale at reasonable prices. John McCoy, Sabetha, Kas.

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EVERGREENS! 100 6 to 8 in., \$1.00; choice of 32 packages, 100 choice, transplanted, 2 feet, \$10.00 prepaid. Millions to offer: hardy varieties, all sizes. **ORNAMENTAL & FRUIT TREES.** Shrubs, vines, etc. Catalogue prices and 40 great bargains **SENT FREE.** **D. HILL, Evergreen Specialist.** Local Agents Wanted. **DUNDEE, ILL.**

STANDARD VALUE Counts for more in the selection of fruit trees than almost any other place. Why? Because fruit trees are bought on faith. We have the standard kind of all the leading varieties. **Fruit Trees, Berry Plants, Evergreens, etc., etc.** Strong, healthy trees free from Black Knot, Yellow, Blight, Scale, etc., etc. Do not place your spring order until you get our catalogue and prices. *Sent free, write to-day.* **J. W. MILLER CO. Box 260, Freeport, Ill.**

STAR STRAWBERRY Large, perfect shape vigorous, prolific, drought-resisting. Best varieties **Strawberry Plants; also Asparagus, Roots, Peach, Apple and Plum Trees.** Peaches grown from natural seed in section free from scale and yellow. Write for latest catalog—FREE. **HARRISON'S NURSERIES, Berlin, Md.**

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BICYCLES At Wholesale Prices. Best seamless tubing. Low crank hangers, any gear desired. M. & W. or Hartford tires. **1898 MODEL.** Choice of Bars, Saddles and Pumps. \$17.50 \$21.50 & \$27.50 Fully Guaranteed in every way. **AGENTS WANTED.** Ref. any bank. Catalogue sent Free. **COLUMBIA MAIL ORDER CO., 577 1/2 13rd St., Chicago, Ills.**

SEND FOR A BICYCLE High Grade '98 Models, \$14 to \$40. **GREAT CLEARING SALE** of '97 and '98 models, best makes, \$9.75 to \$18. *Sent on approval without a cent payment.* Free use of wheel to our agents. Write for our new plan "How to Earn a Bicycle" and make money. **SPECIAL THIS WEEK—40 high grade '97 models (slightly shopworn), \$10.75 each.** "Wandering Wheel," a souvenir book of art, FREE for stamp while they last. **MEAD CYCLE CO., 291 Ave. F, Chicago, Ill.**

SILOS HOW TO BUILD ASK **WILLIAMS MFG. CO., KALAMAZOO, MICH.**

SAVE YOUR CROPS Get rid of Gophers, Ground Squirrels, Prairie Dogs, Moles, Rats and all burrowing animals **BY USING PEERLESS GOPHER KILLER.** Costs less than 1c. to treat each burrow and it gets them all—old and young, within 5 minutes. They never dig out. No poison. Big increase in profits if used during plowing and planting season. Circulars, prices, and terms to Agents. **Free.** **H. Lee Co. 110 Farnam St. Omaha, Neb.**

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"Fixin' Fences" every spring is needless. No "top rails" to lay up, nor need to chase down the line after every storm if **Page Fence** is used. *Sent for "spring styles" and prices.* See our ad. in next issue. **PAGE WOVEN WIRE FENCE CO., Adrian, Mich.**

STEEL WEB PICKET FENCE FOR LAWNS AND CEMETERIES. Steel Gates, Posts and Rail. Cabled Field and Hog Fence with or without lower cable barbed. Cabled Poultry, Garden and Rabbit Fence. **DE KALB FENCE CO., 23 High St., DE KALB, ILL.**

FENCE YOUR FARM With a Good Fence Cheaply. **THE ADVANCE WOVEN WIRE FENCE** which is sold direct to the farmer, freight paid, we believe to be the best fence made for the money. Our plan of selling saves the farmers the dealer's profit and brings the fence to a price that beats the hand fence machines both for cheapness and quality of fence. A continuous fence all the wires being interwoven—no loose ends; tie wires can't slip. Prices way down. *Sent for our new circulars and extra special discount to farmers.* **ADVANCE FENCE CO., 18 Old St. Peoria, Ill.**

BUGGY HARNESS. BUY FROM MANUFACTURER DIRECT. Our No. 201, with one-inch trace, hame and collar, \$6 per set. Our No. 19, with one-inch trace, double hip strap, hame and collar, \$9 per set. Our No. 20, with one and one-quarter inch trace, single strap throughout, with curved breast collar, nickel or imitation rubber, at \$12 per set. Goods shipped anywhere on receipt of price, or C. O. D. If \$1.50 is sent with order. Mention size of collar. **A. BURE, 2230 W. Jefferson, Louisville, Ky.**

CRACKERJACK . . . CULTIVATOR Best Disc Cultivator. All Steel—Never Wears Out. Dust-proof Boxings. **LOOK AT IT! LOOK AT IT! LOOK AT IT** **WESTERN MFG. CO., Kansas City, Mo.** For sale by one dealer in every town. When writing advertisers please mention **Kansas Farmer.**

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

THE LAKE CITY AUTOMATIC STOCK FOUNTAIN. **PRICE \$3.** Sent on trial, express prepaid, to be paid for when found satisfactory. As it costs nothing to try, send for one and test its merits. Note: **We Prepay Express**, which gives you the fountain cheaper than any other, and without risk. **More pigs die from want of fresh water than from want of food, hog cholera, or both.** The Lake City waters 50 to 150 hogs of food, hog cholera, or both. The Lake City waters 50 to 150 hogs of food, hog cholera, or both. No springs to rust or float to stick in the mud. Now used by all fancy stock breeders and stock raisers. Agents or dealers wanted in every locality. **STOCK FOUNTAIN CO., Lake City, Iowa.**

WE HAVE NO AGENTS but have sold direct to the consumer for 25 years at wholesale prices, saving him the dealer's profit. Ship anywhere for examination. Everything warranted. 118 styles of Vehicles, 55 styles of Harness. Top Buggies, \$35 to \$70. Surreys, \$50 to \$125. Carriages, Phaetons, Traps, Wagons, etc., Spring, Road and Milk Wagons. Send for large, free catalogue of all our styles. **No. 77. Surrey Harness, Price, \$16.00.** As good as sells for \$25. **No. 606 Surrey. Price, with curtains, lamps, sunshade, apron and fenders, \$60.** As good as sells for \$90. **ELKHART CARRIAGE AND HARNESS MFG. CO. W. B. PRATT, Sec'y, ELKHART, IND.**

Wheat \$1 a bushel. Use our Disc Reeder \$2. Disc Drill \$3. *Sent on trial, until machine is tried you send no money.* 3 styles, 5 sizes. We make the only Disc throwing earth all one way. From factory to farm, no middlemen; save 1/4 to 1/2 Bond for big cats, free, and price delivered at your station on buggies, harness, scales, 1000 other things you want. Add. **Haygood Plow Co., Box 105 Alton, Ill. O. R. Gang \$25. Bulky Plows \$22.**

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BEES If you keep **BEES** subscribe to the **Progressive Bee Keeper**, a journal devoted to Bees and Honey. 50 cents per year. Sample copy Free. Also Illustrated Catalogue of Bee-Keepers' Supplies. Address **LEAHY CO., Higginsville, Mo.**

BEE SUPPLIES. I have every thing that is needed in the Apisary. Send for **CATALOGUE.** **E. W. DUNHAM, 106 1/2 W. 5th St., Topeka, Kansas**

25c 35c 50c INDIANOLA LEATHER SUSPENDERS A million men wear them. Self-adjusting, no strain on the buttons; never wear out. Try the stores, or we will send them post-paid to any address. Plain leather, 25c; enamel, 35c; fancy kid cushion back, 50c. Single round principle, every pair stamped, take no other. **INDIANOLA SUSPENDER CO., Chicago. 179 S. Canal Street.**

MARK STOCK WITH JACKSONS EAR TAGS. ALWAYS BRIGHT, CANT COME OUT. **JACKSON, ST. FRANCIS, ARK.** NORTH TOPEKA, KAS., Nov. 11, 1897. **Geo. M. Jackson:**—Send me some more ear markers. They are the best of all kinds I ever tried, and I am sure I have used all ever gotten up. I have the first one to lose out of ear yet, and they are so handy to put in. **O. P. UPDEGRAFF, Secretary Kansas Swine Breeders' Association.**

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

...BLACK LEG... PREVENTED BY PASTEUR "VACCINE." Twenty millions of cattle successfully treated. Write for particulars, prices and testimonials from thousands of American stockmen who have used this Vaccine during the last two and a half years. **PASTEUR VACCINE CO., 52 Fifth Avenue, CHICAGO.**

IF YOU ONLY KNEW 1900 The Price of a Good Horse in **1900** You would buy some good breeding stock now. While our herd is not so large as formerly, we still have the finest collection of **Percheron and Coach Horses** in the West. Prospects never so bright. Prices never so low. **All Ages. Either Sex. Choice Colors.** **HENRY AVERY, WAKEFIELD, KANSAS.**

DISPERSION SALE OF REGISTERED HEREFORD CATTLE! At Kansas City Stock Yards Sale Pavilion, THURSDAY, APRIL 14, 1898. When I will offer my entire herd, consisting of twenty specially selected cows and heifers, nine calves 1 to 5 months old, seven bulls 10 to 14 months old, also the herd bull Mercury 58813. The herd was founded in 1895 by animals selected out of the noted American herds, the Shadeland Stock Company, Lafayette, Ind., and that of W. S. Van Natta, Fowler, Ind. For Individuality and Breeding they Compare Very Favorably With the Very Best Anywhere. Those who Contemplate Purchasing Foundation Stock will Find this a Very Favorable Opportunity to Do So. The cattle will be ready for the inspection of the prospective buyer at the Sale Pavilion on Monday, April 11. Those who contemplate attending Mr. Sotham's sale on the 13th, and that of Messrs. Scott & March on the 15th, can stop at Kansas City conveniently on the 14th for my sale. **Sale to Commence at 1 O'clock Sharp.** For Catalogue Address **G. W. HARLAN, Otterville, Cooper Co., Mo.** Call on or write **W. A. White, care Payne & Duncan, Kansas City Live Stock Exchange, Kansas City, Mo.**

Agricultural Matters.

ROADS.

A paper by I. O. Rambo, read before the Cowley County Farmers' Institute, at Hackney, Kas.

SOME HISTORY.

I have no favors to ask nor apologies to offer, but if you have any objection coming after I am through, speak to the committee about it, for they are responsible for what is said and not I.

The earliest roads of which anything is definitely known are those of ancient Rome, commenced about 312 B. C.

The Roman road ran direct, from point to point, regardless of obstacles that might have been easily avoided. They appear to have been laid out by prominent landmarks, and the straightness is due to the convenience of laying them out. In solidity and durability they have never been excelled. They seem to have been composed of four layers of local material, but sometimes it was brought from considerable distance. The first layer consisted of two or three courses of flat stones. The second layer was composed of smaller stones or coarse concrete. The third was a finer concrete, on which was laid a pavement of polygonal blocks of hard stone, jointed together with the greatest nicety. The four layers are often found to be three feet or more in thickness. Specimens of this scientific road work are still to be seen in the ruins of ancient Rome and Pompeii.

France and England seem to have followed this method of road work up to the beginning of the eighteenth century, when the influence of Macadam and Telford began to be felt. Telford was a Scotchman, who was considered as good authority on roads as Macadam. England 200 years ago had the same roads and method of working them as we have to-day.

CAUSE OF BAD ROADS.

Bad roads then, as now, were due to the plan of working, i. e., statute labor. Where the townships have charge of construction and repairing their own roads, sometimes, if not oftener, ignorant and incompetent engineers are elected to take charge of our roads. Why not do away with this statute labor and turn the road-building and repairing over to the county or State and let such work out by contract, as court houses and other public buildings are constructed, and let them be paid for as other things are paid for. They would be a little more expensive, but on account of the durability and ease of conveyance would be the cheapest roads in the long run.

Telford's name is associated with the pitched foundation, which he did not always use, and the name of Macadam characterizes roads on which all of his precepts have been disregarded.

CONSTRUCTION OF ROADS.

A road should be as short as possible between two points connected, but straightness must often be sacrificed to avoid difficulties and expense and to secure good gradients. The grade should be as easy as possible. A rule should be adopted that none should be steeper than the maximum selected.

On a level Macadamized road the horse exerts a force equal to one-thirtieth of the load. But in going up hill the horse has also to lift the load, and the additional force to be put forth on this account is very nearly equal to the load drawn divided by the rate of the gradient. Thus, on a grade of 1 in 30, the force spent in lifting is one-thirtieth of the load, and in ascending a horse has to exert twice the force required to draw the load on a level. In descending the same grade the vehicle, when once started, would just move of itself without pressing the horse.

A horse can exert without difficulty twice his usual force for a while without sensible diminution of speed, and can trot freely down them. Telford used 1 in 30 mostly, and it was generally adopted, but 1 to 40 has been advocated.

All unnecessary rises and falls should be avoided, but a dead level should be guarded against on account of the humidity of the soil in such cases. Under these circumstances 1 in 100 and 1 in 150 are as flat as desirable. Such slight rises and falls are probably rather favorable than otherwise to ease the draft of the horse.

Roads should be from fifteen feet wide—which allows the easy passage of two vehicles—to thirty to fifty feet near important cities and towns.

The road surface should be just convex enough to readily throw off the water. A very moderate amount is sufficient when a good surface is maintained. A too convex surface is to be avoided, as the traffic will keep to the middle of the road, wearing ruts which will retain the

water, softening up the surface, as it does and will with our dirt roads. I would advocate a flatter surface, so the traffic will be more evenly distributed.

The side ditches should be deep enough to thoroughly drain the foundation of the road. A thorough drainage of the subsoil is of the greatest importance, and it is economical in the end to go to considerable expense to secure it, when necessary. Some roads are left for traffic to settle, but a steam roller is far better, saving horse feet and vehicles. When a roller is used, it should be passed over the road till there is no motion among the stones. After the roller has passed over, any hollows must be filled up with small materials.

A LOCAL ILLUSTRATION.

I don't believe there is a better country in the world for a road-bed than right here in the vicinity of Hackney. We have a sound subsoil to lay the foundation on. Good drainage could be secured at little expense, and drainage is the predominating feature in a road-bed. Common dirt roads now in use between Winfield and Arkansas City are in a fair condition at nearly all times of the year, the result of natural drainage. A main way or boulevard could be constructed between Arkansas City and Winfield on the line between Beaver and Pleasant Valley townships as far as Fairview and thence to the county seat in the most direct or practicable route. We would have intersecting roads at intervals as often as the taxpayers could afford. They and their wishes must be taken into consideration. You know they are the fellows that "pay the freight."

I think the roads would not be as expensive as some suppose they would, if statute labor were done away with and such jobs were done by contract. We also would like a competent man to do the bond refunding act.

I think this would be a plausible system of roads, if not too expensive; but as I am only theorizing on this issue I leave the discussion with my hearers. It may be that the necessary expense of bringing the rural roads up to this standard would be too much of an additional burden on the taxpayers of Cowley county for the benefit derived therefrom.

While some cities and towns are advocating bicycle tracks, we want to be distinctly understood that we register our most powerful protest. It is true that such a passage way would be more convenient to wheelmen, enabling them to more fully appreciate the scenery. We are here to help our fellow men and promote civilization in general, but that would be paying the freight for a class of people (generally speaking) that do not need the assistance of the down-trodden American people. Please understand me; that would be helping a class of people that are better off from an educational and financial standpoint than we are. The country lad that takes his lady love out for an airing in a one-horse chaise—as a rule, his graduated income is at a lower ebb than the "swell" he meets on the Southwest boulevard taking his "ideal beauty" out to Lincoln Park on a tandem.

How to Sow Alfalfa.

Editor Kansas Farmer:—It is generally considered best to sow alfalfa on fall plowing. If no land which it is desired to seed was fall-plowed, however, early spring plowing may be made to do as well. Plow the ground deep—you can't plow too deep—as soon as it is dry enough to work, and harrow it well. The harrowing should be repeated every few days until seeding time, both to keep down all weed growth and to reduce the surface soil to the finest possible tilth.

Alfalfa should be sown very early. It is well enough to sow red clover while there is yet frost in the ground, and before spring is more than a promise, but alfalfa seed should be deferred until warmer weather. Nothing is gained by sowing earlier than the middle of April, and there is seldom loss through waiting until May. Light frosts do not kill the young plants, but they so retard their growth that later-sown plants often make the best showing by June 1.

Fall seeding is being advocated and is proving fully as successful as spring sowing. Sow from August 1 to October 1, ground being in good condition same as for spring seeding.

Liberality in the use of seed is advisable. It is very difficult to reseed thin patches, and the best plan is to guard against having those thin patches by heavy seeding. The rule is to sow twenty pounds of seed per acre, but this will bear some modification. On bottom land, if the soil is in good condition, and you intend to roll well after seeding, fifteen pounds per acre will be ample to produce a thick stand. If the soil is not in the best condition for the germi-

nation of the seed, proportionately more will be required. On upland twenty pounds of seed per acre is the minimum amount to be recommended, and if the ground is not in good condition it will be economy to sow twenty-five pounds.

Some alfalfa-growers still follow the practice of seeding with a nurse crop, but there is little in favor of this method and much against it. The removal of the nurse crop is always at a time when heat and dry weather are very hard on the unprotected young alfalfa plants. If any nurse crop is sown it should be harvested with a header, so that there may remain a considerable length of stubble to serve as protection for the alfalfa.

The seed may be sown either broadcast or with a drill, but whichever method is selected, care should be taken that the seed is well covered. Common grass seeds need but the slightest covering, but alfalfa, like all leguminous plants, does better with moderately deep seeding. An inch is none too deep. After seeding, the ground should be run over with a roller, to pack the earth firmly about the seed and insure its early germination and rapid growth.

WHEN TO CUT FOR HAY.

Alfalfa should be cut earlier in its stage of growth than other grasses. When one-half in full blossom is the best time to cut—a little older is better than too young. When in full bloom it is not too late. Early-cut hay is much the best for cattle and horses; it is shown by feeding trials. Do not cut too much at once, for if you allow a rain to come on your hay after it is cut it will not be worth more than one-half for feed. A method which is much practiced is to rake the alfalfa while it is still quite green into windrows. Alfalfa may be cured with entire success in the windrow, but it is important, when cured in this way, that there be ample facilities for putting it into stack rapidly when ready; otherwise it will become too dry and much of it will become lost in the handling, especially if it has to be carried from the field on wagons.

WHEN TO CUT FOR SEED.

The second crop is ordinarily best for seed and is harvested when all the seed pods turn a dark brown. Cut with a self-rake reaper, if possible, and handle with a barley fork or a push-rake that will carry the bundles without dragging. (We regard the Dain push-rake the best.) Thrash with common clover-huller or threshing machine in the field. Avoid stacking if possible, as stacks take rain easily, which is liable to cause the seed to turn dark in color, but it does not hurt the germ of the seed by so doing.

M'BETH & KINNISON.

Garden City, Kas.

How to Kill Orchard Enemies.

The following correspondence will answer the anxious inquiries of many orchardists in all parts of this and adjoining States. The advice of Judge Wellhouse is based on actual experience and his letter tells just what is done to protect the great Wellhouse orchards from insect enemies:

Augusta, Kas., March 23, 1898.

Fred Wellhouse, Fairmount, Kas.:
Dear Sir—I am in the orchard business a little in this county, and having but little experience in the business, I only tried it on a small scale as an experiment. I have eighty acres, one-third in Ben Davis, one-third in Missouri Pip- pin and one-third in Winesap. I have been bothered with a worm the last two years that has eaten the foliage off considerable. I do not know the proper name for them, but I call them the measuring worm. I used last year one pound of arsenic and one-fifth of a pound of sal soda boiled together in a gallon of water, and then put two-thirds of a pint cup full of it in a barrel of water and sprayed with that. I got a Mr. E. C. Rice, a nurseryman in this county, to do it for me. This year I am going to get me a spraying outfit and do it myself, and I would like your opinion as to the best kind of a pump to get. Also the best nozzle for a spray. Also your opinion as to the best thing to spray with, and how to mix and prepare it. Also which you think preferable, to lay the barrel down and put the pump in the side, or stand it on end and put it in the head. Also your opinion of a worm I now find burrowed up in a dead leaf on the tree. My trees have been set in the orchard seven years and were two years old when set and have made a fine growth. Are these worms burrowing in the leaf a damage in any other way than eating the foliage? Would it pay to go over the orchard and pick them off and burn them, or can I kill them in some other way, if they do harm enough to go to the expense of killing them? I would also like your opinion of what is best to do to keep the worm from work-

ing on the fruit through the summer. I noticed that a large portion of my fruit last summer was wormy and dropped off before ripening. Any information you can give me on these points I shall be glad to receive. If you have any, or know of any works that you consider reliable information, please inform me about them. Yours respectfully,
GEO. W. BROWN.

Topeka, Kas., March 26, 1898.

Geo. W. Brown, Augusta, Kas.:

Dear Sir—In answer to your favor of 23d, I desire to say that your measuring worm is evidently the canker worm, and the other worm mentioned is rascal leaf crumpler.

Your spraying is all right, but I fear you did not get all the arsenic dissolved with the small amount of sal soda you used. Use one pound of arsenic to two pounds of sal soda and boil fifteen or twenty minutes in two gallons or more of water, and when you spray add 100 gallons of water and two pounds of lime; then run the mixture through a strainer to prevent its choking the nozzle.

We use London purple because it needs no boiling and our men are used to it. Paris green is just as good, but is heavier and needs more stirring while spraying. London purple contains 40 to 45 per cent. of arsenic and Paris green a little more, so that we use fifty gallons of water to the pound instead of 100 as with pure arsenic. Most writers recommend two to three times this amount of water, but we have not been able to kill the worms effectually with this strength, and by using plenty of lime we did not kill any leaves.

Canker worms hatch early in the spring and commence feeding as soon as the leaves are out, and then they are easier killed than later.

We spray first as soon as the leaves are out, then again just before blooms appear, then again after bloom has dropped, and again in a week or ten days. If this is well done it will end the career of the canker worms in that orchard, and it will also catch tent caterpillar, rascal leaf crumpler, bud moth, and will have a damaging effect on codlin moth or apple worm.

Don't spray peach trees with this strong mixture.

As to a spraying pump, I am not able to post you. We did not find anything in the market that suited us, so we made one that does fairly well. It is attached to a wheel of the cart and is run by horse power. You could take pattern from ours and make one yourself, but you have not time to do it this spring. Write to J. S. Jordan, Wakarusa, Kas. He is using an excellent hand pump and I think he is agent for it.

As to literature, send a dollar to Wm. H. Barnes, Secretary of State Horticultural Society, and that makes you a member of that society and entitles you to all its publications. Send a dollar to Kansas Farmer, at Topeka, and they will send you their weekly paper for one year, which is full of just such information as you need. Send 50 cents to Western Fruit Grower, at St. Joseph, Mo., and get their monthly paper. These publications will put you in touch with the progressive fruit growers of the West. Sincerely yours,

F. WELLHOUSE.

The medicinal properties of Hall's Hair Renewer to invigorate the scalp, remove dandruff, restore the hair and its color, surpass anything of its kind.

Acetylene Gas--The Light of the Future.

Why not be independent and own your own little gas plant which will give four times more light than ordinary gas or electric lights at one-half the cost? Applicable for use in churches, stores, factories, hotels, residences and country homes; safer than ordinary gas or kerosene lamps. Approved by all the boards of underwriters throughout the United States. We want a first-class agent in every town. Write for catalogue and prices.

THE ACETYLENE GAS MACHINE CO., Akron, Ohio.

The Stock Interest.

THOROUGH-BRED STOCK SALES.

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

APRIL 13—T. F. B. Sotham, Herefords, Chillicothe, Mo.
APRIL 15—Scott & March, Herefords, Belton, Cass Co., Mo.

SELECTION AND CARE OF THE BROOD SOW AND HER PROGENY.

A paper by Allen Thomas, of Blue Mound, Kas., read before the annual meeting of Kansas Improved Stock Breeders' Association, 1898.

As it is a maxim that like produces like, it is very essential that we should select for foundation stock such individuals as possess the most points we desire to attain, only a few of which I can here mention, such as kind and gentle disposition, which is very essential and should not be overlooked. Cross or unruly sows should not be kept on any farm, as they are dangerous and may at any time cause a loss greater than their worth. (The writer lost a thumb a few years ago by having such a one.) A strong and vigorous constitution with good symmetry. Do not select a lengthy or rangy sow and mate her with a short or blocky male, expecting the offspring to be uniform, for some will be lengthy, while others may be short or blocky. In other words, avoid all extremes and select for breeders individuals as near the type you wish to produce as possible. It is well to select our breeding stock from prolific ancestry, but we should not overlook other essential points in order to get the many. Uniform breeding is more to be desired than prolific breeding. It is much better to have six or eight nice, even pigs than ten or twelve that are uneven in size and form. By all means select pigs that are intended to be used as breeders from even litters.

THE QUARTERS.

As much as possible avoid using the winter quarters in the summer seasons. If it is practicable vacate their winter quarters entirely during the summer months and clean up, air and disinfect said quarters thoroughly. If some crop can be planted or sown in the lots used during the winter, so much the better, as the growing crop will purify the soil and at the same time yield a handsome profit in feed. It is best to erect temporary sheds for shade and shelter during the summer, such as can easily be taken down and placed on another part of the farm the next season.

THE FEED.

While it is almost impossible for every farmer or breeder to produce oil meal, wheat, beans, shorts, etc., as prescribed by experiment stations, it is a necessity to provide a variety of food, for, as the human appetite craves a change of diet, so with the lower animals of creation. It is a comparatively easy matter to provide a change or variety of feed during the summer season; anything almost that a hog seems to relish is good for it, and often it knows better than its owner what its system requires. With plenty of pasture, such as clover, crop grass, millet, oats and sorghum, there is little danger of feeding too much corn, but in the winter season it is no easy task to furnish the needed variety of food; but a few small potatoes, turnips, pumpkins, clover hay, sorghum or corn fodder cut when a little green, together with a patch of rye sown early in the fall and used for pasture whenever the weather will permit, will help out wonderfully. Buckwheat shorts is an excellent feed for hogs, especially in winter, and can usually be bought much cheaper than oil meal or other good feed.

In handling brood sows use a double amount of patience, as it will not only prove beneficial to the sow but also to the attendant. Never, if it can be avoided, let the sow find out that you are driving her, because hog nature and human nature are somewhat similar, and as soon as she finds out that she is being driven she will try to go the other way, and will usually succeed, too.

Brood sows should always be fed on soft feed for at least two weeks before farrowing, and the same kind of food should be continued for some time after. Be sure to avoid the use of any sour feed at this stage of the pig's life, and at the same time do not feed very much corn or other heating food, for such food is apt to produce milk fever.

While sows are farrowing and for several days after, avoid disturbing them, or as much so as possible. Do not feed them very much for two or three days and have a regular time to feed and give them such other attention as is needed and stay away until next feeding time. After the pigs are three days old

the feed should be measured gradually until a full feed is reached. To prevent sore mouth or thrash in pigs, pulverize sulphur and borax, equal parts, and mix with raw linseed oil; to this a very few drops of carbolic acid may be added, and apply to dam's teats.

TEACHING THE LITTLE PIGS TO EAT.

Pigs should be taught to eat as soon as possible, not only for their own good but for the good of their dams. A good way to accomplish this is to place a small trough near by their dam's quarters and where the larger pigs cannot have access to it. Put a little sweet milk in this trough once or twice a day, also wash the trough once a day to prevent it from becoming sour and stale. As soon as the pigs learn to drink the milk freely, a little oil or oat meal, beans or shorts may be mixed with the milk. If this manner of treatment is pursued with the pigs it not only proves to be of great benefit to both the pigs and their dam during the first eight or ten weeks of the pig's life, but they can be weaned much sooner and at the same time do much better than if otherwise treated. Allow, or rather encourage, the dam to take plenty of exercise with her pigs; if she does not have a disposition to take the needed exercise provide two feeding places a proper distance apart. This will teach the pigs to follow their dam and in a short time she will give them all the exercise needed, which will not only help to develop bone and muscle in the pigs but will prevent their becoming too fat and having the thumps, which is often the case if the dam is well fed and a good suckler.

DO NOT RING.

Do not ring brood sows or their pigs. If they do too much rooting it is evident that nature is in need of something in the line of food that has not been supplied. It is much better to supply this need than to ring the hog.

Discard the swill barrel commonly used for kitchen slop and use buckets instead, carrying them away and feeding the contents before they become stale or rancid. Rinse the bucket with pure water and allow it to air while not in use. Metallic buckets are the best, but tobacco or candy buckets will answer a good purpose.

Would like very much to have some experienced breeder write an article on the care or treatment of male pigs from weaning time until they are one year old. I find this to be the most perplexing period of a pig's life.

In conclusion, must say it has not been my purpose to advance ideas so much as to rehearse the things all swine breeders know, for we all need to be told over and over again the very things we know.

Would It Be Advisable to Put the Public Sale System on a Cash Basis?

By Col. S. A. Sawyer, of Manhattan, Kas., read before the annual meeting of Kansas Improved Stock Breeders' Association.

In our daily avocations we are continually coming in contact with written law, but many of our business methods are governed by custom. I hardly think there is in the title of this paper enough material for an interesting article. Many of you have lived in a new country much longer than I, but twenty-six years a resident of Kansas has given me many opportunities to study the needs and necessities of a new State. If it were possible, as well as practicable, I would be glad if all transactions in business could be on a cash basis, for it is really the way to do business. Applying this opinion to public sales of stock, I hardly think it can be done in the West. Public auctions have become a means of disposing of surplus stock. They have their conveniences and seem at present to be a permanent fixture.

A public sale consists of four parts—the seller, the buyer, the stock, and the auctioneer, who (by common consent of himself) is called Colonel. The conveniences of an auction consist, first, in enabling a breeder to dispose, in one day, of an amount of stock that by other methods would take weeks and even months. By issuing a catalogue, other breeders have an opportunity to see what kind of stock is to be sold and at once to ascertain whether the strains of breeding advertised would make valuable acquisitions to their own herds. Many new acquaintances are made around the auction block and many a breeder realizes for the first time that his own highly esteemed stock is sadly in need of improvement.

Perhaps the most important ingredient in a public sale is the buyers. They consist of men in all stages of prosperity and adversity. They attend a sale for numerous reasons, but desire to be buyers if the quality of the stock, the prices,

and, lastly, the terms, are within their reach. I do not believe it hardly possible at present to make all public sales for cash.

For five years past, while the hog sales have been on the high wave, we have sold many fine animals to young men, many of them new at the business. A portion of them ask for credit. The older breeders become good buyers if they are given credit, oftentimes; but I think many sales made this far west would not be successful if everything was sold for cash.

In my twenty years' experience as a public auctioneer it has been my desire to take some interest in the gentlemen that it has been my pleasure to meet in the sale ring, and I am very glad to be able to say that an auction note never paid is almost an unknown thing. The purchaser at public auction of a well-bred animal gets an equivalent for his credit or his money. He is bucking no confidence game and has a right to expect that the animals purchased will help him pay his note or pay him profitable returns on the money invested.

On Growing Tomatoes.

Two recent bulletins of the Virginia Experimental Station are made up of notes on the experiment gardening at the station. The trenching system of handling tomato plants continues to give great satisfaction and has been extended to all plants, such as cabbage, celery, etc., trenching them off into cold frames rather than outside. These strong, stocky plants hold out and bear fruit till frost, long after tomatoes had disappeared from the surrounding farms. Last season ripe fruit was picked every day from June 23 to October 10. The variety was Beauty and the seed were sown February 1st, and plants were transplanted twice before setting in the field. In tomato culture, strong, well grown plants are the first requisite, well manured land stands second and then a mulch against drought. Never plant closer than 5x5 feet. For early crop always have the plants in bloom by time to set them out. Acme, Beauty and Perfection still give us best results, though Buckeye State, Stone and Fordhook First are good. This station has been improving Beauty by selection for some years and now has a better strain of it than can be gotten from seedsmen.

Experiments in growing tomatoes under glass show that it is profitable. Have house ten feet wide, four feet to plates, roof one-third pitch and beds level with bottom of house. Excavate twenty-four inches deep, fill in six inches of brickbats and ram some clay on these and top out with fifteen or sixteen inches of good greenhouse soil. Lay perforated one-inch pipe eight inches below the surface for sub-irrigation. Sow seed August 20 and set plants October 1 and push plants to bloom before January 1 and gather ripe fruit from January to May. Flowers must be pollinated by hand. As soon as the blossoms open scrape the pollen dust on wooden toothpicks and apply to the stigmas. This increases the size of the fruit remarkably.

To Get Eggs in the Winter.

The whole story of getting eggs in winter can be solved into three simple rules: First, hatch the chickens early; second, keep them growing so the pullets will come to laying maturity by November 1; third, keep them laying by good food and good care. When I say hatch chickens early, I do not mean too early, because if hatched too early and they go to laying in August and September, they will moult in December, just as the weather is becoming very cold, and then good-bye to eggs from then till April. For the heavier varieties, such as Brahmans and Cochins, the last of March is none too early, but the Langshans, Plymouth Rocks and Wyandottes I would hatch the first of April, if possible, though during April will do very well. The Spanish varieties, the Minorcas, Leghorns, Hamburgs, etc., should be hatched in May for best results.—Thos. A. Duff.

Home.

In making home grounds, the house is the central object of the picture, the grass and foliage the frame to beautify it. The only infallible way to insure correct work in the construction of this frame is to first take a small map of the grounds, strictly to scale (as an architect would make the plans for a building), mark off the square yards it contains; then, after marking out the buildings and the walks or drives, consider the permanent trees and shrubs, and with a compass mark their diameter at maturity; plant carefully from the plan and preserve it to refer to. Don't plant for the present alone, but look to what

FACTS ABOUT HEALTH

It is Easy to Keep Well if We Know How—Some of the Conditions Necessary to Perfect Health.

The importance of maintaining good health is easily understood, and it is really a simple matter if we take a correct view of the conditions required. In perfect health the stomach promptly digests food. The blood is employed to carry nourishment to the organs, nerves, muscles and tissues which need it. The first great essential for good health, therefore, is pure, rich blood. No medicine has such a record of cures as Hood's Sarsaparilla and it is because it is the one true blood purifier. Hundreds of people are alive and well today who would have been in their graves had they not taken Hood's Sarsaparilla. It is depended upon as a family medicine by thousands.

Hood's Pills are the only pills to take with Hood's Sarsaparilla.

the planting will be in the future. Two rules necessary to observe are: First, no permanent tree should be planted until the most careful consideration has been given to know what shape, color, height and diameter it will attain at maturity. Then plant it where it can make its best full growth without any interruption and it will always feel good, grow good, look good, and do one good to look at it. Temporary trees should be cut down before they interfere with the growth of the permanent trees. Rule second is a safe old saw in landscape gardening, and is easily remembered: that is, to plant no tree or shrub nearer to a dwelling than its altitude at maturity. For instance, a rose bush four to five feet from the house, a lilac ten feet, a crab-apple fifteen feet, red mulberry forty feet, red elm fifty feet, white elm seventy feet, cottonwood eighty feet from the house. By observing these rules, the dwelling will never be hid under a bushel, and when each tree develops, it will be a joy forever instead of a possible ugly trunk with mangled limbs.—Prof. H. Worrall.

A Nest to Prevent Egg-Eating.

Take a common nail keg, a small box, or half a flour barrel—in fact, anything that has a bottom and to which a top may be attached. As the nail keg should have the head replaced after the nails are taken out, an opening for the entrance of the hen should be made up near the top. Make the hole about one foot square.

For laying hens, let the nest be low down in the keg, say at the lower hoops, and the eggs are safe, as "Biddy" will not have room to do more than come out, and it will also be rather too dark for her to begin operations in the way of eating. Her first impulse will be to jump out and cackle. Do not have the nest too low down, or she may not get out. If she begins to incubate, raise the nest to the upper hoops, so that she can walk in on the eggs and thus avoid breaking them. As she will then remain on the eggs, they will not be eaten.

Such a nest for laying hens is easily moved, is dark within, and also possesses the advantage of not only hiding the eggs from view, but allows no room for the hen to eat them, while it is also raised up so as to compel the hen to have too much difficulty to get them.—Farm and Garden.

THROAT DISEASES commence with a Cough, Cold or Sore Throat. "Brown's Bronchial Troches" give immediate and sure relief.

Rheumatism and Horses.

Cornhill, Tex., March 24, 1896.—Please send me six bottles Gombault's Caustic Balsam by express. Your Balsam is the best liniment I have ever used, both for horses and myself. I have used it on myself for rheumatism with good success. I doctored 4 months and spent \$120 for doctor and medicine with no results, but since using your Balsam I can work around on the farm. Would like the agency for this county.—Otto A. Beyer.

One of the most prominent breeders in the New England States is Dr. F. L. Gerald, proprietor Ladd Hill Stock Farm, of Laconia, N. H. The Doctor says in his opinion Quinn's Ointment is the best preparation ever made to remove bunnies. "I have removed two splints and a curb and have half a box left. It seems to have been painless in its action. Quinn's Ointment is being advertised in our columns and is endorsed by many of the leading breeders in the United States. If you cannot find it at your druggist, write to W. B. Eddy & Co., Whitehall, N. Y. Regular size \$1.50 per package, smaller size 50 cents.

Sheep Department.

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

SHEEP TALK.

Editor Sheep Department:—In the Kansas Farmer of March 3, you asked the flockmasters of Kansas to assist you in making the "Sheep Department" an interesting and instructive part of your paper. Though not of Kansas, I am interested in all that will bring to the front one of the great industries of the farm—the breeding and rearing of sheep. Therefore I ask to come into your councils and add a word occasionally to help the cause along. I have a flock of 100 registered Shropshire sheep, and I think they are the sheep for the farmer. They are hardy, produce a large carcass of the choicest mutton, and will yield a good, heavy fleece of wool, thus making them very profitable on any farm.

Some of your writers recommend shorts as feed for sheep. I think it too rich and, unless fed very carefully, very fatal results may follow. Bran, oats and corn make the best feed that I have tried, increasing or diminishing the amount of corn fed as may be thought best by the feeder.

I think to let a ram to 100 ewes is a fatal mistake, for two reasons. First, the lambs are apt to come very weak and runty; second, there will be too much difference in the ages of the lambs. Forty ewes to each ram is plenty, and I think twenty-five ewes is much better than forty. If the rams are fed well through the day and only allowed to run with the ewes at night you are sure to have good strong lambs and they (the lambs) will be almost the same age. If you use a ram on too many ewes you are sure to ruin him as a breeder for another year. If the rearing of lambs is a part of the business of the flockmaster, it will always pay to use nothing but the best registered ram, and if we go to the expense of buying the best we should always try to use them and care for them the best way, and then they can be used on a farm as long as there is a flock not akin to them. Early lambs always pay for the difference in cost of care and feed over late lambs. Lambs that come the last of February or first of March should be weaned the last of August and then fed bran and oats once a day and allowed the free use of a good grass pasture.

There are but very few sheep in this (Tippecanoe) county. The demand for breeders last fall was the best it has been in four or five years. The outlook for a prosperous year in the sheep business is very bright. Let the breeders of Shropshire sheep use the knife freely on anything that is not first-class, and in this way we can keep our favorites, the Shropshires, to the front, keeping them what they are now and always have been, the sheep for the farmer.

La Fayette, Ind. ASA MARKEL.

Brother Markel is welcome to our council. It was never intended to exclude any shepherd simply because he did not live in Kansas; on the contrary, any shepherd who takes the Kansas Farmer is one of the family. Our "Shepherds' Directory" cannot very well be extended out of the State and be a Kansas flockmasters' directory, but it may be advisable to change it to the "Kansas Farmer's Shepherd's Directory," and this would include any one who raises sheep and is a reader of the Kansas Farmer. On the whole, I think the latter is advisable, but would like the opinion of others. What say you, shepherds of Kansas?

The following letter from Mr. Bayless suggests an explanation. The list that I published was not sent in to me, but I remembered their names and addresses. I remember many more, but have not their correct address or breed they are raising. The flockmasters mentioned are using Shropshire rams and are breeding full-bloods or endeavoring to breed up to a Shropshire basis:

Editor Sheep Department:—I see by the Kansas Farmer that you have taken the task to commence a regular "Sheep Department" in the Kansas Farmer. Such proceedings if properly conducted will be of great benefit to the wool-growers of Kansas.

I have been in the sheep business for nearly fifty years, and, being a close observer, have always noticed that the sheepmen as a class were more prosperous than other stockmen.

A few years ago an old German, of Woodson county, was showing me his fine buildings and large farms, also his stock—sheep, cattle, hogs and horses—but he said it was his sheep (or the

money accruing from them) that bought the land and put up the buildings.

I see by the list that they are all Shropshires. I would like to know if they want it understood that they are pure-bred or grades, as I am personally acquainted with some of those flocks.

My flock was formerly pure-bred Merinos, and part of them are yet, but I am now breeding grades, and full-blood Oxford Downs. The Oxford is the only Down with a long staple of wool. I have the only lot I know of in the State. Am using sires from the noted flocks of Messrs. Stone, of Illinois, and McKerrow, of Wisconsin.

Success to your enterprise, and may it be carried on to the interest of all wool-growers.

J. F. BAYLESS.

Yates Center, Kas.

The names for our "Shepherds' Directory" are coming in very slowly, and all those for the April list should be in this week. I have not heard from western Kansas yet, and I hope some one will write me about the range soon. If you get your name on this list you are sure to receive quotations on wool that may help you wonderfully in the sale of it. There is money in this to the Kansas flockmasters, or else I would never have started it. We all hope to derive some profit by this department, and this is a way that will bring us a profit at once, as all live wool buyers will seize on those names and endeavor to secure their clip.

Western Items.

A. J. Knollin, of Kansas City, has purchased the Bonney ranch, on the Rio Hondo, in Chaves county, New Mexico, besides some other property in the vicinity, and will stock the place with 10,000 head of sheep purchased lately for \$41,500.

Some people are prone to sneer at the wool business in the West and say that it does not amount to much. Now, in the aggregate, it runs up into the millions, and one has only to call into play the case of a single small village, that of Clayton, New Mexico, for instance, to prove the assertion. There were shipped from that place alone during 1897, 164,000 pounds of sheep pelts, which, estimated at 4 cents a pound, amounted to \$6,560. There were also shipped 1,398,625 pounds of wool, which, estimated at 10 cents a pound, amounts to \$139,865, making a total of \$146,425.

All sheepmen in this country realize that the Northern wools, or those which come from what we call Oregon stock, are of better quality than the Southern or Mexican grades, even when the sheep are run on the same range here in the West. While the shrinkage is heavier, the staple is longer and stronger, and is designated as deep-grown wools. When flocks of Southern sheep are run in this Northern section they yield a pound more of wool to each head, and of better quality. This condition is attributable to less alkali dust, and better feed, as well as to the results which naturally come with such transition to any animal in any country.

J. G. Edwards started in the sheep-raising business in 1883, at first in a small way, and later with unlimited capital. His yearly clip of wool now runs about half a million pounds, and he breeds the best grades of sheep adapted to the Western ranges, and he usually commands the top prices. Last season he sheared 50,000 head of sheep and this winter he is feeding 17,000 head on one of his Nebraska feeding farms. His range has been along the Savory mountains, in Routt county, just south of the Wyoming-Colorado line, and he is the fellow who has been giving the cattlemen such a sweat over the division of the ranges.

The first spring lamb of the season is in the Kansas City market, as tender and juicy a morsel as shelled corn and alfalfa can make it. Twelve Colorado lambs, seventy days old, were shipped from Las Animas early in the week, that weighed just forty-nine pounds each. A local killer bought and dressed them for a Walnut street butcher. Fore quarters will sell for \$1 to \$1.25 each, while hind quarters will command \$1.75. There are no new green peas with which to garnish the spring lambs, for it is a bit early in the season, but fresh young mint is obtainable, in small quantities. A bunch costing 5 cents will meet the requirements of the average family.

There are many arguments that can be adduced in favor of the sheep business for such farmers as may have enclosed pastures in which to run them. It is so profitable, if properly managed, that it will be a favorite pursuit for years unless conditions change very radically. The sheep require comparatively little attention when held in pasture. It has been found that the investment may be small, but the increase is so rapid that it

quickly grows into a large business in a few years. There is hardly any other business that brings in so great returns in so short a time as the sheep industry, and the risks are but little greater than in any other line of live stock business.

We have always had a habit in this country of referring to those who keep sheep as wool-growers instead of sheep-breeders. This shows that the Western idea of a sheep is an animal from which to get wool, without taking account of the mutton qualities. With the advance that is now being made the wool-grower will gradually disappear and the sheep-breeder will take his place. It is well that this change is in progress, for as long as we kept sheep for the wool alone we paid very little attention to the carcass. Now that alfalfa mutton has become an important factor in figuring profits we will be looking after quality as well as weight of fleece and will get more mutton and increase the possibilities of wool production at the same time.

There is an inclination again for men to rush pell-mell into sheep husbandry on the hypothesis that it will make them rich in a few years. It is safe to say that some now entering upon the business of sheep-raising will get out of it with much less money than they have now. While it is true that there are better opportunities now than for many years, the chances favor men who know the business and will give it their personal attention and prudent, economical supervision. There is no other class of stock-raising that punishes blunder and mismanagement so promptly and inexorably. Many of us can recall the fever of excitement with which men went into sheep-raising eighteen or twenty years ago. Many of these were men who knew nothing of life outside of cities. Many others who had been raised in the country knew nothing of handling sheep on the range. For a year or so providence seemed to favor them and the ignorant and inexperienced found success. This fact built up the idea that experience was unnecessary. All sorts and classes of men bought sheep and turned them out on vast ranges with herders as ignorant as themselves. In a few years the inevitable result of ignorance and mismanagement came and hundreds of men were hopelessly wrecked. Now at this time we hope that profane history will not repeat itself.

A. R. Peters, in Epitomist, says: "When my youngest son was a boy he saved all the money he came in possession of and loaned it to me, taking my note. Each year he would add a little to his note until February, 1897, it amounted to \$35. One day he said he believed sheep would pay better than money at 6 per cent., and if I could spare the money he would like to invest the amount in sheep. I told him to find the sheep and I would find the money. So he started off one day and brought home ten ewes and six lambs. They were so small and shabby I felt sorry for him, but said nothing to discourage him. When shearing time came the wool brought him \$6.69. In August he sold the lot of sheep and lambs for \$54.10, total \$60.79. The feed cost him nothing, but his profit in six months on \$35 was \$25.79. He then bought fifteen ewes of better stock. My oldest son in the spring of 1897 had twenty-three ewes that were worth \$115. They raised twenty-nine lambs. He sold twelve wether lambs in November for \$4.95 each, total for lambs sold \$59.40. The seventeen ewe lambs would have sold for the same each. Total for lambs, \$143.55. The wool sold for \$34.35; gain in lambs and wool, \$177.90. He has the same ewes on hand that have commenced to lamb again (January, 1898), also the seventeen lambs that will be bred next fall. Sheep will live and do well on what hogs will starve on, besides keeping the ground clear of weeds, sprouts and briars."

In the latest feeding test at the Iowa Experiment Station the ewe lambs were found to be light eaters. Their gains were also comparatively light but the cost of production was not much greater than the average by the wethers. The marked increase in the cost of feed for a pound of gain during the experiment was apparently due to the fact that the ewe lambs took on fat rapidly and were more nearly finished during the latter part of the period than the other lots. This distinction between the sexes has been observed in all of the experiments made at the station, including both cattle and sheep. On the market the ewes sold 5 cents higher than the wethers of the same breed, and in the slaughter test they dressed 1.67 per cent. more net carcass. On the block they showed slightly more fat, but their fine bone and plump, neat carcasses made them attractive and profitable. The price put on them by the buyers clearly indicates that there is no discrimination against ewe lambs as there formerly was

A LITTLE LIGHT.

Every young woman needs a little light upon the subject of health. There is far too much new-fashioned prudery among mothers. Every young woman should have explained to her the supreme necessity of keeping herself pure and wholesome and free from weakness and disease in a womanly way. Her general health, her future happiness, her good looks, her physical strength, her capability as a wife and mother, and the health and strength of generations to come are dependent upon this.



Nothing in the world will destroy the good looks, wholesomeness, the amiability, and the usefulness of a woman quicker than disorders of the delicate and important organs that bear the burdens of maternity. Dr. Pierce's Favorite Prescription is the best of all medicines for women who are ailing in this way. It makes a woman strong and healthy where a woman most needs health and strength. It relieves pain, soothes inflammation, heals ulceration and gives rest and tone to the tortured nerves. It cures all the ills and pains too commonly considered an uncomfortable inheritance of womankind. It has been used for over thirty years with an unbroken record of success. More of it has been sold than of all the other medicines for women combined. It is the discovery of Dr. R. V. Pierce, for thirty years chief consulting physician to the Invalids' Hotel and Surgical Institute, at Buffalo, N. Y. He will cheerfully answer, without charge, all letters from ailing women.

"Three years ago," writes Mrs. J. N. Messler, of 1794 Vanderbilt Avenue, New York, N. Y., "the best physicians in this city said there was no cure for me—unless I would go to a hospital and have an operation performed. I could not walk across the room. I took Dr. Pierce's Favorite Prescription and after three bottles I could work, walk and ride."

Torpid liver and constipation are surely and speedily cured by Dr. Pierce's Pleasant Pellets. They never gripe. They regulate, tone up and invigorate the liver, stomach and bowels. No substitute urged by mercenary dealers is as good.

against the heifer. It should be mentioned incidentally, however, that after the ewes are a year old they are not as desirable as wethers, owing to the fact that the joints do not break as readily. Free, clean breaking of the front pastern is the test applied by meat dealers to distinguish between a lamb and a sheep. One that breaks is a lamb; one that does not is a sheep, regardless of actual age.

It surprised many visitors to the Chicago World's Fair to find that of all the blood-purifiers, Ayer's Sarsaparilla was the only one on exhibition. The reason is that Ayer's Sarsaparilla is a standard remedy, and not a patent medicine, or secret nostrum.

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

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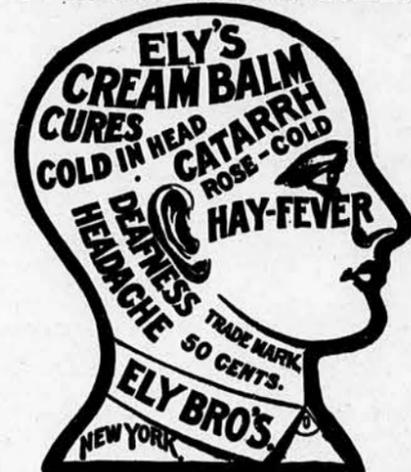
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KANSAS CATTLEMEN'S CONVENTION.

The first session of the Kansas State Cattlemen's Association was held at Abilene, March 22 and 23. It was a rousing convention, an evidence of the prosperity of the cattle industry of the State. One hundred and seventy-two cattlemen enrolled themselves as members of this association during the session.

The convention met in the opera house, and was called to order by President White, who introduced Rev. Blainey, who made the address of welcome, which was appropriate in every respect. He called attention to Abilene as the most fitting place for a State cattlemen's convention, as it was the original cattle trail town in the State, and was the great center for the Texas and range cattle business in 1867, and in Dickinson county at the present time there were 60,000 beef cattle and 20,000 dairy cattle. He believed that the cattle interests of the West were the real foundation of present and future prosperity. New problems were constantly presenting themselves, and the clashing of their interests with corporate interests made it indeed necessary for cattlemen to organize in defense of their own, and thereby be better able to meet opposition and protect their interests, by having a better understanding with the railroads, so that the cattlemen might receive their legitimate share of the profits of the business.

In behalf of the cattlemen assembled, Col. J. W. Robinson, of El Dorado, made the response to the address of welcome. He called attention to the fact that this convention was a reminder of the old and the new of the cattle business, and that the old order having passed away, cattlemen were confronted with the serious conditions affecting the new or the present situation of the cattle industry. He referred to the recent sale of Sunny Slope Herefords as showing a feature of the business, and that improved cattle were a more important factor than under the old order of things. The world's best beef breeds have been ransacked to better the cattle of the plains.

He dwelt with special emphasis on the importance of county and State organizations among cattlemen in order to prevent the raising of freight rates by the railroads, and showed that the work done by the county organizations composing the Kansas Cattlemen's, Shippers' and Feeders' Association had effectively restrained the railroads from doing away with the car-lot system, and had thereby saved the shippers fully a thousand dollars a day.

Col. J. G. McCoy, Kansas City: "Over thirty years ago I stood up before the Texas cattlemen and urged them to organize, but my advice was unwisely not heeded. Now we see the imperative necessity for it, because all other important interests are well organized, and unless the cattlemen do likewise they will perish and be eaten up singly without salt." He then referred to the national live stock convention held at Denver last February, and presented a communication from its president and urged this body to become a member of that organization.

At the afternoon session music in abundance was furnished by Gillett's Cowboy band and a colored trio, after which a very interesting and able address was made by Hon. F. D. Coburn on "Kansas for Stockmen."

This was followed by a general discussion in which the great demand for stockers and feeders was discussed at length. Owing to the high prices prevailing many thought if any money was to be made out of the business hereafter the question of feeding, breeding and shipping should have the closest attention, otherwise considerable money was sure to be lost. Hence the experience and wisdom of the organization should be disseminated. It will be necessary for us to buy our steers from the ranges where they are produced most cheaply and with as little commission charges as possible. Then we want a feed-in-transit system, so that stockmen can stop off and finish the cattle on Kansas grain and send them on to market. The old cattle trail is obliterated and the railway car constitutes the modern trail. Yet the fact stares us in the face that railroad charges are as high as formerly. With all the cheapening of material for railroad equipment, etc., we still have the old rates to pay, notwithstanding that we cannot now produce the steers so cheaply as formerly. The impression is gaining ground that cattle are too high, but most of the stockmen agreed that there is still money in the business even at present prices, by intelligent methods of feed-

ing and breeding. If stockers are bought at reasonable prices there is no reason for operating at a loss. Last year there was brought into Kansas 600,000 head of cattle, and during February, of the 39,000 cattle shipped out of the Kansas City stock yards Kansas took 27,000 head.

J. G. McCoy, of Kansas City, stated that he wished to go on record that when the history of the decade ending in 1900 shall be written that it will show that the year 1898 was the year in which to sell.

At the evening session, after considerable entertaining music, Mr. Eugene Rust, manager Kansas City stock yards, made the following address on

"WHAT IS THE GOVERNMENT DOING FOR THE LIVE STOCK INTERESTS?"

"From the last annual report of the Hon. James Wilson, Secretary of Agriculture, the scope and extent of what the government is doing for the live stock interests is fully set forth. Previous to the organization of that department in 1884, but little systematic work had been done by the general government toward the advancement of the live stock interests, though in many of the older States considerable progress had been made in the colleges established for the advancement of agriculture, in the science of breeding and treatment of stock. These colleges were designed to educate the farmer as to the most effective method in the cultivation of the soil and to furnish him correct scientific information along the lines that would be most useful and profitable to him. The State colleges were endowed by Congress in 1862, and have been very successful in the encouragement and development of the agricultural interests of the entire country, and have given us the most enlightened and progressive farmers of any in the world.

THE DEPARTMENT OF AGRICULTURE.

"With the growth of the industry and the development of our resources came the demand for an enlarged organization to help farmers to a better knowledge of production, and to enable them to meet the requirements of home and foreign markets. For this object a separate department of the general government was organized, known as the Department of Agriculture, which has come to be regarded as one of the most important departments of the general government. Of the work of this department, Secretary Wilson says: 'The endowment of agricultural colleges by Congress in 1862 and the appropriations for experiment stations in 1887 for education in agriculture and for supplying correct information to farmers along the lines of their life work, are probably the most effective and far-reaching ever devised by the government of any people. Cultivators are becoming more familiar with the soils they manipulate, the climates of their respective localities, the plants adapted to their condition and the live stock that those conditions will best develop. The work done in each State along lines of agricultural investigation by experiment stations is, to some extent, local in its character, while much of it has general application.

"The Department of Agriculture designs giving wide circulation to everything of general interest, so that the farmers of all the States and Territories may get the benefit of good work done in each State. The science of dairying is spreading from the agricultural college centers, resulting in greatly increased and improved production.

"The Department of Agriculture is seeking markets in foreign countries by making their people familiar with the superiority of our goods. We produce meats, of superior quality, more cheaply than any other nation can put them on the world's market, owing to the cheapness of our grains and grasses.

"The State experiment stations are giving feeders information regarding the best methods of nutrition, which will result in more economic practices.

"The Department of Agriculture inspects live animals and dressed meats for export and certifies to their freedom from disease, supervises their condition through agents in foreign markets, and is the advocate of exporters where discriminations are laid upon the movement of live stock and meats in foreign countries.

"In a letter to the National Stock Growers' convention recently held in Denver, Colo., the Secretary further says: 'Probably the best work the government is doing for the stock interest is in connection with the experiment stations and agricultural colleges, where stock breeding and feeding are taught to the young farmers, and where experimentations are carried on regarding all the features of stock raising; where the anatomy and physiology of the animals are taught,

the composition of the forage on which they live, and the sciences which apply to the most economical feeding for the best development of the animal and in the interest of the pocket-book of the owner. This is probably the best work that is being done.'

"The department is organized into divisions and bureaus, each devoted to separate branches for carrying on its work, at the head of which are men thoroughly competent, both from scientific and practical knowledge, to bring the best results. Foremost is that of the Bureau of Animal Industry, of which Dr. D. E. Salmon has held the responsible position of chief for the past twelve years, to whose eminent ability and efficiency the successful operations of the department are largely due. The detail work of this bureau includes the inspection of animals slaughtered in the United States for domestic and foreign trade; the inspection of live animals for export and import; the inspection and regulation of the movement of cattle from districts infected with Southern fever; and inspection and dipping of sheep at the public markets, to prevent the spread and ultimate eradication of sheep scab. Much work is also being done by the bureau as to the best methods of treating and controlling hog cholera, tuberculosis, blackleg and other diseases, which supplemented by the work being done by the different States, is already making rapid progress in the suppression and eradication of all diseases among our domestic animals.

"Pleuro-pneumonia, through the work of the government, has been practically stamped out in this country, and there is no cattle disease epidemic in any portion of the United States.

"Sheep transportation is now almost entirely under the control of government inspectors, and sheep scab is being rapidly eradicated.

"Swine diseases have also received a great deal of attention from the department in the way of investigations and experiments as to cures.

SHIPPING ACROSS THE OCEAN.

"In an admirable address before the Stock Raisers' Association of Texas, Dr. Salmon said: 'The Bureau of Animal Industry has been working for the benefit of the cattle industry in many directions. The regulations as to the movement of cattle from the southern section of the country have been only a part of the work of that bureau. It has been necessary in order to further and assist the marketing of the cattle products that the bureau should undertake to regulate not only the movement of cattle, but the amount of cattle products. It has been necessary to inspect the cattle at the time of slaughter and to certify to their healthfulness and the wholesomeness of the meat. It has been necessary for us to regulate the shipment of cattle across the ocean, to regulate the feeding and the amount of food that should be carried and the number of experienced cattlemen who should go along with the cattle, and all those things have worked together to get better prices for the cattle which have been on sale. For instance, at the time these regulations were first made in order to get cattle shipped, the insurance reached as much as 8 per cent. of the value of the cattle—\$8 per head on an animal worth \$100. This was because the losses were so great in crossing the ocean, which losses were partly due to infection with cattle disease and partly due to improper and insecure fittings, whereby cattle were washed overboard in heavy weather, and partly due to overcrowding, crowding cattle in between the decks of ships, where there was not sufficient ventilation. Now the effect of these regulations has been most marked. Insurance has dropped from \$8 per head to less than \$1 per head, and on an average of the cattle shipped from this country to European countries to market, less than one in two hundred die in crossing the ocean. Thousands of cattle are shipped without the loss of a single head, and only occasionally is it a fact that a vessel might strike very rough weather, when cattle will be washed overboard in spite of all precautions, and thereby the loss has reached as much as one-half of 1 per cent. You will all admit that that is a great improvement, and the saving of \$7 per head on insurance on the 400,000 head of cattle we sent abroad last year amounted to nearly \$3,000,000 in that one item alone.'

OPENING EUROPEAN MARKETS.

"It has only been by reason of the inspection of meats that we have been able to keep the European markets open for the animal products of this country. You know that in 1881 and 1882 the principal governments of the continent of Europe absolutely prohibited our pork products because not inspected, and for ten years we were unable to sell a pound of pork to the principal countries of Europe; but

by this system of inspection, which was established by the Bureau of Animal Industry, a large part of that trade has been recovered. Last year we sold these same countries over 40,000,000 pounds, and this year the aggregate will be over 60,000,000 pounds.

"In the same way our dressed beef was attacked in all the markets of Europe, and it was only because of inspection by the government and the certification of that meat that we were able to send it abroad. Our live cattle trade would have been entirely prohibited long before this but for these regulations concerning the shipment of cattle, because all sorts of charges were brought against them, and the one which seemed most dangerous was the charge of cruelty to the animals on the ocean voyage, and the sympathies of the Queen were excited by the hard tales that were told.

"Now all these things have been done away with and, although in many countries they are still seeking excuses for shutting out our products, we have been enabled by this system of inspection and this system of certification to still sell enormous quantities of animals and meats."

This was followed by one of the ablest papers of the convention, on "The Cattle Industry in Kansas," by Hon. W. W. Guthrie, Atchison.

The addresses were followed by a splendid recitation by Miss Myrtle Shane, of Abilene.

This was followed by a general discussion on the subject, "What Has the Shipper a Right to Expect from the Railroads and Stock Yards?" In the absence of Col. Titus, who was to open the discussion, the place was supplied by calling on Geo. M. Munger, of Eureka. He took the position that the corporations were creatures of the State, and hence were amenable to our laws, and that the charges were entirely too high, and he proceeded further to score the stock yards for resisting the present law, and further in trying to avoid the pending decision in the United States courts, should it be averse, by removing the entire yards over into Missouri. The remedy to overcome this, he thought, rested entirely with the stockmen, and he therefore urged them to act accordingly.

J. B. Lynch, live stock agent of the Santa Fe route, followed and claimed that the interests of the cattlemen and the railroads are identical and each dependent on the other. In regard to stock yards, he claimed they are a necessity to the cattlemen and that we should be thankful that we have the second best live stock market in the world on our borders.

Mr. G. G. Gillett, Woodbine, Kas.: "Texas has as good cattle outside of thoroughbreds as anywhere in the West, and Kansas is not in it with Texas for stockers. In regard to the stock yards, no shipper has any serious complaint as to the charges unless that feed is a little too high. The commission men clearly earn their charges in view of the dispatch with which they make sales and furnish the loans for cattlemen to do business with. We have not yet begun to see high water mark in the cattle business, and the only mistake the railroads are making is their proposed plan to do away with the feed-in-transit, which would certainly work a great hardship to cattlemen."

FEED IN TRANSIT.

Wednesday morning's session was devoted largely to the discussion of the feed-in-transit rates. A resolution was reported by the committee on resolutions and was adopted. It was:

"Resolved, That the shippers of live stock in convention assembled, request the railroads of Kansas to continue the feed-in-transit rate or pasture rate or give us some other rate equally as good.

"Resolved, That we believe the shippers of live stock are paying the railroads well for the services rendered, considering the amount of business we give the railroads.

"Resolved, That the Secretary be instructed to notify all railroads of the State of this resolution."

This report was followed by a general discussion on "What the Association Proposes Doing for Stockmen." On this subject J. S. Hollinger, of Abilene; A. C. Pierce, Junction City, and J. W. Robinson, of El Dorado, made some very able and practical suggestions in behalf of such an organization, showing what could be done in reference to feeding and railroad and stock yard charges.

GOVERNOR LEEDY'S ADDRESS.

In the afternoon Governor Leedy addressed the convention. He reviewed the growth of the cattle business in the State and called attention to the dangers that threatened a too great expansion of the business. He then talked at length on the need of cattle legislation, especially in the direction of inspection.

He advocated the employment of cattle inspectors by the State, to be paid from the State treasury. He referred to the grain inspection method as an example of what might be expected to occur in the service. When inspectors were paid by individuals, he said, the service was inferior and irregular. Now it is paid by the State and we get far better service. So with the cattle inspection, if it is necessary the State can afford to pay \$5,000 or \$6,000 a year for good service. If it is not necessary let us do away with it entirely. Kansas is entitled to a better service than it now gets and should have a State control and management of this important part of its business life.

Some discussion was caused by a statement by Governor Leedy, in his address, advising shippers to bill their stock to Kansas City, Kas., rather than Kansas City, Mo., adding that the reasons would be understood later.

The dangers of Texas fever were discussed by Taylor Riddle and Col. Albert Dean and new inspection rules and better work were advocated. Zeb Crider, of Kansas City, made a strong address on the relations of commission men and shippers, presenting the reasons for closer harmony. C. H. Pattison, John K. Wright and others made addresses.

Mr. Zeb Crider, of Kansas City, Mo., gave a very interesting paper on "Best Method of Enhancing the Live Stock Interests of the West," which is reserved for future publication.

"Central Kansas, the Stockmen's Paradise," was the subject assigned several gentlemen for discussion, but received attention only from H. R. Little, of Hope, who made a brief but interesting address, and was followed by a paper by John K. Wright, of Junction City, on "Central Kansas, the Stockmen's Paradise."

C. H. Pattison, of Abilene, presented a very able and comprehensive paper on "The Dairy Cow and Her Product," which is reserved for future publication.

The evening session was reserved mainly for a lecture by J. G. McCoy, of Kansas City, the first Mayor of Abilene and the founder of the cattle trail. His subject was "Old Cattle Trail Days." He spoke without notes, and his two hours' address was received with wrapt attention, as it contained many reminiscences about the early days in Kansas that were of special interest to all the hearers.

The officers elected for the ensuing year are as follows:

President, Jos. White, Abilene; Secretary, G. A. Rogers, Abilene; Treasurer, C. A. Hodge, Abilene; Vice Presidents, G. G. Gillette, Woodbine; C. A. Stannard, Hope; John Harmon, Solomon; Thos. Kennedy, Junction City; Jas. Tobin, Solomon; O. L. Thisler, Chapman; J. B. Case, Abilene; Frank Lower, Council Grove; T. M. Potter, Peabody; Frederick Bowen, Vine Creek, and D. M. Meyers, Clay Center.

The President appointed the following Executive committee, with J. S. Hollinger, of Abilene, as chairman: A. C. Pierce, Junction City; S. M. Wilson, Salina; T. M. Potter, Peabody; A. N. McLennan, Norton; Frank M. Lower, Council Grove; Geo. P. Dewey, Manhattan, and J. C. Morrow, Haddam, Kas.

After a final adjournment of convention the Executive committee had a short meeting and provided for the organization of county associations.

NOTES.

The cattlemen seemed very much distressed regarding the proposed order promulgated by the railroads for abolishing the feed-in-tranist rate after April 1.

J. W. Robinson, El Dorado, states that three car-loads of alfalfa seed grown in Butler county have been sold this spring. Several farmers realized \$50 per acre from the hay and seed produced last season.

G. G. Gillette, Woodbine, who was in attendance at the convention, reported a recent sale of twenty-three Hereford cows at \$200 per head, to John Scarbaour, Forth Worth, Texas. He sold the Wild Tom bull that he bought at Sunny Slope sale for \$500 to the same party for \$1,000.

Hon. W. W. Guthrie, Atchison, Kas., has entered a new breed of cattle called the "Kansas" breed, consisting of polled Hereford-Short-horn cross-bred animals, which type he believes that he has now fully established. Mr. Guthrie has 11,000 acres under fence in Kansas and is owner of 2,000 head of cattle, one of the results of his forty years' stay in the State.

The Kansas State Cattlemen's Association has joined the National Live Stock Association. Other organizations which have joined the same recently are: The Pacific Northwestern Stock Association, the Colorado Cattle Growers' Association, the Oklahoma Stock Growers' Association, of Woodward, O. T. Also the following live stock exchanges that have become members are those at Omaha, Denver, Pueblo, and Fort Worth.

Gossip About Stock.

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

Mr. B. C. McQuesten, of Ottawa, who has been engaged in the banking business there for nearly thirty years, and as a relief and recreation has raised a few first-class Jersey cattle, now offers the cream of the whole lot. Such an opportunity to secure the best cattle seldom occurs. See his ad. in another column.

The dates of the stock exhibit at the Omaha Exposition are thus announced by Hon. J. B. Dinsmore, Sutton, Neb., commissioner of live stock and poultry: Poultry, September 19 to October 1; horses, cattle, sheep and swine, October 1 to October 29. Exhibitors will thus be required to keep their horses, cattle, sheep and swine on view practically during all the month of October. The Exposition company has been asked to set aside \$30,000 for prizes exclusive of the poultry department.

During the dull season of the year the egg crop often provides groceries, calico for the children's dresses, shoes for the baby, etc. The industry should be encouraged, and every farmer's wife should aim to improve her stock, inasmuch as it can be done easily and cheaply. Mr. W. W. Henderson, of 411 Olive street, St. Louis, has Brown Leghorns, W. P. Rocks, Pit Games and Pekin ducks that have won prizes at many leading shows. He has tried to make his matings perfect, and we believe he has accomplished it in large measure. You can buy from him the same quality of eggs at \$2 per setting that you would have to pay many breeders \$3 to \$5 for. Send an order to Mr. Henderson, or to the superintendent of his farm, Mr. J. P. Royall, Bridgeton, Mo., for a setting of eggs, and we believe

Last week we made announcement of the Grimes Short-horn sale, to be held April 16, at Belton, Mo. This is a dispersion sale and embraces about eighty head. Mr. Grimes has arranged his date to follow the public sale of Herefords at same place by Scott & March, that sale coming on the 15th. Being a large offering, it is hoped that many from a distance may take advantage of the opportunity to attend both sales. For the accommodation of those from a distance, Col. Woods will open the sale at 10 a. m. We can say of this sale that it offers some well-bred stuff and plenty of it. It is in good fair breeding condition and will show for itself that it is a business herd of cattle. There are no non-producers in the herd. Another thing, the herd has become notable for its heavy milking qualities. There is a strong vein of Bates blood running through the herd and this has been topped with Cruickshank blood during recent years.

The reader interested in Hereford cattle will find, if he visits the aggregation of over 500 head known as the Mt. Pleasant herd, bred and owned by Messrs. Scott & March, of Belton, Mo., that this herd of White-faces is one of the best bred of any in this country. Those in quest of good Herefords will find Belton very favorably situated, it being about thirty miles south of Kansas City, Mo., on three lines of railway, viz., the Kansas City, Fort Scott & Memphis, the Kansas City, Osceola & Southern and the Kansas City, Pittsburg & Gulf. On the morning of the coming sale, April 15, a special train will leave Kansas City via the "Memphis Route" at 8 o'clock and returning will reach Kansas City at 8:20 p. m. This will give all persons from a distance an opportunity to concentrate at Kansas City before and after the sale, which is the last of the public sales of Herefords so far announced to take place in the West this year. To gain complete information concerning the sale and offerings write to Messrs. Scott & March for a free copy of the sale catalogue.

Since Thos. F. B. Sotham, Chillicothe, Mo., made a combination with K. B. Armour, Herefordally speaking, it places him tip top. Among the Hereford maxims practiced at the Weavergrace Hereford breeding farm are these: Individual merit by inheritance, that every animal in Sotham's sale shall be of the purest blood tracing through the most celebrated ancestors, and that every individual be worthy of founding or augmenting the very best herds. In order that the merits and actual worth of the White-face cattle be more extensively known and appreciated Mr. Sotham went, last fall, into the Panhandle of Texas and contracted 3,000 grade Hereford calves, sired by registered bulls and out of cows by pure-bred bulls, for distribution in lots of 100 or more among practical feeders in Illinois and Missouri who,

- ARMSTRONG & McKEIVY Pittsburgh.
- BEYMER-BAUMAN Pittsburgh.
- DAVIS-CHAMBERS Pittsburgh.
- FAHNESTOCK Pittsburgh.
- ANCHOR } Cincinnati.
- ECKSTEIN }
- ATLANTIC }
- BRADLEY } New York.
- BROOKLYN }
- JEWETT }
- ULSTER }
- UNION }
- SOUTHERN } Chicago.
- SHIPMAN }
- COLLIER }
- MISSOURI } St. Louis.
- RED SEAL }
- SOUTHERN }
- JOHN T. LEWIS & BROS CO Philadelphia.
- MORLEY Cleveland.
- SALEM Salem, Mass.
- CORNELL Buffalo.
- KENTUCKY Louisville.

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

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

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

when they turn the cattle on the Chicago market, they almost invariably top the market on the day sold. At the late stockmen's convention held at Fort Worth, Texas, Mr. Sotham was offered an advance of \$3,000 for his contract, but such is his plan to let the value of grade Herefords be known, he refused to change his plans at any price. Another special feature of the Weavergrace management is that all the increase of the herd is positively retained for disposal at regular annual sale and none ever sold at private sale, thus affording all appreciative Hereford buyers an equal opportunity to secure the choicest animals offered during each year. On Wednesday, April 13, 1898, the regular sale will be held, and it is the opinion of the writer that all acquainted with the make-up of the annual Weavergrace offerings will find this one the best individually and collectively that Mr. Sotham has ever offered.

Publishers' Paragraphs.

There are numerous poultry fanciers who have fine Plymouth Rock birds, but Mrs. F. A. Hargrave, of Richmond, Kas., is the only one in Kansas (so far as Kansas Farmer has been able to learn) who has the new and valuable variety known as the Missionary B. P. R. fowls. Their cackle echoes to Africa and Asia, to say nothing about the eggs of same which she furnishes fifteen for \$1. Write her for particulars.

Raising wages is a mutual gratification to employer and employe, as it indicates a prosperous business condition. The Dain Manufacturing Co., Carrollton, Mo., whose advertising appears elsewhere in this issue, have without solicitation raised the wages of their 250 employes 10 per cent. Their plant is running to its full capacity, both day and night, with orders ahead that insure a continuation of abundant work in all departments for several months to come.

TULLER DISC CULTIVATOR.—This is a comparatively new cultivator for listed corn. An evidence that it fills a long felt want is the fact that 15,000 are in use. They are manufactured by the Tuller Cultivator Co., Kansas City, Mo., and Wichita, Kas. One of the advantages claimed for this by its makers, as shown by the advertisement, is the fact that the operator can ride and still save half the draft over shovels and cultivate listed corn until it is three feet high. There is no clogging, as the discs clear themselves. It is destined to have a large sale, and farmers can either secure it from their dealers or the manufacturers.

In the way of personal memoirs of the Civil war there has been nothing more interesting published than Charles A. Dana's "Reminiscences," and much the most interesting of these thus far is the paper in McClure's Magazine for April, giving Mr. Dana's recollections of Lincoln and his Cabinet. Living in the closest, official and social relations with Lincoln and the members of the Cabinet for a considerable time, Mr. Dana's opportunities for knowing them were perfect; and he has set forth his impressions of them with that perfect frankness and that sure sense of the central characteristic which make his portraits so real and definite. The portraits from photographs in the government Civil war collection add to the interest of the paper.

The most attractive, useful and educational reading matter is to be found in well-established and standard publications. It is now possible for publishers issuing papers with a large circulation, with the use of the latest improved mod-

ern machinery, to produce their publications at a price within the reach of every one who has the intelligence and ability to earn an honest dollar. One of the most liberal offers ever made by any reliable publishing house is a combination offer made by the Epitomist Publishing Co., of Indianapolis, Ind., to furnish the Young People's Weekly, Poultry Keeper, four Poultry Illustrators, Ten Packets of pure, selected and tested seeds, and the Agricultural Epitomist one year, all for \$1.00. This offer, or advertisement, fully describing the above combination offer, appeared in the Kansas Farmer.

R. M. Kellogg's "Great Crops of Small Fruits" and how he grows them is before the public in its 1898 edition. Mr. Kellogg is a practical plant breeder and he tells in his little book how to get the best results. It is worth while to write to him at Three Rivers, Mich., and obtain a free copy of the pamphlet.

Almost everybody knows of Dr. J. C. Ayer and his famous medicines. It is probable that some of his preparations have been used at some time or other in a majority of the families of the country. They are recognized as standard. It is an interesting fact that the J. C. Ayer Company celebrated its jubilee the other day. Fifty years is about twenty-five times the average life of a proprietary medicine, and yet Ayer's Sarsaparilla has stood the half-century test and is still in the front rank. Like many others who have won great success, Dr. Ayer began as a poor boy. His motto—the one to which he lived in his business life—was "Undertake what you can accomplish and accomplish what you undertake." The Ayer medicines, whatever their merits, could never have obtained their nearly universal use, could never have made their proprietors millionaires, had they not been well advertised. There is no better illustration of the advantages of persistently and widely advertising a good thing than the success of the J. C. Ayer Company, of Lowell, Mass.

EXTRA FINE BUTTER-MAKING.—At the Vermont Butter and Cheese Makers' Association convention, held at Montpelier, the 3d and 4th inst., at which there were seventy-five entries of butter, R. F. Jaynes, Superintendent Ryegate Creamery, had butter that scored 98½ points, the highest of any, but, owing to the rules of the association, that no officer could receive a premium—Mr. Jaynes is its Treasurer—the sweepstakes went to butter scoring one point lower, 97½; but Mr. Jaynes received \$35, the premium offered by the Vermont Farm Machine Co. for the best butter, provided the cream was separated by the Improved United States separator. Mrs. Carrie J. Nelson, who carried off the first premium on dairy butter, also used an Improved United States separator. In this connection it is worthy of remark that at the Vermont Dairymen's annual convention, held at St. Albans, in January last, the creamery sweepstakes, grand sweepstakes and gold medal went to E. E. Symes, Superintendent No. Ryegate Creamery, who also uses an Improved United States separator; the first premium on creamery prints went to F. L. Smith, proprietor Clover Leaf Creamery, Fletcher; the first premium on dairy tubs to H. I. Clapp, Barre, both of whom use the Improved U. S. separators. The Vermont Farm Machine Co. is to be congratulated upon the remarkable success of the above-named separator.

Educate Your Bowels With Cascarets. Candy Cathartic, cure constipation forever. 25c. 50c. If C. C. fail, druggists refund money.

The Home Circle.

Written for Kansas Farmer.

MEMORY'S PICTURE.

BY JAY VEE.

A lovely picture hangs on Memory's wall.
Ever to me it seems the same as new;
Nor time, nor change can e'er erase it all;
No work of art is fairer to my view.

My picture represents a summer scene.
Wild flowers in profusion are in bloom,
And o'er the woodland wide and pastures
green
The air is laden with a rich perfume.

'Mid scenes like this my fancy loves to
roam.
It seems to me a tune of pleasant words;
The birds have chosen mates and found a
home;
I hear the notes of many singing birds.

Upon the bridge that spans yon limpid
stream
I see a stately form with silver hair.
Is this a reverie or idle dream—
A spirit, nymph, or fairy standing there?

My gentle horse walks slowly down the
hill
And carefully across the wooden bridge,
And yet the spirit form is standing still,
As out of sight we go beyond the ridge.

Years have passed. The lady now I know,
And cast such idle fancy clear away.
I am real glad she told me so;
I realize that bright day-dream to-day.

She was out to watch the birds that day,
And she thought perhaps I wouldn't see,
Standing not exactly in my way,
Beneath a branch of that green elm tree.
Wakarusa, Kas., March 20, 1898.

BEFORE CLOCKS.

To modern man the clock or watch is a necessity. To be without the scope of either is tantamount to being on an uninhabited island or a raft in the Pacific. Up-to-date life so largely depends on the exact allocation of time that the man of to-day cannot understand how nations existed ere clocks ticked the hours away. He cannot understand any form of civilization existing without its mainspring, the clock. Yet this indispensable accompaniment of our daily life, says the London Standard, is but just over five centuries old, which, in comparison with the long duration of ancient vanished but complex civilizations, of which the Egyptian is the most conspicuous, is a very moderate extent of time.

The first clock, in our sense of the word, seems to have been (for we are not sure as to what clocks they were which, in 872, the Venetians invented, of which they sent a specimen to Constantinople) one made in 1374 for Charles V of France. It was a very big one, weighing several hundred-weights, and made by a converted Arab named Henry de Vic, and those who are curious may find full details in Froissart. This clock was put up in the Round Tower of the palace, and for months vast crowds assembled to watch the novelty's action and details. It is not with this, however, or any of the succeeding efforts of clockmakers that we are concerned, but at a far anterior date with the contrivances by which men measured time and supplied in some degree the place of the clock. And back to remotest ages must we go.

The water clock, otherwise the clepsydra, seems, unless the Egyptologists find something fresh in that land of incessant discoveries from the most far mists of time, to have been the first scientific effort at noting the hours. A good many people talk glibly about the clepsydra who neither know its precise construction nor the nation who have the credit of constructing it. That belongs to the Assyrian, and as far back as at least over 2,600 years ago the clepsydra was used in Nineveh under the sway of the second Sardanapalus. It was a brass vessel of cylindrical shape, holding several gallons of water, which could only emerge through one tiny hole in the side. Thus the trickling of the fluid marked a certain amount of time and the water was emptied about half a dozen times per diem. In Nineveh there was one at the palace and one in each principal district. These were all filled by signal from a watchman on a tower at the moment of sunrise, and each had an attendant, whose business was to refill the clepsydra as soon as it was emptied, the fact being announced by orlers, much as in the last century the watchmen drowsily shouted the hours at night throughout the streets of London. Some five centuries later an anonymous genius made a great improvement by inserting toothed wheels, which, revolving, turned two hands on a dial in clock fashion, thus showing the progress of the time, which from one filling to emptying averaged two hours and a half. In this shape the clepsydra, which was then chiefly procurable in Egypt, became introduced to various other nations, including Rome, where it flourished with various splendid

embellishments until the end of the empire.

The sun-dial stands next in the order of time to the clepsydra. It was invented at Alexandria some five centuries and a half B. C. Unlike the water clock, it flourished through all the centuries, even unto our own days, where it fitly adorns many a stately or simple old world garden and smooth shady lawn. It was naturally of greater constant use in other climes than those of our "brumous" isle, from the far larger amount of sunshine these enjoyed. But some fine and famous sun-dials have long existed within the realm and the inscriptions have not been their least charm of the past. During the dark ages the clepsydra seems to have vanished with the Roman empire. Its reintroduction into Europe is due to that hero of our young days, the Caliph Haroun-al-Raschid, the famous potentate of Bagdad having sent in the year 807 a splendid specimen to Charlemagne. But just about or a little before this time France had hit on another mode of marking time by the invention of the hour-glass, destined to as long an existence as the sun-dial. Indeed, properly made, this was a valuable and accurate timepiece, provided it was regularly turned.

We need not do more than allude to the habits after the reformation, and especially in Scotland, of preachers measuring their discourses by the hour-glass in the pulpit. These marked an hour exactly. Those first made in Charlemagne's day ran for twelve hours. Alfred the Great hit upon a method of measuring time which showed that there was no Saxon one, though very probably some of the monasteries (then the only homes of knowledge) were acquainted with water-clocks and hour-glasses, if not by practical knowledge, at any rate by hearsay. However, the kingdom in general followed Alfred's plan, which, though ingenious, necessarily lacked anything like the accuracy of the other inventions. Yet the King's idea was hailed as a wonderful effort of genius, which, for such an era, by comparison with the general ignorance, it was. As every schoolboy (in this case literally) knows, Alfred marked time by rushlights. A long existence, by the way, has the rushlight enjoyed, seeing that middle-aged people still remember its use in the nursery at night and the reflection of the circular holes in the tall metal shades on the ceiling. Alfred, says an ancient authority, "that he might properly know how the hours passed, made use of burning tapers which were marked with lines, and fixed in lanterns, an expedient invented by himself" (so, by the way, were in 892 the lanterns of scraped horn, which still some old-fashioned rustics prefer to glass). But tapers, however, were then very expensive. The King might himself use these, but probably the rushlight was used by people in general.

White, of Selborne, mentions how in his time and neighborhood the poorer classes stripped the rushes in summer of the rind, leaving a regular even rib from top to bottom to support the pith, and dipped them in scalding fat. Also that a good rush measuring two feet four inches and a half, being mounted, burnt only three minutes short of an hour. Thus something like regularity might have been attained, but always with exceptions, for the consistency of the grease not being the same—the process of refining fat not being known—some rushlights must have burnt fast, some slow. However, these tapers or rushlights seem to have been from this time up to that of Edward the Confessor, the only generally known precursors of clocks in England. Not until the reign of the latter monarch were hour-glasses used to any extent, though here and there in monasteries and houses, the owner of which had traveled intelligently, specimens probably existed. As for the water-clock, the first in this realm seems to have been brought here by Richard I.

Of all primitive methods of telling the time, however, the most curious and among the most ancient existed in China, and as the "Cycle of Cathay" has revolved unaltered for ages, no wonder it is still in use there. Time was guessed by recourse to the harmless necessary cat. By examination of her eye the Chinaman could, and can, make a fair shot at the hour by inspection of the creature's pupils. At noon it is said completely to contract, so that a thin hair-like perpendicular line only denotes the pupil, which again after noon begins to dilate. The floral clock of Linnaeus is, of course, comparatively modern. But, doubtless, in remote ages there were some, at least among hunters, herdsmen and shepherds, who would note the closing or unclosing of the petals of certain flowers at particular times—morning, noon and evening. There was, after the downfall of the Roman empire, one rude method of computing time among the

hordes of barbarians who overran Italy. Something like a rude division of time was obtained by setting a follower of the chief to empty a helmet full of small pebbles one by one into an empty one of similar size.

An Important Neighbor.

Mexico, that has more to give (or to withhold) than we fully realize, has the power to kindle enthusiasm; and perhaps that is the best gift of all. Mr. Lummis, in his new book called "The Awakening of a Nation: Mexico of Today" (Harper's), communicates as a sort of inspiration or contagion to his readers more or less of his own ardent friendship for the land, its people, and its institutions; and that he is determined the importance of our Southern neighbor shall not escape attention, the following extracts from the book will show: "Before Shakespeare was born, American literature had its beginning in a library of volumes printed in America in a score of original American languages, besides the mass in Spanish."

"The first university in America, founded by the Spanish crown in 1551." The City of Mexico contains "the cradles of printing, education, art and organized charity in the new world; for all these things came a century and a half to two centuries and a half earlier in Mexico than in the United States. Bishop Zumárraga set up here, in 1536,



CHARLES F. LUMMIS

the first printing press. One did not reach the English colonies till 1638."

"Ninety-three years ago Guanajuato was the second largest city in the new world—Mexico being first and Havana third."

"In the beginning of this century two Guanajuato mines producing annually 4,400,000 ounces of silver—one-seventh or one-eighth of the entire American output."

"Here (in Zacatecas) were the first bonanza mines in the new world, and here sprung up the first American millionaires."

"The streets paved for squares with silver ingots for the christening procession of some purple-born, and twenty-ton silver railings for a church altar."

"At the beginning of the last century the Pabellon de Sombrete paid its three owners \$20,000 a day for five years; and it has produced in all \$200,000,000."

"Though it is a conservative estimate that not 10 per cent. of the mineral wealth of Mexico has been exploited, mines are becoming a secondary consideration. Not that they are failing, but that other industries are being born."

"Between the extremes of its marvelous climatic range Mexico can produce

every crop known to the civilized world. Two-thirds of its lands belong to the temperate zone and only one-third to the tropics. Sitting astride the longest mountain system on earth, its head touches the eternal snows, while its feet dabble in seas of everlasting summer. It is competent to support—and well—a population of at least 75,000,000."

The Hercules cotton mills "a missionary of beauty to its employes. * * * Its lovely patios of tropical flowers, its fountains, its \$18,000 Carrara marble Hercules at the main mill, and other fine statues at the annexes."

"To-day Mexico is the safest country in America. Life, property, human rights, are more secure than even with us."

Porfirio Diaz: "Probably the greatest figure—as it is unquestionably the most romantic—in the world's politics this half-century."

The possibility of a Mexican inter-oceanic canal at Coatzacoalcos, isthmus of Tehuantepec, "Where the two oceans are not over 130 miles apart, the shortest cut there is till you go as far south as Nicaragua. * * * Already in 1520 Cortez, in his fourth letter to the Emperor, foreshadows the great work we have been too dull to do yet, and speaks of the Isthmus of Tehuantepec as el secreto del estrecho—the secret of the strait. And the viceroy, Conde de Revillagigedo (1789), projected a transisthmian canal via the river Coatzacoalcos. Balanced as it were between the two oceans, compact and central with regard to the long commerce of the world, it is hard to foretell what influence upon trade and politics the new republic might have with this canal in her hands."

"Acapulco, the most beautiful Pacific port in the Americas, is also the second finest harbor in the world, Sydney alone outranking it."

Do We Know How We Look to Others?

It has been said by some one who ought to know that no man has any clear conception of how he looks. The expression of the face is continually changing. When you look in the glass the very intent to find out how you look is depicted on your face. The more you strive the more the intent is intensified, and such an expression is not natural to your face. How often do we look at a photograph and find only disappointment in it. Why is this? The camera depicts the sitter just as he is the moment the picture is taken, but very seldom can the instrument catch and record that subtle thing called "natural expression," because few persons are natural when seated before the camera.

Well, what of this? Simply this: If you are noble, loving and true, such virtues will light up your face; if you are sordid, mean and selfish, your face proclaims it to the world. Anything in your face that is active for good or evil will impress itself upon your personal appearance. Pride, scorn, hate and vice write themselves indelibly in the physiognomy.

Weak nerves indicate deficient blood. Nervous people find relief by purifying and enriching their blood with Hood's Sarsaparilla, the great nerve tonic.

Hood's Pills are the only pills to take with Hood's Sarsaparilla. Cure all liver ills.

Don't Tobacco Spit and Smoke Your Life Away.

To quit tobacco easily and forever, be magnetic, full of life, nerve and vigor, take No-To-Bac, the wonder-worker, that makes weak men strong. All druggists, 50c or \$1. Cure guaranteed. Booklet and sample free. Address Sterling Remedy Co., Chicago or New York.

The Young Folks.

THE COMING WAR.

"There will be war in Europe,
Thrones be rent and overturned,"
("Go and fetch a pail of water," said his wife.)
"Nations shall go down in slaughter,
Ancient capitals be burned,"
("Hurry up and split the kindling," said his wife.)
"Cities wrapped in conflagration!
Nation declaiming nation!
Chaos crashing through creation!"
("Go along and feed the chickens," said his wife.)
"And the war shall reach to Asia,
And the Orient be rent,"
("When you going to pay the grocer," says his wife.)
"And the myrmidons of thunder,
Shake the trembling continent,"
("Hurry up and beat them carpets," said his wife.)
"Million myriads invading,
Rapine, rioting and ralding,
Conquest, carnage, cannonading!"
("Wish you'd come and stir this puddin'," said his wife.)
"O, it breaks my heart, this conflict
Of the Slav and Celt and Dane,"
("Bob has stubbed his rubber boots out," said his wife.)
"O, the dragged Russian banners!
O, the chivalry of Spain!"
("We've got no more molasses," said his wife.)
"See the marshaled millions led on,
With no bloodless sod to tread on,
Gog and Magog! Armageddon!"
("Hurry up and get a yeast cake," said his wife.)
"O, the grapple of the nations,
It is coming. Woe is me!"
("Did you know we're out of flour," said his wife.)
"O, the many-centuried empires
Overwhelmed in slaughter's sea!"
("Wish you'd go and put the cat out," said his wife.)
"Death and dreadful dissolution
Carnage, anarchy, confusion!"
"Wreak their awful execution,
Carnage, anarchy, confusion!"
("Let me have two cents for needles," said his wife.)
"All my love goes out to Europe,
And my heart is torn and sad,"
("How can I keep house on nothing?" said his wife.)
"O, the carnival of carnage,
O, the battle maelstrom mad!"
("Wish you'd battle for a living," said his wife.)
"Down in smoke and blood and thunder,
While the stars look on in wonder,
Must the empires go under?"
("Where's we going to get dinner?" said his wife.)
—Sam Walter Foss, in Philadelphia Inquirer.

Written for Kansas Farmer.

YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 20.

THE WOMAN'S PRISON IN BERLIN.

This subject may not be beautiful nor admit of much artistic description, but I found it quite interesting and am inclined to give it space as Number 20 in my series of letters.

A visit to this prison was suggested to me by Ambassador White himself, who kindly offered to give me a letter to the Minister of State who has the department of prisons in charge, who would in turn give me the proper credentials which would open the prison doors for my inspection. This favor I greatly appreciated, especially when I was told that only one American woman in the past six or more years had been granted this privilege, and she was the matron of a prison in America and had been sent by the United States government for the purpose of studying the management of such institutions in Germany.

In due time I received a letter from the first secretary of the embassy, Hon. John B. Jackson, who informed me that the Herr Geheimer-rath, Justizrath und Vortragender-rath Werner was the proper official to whom my letter of introduction should be presented. So, one morning, accompanied by my friend, Mrs. Garrie, I called at the office of the illustrious "Herr Geheimer-rath, Justizrath und Vortragender-rath" Werner. I had spent the greater part of the day before in practicing the pronunciation of the official title of this gentleman, and had been able to perfect my memory on the subject in such a manner that I could speak it easily, as though I had known it all my life. In Germany it is considered a breach of etiquette if the whole title of an official is not given when speaking to him; but H. G. J. and V. Werner has a short prefix to his name in comparison with many others in official life in Germany.

We found the gentleman exceedingly pleasant and courteous, and said he would give me a letter to the Herr Director of Prisons. He wrote it himself, and did not dictate it to a stenographer, as an official in America would do. While writing he looked up at me and said, in German: "The other lady, too?" I replied, "Most certainly." He finished the note, affixed a very nice legal-looking seal, almost as large as an ordinary din-

ner plate, and, with a great show of politeness, handed it to me. He then showed us plans for the new prisons which are to be erected, as the present ones are so old and too small. He also requested me most earnestly that I would mention in my paper that these old prisons would not be used much longer, as new ones would soon be built about sixteen kilometers (ten miles) from Berlin. He did not want Americans to think that Germans were not progressive in the matter of prisons. He expressed regret that the new ones were not already completed, so I could visit them instead of the present ones; but I tried to comfort him in his affliction and told him any old prison would do. After expressing our thanks and appreciation of his kindness we left. As we went out of the room he gazed at us with an expression of countenance which seemed to indicate that he was thinking: "What don't those Americans do! The idea of a girl or woman wishing to go through a prison seems preposterous!" Of course he must have thought this all in Dutch, for he doesn't speak English.

The next day I went to present my letter to the Director of Prisons at Molkenmarkt No. 2, which is way back of the old castle and in the oldest part of the old city, on the bank of the Spree. But Mrs. Garrie was unable to go with me, so my German teacher, Fraulein Klemm, accompanied me, and as my credentials named Frau Garrie, the Fraulein was so introduced to the Herr Director, who naturally presumed that both of us were Americans. Before reaching the Director, however, we had some difficulty in gaining admittance to the "gefängnis" (prison). After crossing a very old cobblestone paved court, we came to a huge grated door, behind which was a guard. Seeing that we wished to speak to him, he fearlessly took an immense iron key out of his coat pocket and unlocked the gate and opened it just far enough to permit him to speak to us but carefully guarding the way so we could not rush in and overthrow the prison generally. He certainly was a very courageous man. We told him we had come to visit the prison. He looked at us in amazement, with eyes that seemed inclined to march out a foot from his head, and said, in a very deep voice, that indicated its origin from the neighborhood of his shoes: "Das ist nicht gestattet" (that is not allowable). I told him I wished to speak to Herr Director Klein.

As I showed so much familiarity with the name of the prison official, the guard concluded it would be safe for him to admit us, so he conducted us to a waiting-room till the Director could be informed concerning the strange callers. The room we were in was in reality the key-room, or where the prison keys are kept. It was just the time for changing guards. While waiting for the Director we had the pleasure of watching the interesting ceremony. The guards came in, one at a time, saluted the "worthy inside guard," hung his immense key on the wall, again saluted and was let out by the inside guard, who locked and unlocked the door for each one as he came in and went out again. The guards going on duty would say to those being relieved: "Mahl zeit," which is equivalent to saying: "I wish you a good digestion at dinner." It is, by the way, a pretty custom with all Germans to extend this greeting to acquaintances wherever they meet about meal time.

In a short time a guard came to escort us to the office of Director Klein, who had read our letter from Minister Werner. He was very, very polite and courteous and said that he, himself, would be delighted to escort us through the prison we wanted to see.

Herr Director Klein is the governor of four different prisons in Berlin, and this one at Molkenmarkt is for men and he has his principal office at this place. The prison for women is in another part of the city, and his wife would also accompany us, and while waiting for Frau Gemahlin Director, he would be pleased to answer any questions I wished to ask and would be pleased to tell me all about the new prisons. He showed us on the map their location at Tegel, northwest of Berlin, where Humboldt, the great German philosopher and statesman, used to live. Many other facts he told us which would be too tedious to mention or for reading, but were quite interesting to us at the time.

Frau Director Klein soon came, ready for the trip. She is a sweet, demure little woman, as all German women are, though as a rule they can scarcely be called small, but always demure—when "der mann" is around.

She immediately became charmed with Fraulein Klemm, who, as Frau Garrie, captivated the little woman with her excellent German and caused amazement that an American should so conquer the language as to speak it without the

slightest foreign accent. She asked Fraulein many questions about America which I helped her answer, as she had never been on the western side of the Atlantic; but the good Frau thought she was talking to one born and reared in the United States.

After a ride of fifteen minutes on the cars, we reached the woman's prison, 10 Barnimstrasse, near Alexander Platz. We were ushered in by a guard, who saluted the Herr Director and his party in a military style.

We were first escorted to the office of Herr Inspector Hussung. He greeted us with much show of deference and politeness and seemed wonderfully pleased to have the Herr Director come to see him with the party of ladies.

The Herr Director told the Inspector that we had come to see the prison in order to write about it for an American paper. We were treated with as much respect as though we were the correspondents for the New York Herald, Chicago Inter-Ocean or Rush Center Gazette.

The Inspector rang a bell and an assistant came to escort us through the prison, but both the Director and Inspector accompanied us, in order to show as great politeness as possible, for did we not come with a letter from the Herr Geheimer-rath, Justizrath und Vortragender-rath Werner? The guards or "over-lookers" are all elderly women between fifty and sixty years old. They are clothed very nicely in black woolen dress with white lace collar and white muslin cape. First we were shown some of the cells, of which there are 500, but a greater number of prisoners can be accommodated by putting two or more in one cell. The highest number of prisoners there in one day was 691 and the least number 235. The day we visited the prison there were 432.

The cells are about three feet by ten, and contain a cot, a Bible and a hymn book. Corporal punishment was abolished, so far as women are concerned, in 1841, and for punishment they either have a little less food or are compelled to remain in their cells alone and work, and if very bad they must read their hymn book and Bible.

The cells we saw occupied had each one person and the work was picking over feathers for mattresses.

We were next escorted across a cobblestone-paved courtyard to an open court with a few trees and grass plats. Here were many of the prisoners taking the half-hour outdoor exercise allowed each day. There were 150 of them walking around and all dressed, of course, in the prison garb, which consists of a short gray skirt, loose waist, large white neckerchief and wooden shoes—not the regular Dutch wooden shoe, but a large slipper with leather top and wooden sole and heel.

We passed through the exercise court, thence up several flights of stairs to the work-rooms. Here the girls make paper bags, pick feathers, untie strings for the postoffice, etc. The Germans make use of everything, even of the slightest value. They save thousands of "odds and ends" which extravagant Americans would utterly waste; but in this German land there are so many people and so little room or chance for work that everything must be utilized.

It is possible for the girls in this prison to make from one pfennig to thirty pfennigs a day—that is, from one-quarter of a cent in American money to seven and a half cents—according to the amount of extra work they can accomplish in excess of their regular allotment. They can expend half of their money thus earned in any manner they wish, either for a bottle of beer or for something to eat; or they can keep it until they are re-

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leased from prison. The other half is given them at the end of their commitment.

In every room we entered the girls stood up straight with their hands at their sides, and the woman in charge would come toward the Herr Director and report how many she had in that department to-day.

We next visited the bath-rooms. These were as clean as hard work could possibly make them. As soon as the girls enter the prison they and their raiment have to undergo a thorough cleansing process. The hospital department was then shown us, from which point we were taken to the kitchen. It was 11 o'clock, and dinner was being prepared. We were invited to try the soup. Two kinds were served, vermicelli and a soup of mixed vegetables, but both were exceedingly good. The soup was served in immense brass kettles and these were taken to the different dining-rooms. The bread-room is connected with the kitchen. Here were shelves all around the room, piled closely with huge black loaves, and in the center of the room was a machine for cutting the bread in proper size for the prisoners. The laundry and store-rooms were next visited. In the store-rooms were immense chests filled with beans, peas, flour, meal, coffee, bacon, etc. The prisoners are given meat only once a week, but that is oftener than many outside the prison walls enjoy.

The chapel was next shown. Here we found a beautiful pipe organ, and here religious service is held every Friday and Sunday, one-half the prisoners attending on each day, so that each prisoner attends service once each week. To show the religious tolerance practiced in Germany, I may mention the fact that both Jewish service and Catholic are held in this chapel, as well as the Protestant.

On the same floor is the school-room, and the poor little school master almost fell over himself as he hastened off his rostrum, upon our entering, to show proper obeisance to the great Herr Director and his party of visitors.

There are many interesting things I would like to mention but my two columns are full.

We thanked the Herr Director and Inspector, kissed the sweet and demure little Frau Director, and, well pleased with our visit, we hastened home, for we had to attend a Dutch wedding that same afternoon. Perhaps I'll write about it some other time.

For constipation, sick headache, stomach and liver troubles, and all derangements of the digestive and assimilative organs, Ayer's Pills are of inestimable value. Sugar-coated and pleasant to take, they are always reliable, and retain their virtues in any climate.

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Shawnee County Horticultural Society will meet at the court house, April 7. The program for the meeting is as follows: "How to Keep Up the Fertility of the Orchard," Judge F. Wellhouse; "Spraying," Walter Wellhouse; "Family Entertainment in Country Homes," Mrs. Wm. Sims.

"The Domestic Sheep" is the title of a new book by Henry Stewart, just published by the American Sheep Breeder, of Chicago. It is a most useful book made to meet the practical wants of the sheep-grower on the many points as to which accurate information is wanted. The book contains 372 pages, is well bound and sells for \$1.50, for which price it will be furnished, postage prepaid, to Kansas Farmer readers who order from this office.

A few days ago W. F. White, general passenger traffic manager of the Santa Fe system of railroads, died in Chicago after a service of nearly a quarter of a century. Geo. T. Nicholson, formerly general passenger and ticket agent of the system, but recently passenger traffic manager of the Frisco, succeeds Mr. White. Mr. Nicholson is a comparatively young man. He was a Kansas boy, graduated at the Kansas State University, and climbed from subordinate positions. He has the ability, most valuable in his work, to keep his road on good terms with its patrons. This costs next to nothing, but its effect upon the revenue of the road is immense.

The entomological department of the Kansas State Agricultural College has discovered within the State the presence of a serious orchard pest, known as the "Cigar Case Bearer" (*Coleophora fletcherella*). This is the first detection of its presence in Kansas. It has been observed feeding in orchards in the vicinity of the college grounds. The fruit-growers of the East have met with serious losses from the attacks of this insect during the past few years, it being held in check only by most active measures. The larvae are encased during the feeding period in cases resembling miniature cigars. At this season of the year they feed upon buds and tender, expanding leaves of the apple, plum, pear, etc. A full description and study of the insect is about to be issued by the department.

The visible supply of wheat in the United States on March 19 was stated to be 31,417,000 bushels. This is about 9,000,000 less than was reported at the corresponding date last year. The supply is diminishing at about the same rate as last year. By July 17, 1897, it had run down to 15,324,000 bushels. Should the rate of diminution this year continue as rapid as last, July 17, 1898, should find only about 6,000,000 in the visible supply. Letter is buying wheat for July delivery at about 20 cents per bushel below the price for May delivery. He is reported to have owned at times since last July as high as 15,000,000 bushels of wheat. It should be no serious matter for him to own the prospective six millions of July visible and keep the bears busy paying the prices at which they are now selling July contracts and the prices Letter will compel them to pay for the real wheat. This is the game Letter has played with the bears ever since last July, and yet they seem never to learn by the money they lose.

THE CUBAN QUESTION.

The report of the United States naval court, which investigated the destruction of the battleship Maine in Havana harbor, was transmitted by the President to Congress on Monday, March 28. This court finds that the Maine was destroyed by an explosion from without, but is unable to determine who did the deed. The investigations seem to have been very thorough and impartial.

A Spanish board of inquiry has also reported on the case, and finds that the explosion was from within the vessel.

In transmitting the report of the American naval court, together with a transcript of the evidence taken, the President sent a mild message to Congress in which he does little besides summarizing the finding of the court and expressing the hope that Spain will take suitable action in the case.

It seems to be the policy of the President to treat the destruction of the Maine as an incident of not very great moment. The news dispatches, which have with surprising accuracy forecasted official reports and actions, state that the President will treat the Cuban question and the destruction of the Maine as entirely separate matters; that the final disposition of the Maine incident will be allowed to take the usual course of diplomacy, while a demand will be made for the immediate discontinuance of the horrible starvation and misery in Cuba; that the situation in Cuba must be arranged in a manner satisfactory to the Cubans, and that, if these demands are not promptly acceded to, armed intervention will be speedily resorted to by the United States. In the meantime our government is feeding those Cubans who have been compelled by the Spanish forces to gather in cities and villages where they can neither produce nor procure sufficient food. While these are dying of starvation the insurgents are occupying a considerable portion of the island and are as unconquered and as unconquerable as at any time since they took up arms against Spanish rule.

The situation is one which appeals strongly to American sympathy. Almost two years ago the national conventions of all political parties pledged our government to put a speedy end to the atrocities in Cuba. It is generally hoped that the pledge can be fulfilled without war. There is, however, considerable disappointment at the delay while the helpless portion of the Cuban population is being barbarously starved almost within sight of our shores, and the mild tone of the President's message, on the Maine report, with its profuse acknowledgments of Spanish kindness to the Maine's wounded seamen, is less satisfactory to a vast majority of the American people than would have been a more Jacksonian treatment with a little of "Old Hickory's" "by the eternal" in it.

It is probable, however, that a conciliatory policy will be pursued. A suggestion has been made that the Cubans buy their independence and that Uncle Sam guarantee the bonds on which they shall raise the money. This plan might be cheaper, speedier and easier than war. It will certainly commend itself, to those who loan money to nations, as a beautiful arrangement.

OUR HUNGRY BROTHER OVER THE SEA.

The latest report of the commerce of the United States shows that for the seven months ending with January, 1898, the values of our trade with foreign countries stood:

Exports from the United States \$718,428,117
Imports to the United States 840,843,201

Balance in our favor \$377,784,916
Of these exports 71.89 per cent., or \$507,714,899 worth, were agricultural products.

Of the value of these agricultural exports breadstuffs constituted \$189,333,743, and animals, i. e., cattle, hogs, horses, mules, sheep and a few others and fowls, constituted \$26,970,529.

Our big brother, John Bull, was the hungriest customer we had for most of these products of the Western farms. Of about \$35,000,000 for corn we received about \$15,000,000 from England and about \$3,000,000 from Canada. France paid us less than \$2,000,000 and Germany less than \$6,000,000, and no other country needed seven figures to express its appetite for corn.

Of \$88,686,472 paid us for wheat during the seven months John Bull contributed \$46,946,237, while of \$40,337,614 paid us for flour our big brother paid \$24,803,410.

He liked our cattle to the extent that of \$22,784,888 received over \$21,000,000 came from England and Canada.

Our hogs are not so well liked. Indeed, the outside world does not appear to care much for our pork. In the seven months we got for hogs only \$86,655, of

which nearly half came from Mexico. England took only \$600 worth.

But our sales of horses amounted to \$3,062,645, of which England and Canada contributed nearly \$2,000,000.

We sold sheep for \$435,592, of which about \$390,000 came from England and Canada.

The dependence of England upon this country for bread is illustrated by the fact that while she buys most of her wheat abroad, her chief source of supply is the United States. In 1897 56 per cent. of her imports of wheat came from this country. Great Britain is a hive of industry, always hungry, and the best customer the American farmer has for his surplus.

Surprise has been expressed at the frank avowal of friendship for this country recently made by Great Britain in the matter of our complications with Spain. It is even suggested that this country can, if need be, procure the active assistance of English naval fighting craft.

It is an old saying that people never fight against their bread and butter. England is indeed a hive of industry, but she has, in store, food supplies sufficient for only a few weeks. Her dependence is upon the United States to a larger measure than all other sources combined. Should our troubles with Spain become so serious as to endanger the certainty and the regularity of these supplies famine might quickly stare her in the face. English capitalists would, of course, like to loan our government almost any number of millions of money for war or other purposes, because our promises to pay are good. But a strong motive for friendship is the necessity of keeping on good terms with the custodians of her food supply and an open route to her bread basket.

Our brethren over the sea have great appetites. They are willing to pay the market price for our provisions. They like to loan us money and get the interest thereon. But it should not be forgotten that while keeping an eye on the profit side of the account the Anglo-Saxon has carried good government and the arts of peace to more quarters of the globe than all other peoples combined.

ARMOUR AND THE HEREFORDS.

A pleasant event at which Mr. Kirk B. Armour entertained a number of stockmen among his grand Herefords at Excelsior Springs, Mo., occurred March 17. A representative of the Kansas Farmer who was present found a special train provided by the Chicago, Milwaukee & St. Paul railway. The breeders and ranchmen met by appointment at the Grand avenue depot, Kansas City, at 1 p. m.

When out among the cattle the Kansas Farmer representative heard from all in attendance one continual round of praise upon the magnificent specimens of the Hereford breed which Mr. Armour has collected from the very best herds in America and England. As animal after animal was inspected, and all were superlatively good, one in the throng aptly suggested as every one was a good one, it would be well for Mr. Armour to show up a mean one. A diligent search all over the premises failed to discover what might really be termed an inferior animal.

During the visit a number of sales were made from the herd by Mr. Armour's manager, Wm. Cummings.

On the return to the train, after every one was comfortably seated in the coach, Mr. T. F. B. Sotham, proprietor of the Weavergrace herd, Chillicothe, Mo., arose and claimed the attention of those present, and asked leave to make a suggestion. He said in view of the fact that the Armours were the largest dealers in meat in the world, few could comprehend what it meant to have the Armour name at the back of the Hereford breed of cattle. He suggested that in the interest of the improvement of the beef cattle generally and as a matter of the greatest importance to the Hereford breed in particular, it would mark a new era in cattle breeding if Mr. Armour would permit a selection from his herd to be put up at public auction.

Addressing each man personally, Mr. Sotham asked: "Is there a man in this car that will not attend a sale made by Mr. Armour and agree to buy at least one animal, such as we have just seen, at \$1,000? If there is a man in the car who would so refuse to bind himself let him hold up his hand."

Mr. G. W. Henry, of Chicago, was the only man whose hand was raised. "We will charge Mr. Henry \$2,000 for his," said Mr. Sotham, to which penalty Mr. Henry readily acceded.

"All present who are in favor of Mr. Armour making this sale in the interest of all good breeds of cattle in general, and of the Hereford breed in par-

ticular, say 'aye.'" The "ayes" carried it with resounding voice.

Mr. Sotham, approaching Mr. Armour, said: "Mr. Armour, you must make this sale. I know your reluctance to part with a single female, now that you have sold every animal having an objectionable feature attached to it. We want to have it got out before all the world that the Armours appreciate good blood in beef cattle. With those unanimous sentiments in favor of it, will you not make the sacrifice and allow a goodly draft of not less than 100 head to be sold from your herd?"

Mr. Armour answered the question by asking one of Mr. Sotham: "Will you take charge of the matter, making the selection of the cattle, and conduct the sale, attending to all details of the matter?" Mr. Sotham replied that he would do everything he could if Mr. Armour would permit a selection from his herd to be sold.

"Then, gentlemen," said Mr. Armour, "I will make the sale."

And thus it came about that the visit to the Armour farm by the breeders and ranchmen, accompanied by Mr. Armour in person and by his two representatives, Messrs. Cummings and Hastings, laid the foundation for an event that will go into history, that will mark an era in advancement of the cattle interests of the world.

The Armours have their agents throughout the civilized world, through whom efforts will be made to bring purchasers from many foreign countries. To manage this sale and to properly bring forward the merits of the Herefords, and of the animals to be disposed of, no man could have been selected the equal of Mr. Sotham. Backed up by the Armours, with almost peerless cattle, representing much of the cream of the American herds and the best selections possible to be made in England, it is beyond a doubt that the world has never produced a combination of such vast influence for the good and betterment of the world's cattle interest.

The following is a list of the gentlemen forming the party: K. B. Armour; Chas. B. Stuart, LaFayette, Ind.; Chas. Gudgell, Independence, Mo.; Richard Walsh, Palo Duro, Texas; J. Gosling, St. Joseph, Mo.; Vinton Stillings, Leavenworth, Kas.; E. J. Maxwell, Macksberg, Iowa; G. Q. Jones, J. M. Jones, Kansas City, Mo.; R. A. Templeton, Tekamah, Neb.; A. Spooner, Mondamin, Iowa; O. H. Nelson, Kansas City, Mo.; G. W. Henry, G. D. Henry, Chicago, Ill.; John Scharbauer, Fort Worth, Texas; C. B. Smith, Fayette, Mo.; Geo. S. Redhead, Des Moines, Iowa; Harry Yeomans, Chicago, Ill.; R. C. Neal, Vernon, Texas; C. H. Elmendorf, Turlington, Neb.; J. A. Kittrick, Greenwood, Mo.; J. M. Sullivan, Skiddy, Kas.; M. L. Sullivan, Kansas City, Mo.; G. W. and T. A. Minier, Craig, Neb.; J. A. Crane, Jas. Oglesby, Kansas City, Mo.; John T. Heard, Sedalia, Mo.; F. S. Hastings, William Cummings and T. F. B. Sotham.

Advices received by the Kansas Farmer from Mr. Sotham indicate that the sale will be made during the first week of November, quite likely in the new convention auditorium in the heart of Kansas City, Mr. Armour being largely interested in this great building, which will accommodate 15,000 people. Loading chutes for receiving and shipment of cattle will be within two blocks of the building. The selection of the cattle for this sale will not be made by Mr. Sotham until after the Weavergrace sale, April 13, which will engage his entire attention up to that time.

Every one who has an orchard or garden or other possession subject to damage by insects should obtain a copy of the new bulletin on injurious insects just issued by the horticultural and entomological department of Kansas State Agricultural College Experiment Station. It contains full descriptions and directions, besides a well-arranged spray calendar. This bulletin is free to all Kansans. Address I. D. Graham, Secretary, Manhattan, Kas.

The fourteenth annual report of the Wisconsin Experiment Station comes freighted as usual with accounts of experiments of the highest importance in promoting the prosperity of the farmer.

AMERICAN STEEL TANKS.—"The best is sure to win" is the trade mark of these galvanized steel tanks, which are the strongest and most durable offered to the trade. They are made of the best quality of galvanized steel and are well adapted by their peculiar construction to meet all requirements, and are especially desirable for use for storage, stock watering, creamery, dairy and general purposes. If interested write American Steel Tank Co., Kansas City, Mo.

CONDITION OF WHEAT IN KANSAS.

A bulletin compiled from reports of correspondents in nearly every county in the State, setting forth the present condition of the growing winter wheat; the percentage of failure, by counties, if any, and its cause; acreage sown to oats as compared with last year, and present condition of the soil for working, was issued yesterday by the State Board of Agriculture. As a whole, the condition of wheat is very favorable and in many counties exceptionally promising, with but a small percentage of failure from all causes. The acreage sown to oats appears to be slightly increased. Almost no damage by the cold weather of March 22-24 is reported. In much of the State the soil is thoroughly saturated, and in some of the eastern counties entirely too wet for present working. In the main, present conditions are excellent indeed.

The information, by counties, is as follows:

Allen county.—Condition of winter wheat as compared with a good average, 93; probably 5 per cent. is a failure, or a very poor stand. Acreage sown to oats about the same as last year. Soil too wet for working at this time.

Anderson.—Very favorable winter for wheat; condition 105. Oats acreage about the same as last year. Ground in excellent condition.

Atchison.—Condition 90; 5 per cent. is a failure, owing to dry fall weather. Oats acreage the same. Soil condition excellent.

Barber.—About 12 per cent. frozen out; condition 75. Oats acreage somewhat increased. Soil condition fair.

Barton.—The cold wave damaged wheat more or less; condition 85. Oats acreage no larger than last year. Soil condition fair.

Bourbon.—About 12 per cent. winter killed; condition 85. Oats acreage about the same. Too wet for plowing.

Brown.—Condition 100. Oats acreage about the same. Soil condition excellent.

Butler.—Condition 100. Greater oats acreage, and soil condition excellent.

Chase.—Condition 95. Increased acreage of oats. Plenty of moisture.

Chautauqua.—Condition 112; a small per cent. of late-sown may be a failure. Oats acreage the same as last year. Rather wet.

Cherokee.—On account of dry fall weather 25 per cent. will be a failure; condition 100. Oats acreage doubled. Soil condition good.

Cheyenne.—Ten per cent. is a failure; condition 50. Oats acreage no greater than last year. Ground in excellent condition.

Clark.—Eighteen per cent. is a failure, owing to dry fall weather. Condition 78. Very small acreage sown to oats. Soil condition fair.

Clay.—Condition 90. Oats acreage greater than last year. Plenty of moisture.

Cloud.—Probably 3 per cent. will be a failure on account of dry weather and late seeding; condition 98. Oats acreage no greater. Soil condition excellent.

Coffey.—Looks well; condition 113. Plenty of moisture and plowing largely done. Acreage in oats about the same as last year.

Cowley.—Small but vigorous; condition 105. Oats acreage about as last year. Soil condition excellent.

Crawford.—Condition 75; 5 per cent. a failure, owing to late plowing and seeding. Oats acreage greater. Too wet just now.

Decatur.—Ten per cent. is likely to be a failure, owing to dry weather; condition 90. Oats not sown yet. Ground getting dry.

Dickinson.—Wheat prospect best in thirty years.

Doniphan.—Condition 105. Oats acreage about the same as one year ago. Soil condition never better.

Douglas.—Very favorable winter for wheat; condition 100. Oats acreage 20 per cent. greater than last year. Ground in good condition.

Edwards.—Condition 90. Oats acreage about the same as last year. Soil condition first-class.

Elk.—Condition 100. Oats acreage about the same. Soil too wet.

Ellis.—Condition 80; 13 per cent. likely to be a failure because of the late freeze. Oats acreage no greater. Soil condition never better.

Ellsworth.—Condition 100; probably 5 per cent. will be a failure owing to late seeding and dry weather. Oats acreage increased 25 per cent. Soil condition first-class.

Finney.—Ten per cent. likely to be a failure on account of dry weather; condition 75. Oats acreage no greater than last year. Soil condition only fair.

Ford.—Condition 90; about 10 per cent. winter killed. Oats acreage 10 per cent.

greater than last year. Soil condition excellent.

Franklin.—Condition 105. Oats acreage less. Soil too wet.

Geary.—Five per cent. a failure, owing to dry fall weather; condition 100. Oats acreage no greater. Soil never in better condition.

Gove.—Condition 90. Oats acreage greater. Soil condition fair.

Graham.—Twenty-five per cent. likely to be a failure, owing to dry weather and hard winds; condition 75. Oats acreage less than last year. Rather dry.

Grant.—Very little wheat and no oats sown. Rather dry.

Gray.—Condition 100. Acreage less than last year. Soil condition excellent.

Greenwood.—Condition 100. Oats acreage same. Soil condition good.

Hamilton.—Fifty per cent. blown out; condition 50. Oats acreage less by 50 per cent. Soil condition too dry.

Harper.—Condition 125. Oats acreage 50 per cent. greater than last year. Soil condition first-class.

Harvey.—Condition 100. A small per cent. may be a failure on account of late sowing. Oats acreage greater. Soil condition good.

Haskell.—Twenty-five per cent. will be a failure owing to dry weather; condition 75. Oats acreage 20 per cent. greater than last year. Soil condition good.

Hodgeman.—Condition 105. Oats acreage 20 per cent. greater. Soil in good condition.

Jackson.—Twenty per cent. will be a failure because of the dry weather at seeding time; condition 110. Oats acreage greater. Soil condition extra good.

Jefferson.—Twelve per cent. is likely to be a failure on account of the dry fall weather; condition 88. Oats acreage 15 per cent. greater than last year. Soil too wet.

Jewell.—Condition 105. A slight increase in the acreage of oats. Ground in excellent condition.

Johnson.—Five per cent. will be a failure on account of the very late sowing;

condition 85. Increased acreage of oats. Soil very wet.

Kearney.—Condition 75. Oats acreage no greater. Rather dry.

Kingman.—Condition 125. Oats acreage at least 50 per cent. greater. Soil condition good.

Kiowa.—Best prospect for ten years; condition 110. Oats acreage some less. Soil condition never better.

Lane.—Twenty-five per cent. will be a failure, owing to dry weather and high winds; condition 75. Oats acreage same. Rather dry.

Leavenworth.—Eighteen per cent. is likely to be a failure, owing to the dry weather at seeding time and the late freezing and thawing; condition 83. Oats acreage same as last year. Ground too wet.

Lincoln.—Condition 105; small per cent. blown out. Oats acreage 10 per cent. greater than last year. Soil condition could not be better.

Linn.—Condition 95. Oats acreage 20 per cent. less. Soil too wet.

Logan.—Condition 90; 10 per cent. blown out. Oats acreage the same as last year. Soil condition never better.

Lyon.—Condition 90; 10 per cent. will be a failure, owing to dry fall weather. Oats acreage no greater. Soil condition fair.

Marion.—Five per cent. is a failure; condition 100. Oats acreage 10 per cent. greater than last year. Soil condition excellent.

McPherson.—Wheat condition 95. Soil condition good.

Meade.—Condition 100. Acreage of both oats and barley greatly increased over 1897. Soil condition excellent.

Miami.—Looks well; condition 100. Oats acreage the same as last year. Soil condition good.

Mitchell.—Condition 100. Very little oats sown yet. Soil condition excellent.

Montgomery.—Condition 75; a small per cent. will be a failure on account of dry fall weather. Oats acreage no greater. Soil too wet.

Morris.—Probably 5 per cent. will be a failure, on account of late seeding; condition 95. Oats acreage less. Soil condition good.

Morton.—Ten per cent. blown out; condition 90. Increased oats acreage. Ground in good condition.

Nemaha.—Condition 80; 5 per cent. a failure on account of dry fall weather. Oats acreage no greater. Soil condition good.

Neosho.—Condition 75. Oats acreage no greater. Soil too wet.

Ness.—Condition 100. Oats acreage no greater. Ground too dry.

Norton.—Twenty per cent. is a failure, owing to dry weather and high winds; condition 80. Oats acreage the same. Soil condition fair.

Osage.—Condition 103. Oats acreage no greater. Soil condition first-class.

Osborne.—Condition 95; five per cent. frozen out. Oats acreage less than last year. Soil condition good.

Ottawa.—Condition of wheat probably 100. Oats acreage larger than last year. Soil condition good.

Pawnee.—Twelve per cent. blown out; condition 98. Oats acreage greater than one year ago. Ground in good condition.

Phillips.—Condition 85. Oats acreage no greater than last year. Ground too dry.

Pottawatomie.—Condition 90; 10 per cent. will be a failure because of dry fall weather. Oats acreage no greater. Soil condition good.

Pratt.—Condition 75; small per cent. blown out. Oats acreage no greater than last year. Soil condition excellent.

Rawlins.—Condition 113. Oats acreage 20 per cent. greater than last year. Soil condition excellent.

Reno.—Condition 100. Oats acreage same. Soil condition good.

Republic.—Condition 105. Increase in oats acreage. Soil condition excellent.

Riley.—Condition 98; small percentage likely to be a failure, owing to late sowing.

(Continued on page 18.)

EASTER LADIES' HOME JOURNAL

Enlarged to 48 Pages—Handsomely Illustrated

THE INNER EXPERIENCES OF A CABINET MEMBER'S WIFE

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Horticulture.

WEEDING OUT WORTHLESS FRUITS.

A paper by A. H. Griesa, of Lawrence, Kas., read before Kansas State Horticultural Society, December, 1897.

This seems to be the last fad in fruit culture, while in all the years past we have been adding kinds, cultivating varieties, till now our list is the largest, the richest and the poorest ever known.

And is this society now to raise its hatchet to destroy what it has taken these long years to produce and accumulate?

Has fruit ever grown that was worthless? Has this or any other society ever recommended worthless fruit? Who ever introduced it, or who ever grew it, and from what standpoint of view or judgment is it now thought worthless?

Look at your place, and see how many pay for the expense, the time or room, then see how many do not.

Has it not always been our purpose to plant the best? Were not the Greenings, the Spitzenburgs, Seek-no-further and Spies as good as apples can be, and are they not as good now as when grown in the tops of the tallest trees of our boyhood memory?

Can it be that the more recent nurseryman has been too hasty, or is the blame elsewhere? Was the originator to blame, in not properly preparing the soil, or did he fall in getting the exact proportion and scientific cross of pollen for the seed to produce the correct elements for the future tree and fruit? Or is it in a change of soil, climate, or methods of culture, or do varieties so change and degenerate as to be of no use in a few years?

Whatever the cause, we have too many unproductive varieties, on which we spend our hopes, our time, money and years of labor without profit; and were these efforts combined with the best varieties, success would crown our years. We have but one life here; opportunities come but once. We have time for only our best efforts; they alone bring a reward. We cannot hope for the best from poor or misdirected labor.

One fact is, many trees were brought here as old home friends, to a new soil and a climate to which they were not adapted. The result was failure. Changing the character of trees by acclimating is not a success. The inherent quality in a tree is the same everywhere under like conditions. If a tree is unproductive or defective from any cause, it will be the same under like conditions. Summer varieties may be fall or winter varieties if grown far to the north, and they from the north will ripen in summer if grown to the south, but they will be the same in all essentials.

Success in fruit-growing depends more on varieties than on soil or culture. It is the base on which all other work depends, and should go before other plans. [Take heed, everybody; Mr. G. has had long experience.]

In rejecting varieties, we need to confine ourselves to our region and experience; the same rule applies in selecting the varieties to grow; and the varieties we discard for any defective cause do not apply entirely to other remote regions or latitudes, nor need the list be large. The list I discard is not as large as that for my own use, but it is a start in the right direction.

I would drop the following apples for this part of the State: Lawver, Delaware Red Winter, Stump, Red Betigheimer, Mann, Red Winter Pearmain, White Winter Pearmain, McAfee, Gilpin and Shackleford.

Crabs—Soulard, Little Gem and Walter's Sweet.

Peaches—The entire list of earlies, as the Amnden, Alexander, Arkansas Traveler, and others like them, for their poor quality and being always wormy; the Foster, Hance's Golden Rarripe and Early York, for unproductiveness.

Cherries—The Heart or Bigarreau class are not productive, nor are the Olivet Lieb, Louis Philippe, Belle du Choisy and Empress Eugenie.

Plums—The European or domestic class, with rare exceptions, are not desirable here. Of natives, the Garfield is not worthy the illustrious name it bears; Missouri Apricot, World Beater and Wayland are no better.

Pears—The Idaho, Le Conte and all Russians are productive only of blight; the Golden Russet is the old Hawaii renamed, and useful only for cooking.

The old Wineberry is an old fraud; while the Golden Mayberry, Strawberry raspberry, Buffalo berry and Rocky Mountain cherry are new frauds.

I mention some of these because of the high claims made for them, and put them

where they belong, and where a long-suffering public will in time consign them.

Ben Davis or What?

At the conclusion of last season's apple harvest, T. H. Vories, of Wathena, Kas. got into a reflective mood and said:

"We have had a busy season, but all is now serene; the Eastern buyer has departed, the tramp picker has pulled down his tent and hied himself to other climes; the grower has made a handsome bank deposit, and as he sits by his cheerful fire contemplating the past and peering into the future, he unconsciously says, 'Ben Davis or what?' He has noticed, as barrel after barrel was loaded at the cars, they were mostly marked 'Ben Davis.' He has asked his buyer and he has said, 'Ben Davis;' the nurseryman, whose stock mainly comprises this variety, says 'Ben Davis;' the very hills echo 'Ben Davis.' Now, this is what a lawyer would call a preponderance of evidence, yet I do not feel satisfied, and others are not satisfied. A prominent grower came to my place some time since, understanding I had the Mammoth Black Twig. He was hunting all over the country for them. Finally a few apples were brought him from near Kansas City, said to be this variety. He was not quite satisfied with them, and I understand he will plant a large orchard in the spring of York Imperial. I did not ask him why he did not plant Ben Davis, but speaking of Mammoth Black Twig, how can a person tell what they are? I remember distinctly of a large nursery a few years ago advertising Paragon and Mammoth Black Twig as the same apple. Last year the same nursery said they were distinct, one originating in Tennessee and the other in Arkansas. The Arkansas Black, I think, is sometimes also sold for it.

"But returning to the Ben Davis apple, is it any wonder that they largely predominate this year? Is it not a fact that the young orchards of the central West are principally composed of them, but that the Missouri Pippin, wherever found, were quite as full, stood the drought as well and were much less infested with worms? Yet we would not give preference to them, nor will this letter admit of going into details. It has not entirely faded from my mind that the two seasons previous to the last many dealers were but too anxious to get some better apple to mix with their cars of Ben Davis, many buyers all but refusing to take them straight. Somehow the Keiffer pear is always associated in my mind along with the Ben Davis apple, and various ways are given by its friends to make a second-class pear out of it; nature having failed. Perhaps as good a way as any would be to soak them over night in sugar with a little flavoring thrown in. Still Ben Davis apples are lacking in but one essential quality. I am sometimes asked if there is any danger of overdoing apples. When you speak of such as Jonathan, Huntsman, etc., I simply answer no, but speaking of Ben Davis and the way they are planted—well, that puts me in mind of a story I once heard a minister relate. He paid a visit to one of his country members, who seemed to be too hard run to contribute toward church expenses, and after getting up from a bounteous repast the old farmer began showing him over the place. Stopping to view a fine corn field, the minister said: 'What a fine field of corn, to be sure, but what are you going to do with it?'

"Feed it to the hogs."

"Well, what are you going to do with your hogs?"

"Why, sell them."

"What for?"

"To get money."

"What will you do with your money?"

"Buy more land."

"More land? What for?"

"To raise more corn."

"What for?"

"To feed more hogs."

"By this time the minister, seeing that further questioning would be but a repetition of the former, desisted. Now, if this plan is to be followed with apples, and nine-tenths of them are to be Ben Davis, then I am afraid something will be overdone, whether it is Ben Davis apples or not."

Cabbage Culture.

In many places in all parts of the country cabbage is a very profitable crop to grow for the general market, for it can be grown quite cheaply where an acre or more is put in. The land should be thoroughly and deeply plowed and pulverized. After it is plowed it should be covered with barnyard manure which should be well harrowed in. There is no danger of overdoing this part of the work, for the soil should be in the finest possible tilth. As the plants should not

be set until the last of June, this work may be done after the rush of spring work is over when there is plenty of leisure to do it well. If the land is plowed by the middle of May it may be harrowed several times before the plants are set, and this will destroy a large number of weeds and make subsequent cultivation much easier. When the plants are ready to transplant a cloudy day should be selected and the plants should be set in rows three feet apart and thirty inches in the rows. A boy should distribute the plants and a man can follow and set them quite rapidly.

Peach Borer.

The parent insect belongs to a family of moths known as Algerians, which have transparent wings and slender bodies. They fly only in day time, and, when on the wing, resemble certain wasps and hornets quite closely. This moth appears in this section from middle of July to end of August. The female measures about one and a half inches across, when wings are expanded; the male is small and seldom measures more than one inch. The eggs are deposited singly on the bark of the tree near the surface of the ground. As soon as the larva is hatched it works downward in the bark of the root, forming a small winding channel which soon becomes filled with gum. It begins to devour the bark and sap wood, and causes a copious exudation of gum, which often forms a thick mass at the base of the tree, intermingled with the castings of the worm. When full grown the larva measures over half an inch in length, and nearly half an inch in diameter. Different sizes of larvae may be found all through the fall and winter months. Occasionally it attacks the trunk further up, and sometimes the fork of the limbs. The exuding gum always points out the spot where it is at work. When about to become a pupa, the larva crawls upwards to the surface of the ground, and here forms a case of leathery structure, made from its castings mixed with the gum and silken threads. Sometimes it is found several inches below the surface in recently stirred, loose soil. Early in the spring or late in the autumn the larva may be dug out of the tree and destroyed. To prevent the moths from depositing their eggs, the crown of the roots where the bark is soft and tender and really offers the only point of entrance, may be covered with a mound of coal ashes, or soil, packed firmly around it. Washing the lower part of the trunk with alkaline mixtures, strong soap suds (especially if hot), tobacco tea, lime water, etc., will serve to prevent much injury.—Green's Fruit Grower.

Mrs. J. Watson, 1022 Arizona St., Philadelphia, Pa., says: "I think Dr. Bull's Cough Syrup is a splendid remedy. I had to cough night and day and one bottle relieved me wonderfully."

To Cure Constipation Forever. Take Cascarets Candy Cathartic. 10c or 25c. If C. C. C. fail to cure, druggists refund money.

AT LAST!



Medical Council and Laboratory Department.

T. A. Slocum, M.D.

No. 98 Pine St., New York.

February 24, 1898.

To the Editor Kansas Farmer:

In reply to your late advice, am pleased to state that I have discovered a reliable and absolute cure for the dreaded consumption; also for throat, bronchial and lung troubles, winter coughs and catarrh, scrofula, rheumatism, general decline or weakness, loss of flesh and all wasting-away conditions.

By its timely use thousands of apparently hopeless cases have been permanently cured.

I know that there are many of your readers who would be benefited or cured, if they would allow me to advise them in the use of my new discoveries.

So proof-positive am I of its power to cure, based upon actual experience, and to better demonstrate their wonderful merits, I will send Three Free Bottles (the Slocum New System of Medicine) to any of your readers who will write me at my Laboratory, 98 Pine Street, New York, giving their postoffice and express address.

Always sincerely yours,

T. A. Slocum, M.D.

Editor's Note:—We publish the Doctor's fac-simile letter for the benefit of our readers. Every sufferer should take advantage of the liberal offer. He makes no charge for medicine or correspondence advice. When writing Dr. Slocum, kindly mention Farmer.

Advertisement for Bohemian Nurseries, Reynolds, Neb. listing prices for Strawberry Plants, Peach trees, Osage Orange Hedge, and Ash Seedlings.

Don't set a plant until you have read R. M. KELLOGG'S BOOK for 1898:

GREAT CROPS OF SMALL FRUITS

HOW TO GROW THEM. New ideas, new methods and more money for less work. If you would make money growing berries, read this book. The finest plants, the cheapest plants, because they produce fruit. During the great drought of last fall they were irrigated and are especially fine. Sent free.

R. M. KELLOGG, Three Rivers, Mich.

Advertisement for Reid's Trees, featuring the text 'REID'S TREES ARE RELIABLE' and listing various types of trees available.

\$2.70 BOX OF KING'S SEEDS FREE

To any reliable persons who will sell for us a \$3 lot of our best Northern Grown Seeds to their neighbors. NO MONEY REQUIRED. Simply write that you accept this offer and saw it in the Kansas Farmer the \$2.70 box.

BOYS AND GIRLS Can secure Watches, Guns, etc., free by selling seeds for us, and we start them with a stock without requiring a cent of their money.

T. J. KING CO., Seedsmen, Richmond, Va.

Fairbury Nurseries

Plant Our Cherry for a Sure Crop. Growers of Fruit, Forest, Shade and Ornamental Trees, Evergreens, Small Fruits and Vines. In fact, everything usually grown and sold by WESTERN NURSERYMEN.

WE PAY THE FREIGHT. Send us a list of your wants for special prices.

PRICE LIST SENT FREE. ADDRESS C. M. Hurlburt, Mgr., Fairbury, Neb.

In the Dairy.

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

The Creamery.

A paper by Mrs. M. J. Barth, read at the Allen County Farmers' Institute, at Iola, February 2, 1898.

The creamery is one of the few industries that come in as a real help to the farmer's wife.

How many who understand what the farmer's life is, but know it is a busy one. The more cows he keeps, the more stock he raises, and the more milk there is to be turned into marketable produce, the more exacting his duties become. Since there is only one farmer now and then who has milk enough to engage in manufacturing cheese, the only thing to do is to make butter. We all know if the farmer is busy the wife is also busy. Up in the morning before the break of day, for there is breakfast to get, milk to skim, churning to do, chickens to feed, children to care for, vegetables to gather and prepare for dinner, besides the house to put in order. And all ought to be done before the cool of the morning passes away, and that routine must be gone over every day. With the addition of washing and baking day where does she get any time for rest or social duties? Not one moment.

Now, the creamery comes to us and says: "I will take your milk and make your butter. And you will make more money than if you made the butter yourself." With what relief that comes to us.

Among the advantages are: (1) It pays cash and has its established pay-days, thereby enabling the farmer to make his calculations without fear of failure; (2) it is central; every one, from far and near, can be accommodated; (3) it supplies our market with a uniformly good grade of butter at a moderate price; (4) it returns our milk in good condition for feeding purposes, free of charge.

Our family has patronized the Iola creamery ever since it has been in operation, except the first two weeks, and we can truly say we believe the creamery to be the farmer's friend. And while we are encouraging and upholding that industry we are doing a kindness to our brother and sister farmers.

Letter From John Bull.

Editor Kansas Farmer:—I would like to see a little more in your "Dairy Department" about what individual dairymen are doing, but I expect they are, like me, too careless or thoughtless to write.

Brother dairymen, how much milk do your cows average per year? Are your cows paying as good a profit as they should, or are they only boarders?

In 1896 we milked twenty cows and put in the factory (besides what was used in the family) a little over 5,000 pounds per cow, which, at 60 cents per hundredweight (which is a little less than the average price for that year), gives us \$30 per cow for milk, besides the calves and the whey for hogs. The yield of milk is nearly double what we received eight years ago, when we first started dairying in Kansas with range cows. Our cows are nearly all grade or thoroughbred Holstein now.

The past year we milked about twenty-five cows, and put in the factory over 133,000 pounds of milk, over 5,000 pounds per cow.

We are still fighting for Kansas cheese, or perhaps we should say it is now fighting for us, as we no longer have to compel men to buy it, as we did seven or eight years ago. There are now seven factories making our style of cheese, and we are utterly unable to supply the demand. We sell now entirely on open orders and are constantly compelled to turn customers away because we have not the cheese to fill their orders, nor can we buy it from the neighboring factories. At least four of the factories run the year around. This fall I carried a piece of this Kansas cheese into Canada, that renowned cheese country, and gave a piece to an old friend who, for years, had been salesman for a factory there, and he was so pleased with it that he said if that factory was in reasonable distance he should order some for his own use. But yet we would like to make it better. JOHN BULL. Cimarron, Kas.

Butter-Scoring at Topeka.

There has been more fault found with the flavor of the butter this winter in all the markets of the country than for the last two or three years, and, by the way, the butter scored at Topeka proves that the butter lacks flavor. There were

495 tubs of butter scored and only eighty-five of them, or 17 per cent., scored as Western extras or 95 points and over.

The butter at Topeka came from twenty States and one Territory. As usual, Iowa had the largest number of exhibits, which was 128, and only 20 of them scored 95 or over; Minnesota 110, of which 25 will draw a premium; Kansas 93, of which 11 scored over 95; Illinois 51, including 13 over 95; Wisconsin 31, 12 over 95; Nebraska 19, 3 over 95; South Dakota 18, 2 over 95; Missouri 12 exhibits, no premiums; Indiana 8 exhibits, no premiums; California and Pennsylvania 4 each, no high score; Colorado 3, and New York 2 exhibits and no premiums; while Maine, Massachusetts, Michigan, New Hampshire, New Jersey, Tennessee, Washington and Oklahoma Territory had one tub from each, but no score that entitled them to any of the premium fund.

A Tale of the Kansas Cow.

The attention of Kansas agriculturists was not directed to the possibilities of the dairying interests in that State until about ten years ago. The production and marketing of butter and cheese previous to that time were given only desultory attention, and in the estimation of the farmer the returns therefrom were not of sufficient volume to warrant the investment of any great sum in extending this branch of his business. The institution of skimming stations, creameries and cheese factories was gradual, but from the time of their first appearance the farmers found it paid better to handle only the better grades of cattle.

To-day there are 25,000 persons engaged in supplying the market thus afforded and the product of 250,000 choice cows, valued at \$8,000,000, is required to meet the demands of the 400 Kansas creameries, skimming stations and cheese factories, which are valued at \$600,000 and whose annual output is worth \$3,000,000.

The mild climate, constant sunshine and light winds; the pure air, rich soil and fresh water, all contribute to the economical and profitable utilization for dairy purposes of the 80,000 square miles of grass and grain producing land in the State.

Level roads, passable throughout the year, enable the producer to bring his supplies to the stations regularly. The use of new and improved machinery, and the presence of rival companies with large capital insure prompt acceptance of the milk and favorable remuneration to the farmer. The markets of the whole country are available the year round, the refrigerator car system insuring the delivery of goods at the market promptly and as fresh as though the article were for domestic consumption.

The product of the Kansas dairies is of such a high grade that other and older dairy States find in it a formidable competitor. Not only is it holding its own in the domestic markets, but it has made a bid for foreign recognition, and successfully, for twenty-five car-loads of butter were exported in 1897.

From the interest manifested by agriculturists throughout the State, it is fair to assume that ten years hence the dairy business will have increased four-fold.—A., T. & S. F. Booklet.

Dairy Notes.

Advices from London give accounts of the largest cheese ever made, which was recently exhibited at a convention. The cheese in question weighed 22,000 pounds, or close to ten tons.

The St. Albans creamery, the largest in the country, disposes of all its skim-milk at very satisfactory prices to a paper company, where it is used for sizing and finishing the paper.

Judge Swing, of the Circuit court of Ohio, has handed down a decision which renders void the section which has been construed to hold that butter containing less than 80 per cent. of butter fats shall be treated as being oleomargarine.

The Delaware County Agricultural Society, of Iowa, has offered a premium of \$100 for butter from Delaware county exhibited at the Trans-Mississippi exposition to be held at Omaha next summer, to be divided pro rata among exhibitors.

Philadelphia dairymen have commenced to use aluminum milk cans, which are claimed to be very light and durable. While more costly than tin the greater durability of the new cans makes them cheaper in the end. It is claimed that among many other advantages they possess that of non-oxidation.

Marion county (Indiana) dairymen, while in sympathy with the surveillance of cattle to detect disease, are trying to have the Legislature enact laws which

WORLD'S BUTTER CHAMPIONS

EVERY ONE AN "ALPHA-DE LAVAL" USER.

THERE have now been six Annual Conventions and Grand Competitive Butter Contests of the National Buttermakers Association,—1892, 1893, (none in 1894), 1895, 1896, 1897 and 1898. The following is the list of years, places of convention, names and addresses of Sweepstakes Gold Medal winners, and the highest scores. Every prize winning exhibit has been "Alpha-De Laval" made butter:

1892, Madison, Wis.,	LOUIS BRAHE, Washington, Iowa,	Score 98
1893, Dubuque, Iowa,	C. W. SMITH, Colvin's Park, Ill.,	" 97
1895, Rockford, Ill.,	F. C. OLTROGGE, Tripoli, Iowa,	" 98
1896, Cedar Rapids, Iowa,	THOS. MILTON, St. Paul, Minn.,	" 97.82
1897, Owatonna, Minn.,	H. N. MILLER, Randall, Iowa,	" 98.5
1898, Topeka, Kas.,	SAML. HAUGDAHL, New Sweden, Minn.,	" 98

Everyone knows that the cream separator does not make the butter and likewise every experienced buttermaker knows that the "Alpha-De Laval" disc system of separation is not only the most thorough but that it at same time delivers the cream into the hands of the buttermaker in better condition for perfect buttermaking than is possible with any other separator or system.

The reasons for this are as simple and as certain as gravity itself. If you do not understand them and would like to know them send for "Dairy" catalogue No. 257 or "Creamery" catalogue No. 508.

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will give the dairymen some return for condemned cattle. They claim that at least 50 per cent. of the actual value should be given to owners for cattle confiscated or killed.

Of the annual milk production of Sweden's 1,500,000 cows, 175,000,000 gallons are converted into 512,000 hundredweight of butter and 143,000 hundredweight of cheese, the bulk of the butter being shipped to England and the cheese retained principally for home consumption. The government and the agricultural societies contribute yearly about \$40,000 for dairy purposes, including education, prizes, etc., and some of the large co-operative dairies handle 4,000 gallons of milk daily. The Swedish exports of dairy produce to England amount to \$76,500,000 annually, and of bacon, mostly dairy fed, to \$60,000,000.

A Report.

Editor Kansas Farmer:—By request of Prof. H. M. Cottrell, of Kansas State Agricultural College, I submit to you the following report of my seven milch cows for the year 1897:

Number of pounds of milk sent to the creamery	25,420
Cash received for same	\$141.00
Number of pounds of skim-milk returned to farm, 18,000	18.00
Cheese made from Sundays' milk, 100 pounds	8.00
Butter and milk consumed at home	20.00
Total	\$187.00
Average per cow	\$26 5-7
Valley Falls, Kas.	I. J. DAVIS.

State of Ohio, City of Toledo, Lucas County, ss.

Frank J. Cheney makes oath that he is the senior partner of the firm of F. J. Cheney & Co., doing business in the city of Toledo, county and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of catarrh that cannot be cured by the use of Hall's Catarrh Cure.

FRANK J. CHENEY.
Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1886.

A. W. GLEASON,
[Seal.] Notary Public.
Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials, free.

F. J. CHENEY & CO.,
Sold by druggists, 75c. Toledo, O.

Send \$1.25 for Kansas Farmer one year and book, "Samantha at Saratoga."

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Send five 1-cent stamps for three sample packages of the best varieties of corn grown, and book, "Hints on Corn Growing, and How the Up-to-date Farmer Grows the Big Crops." The Iowa Agricultural College grew 94 bushels per acre of this corn, which gave 62 pounds of shelled corn from 70 pounds of ears.

PLEASANT VALLEY SEED CORN FARM,
J. B. ARMSTRONG, Proprietor,
SHENANDOAH, IOWA.

Apple, Pear, Peach, Plum and Cherry Trees, Raspberries, Blackberries and Strawberries, Ornamental Trees and Shrubs. Write me for prices. C. L. YATES, Rochester, N. Y.

Mammoth White Artichoke Seed for Sale

Cheapest and healthiest hog feed one can raise. Especially adapted to Kansas and Nebraska soil and climate. For further particulars and prices address Geo. A. Arnold, Haydon, Phelps Co., Neb.

PEACH TREES

4 to 6 ft. at 2c.; 3 to 4 ft. at 1 1/2c.; all 1 year from bud, healthy and thrifty, no scale. Official certificate accompanies each shipment. Sample by express if wanted. Can ship any time. Trees kept dormant till May 10. R. S. JOHNSTON, Box 17, Stockley, Delaware.

Plant! Plant! Plant! Strawberry Plants!

I have them to sell. Best of the old with best new varieties. For my 1898 illustrated instructive catalogue, five 2-cent stamps. Price list free. B. F. SMITH, Box 6, Lawrence, Kas.

BEST CORN FOR KANSAS.

I get a big trade from Kansas because my corn greatly outstrips your native corn in yield and is much surer crop. Twenty-six best kinds. Two samples, catalogue and proof free. Address, J. C. SUFFERN, Seed Grower, Voorhies, Ill.

I am fishing for orders for

EVERGREEN TREES,

thrice transplanted, from one to five feet in height, price 10 to 30 cents each. No fall-dug, root-dried stock.

Send for price list. A. W. THEMANNSON,
Successor to Hatch & Themanson,
Wathena, Doniphan Co., Kansas.

SEED POTATOES.

The Three Great Earliest, Pure, Smooth and Vigorous.

Sacked and delivered at depot, Topeka.

EARLY OHIO	85c per bushel
EARLY ACME	85c per bushel
EARLY SIX WEEKS	85c per bushel

Ten bushels of any variety above, 80c per bushel.

FINE SWEET POTATOES.

Yellow Nansemond, Red Nansemond, Red Bermuda, Southern Queen,
ALL \$3.00 PER BARREL.

B. H. PUGH, Box A, Topeka, Kas.

CHEAP SURPLUS FOR SPRING of 1898

	Per 100	Per 1,000
500 Clinton Grape, 2 and 3 years	\$2.00	\$20.00
5,000 Dwarf Juneberry or Huckleberry	1.50	15.00
1,000 Kansas Raspberry tips	1.50	15.00
1,000 Lucretia Dewberry tips	1.50	15.00
1,000 Crandall Currants, sprouts	2.00	20.00
4,000 Houghton Gooseberry, 2 years	1.50	15.00
HARDY FLOWERING SHRUBS.		
1,000 Blooming Sizes, large clumps	5.00	50.00
1,000 White Persian Lilac, divided	1.50	15.00
500 Chinese Wistaria, divided	1.50	15.00
2,000 Common Purple Lilac, divided	1.50	15.00
1,000 Common Privet, divided	1.50	15.00
1,000 Scarlet Japan Quince, divided	1.50	15.00
VINES AND CREEPERS.		
2,000 Trumpet Vines, small	1.00	10.00
1,000 Trumpet Vines, blooming size	2.00	20.00
1,000 Chinese Wistaria, small size	1.00	10.00
500 larger Wistaria	2.00	20.00
5,000 Hardy June and Moss Roses, all colors, named sorts	2.00	20.00

Cash with order. Boxing and packing at cost. I refer to Citizens' State bank, Arlington, and First National bank, Hutchinson, Reno Co., Kas.

B. P. HANAN, Arlington, Reno Co., Kas.
On the C. R. I. & P. R. R.

The Poultry Yard

KANSAS STATE POULTRY ASSOCIATION.

President, A. M. Story, Manhattan.
Secretary, J. W. F. Hughes, Topeka.

Feed and Care of Poultry.

Editor Kansas Farmer:—Your issue of February 24 quotes J. H. Davis as saying, in the Practical Poultryman: "Popular and current lies in poultry culture are numerous and injurious... Those who have the interest of the poultry industry at heart should prick these bubbles of error with the sharp sword of truth."

Among the twenty-six so-called lies named by Mr. Davis, No. 4 asserts that fowls have indigestion. He says they do not, our best poultry authorities to the contrary notwithstanding. I think that I know something about this particular subject, and as I consider it of vital importance, it may not be amiss to raise a warning voice against abolishing the belief in indigestion. Let any one who is skeptical on this score take a flock of fowls and confine them during the inclement months of the year, when the birds are naturally averse to stirring and exposing themselves; let them be fed with the regulation soft feed as a morning meal, let grit be withheld and no opportunity given to exercise, and results are bound to follow which will do away with the egg basket for months. It is not my ambition to pose as one knowing all about poultry indigestion, although I have learned something, during years of study, of this single so-called lie No. 4. Perhaps Mr. Davis allows his fowls to roost in such places where the droppings could be inspected only with the aid of a powerful searchlight; or, perchance, he feeds them nothing during the time of year when the ailment is most prevalent. With an empty crop there is certainly no danger of indigestion. Would he only tell us what ails the birds when food passes through them whole, or sometimes merely ground up, without being assimilated.

I know from experience that he who becomes imbued with the idea that hens are worth looking after during the winter; who houses them well and adopts the modern and approved manner of feeding, provided he fails to furnish grit and supports them in idleness, will fail to get eggs when they are most coveted. I have at hand the feeding directions of one writer who recommends a pail full of feed for thirty fowls in the morning. This much food, for us understand the word pail, is certainly sufficient for 100 birds instead of thirty. The ten full-grown fowls in my breeding pen are allowed for breakfast a scant quart of soft mixed feed—sometimes not above a pint—composed principally of bran, milk curd, oats, etc.

In order to more easily detect any tendency towards bowel trouble in my flock during the winter, and to make less difficult the cleaning of the henry, I built a roosting platform, well up from the ground, where any irregularity in the direction under discussion must come under my notice, as the clearing away of the droppings is seen to daily. With such arrangements as obtain in the majority of poultry houses I should scarcely want to undertake this daily cleaning, nor even advocate it, as, if special care is not taken to have everything arranged to facilitate removal of droppings, it is a most irksome and tedious operation. The dropping platform in my hen house is thirty-two feet long and three feet wide, with two roosts hinged at the back end, against the wall. While removing droppings roosts are raised and hooked up against the sharp-pitched ceiling, giving me free and open access to the entire platform, built of closely-laid dressed material. For removing droppings I use a contrivance similar to a hoe. The handle is three feet long, the blade fourteen inches wide, hung almost at right angles. A bushel box, 16x12x12 inches, is used to hold and carry out the voidings. This box is placed under the front edge of the platform, and as my hoe is wide and the surface to be gone over smooth, it takes me just four minutes to clean the entire platform, drawing the accumulations into this box. The weight of the manure gathered daily from 100 fowls amounts to fourteen pounds, as taken fresh in the morning; and being exceedingly rich, should well pay for the four minutes spent daily in saving it. Of my 100 chickens every one is forced to roost in the hen house, although they are permitted to range at will during the daytime.

Halstead, Kas. G. B. RUTH.

A writer who likes the Leghorn hen better than other breeds, says in the Country Gentleman: "There are certain

characteristics of shape and movement that point to excellence in egg-production in this breed, and it is well to bear these in mind when selecting the breeding stock. The active bird, the one that is on the move all day long, hunting for bugs here, turning up a worm there, then chasing an insect over the wall and through the timothy heads—that is the hen that, scarcely skipping a day for a week at a time, deposits a handsome white egg in the nest. I like to see a good-sized comb on a Leghorn hen. It denotes vigor, abundance of good blood, and is most always a part of the headgear of an extra good layer. It is also desirable that the breeders be trim up-standing birds. The low, squat Leghorn, sometimes seen, is apt to be sluggish and to take on fat, to prefer standing on one leg in the sun to scratching with might and main for the elusive bug or worm. The whole appearance of the Leghorn should suggest sprightliness, wide-awakeness and unceasing activity."

How to Raise Turkeys.

Permit me to give the "ball" a push. I was much interested in a turkey-raiser's letter. I can endorse all she (of course only a woman has sufficient patience to raise turkeys) said, from experience. But having succeeded in raising twenty-seven out of twenty-nine hatched last year, I thought that perhaps "my way" may be of some benefit to amateurs.

I prefer chicken mothers. I give the hen but nine eggs, and feed her once a day, that she may keep up her temperature. I have a paling pen into which I move my hens, that they may not be tempted to go on an exploring expedition, leaving the eggs to become chilled. (I have Plymouth Rocks and can handle them easily). A day or two before hatching time I slip the eggs under another hen or place them in a home-made incubator, while I remove the hen from her nest and give her a thorough washing in strong soap suds, with just a pinch of copperas. Wipe off the surplus water, grease around the base of her comb and place her in a warm place to dry. When her feathers begin to regain their natural appearance, make her a fresh nest, and when it becomes warm return her eggs. The little turks will then peep forth without any hungry vermin to pounce upon them and sap their vitality almost before they are used to daylight. I lost two last year because I was sick when they were hatched, and they were too far gone by the time I could attend to them.

Do not feed them until they are between thirty and thirty-six hours old. Then break one egg into a half pint of milk; whip together, cook in a stove until it forms a custard. Feed this until they are three days old at least, making it fresh each morning. At that time one may add bread soaked in sweet milk and seasoned with black pepper. Give young onions chopped in their feed, too. I planted some for their especial benefit this year. When about a week old one may add a little boiled wheat.

I am opposed to curd as a feed until the turk can add insects and green stuff to his bill of fare, to counteract the binding tendency of the cottage cheese. Get them out into sunshine as soon as possible, but see that the sun does not strike them too forcibly. Give but few to a hen, and give her a warm coop, that they may not become chilled. I do not mean a tight coop, but one that will not permit draughts to pass through it. Close confinement will kill them as surely as improper feeding. I enclose a small space with old boards, the front of the coop forming one side of the pen. This can be covered over with old carpet, forming a wind-break at night and serving as a gymnasium in rainy weather. I have a still larger pen into which they may run until the dew is all gone. Dampness must be guarded against.

When they begin to show signs of gapes I put four or five drops of turpentine into their feed. This must not be given unless you follow my former injunction and keep them dry. One must be careful even when they are nearly grown. If exposed to cold rain of nights in the fall, they will be in great danger of roup. Now, Mr. Editor, this is not theory or a new discovery. I borrowed "my way" bit by bit from the experience of others.—By Farmer's Wife, in the Indiana Farmer.

Poultry Notes.

Use every possible means to rid the premises of rats, before the early chicks and ducklings hatch. The poultry keeper has no worse enemy.

When fowls are judiciously fed, made to take exercise, and their quarters clean and free from vermin, there is seldom any trouble from any sickness that is

not caused from contagion. When the combs and wattles are of a bright red color it is a sign of good health.

Thoroughly spraying inside of coops with pure kerosene is a good preparation for the new broods that are to occupy them. Chicks and lice cannot be profitably raised together.

When fowls lie around indifferent to their surroundings and are sluggish in their movements, they are too fat, and death from apoplexy, indigestion or liver complaint will result unless the trouble is remedied.

As a rule, the smaller breeds—Mediterranean and their allies—lay earlier than the Asiatic, Cochins, Brahma, Langshans, etc., but from six to eight months is the usual time, and the most satisfactory in the end.

One broken egg in a nest, if its contents are carefully distributed by a fidgety hen, may spoil the entire hatch. The thing to do next, and as soon as discovered, is to wash the sound eggs in warm water and renew the nest.

An occasional stale or nauseous egg in the supply furnished a family, will give a distaste that will reduce their consumption of eggs to the lowest point. Valuable customers have been entirely lost by a little carelessness in this direction.

If the fowl has a bilious look, with alternate attacks of dysentery and constipation, it is suffering with liver complaint. Lack of grit, over-feeding and idleness will cause this trouble. Green food in good supply has a tendency to avert it.

Cholera never bothers ducks, neither does roup nor gapes. Hawks do not molest them. They lay more eggs and will hatch better than hens. With good feeding they can be made to weigh five pounds in ten weeks after hatching.—Exchange.

During incubation, in early spring, while the weather is changeable, the sitting hens should be confined and all accommodations afforded them, with food and water in ready reach, so that they can return to the eggs as soon as possible. It is best to take them from the nest, feed and water them and return them.

Clipping the wings of fowls does not injure the fowl, if the clipping is done properly. Draw out the wing and clip the flight feathers, and not the wing coverts, and when the wing is folded the cropping can not be seen. A four-foot high wire netting will answer when the fowls are thus managed.—Poultry Journal.

It is estimated that 40,000,000 eggs are used by the calico print works each year. Photographic establishments use millions of dozens, and wine clarifiers call for over 10,000,000 dozens. The demand from these sources increases faster than the table demand. They are used by bookbinders, kid glove manufacturers and for finishing fine leather.—Exchange.

Thorough brooding of little chicks is necessary at all times, but in cool weather it must be looked after more particularly. Thirty-six hours of brooding after hatching, then feed and brood again twelve hours. Little chicks must not be exposed to cold weather. A poorly-brooded clutch of chicks will always be weakly and will not develop into good birds when grown.

Two-year-old hens are the best for breeding purposes, yet well developed yearlings will produce strong chicks. In the case of pullets six to nine months old, there is more or less risk, and poultry breeders do not rely upon them for good results. The eggs hatch well enough, but there is not the vitality found in the chicks that we see in the offspring from hardy, vigorous two-year-olds.—Texas Stock and Farm Journal.

FREE TO ALL WOMEN.

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

The Scott & March Hereford Sale at Belton, Cass Co., Mo., April 15, 1898.

The visitor in quest of first-class Hereford cattle will find, if he visits the farm of Messrs. Scott & March, at Belton, Mo., thirty miles south of Kansas City, that the 100 head that have been selected out of their herd of 450 head and catalogued for their public sale, are as good a lot of White-faces as may be seen in this country. The herd is run on blue grass pasture in summer and comfortably shedded during winter months. The youngsters are handled right so that both males and females are sure to bring profitable returns to their owners. The 100 that go into the coming sale afford a happy illustration of what the Hereford will do, and insures his great worth as a beef animal.

EVERGREENS.—Quite an agitation is now going the rounds of the press regarding the wanton use and useless extravagance of evergreens for holiday purposes. However, we have an emergency advertiser, who is fishing for orders for evergreen trees by the name of A. W. Themanon, Wathena, Doniphan county, Kansas. Our representative has seen his stock and has no hesitation in advising our readers to send him their orders.

BLACK LANGSHANS EXCLUSIVELY

EGGS \$1.50 for 13; \$2 for 26. A few fine cockerels to sell.
J. C. WITHAM, Cherryvale, Kas.

THE IMPROVED VICTOR Incubator
Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class Hatcher in the market. Circulars FREE.
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A low-priced machine with a record unequalled by any. An incubator that any one can operate. For free illustrated circulars and testimonials address the
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OUR SUCCESSFUL INCUBATOR will prove it if you use it. Send for new 128 page catalog and study the merits of our machines. Easy reliable points on artificial incubation and poultry culture generally. We manufacture a greater variety of Incubators and Brooders than any other firm. Sizes \$5 to \$50. Prices from \$2.00 to \$70.00.
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If you know how to run the business. There's \$ Millions in it, but nine out of ten fail in it because they do not know the secret of Success with Poultry or how to get **The Money in Hens.** Do you know how to get it? Our New Poultry Book will tell you how. It tells you all about poultry and explains why some (a few) succeed and others (the many) fail. This invaluable Book given Free as premium with our Farm and Poultry paper **WAYSIDE CLEANINGS**, 8 months for 10 cents. Address P. B. **WAYSIDE PUBLISHING CO.,** Clintonville Conn.

BOSTON '98.

Yes I have the Single-Comb Brown Leghorn Cook that won FIRST. Probably the best colored Leghorn in the world, and have mated him to world-beater hens.

White Plymouth Rocks, Pit Games, and Pekin Ducks Equally as Good.

Prizes won everywhere. I challenge any breeder anywhere to sell eggs from as good stock as mine as cheap as I do. Hen eggs, \$2 per 13. Duck eggs, \$1 per 13.

J. P. Royall, Supt. of Farm, Bridgeton, Mo.
W. W. Henderson, 411 Olive St., St. Louis, Mo.

HOW IS THIS?

Having sold my home I am compelled to dispose of my Jerseys, therefore I offer the following, which are tops from twelve years breeding, at about one-half their value.

No. 1—Ina Issaline 104167, 37½ per cent. Tormentor, 4 years old, good for ten pounds of butter per week on ordinary feed, very gentle. \$75.00
No. 2—Fair-Drop, a granddaughter of Exile of St. Lambert through her sire, and great granddaughter of Ida's Stoke Pogis through her dam. She was dropped on the fair grounds in September, 1896; is due to calve in July by a 75 per cent. Exile of St. Lambert bull. The most perfect and promising heifer I ever raised. \$100.00
No. 3—Helper calf, 4 months old, granddaughter of Exile of St. Lambert and out of Ina Issaline—a perfect beauty. \$50.00
No. 4—Helper calf, 4 months old, same sire as No. 3, and out of Princess Nell 100417. \$25.00
No. 5—Butter Exile 41935, a son of the greatest of bulls, Exile of St. Lambert. Good and handsome enough to please the most exacting. \$100.00
There are only two of the above that I would price were it not for the fact that I have no place to keep them after July.

B. C. McQUESTEN, Ottawa, Kas.

The Veterinarian.

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

BLACK TEETH.—Please be kind enough to inform me, through the columns of the Kansas Farmer, if black teeth in pigs is a disease, and if so, what is the cause and does it do any good to pull them (the teeth)? W. M. Wonderly, Kas.

Answer.—These are probably the milk teeth that have not yet been shed. They are often accused as the cause of various disorders, but they may be considered as perfectly harmless. They will disappear, in time, of their own accord. But if you are inclined that way, and wish to practice a little dentistry, do so; it will be a harmless amusement.

SHOULDER BOIL.—I have a horse with a sore shoulder joint about three inches in diameter. I have used almost all simple remedies, such as sulphur, lime, Dr. Baker's liniment, etc. It appeared about three years ago. When the horse is not working it heals up. But as soon as I work him a day or two it breaks out again. H. S. W. Alden, Kas.

Answer.—I am afraid that this is an incurable case. But be this as it may, it would require a carefully performed surgical operation before any other treatment would have any effect. If you can procure the services of a good veterinarian I would advise you to call on him.

ITCHING TAIL, COLIC, DISTEMPER.—(a) I have a roan horse, 7 years old and in good condition that is troubled with itching of the neck and somewhat of the tail. Last year he constantly scratched his tail. I can find no lice and he does not seem to be affected by worms. He kicks in the stable with his left foot, caused, I think, by the itching trouble. His bowels are all right, kidneys sometimes out of order and urine rosy. (b) Also a horse, bay, 5 years old, overheated when 3 years old, very wormy, and no medicine tried seems to free him from them. Is affected by the colic if worked. Rather thin now, with light appetite; hair coming out. (c) I also have a young roan mare, 5 years old, that has been suffering from the distemper for three weeks. She discharges offensively through the nose, and food and water come out through the nose somewhat. Her appetite is fair, but she is getting thin. M. J. W. Woodston, Kas.

Answer.—(a) Wash the affected parts thoroughly with Castile soap and lukewarm water, and then apply by thoroughly rubbing in with a stiff brush a one-half per cent. solution of salicylic acid in water. Keep up this treatment for two weeks, repeating it daily. The first day give him a pill made by mixing one-half ounce of powdered aloes, one-half drachm of mild chloride of mercury and a sufficient quantity of linseed meal and water to make a stiff mass. Previously wrapping the pill in a piece of tissue paper will facilitate the operation of administering it. Don't work the animal for a day or two after the pill is given. Continue to keep him on easily-digested, laxative food, bran, oats, clover hay, alfalfa, etc. If he does not improve in the course of two or three weeks, write again and I will give you further directions. Refer to this number of the Farmer when writing. (b) The periodical colic to which this horse is subject is no doubt due to the worms you speak of—probably Sclerostomum equinum. These worms live in the large intestines of the horse. The larval forms pass from the intestines into the blood vessels and produce in them a condition known as embolism, i. e., the formation of small blood clots. These clots often clog up smaller blood vessels that supply certain regions of the intestines; this cuts off the blood supply from those regions and practically paralyzes them. The result is that the intestinal contents cannot move along and the painful condition known as colic is the result. Active exercise brings this about most frequently, but the worm brood is at the bottom of it. Some of these worms or their larvae pass out with the dung, and if they accidentally get into a pool of stagnant water they will continue to thrive until some other horse takes them up with a "drink" from such a pool. This horse is then infected and it is only a question of time when it, too, will be afflicted with periodical colic. The moral of this is, "Don't permit

Horse Owners! Use

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

horses to drink stagnant water." Now as to the treatment for your horse. Nothing can be done for the worms already in the blood vessels; they are there to stay. You can, however, prevent their increase in numbers by cutting off the supply of recruits, which all come from the large intestine. Inject into the rectum one pint of linseed oil every morning for three or four mornings. Remove the feces, if any have accumulated in the rectum, by hand, before injecting the oil. This will rid the animal of these worms. (c) Give this mare good food, green grass if possible, and pure water, fresh air, and sunshine. Unless serious complications set in she will require nothing else. If fresh abscesses form, open them as soon as their contents become liquid. If the abscesses will not come to a head, poultice them, or apply a blister made by heating one ounce of cantharides and four ounces of olive oil at boiling water temperature for an hour and then straining the mass. This must be prepared by a druggist. It will keep indefinitely. If serious complications set in the treatment will depend so much on the nature of the complications that I cannot advise you further, unless I take up a great deal more space than I have at my disposal.

BOILS, LICE, WORMS, RHEUMATISM.—Can you give me a remedy to prevent horses' necks from getting sore? All of my horses had sore necks last season and I could not get them well while they were at work. I used carbolic acid and grease, carbolic acid and water, white lotion, and one or two kinds of liniment and all the different kinds of pads for sore-necked horses, but I could not get them well. They would heal up in one place and break out in another close to it. One of them had boils from his withers half way up on his neck. They got well this winter while they were not doing anything, but commenced to get sore as soon as I commenced work again. Can you give me a remedy for lice, worms and rheumatism in pigs? I have fed them turpentine for worms and used kerosene emulsion for lice, but it don't seem to do any good. My hogs and horses are fed mostly on corn. E. E. L. Agra, Kas.

Answer.—You ask so many questions at once that I will have to condense my answers considerably. (a) Boils or other injuries resulting from the pressure of collars or harness cannot very well be treated unless the cause is first removed. This consists not in the harness itself, but, as a rule, in the misfit of the harness. Sometimes dirt that collects on the collar or saddle is the cause of these troubles. If this is not removed no amount of care in other directions will do any permanent good. Wash the sore and abraded parts of the shoulder and neck twice daily with the following: Acetate of lead, 2 ounces; alum, 3 drachms; triturated camphor, 1 drachm; water, 1 quart; mix, and shake well before using. If boils or abscesses are already formed they must be incised, their contents evacuated and the cavities washed repeatedly with a 3 or 4 per cent. solution of carbolic acid. After the parts are thoroughly healed (not before) get harness that fits, and then put the horse to work. (b) Kerosene emulsion will kill hog lice, but if you apply it to the hogs only and not to the whole pen the animals will soon be reinfected. Try this remedy again and be sure to treat all the woodwork of the pens just as you do the hogs, previously removing all the old litter and burning it. A formula for kerosene emulsion was given in the Kansas Farmer of February 24. (c) A worm remedy for hogs can be found in the veterinary column of the Kansas Farmer of March 10. (d) For rheumatism in pigs give the following: First—A properly balanced ration; if possible, have the food somewhat laxative. Oil meal and peas, or soja beans, oats or whatever you have of this nature will be a good addition to corn. Second—Warm, dry, airy quarters and fresh water. Third—Salicylate of sodium, 1 ounce; water, 12 ounces; mix and dissolve. Give one to three tablespoonfuls three times daily, according to size of pig.

MARKET REPORTS.

Kansas City Live Stock.
KANSAS CITY, March 23.—Cattle—Receipts since Saturday, 4,417; calves, 130; shipped Saturday, 1,196 cattle, 62 calves. Fat cattle were steady to 10c lower and stock cattle unevenly lower. The following are representative sales:
SHIPPING AND DRESSED BEEF STEERS.
No. Ave. Price. No. Ave. Price.
30.....1,401 \$4.90 60.....1,399 4.81
43.....1,302 4.75 65.....1,225 4.65
54.....1,223 4.50 12.....1,243 4.40
23.....1,220 4.25 1.....1,150 3.75

WESTERN STEERS.
102 Ok.....1,203 \$4.60 17.....900 4.50
26.....1,008 4.10 103.....1,080 4.00
25.....992 3.90 28 P. H.....710 3.75
36.....875 3.50 13.....736 3.00

NATIVE HEIFERS.
26.....905 \$4.45 7.....781 4.40
7.....904 4.35 2.....853 4.25
15.....778 4.10 14.....963 4.10
97 mix.....838 4.05 4.....982 4.00

NATIVE COWS.
29 a & h.....844 \$3.95 5.....1,176 3.70
1.....1,120 3.50 1.....1,100 3.25
3.....630 3.00 2.....890 2.90
2.....965 2.85 3.....916 2.75

NATIVE FEEDERS.
2.....1,010 \$4.25 8.....1,057 4.20
2.....1,020 4.00

NATIVE STOCKERS.
1.....340 \$4.80 2.....790 4.55
3.....540 4.40 6.....866 4.35

Hogs—Receipts since Saturday, 7,181; shipped Saturday, 895. The market was 5 to 10c lower. The following are representative sales:
46...261 \$3.65 27...246 3.65 63...259 3.65
74...253 3.62 61...281 3.62 82...206 3.62
73...241 3.61 22...213 3.61 52...199 3.61
65...226 3.60 56...192 3.60 61...233 3.60
71...240 3.60 67...272 3.60 70...202 3.60
46...207 3.60 79...198 3.60 50...220 3.60
124...199 3.60 81...237 3.57 66...230 3.57
81...240 3.57 67...215 3.57 89...183 3.55
53...329 3.55 91...216 3.55 74...215 3.55
72...257 3.55 92...170 3.55 54...241 3.55
63...145 3.55 58...228 3.52 98...172 3.52
203...200 3.50 108...114 3.50 77...197 3.51
73...186 3.50 49...114 3.50 25...128 3.50
10...123 3.45 102...184 3.45 11...137 3.45
14...133 3.45 10...130 3.45 90...127 3.45
13...98 3.45 63...124 3.40 68...157 3.40
10...122 3.40 5...124 3.40 4...150 3.40
4...127 3.35 5...440 3.35 4...407 3.35

Sheep—Receipts since Saturday, 3,329; shipped Saturday, 1. The market was strong to 5c higher. The following are representative sales:
10 1/2 N. M. C. L. 73 \$5.37 714 Col. lbs. 82 5.25
251 west.....82 5.10 22 west.....103 4.60
14 west.....92 4.35 485 w. sh.....108 4.35
12 lambs.....58 4.25 467 Col. ew.....91 3.85

St. Louis Live Stock.
ST. LOUIS, March 23.—Cattle—Receipts, 1,500; market steady; native shipping steers, \$4.3 @ 5.50; light and dressed beef and butcher steers, \$3.70 @ 5.00; stockers and feeders, \$3.25 @ 4.70; cows and heifers, \$1.75 @ 4.50; Texas and Indian steers, \$3.25 @ 4.75; cows and heifers, \$2.40 @ 3.51.

Hogs—Receipts, 3,000; market 5c lower; yorkers, \$3.65 @ 3.75; packers, \$3.70 @ 3.80; butchers, \$3.80 @ 3.85.
Sheep—Receipts, 1,000; market strong; native muttons, \$4.00 @ 4.65; native lambs, \$5.0 @ 5.50; Texas muttons, \$4.00 @ 4.50.

Chicago Live Stock.
CHICAGO, March 23.—Cattle—Receipts 18,070; best steady, others weak to 10c lower; beefs, \$3.80 @ 5.60; cows and heifers, \$2.25 @ 4.51; Texas steers, \$3.60 @ 4.75; stockers and feeders, \$3.60 @ 4.75.

Hogs—Receipts, 38,000; market rather slow. 5 to 10c lower; light, \$3.00 @ 3.82 1/2; mixed, \$3.70 @ 3.85; heavy, \$3.65 @ 3.87 1/2; rough, \$3.65 @ 3.70.
Sheep—Receipts, 18,000; market steady to strong; native, \$3.35 @ 4.75; western, \$3.75 @ 4.20; lambs, \$4.50 @ 5.70.

Chicago Grain and Provisions.

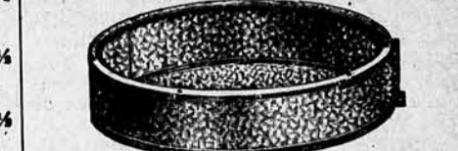
March 23	Opened	High'st	Low'st	Closing
Wht—May	1 03 1/2	1 04	1 03 1/2	1 05 1/2
July	83 1/2	84 1/2	84 1/2	81
Sept.	76 1/2	78 1/2	76 1/2	77 1/2
Corn—March	28 1/2	29 1/2	28 1/2	28 1/2
May	28 1/2	29 1/2	28 1/2	29 1/2
July	30 1/2	30 1/2	30 1/2	31 1/2
Oats—March	23 1/2	24 1/2	23 1/2	24 1/2
May	23 1/2	24 1/2	23 1/2	24 1/2
July	23 1/2	24 1/2	23 1/2	24 1/2
Pork—March	9 30	9 31	9 25	9 45
May	9 35	9 35	9 30	9 50
July	9 35	9 35	9 30	9 57 1/2
Lard—March	4 87 1/2	4 91	4 85	4 95
May	4 92 1/2	4 95	4 92 1/2	4 92 1/2
July	4 92 1/2	4 95	4 92 1/2	5 02 1/2
Ribs—March	4 87 1/2	4 91	4 85	5 00
May	4 87 1/2	4 91	4 85	5 02 1/2
July	4 92 1/2	5 10	4 92 1/2	5 07 1/2

Kansas City Grain.
KANSAS CITY, March 23.—Wheat—Receipts here to-day were 70 cars; a week ago, 77 cars; a year ago, 13 cars. Sales by sample on track: Hard, No. 1, nominally 89c; No. 2 hard, 86 1/2 @ 90c; No. 3 hard, 85 @ 88c; No. 4 hard, 82 @ 84 1/2c; rejected hard, 82c. Soft, No. 1 red, nominally 93c; No. 2 red, 92c; No. 3 red, 88 1/2c; No. 4 red, 83c; rejected red, nominally 80 @ 83c. Spring, No. 2, nominally 86 @ 88c; No. 3 spring, nominally 83 @ 85c; rejected, nominally 78 @ 82c.
**Corn—Receipts here to-day were 95 cars; a week ago, 89 cars; a year ago, 61 cars. Sales by sample on track: Mixed, No. 2, 25 1/2 @ 26; No. 3 mixed, 25 1/2c; No. 4 mixed, nominally 24 1/2c. White, No. 2, 26 1/2c; No. 3 white, 26c; No. 4 white, nominally 15c.
**Oats—Receipts here to-day were 23 cars; a week ago, 28 cars; a year ago, 15 cars. Sales by sample on track: Mixed, No. 2, 25 @ 26c; No. 3 mixed, nominally 24 1/2c; No. 4 mixed, 24c. White, No. 2, 27c; No. 3 white, 26 1/2c; No. 4 white, nominally 25 1/2c.
**Rye—No. 2, 45c; No. 3, 43 1/2 @ 45c; No. 4, nominally 43c.
Hay—Receipts here to-day were 46 cars; a week ago, 43 cars; a year ago, 63 cars. Quotations are: Choice prairie, \$7.00 @ 7.25; No. 1, \$6.50 @ 7.00; No. 2, \$6.75 @ 7.25; No. 3, \$4.75 @ 5.25; choice timothy, \$8.50 @ 9.00; No. 1, \$7.75 @ 8.25; No. 2, \$6.75 @ 7.50; choice clover and timothy, No. 1, \$6.50 @ 7.00; No. 2, \$5.50 @ 6.50; pure clover, \$5.50 @ 6.50; packing, \$3.50 @ 4.00.******

store packed, 11 @ 13c; fresh packing stock, 7 @ 10c.
Eggs—Strictly fresh, 8c per dozen.
Poultry—Hens, 6 1/2c; springs, 9c; broilers, 10c; roosters, 15 @ 20c each; ducks, 8 1/2c; geese, 5c; hen turkeys, 10c; young toms, 9c; old toms, 8c; pigeons, 75c per dozen.
**Apples—Jonathan, \$5.00 @ 6.00 in a small way; fancy Missouri Pippin, \$3.50; fancy Ben Davis, \$3.00 @ 3.25; Winesaps, \$3.50 @ 4.00; Willow Twig, \$3.50 @ 4.00; Huntsman's Favorite, \$3.50 @ 4.00. In a small way varieties are selling at 40 @ 55c per half bu.
Vegetables—Cabbage, 75c @ 1.25 per 100-lb. crate. Beets, 25 @ 40c per bu. Green and wax beans, \$2.50 @ 3.00 per crate. Navy beans, hand picked, \$1.12 1/2 @ 1.15 per bu. Onions, \$1.00 @ 1.25. Potatoes—Northern stock fancy, bulk, 65c; choice to fancy, 40 @ 55c bulk; Colorado stock, 60 @ 65c; home grown, 50 @ 55c. Sweet potatoes, 60c. Seed potatoes, northern grow Early Rose, 65 @ 70c; Early Ohio, 65 @ 70c; Red river stock, 70 @ 75c.**

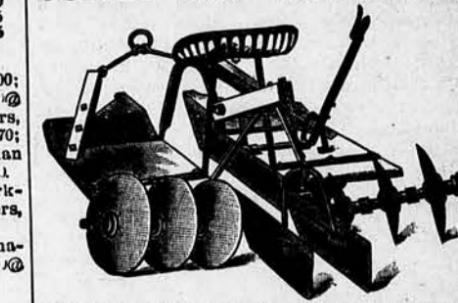
Beauty Is Blood Deep.
Clean blood means a clean skin. No beauty without it. Cascarets, Candy Cathartic clean your blood and keep it clean, by stirring up the lazy liver and driving all impurities from the body. Begin to-day to banish pimples, boils, blotches, blackheads, and that sickly bilious complexion by taking Cascarets,—beauty for ten cents. All druggists, satisfaction guaranteed, 10c, 25c, 50c.

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FOR LISTED CORN, "Merit" has put us ahead. No clogging. Disks clear themselves. Corn can be worked until three feet high; 15,000 in use. Inquire of your dealer, or write TULLER CULTIVATOR CO., Kansas City, Mo., and Wichita, Kas.

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

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MURAT HALSTEAD'S GREAT CUBA BOOK.
All about Cuba; Spain; Maine Disaster; and War; great excitement; everyone buys it; one agent sold 87 in one day; another made \$23.00 in one hour. 300 pages; magnificent illustrations; photographs, etc.; low price; we guarantee the most liberal terms; freight paid; 20 days credit; outfit free; send 10 two-cent stamps to pay postage.
THE BIBLE HOUSE, 224 Dearborn St., CHICAGO.

"The Light of the World
OR OUR SAVIOR IN ART."
Cost over \$100,000 to publish. Contains nearly 200 full-page engravings of our Savior, by the Great Masters. It is not a life of Christ, but an exhibit of all the great Masters' ideals of the Christ. No other book like it ever published. Agents are taking from three to twenty orders daily. The book is so beautiful that when people see it they want it. Published less than a year and already in its twenty-fifth edition, some editions consisting of 18,500 books. The presses are running day and night to fill orders. (It has never been sold in this territory.) A perusal of the pictures of this book is like taking a tour among the great art galleries of Europe. The Hermitage, Prado, Uffizi, Pitti, Louvre, Vatican, National of London, National of Berlin, Belvedere and other celebrated European art galleries, have all placed their rarest and greatest treasures at our disposal that they might be reproduced for this superb work. "FIRST GLANCE AT THE PICTURES BROUGHT TEARS TO MY EYES," says one. "I cleared \$150 first week's work with the book," says another. Many men and women buying and paying for homes from their success with this great work. Also man or woman, of good church standing, can secure position of Manager here to do office work and corresponding with agents in this territory. Address for full particulars A. F. Elder, Publisher, 189 Michigan Ave., Chicago, Ill., First Floor.

The Apiary.

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

Bee-Hives, Fixtures, Etc.

If your bees have swarmed before you have prepared hives to put them in, you can realize the predicament you are in, and usually one case of this kind cures a person of this kind of carelessness. When bees "don't pay" it can usually be traced to this cause, or at least this is the principal one.

Start the bees right and they will do the rest. This starting problem is by far the most important. We may go to the expense of the best movable-frame hives and receive no benefit whatever from them if we do not start out right with them. Any one can readily understand how to place a swarm of bees in a frame hive and arrange the hive properly, if he simply gives the matter a little attention and study.

At the present time, one can scarcely make a mistake in the kind of hives to use, as there is practically but one hive now in use all over the country, and almost any one that knows anything about bees is acquainted with these hives. Hives are very cheap, and a hive that was formerly worked out by ordinary machinery at a cost of four or five dollars, is now made more perfectly by special machinery at a dollar and a half or less.

The particular points to start out with in the use of frame hives is, that after the bees are placed in them, the frames be properly spaced—that is, at equal distances apart, the distance in measurement being one and a half inches from center to center. The hive must sit perfectly level on its bottom, as the frames hang on their bearings, and should hang plumb in the hives. A swarm of bees after being thus put in a hive should be examined daily for a few days, to insure their starting the combs straight on the frames, and if any honey be found out of place it is an easy matter to cut it out or press it in proper place.

It is best and cheapest, in the long run, to procure comb foundation, and fill all the frames with it. This will always insure straight combs, and it is such a help to the bees that it puts them ahead with their work all of ten days or two weeks. By using worker comb foundation we can exclude worthless drones from the hives, and this alone is worth the price of foundation, for an over-supply of drones is always the result when bees build their own comb. Foundation comb is undoubtedly one of the best investments for the bee-keeper.

There are many persons yet, perhaps, that keep bees who have never seen foundation comb, or have no knowledge of its existence. Foundation is simply a sheet of pure beeswax run through dies, forming the base of the honey cell on each side, and is, perhaps, one-eighth of an inch thick when completed—that which is used for brood combs; and that used for comb honey is very thin, equal to tissue paper at the base. The bees work this so rapidly that, if you place a frame of it in a strong colony, perhaps in two hours' time you would almost think it could not be the same comb you had placed there.

We must exercise care in getting the foundation in the frames properly, or there will be but little if anything gained by its use. The foundation must be well fastened to the center of the under side of the top bar of frame, and must swing clear at the ends and bottom. It should not only swing clear thus, but should be short one-half inch at the bottom, and one-fourth inch at top of end, sloping to one-half at bottom. It must thus be smaller than frame, as the foundation stretches as the bees work it, and if the frames are completely filled at first, the comb will be bulged when completed. I think the best plan for the beginner, to make a sure job of fastening the foundation in the frame, is to use evenly sawed out strips of wood about one-fourth inch square, and with small nails tack down the edge of foundation to frame, pressing the same down in proper place.

In hiving swarms, use only the brood-chamber of hives, and do not put on surplus honey boxes at the same time, except it may be in exceptional cases where the swarm is so large that the brood-chamber will not accommodate it. If a fair swarm of bees is hived, with the frames all filled with foundation and during a honey flow, it will be but a short time till they are ready for the surplus boxes—perhaps one week. If hived without foundation it will be two or three weeks before they will likely be ready for the boxes. When surplus

boxes are added at first, but one set or tier of them should be placed on, and after the bees are well at work in them, or the boxes half full, another tier may be added. This is usually done by placing the empty tier under the full one, and by this means the bees will more readily occupy all the boxes. The strength of colonies must always be considered, as some need more working space than others, and it is always the best plan to give about the proper amount of space needed as each colony demands.

Bee Notes.

Look through every colony for a queen early in the spring.

Remember that strong colonies are the ones that give big yields.

A colony will soon dwindle out in spring if the queen is missing.

Queens can be reared in the spring as soon as the drones are flying.

A hive full of bees in March, if healthy, means several hundred pounds of honey in June.

Don't hurry in taking the bees out of winter quarters, but wait until all danger is over.

Contract the space in the hives to suit the size of the colony, especially when weak.

Keep the entrances to all hives contracted in early spring. It will save numerous cases of robbing.

See that the bees have a watering place. If there is no convenient place handy, furnish one for them. Bees must have water every day.

To stop robbing, throw an old blanket over the hive being robbed. Raise the corner to let the robbers out and the owners in occasionally.

Change your stock of bees every few years. It is no trouble to secure good queens very cheaply, and that there is great difference in the working quality of bees is a certainty.

Bees are really very profitable and but little expense is connected with them, and it is strange, indeed, that more people do not keep them. Bees work for nothing and board themselves.

If your bees are cross and you cannot handle them, but get stung every time you go near them, procure yourself a good bee-smoker and you will be surprised how easy and how soon you become master of them.

Never go about your bees in a boisterous attitude. If you do you get stung. Striking, slapping and kicking around generally, don't go with them, and they can keep up this kind of performance as long as you can, and perhaps longer.

Bees gain more rapidly in strength in spring if fed frequently. They may thus be made doubly profitable at a small expense when the season arrives for honey-gathering. It is only the strongest colonies that gather the largest yields and pile up the tons of honey for their owners.

Eggs for hatching, when received from a distance, should not be placed at once under the hen, but allowed to remain quietly for twelve hours, placed with the small end down in bran or some material that will hold them in this position. By this the egg becomes settled and better in position for incubation.

E. Genseuleiter, Liveryman, Pittsburg, Pa., cured a valuable horse of influenza by using Salvation Oil on him for a few days.

Kills the Germs.

Bannerman's Phenyle Disinfectant and Germicide has been tested by many leading stock breeders as a preventive to hog cholera and other diseases among hogs and poultry. It has the endorsement of all users from results obtained through its use. Send for circulars. Address Bannerman & Co., Chicago, Ill.

THE CROWN Bone Cutter for cutting green bones. For the poultryman. Best in the world. Lowest in price. Send for circular and testimonials. Wilson Bros., EASTON, PA.

HOG CHOLERA Can be Prevented.

by the intelligent use of our great non-poisonous germicide **Chloro-Naphtholeum**

A. W. Biting, Veterinary at the Agricultural Experiment station, Purdue University, LaFayette, Ind., says: "As a result of experiments with remedies for hog cholera, we were most successful with Chloro-Naphtholeum. This preparation was used with feed and as a spray for the pens. Ninety head of hogs with cholera recently were cured by its use without a loss." Agents Wanted. Price, \$1.50 per gallon. WEST DISINFECTING CO. 206-208 E. 57th St. NEW YORK. Denver office, 634 Eighteenth St.

A Pill for the Ill.

"They'll do you good," a physician said in giving some pills to his patient, a woman who had suffered for months from diseases which baffled skillful treatment. His words proved true. The woman rejoices.

The hurry and bustle of the housewife is extremely wearing upon the delicate organism of womanhood.

Her intense earnestness in whatever she undertakes, tempts her constantly to go beyond her strength.

Mrs. L. E. Browning, of Pueblo, Colo., was one who did this.

"Eight years ago," said she, "my husband died and I was left with three children to care for and educate.

"The burdens of life fell heavily upon me, but I determined to make the best of it.

"I succeeded in my undertakings for a livelihood, but in doing so overtaxed myself, and undermined my health.

"I was very ill about two years ago with blood poisoning, caused by an abscess that had not received proper treatment.

"The disease settled in my throat for a time, causing intense agony.

"Then inflammatory rheumatism set in. For four months and a half I was a prisoner in my room, most of the time confined to my bed.

"My hands were swollen so that I could not feed myself, and the swelling in my feet and ankles would have made walking impossible if I had been strong enough.

"One day, after considerable treatment, my physician brought me a box of pills.

"You need a tonic," he said, "and something that will act at once, and this is the best medicine for that purpose."

"Pills!" I exclaimed in surprise as he opened the box and showed them.

"Yes," he replied, "these are Dr. Williams' Pink Pills for Pale People, but you need not be alarmed, they are not physic, and my word for it, they'll do you good."

"Before I had been taking them a week I noticed a great improvement in my condition. Soon my rheumatism was gone.

"I grew stronger each day and now am in the best of health.

"I consider Dr. Williams' Pink Pills for Pale People, the best tonic.

"A friend not long ago was telling me of her mother who is at a critical period in her life.

"She was subject to terrible fainting spells, and the entire family would work over her.

"Dr. Williams' Pink Pills have not only stopped the fainting spells, but given her so much strength that she is able to take up life's duties again."

To more highly endorse her words, Mrs. Browning made affidavit before George W. Gill, Notary Public.

All diseases arising from an impoverished condition of the blood, and most all come from that, are cured by Dr. Williams' Pink Pills for Pale People.

They act directly upon the blood. Building it up with lacking constituents; it becomes rich and red, the various organs are nourished and stimulated to activity in performing their functions, and thus disease is eliminated from the system.

These pills are sold everywhere, the sale being enormous.

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The largest complete line of farm machinery manufactured by any single concern in the world; embraces:

TRADE MARK Osborne Columbia Mowers, (1 and 2-horse)
 Columbia Inclined Corn Harvester and Binder, All-Steel Tedders,
 Columbia Grain Harvester and Binder, All-Steel Self Dump Rakes,
 Columbia Reaper, No. 8 Reaper, All-Steel Hand Dump Rakes,
 Flexible and Reversible Disc Harrows, Combination Harrows,
 Adjustable Peg-Tooth Harrows, Rival Disc Harrows,
 Sulky Spring-Tooth Harrows, Spring-Tooth Harrows,
 Horse Hoe Cultivators, etc.

Every machine is fully warranted and is the best of its class that can be produced with good material, complete equipment, superior skill and long experience.

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THE OUT HERE SHOWN is that of our OSBORNE COLUMBIA MOWER, which is the accumulated excellence of an experience of 42 years. Leading features—solid main frame cast in one piece, light, strong, can't warp or bend under any strain; wheels wide apart—straddle the swath, give perfect traction and easy draft, and allow use of long pitman. **Wide-faced gears**—all securely boxed away from dust and dirt. **Powerful foot lift**, raises bar over all ordinary obstacles. Highest and lowest tilt of guards. **No side draft.** Famous under hitch draft attachment—no weight on horses' necks. One-horse COLUMBIA cuts 3, 3½ and 4 ft.

D. M. OSBORNE & CO., St. Louis, Mo.

CAMPBELL'S SUB-SURFACE PACKER

Is the only Genuine and Reliable Rain Maker.

In the springtime when you begin to work the soil, it contains all the moisture necessary to mature a crop if you could but keep it. **Pack the Soil** with this machine and you preserve all the moisture. You need not care whether it rains or not. **No experiment but an assured fact.** It is indispensable in droughty semi-arid sections. **With a supply of moisture in the sub-soil to draw upon, there can be no drouth. Made in two sizes, for 2 and 4 horses. Don't plow until you get our Campbell Method of Tillage.** Also our catalogue of "Ottawa" Cylinder Dustless Shellers; "Ottawa" Farm Wagons and full line of Corn Cultivating Tools. Sent free to any address.

KING & HAMILTON CO., - Ottawa, Illinois.

Buggies, Phaetons, Surreys, Traps, Harness

Buy direct from factory at Wholesale Prices. 30 per cent saved. Guaranteed for two years. Write to-day for new beautifully Illustrated Catalogue, send 3 cents in stamps. Highest awards given us at World's Fair, Atlanta Exposition, Nashville Centennial Exposition.

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Condition of Wheat in Kansas. (Continued from page 11.)

ing. Increased oats acreage. Plenty of moisture. Rooks.—Condition 105. Oats acreage greater. Soil condition good. Rush.—Condition 120; nearly everything sown in wheat. Oats acreage less. Soil condition is as good as at any time within twenty-five years. Russell.—Condition 110. Increased acreage sown to oats. Soil condition excellent. Saline.—Condition 100. Oats acreage less. Soil condition excellent. Scott.—Condition 65. Oats acreage no greater than last year. Ground rather dry. Sedgwick.—Condition 110. Oats acreage increased probably 20 per cent. Soil condition excellent. Seward.—Probably 12 per cent. will be a failure, owing to late sowing; condition 83. Oats acreage increased. Soil condition good. Shawnee.—Condition 80. Acreage sown to oats 30 per cent. greater than last year. Soil condition good. Sheridan.—Twelve per cent. will be a failure, on account of dry, windy weather; condition 78. Oats acreage about the same as last year. Soil condition excellent. Sherman.—Condition 90; 10 per cent. may be a failure on account of late sowing. Oats acreage increased. Soil condition good. Smith.—Condition 90. Oats acreage no greater. Soil condition excellent. Stafford.—Condition 100. Oats acreage no greater. Ground in excellent condition. Stanton.—Twenty per cent. blown out; condition 50. No oats sown. Soil rather dry. Stevens.—Condition 90. Oats acreage no greater. Soil in good condition. Sumner.—Condition 94; small percentage a failure, owing to late seeding and dry weather. Oats acreage 5 per cent. greater. Soil condition excellent. Thomas.—Condition 50; 60 per cent. will be a failure, owing to dry weather. Oats acreage no greater. Ground getting dry. Trego.—Condition 100. Oats acreage no greater. Soil in good condition for plowing and planting. Wabunsee.—Condition 95. Oats acreage 10 per cent. greater than last year. Ground a little too wet. Wallace.—Condition 80. Ten per cent. blown out. Oats acreage no greater. Soil condition good. Washington.—Ten per cent. frozen out; condition 90. Oats acreage no greater. Soil condition fair. Wichita.—Condition 70; 10 per cent. blown out. Oats acreage less than one year ago. Soil condition fair. Wilson.—Condition 90; 5 per cent. will likely be a failure, owing to dry fall weather. Oats acreage 10 per cent. greater. Ground too wet. Woodson.—Condition 120. No oats sown yet. Soil condition the very best. Wyandotte.—Condition 98. Oats acreage no greater. Soil too wet.

The Dispersion of Harlan's Herefords at Kansas City, Mo., April 14, 1898.

Mr. G. W. Harlan, of Otterville, Cooper county, Missouri, has concluded to disperse his specially-selected herd of Hereford cattle and invites all interested in the White-face breed to attend his sale to be held at the Kansas City stock yards sale pavilion on Thursday, April 14, when he will offer twenty cows and heifers, seven bulls, ranging from 10 to 14 months old, nine calves, from 1 to 5 months of age; also the herd bull Mercury 58813. This herd was founded in 1895 by specially-selected individuals from the Shadeland Stock Company, Lafayette, Ind., and from the well-known herd of W. S. Van Natta & Son, Fowler, Ind. The cattle will be in good condition and ready for the inspection of prospective buyers at the sale pavilion on Monday, April 11. The day preceding, Mr. T. F. B. Sotham will hold his annual sale at Weavergrace farm, near Chillicothe, Mo., and the day following, April 15, Messrs. Scott & March, of Belton, will sell 100 head, so that prospective buyers will be afforded the opportunity to attend all three sales—April 13, at Chillicothe; April 14, at Kansas City; and April 15, at Belton, Mo. For further particulars consult the announcement elsewhere and write Mr. Harlan for a copy of his sale catalogue, which gives full particulars concerning the sale and the offerings.

We have made arrangements whereby we are enabled to offer the Kansas Farmer and the Humane Alliance, a journal devoted to the interests of humane education, both papers for one year for \$1.10. This offer is good until April 30, but will not appear again.

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it! SPECIAL.—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with order. Stamps taken.

WE BUY Cane, Millet, Kafir Corn seed. Send samples. Hubbard's Seed Store, 520 Kansas Ave., Topeka, Kas.

BLACK SPANISH JACK—For sale or exchange. T. K. Tomson & Sons, Dover, Kas.

EGGS—Pure White Plymouth Rocks and Buff Leghorn eggs for sale; 60 cents for fifteen eggs J. G. Stauffer, Quakertown, Pa.

HAVING sold my farm, I will sell at a bargain a complete up-to-date potato outfit, consisting of Aspinwall planter with fertilizer attachment (also corn, bean and pea planters), Aspinwall two-row barrel sprinker, also their cutter, one Hoover & Prout digger, cultivators, weeder, etc.; also a large quantity of sulphate of copper and Paris green; also a Harrison conveyor irrigating pump, complete, forty-four feet long, capacity 800 gallons per minute. Write quick for bargain; must be sold at once. H. E. Peers, Marion, Kas.

CHOICE varieties of Seed Sweet Potatoes—Yellow Nansemond, 70 cents bushel; Yellow Jersey, 70 cents bushel; Red Jersey, 80 cents bushel; Black Spanish, 95 cents bushel. Packed in barrels. Also Kaw Valley Early Ohio potatoes, 50 cents bushel; Extra Early Six Weeks potatoes, 70 cents bushel; Early Kansas potatoes, 65 cents bushel, in sacks. Address E. R. Hayes, Topeka, Kas.

CHOICE SEED SWEET POTATOES—The following varieties: Yellow Nansemond, 70 cents bushel; Yellow Jersey, 70 cents bushel; Red Jersey, 90 cents bushel; Black Spanish, \$1 bushel; Southern Queen, \$1. Put up in barrels and delivered to depot here. Extra Early Six Weeks potatoes, 70 cents bushel; Early Ohio Potatoes, 65 cents bushel, in sacks. Address The Capital Produce Co., 921 Kansas avenue, Topeka, Kas.

FOR SALE OR EXCHANGE—One registered Holstein-Friesian bull, 3 years old, and one yearling, subject to register. Correspondence solicited. G. J. Coleman, Mound Valley, Kas.

FOR SALE—A cross-bred Percheron-Clydesdale stallion, bright bay, weight 1,500 pounds; sure breeder. Price \$10, or will trade for stock. A. M. Coleman, Menoken, Kas.

SHORT-HORN BULLS—Two yearling Flat Creek Marys for sale. Address A. C. Rait, Junction City, Kas.

MISSIONARY B. P. R.'s—Headed by a 92 point cockerel; \$1 per 15. All proceeds from this pen, eggs and stock goes to foreign missions. Other pens, including third and fifth Mid-Continental prize-winners, \$2 per 15. Bronze Turkey eggs (Mackey strain), \$2 per 9. Mrs. F. A. Hargrave, Richmond, Franklin Co., Kas.

SILVER SPANGLED HAMBURGS EXCLUSIVELY—Stock as fine as silk. Eggs, \$1 per fifteen. E. G. Jones, Syracuse, Kas.

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PLANT NORTHERN-GROWN SEED POTATOES. Pure Early Ohio, 60 cents per bushel; ten bushels for \$5.50. W. H. Arnold, Haydon, Phelps Co., Neb.

EGGS—\$1 per 15. English Buff Cochins exclusively. Mrs. M. L. Somers, Altoona, Kas.

FOR ALFALFA SEED—Direct from the grower, Address E. G. Jones, Syracuse, Kas.

BUFF COCHIN EGGS—One dollar for thirteen; express prepaid on two settings. Twenty-five Buff Cochins hens and pullets, \$1 each; four cockerels, \$1.50 each; eleven hens and one cockerel, \$10. Fine American and English stock, deep, rich color and heavy feathered. Four fine Large English Berkshire boars, 6 months old, \$10 each. H. A. Thomas, Scranton, Kas.

CENTRAL AND SOUTHERN KANSAS CONSUMERS—Save your freight by buying your best supplies of Dr. Geo. A. Trenner, Marion, Kas. Higginville goods at their prices. Write for free catalogue.

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WHITE PLYMOUTH ROCKS EXCLUSIVELY—Large birds, best strains. Eggs, fifteen for \$1 and \$1.50. Ira A. Fisher, Mt. Hope, Kas.

CANNON'S LIQUID FRUIT PROTECTOR—A safe and effective wash for trees, vineyards, etc., destroying insects, and will keep off rabbits, mice and borers. It is used by successful horticulturists everywhere. For sale by druggists or the Cannon Chemical Co., 11 N. Main St., St. Louis, Mo.

FOR SALE—Famous Duroc-Jersey and Poland-China boars and sows. Barred Plymouth Rock eggs, 75 cents and \$1 per 15. Write. D. Trout, Abilene, Kas.

SCOTCH COLLIE PUPS—At living prices. Highly bred. A. P. Chacey, Elmont, Kas.

FOR SALE—A fine Jersey bull, 2 years old. J. F. Wilson, Elmont, Shawnee Co., Kas.

RASPBERRY PLANTS FOR SALE—Kansas, Palmer and Gregg, at \$7 per 1,000. Shipped promptly by freight or express. Order at once. L. C. Clark, Hiawatha, Brown Co., Kas.

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

FOR SALE—Imported Percheron stallion, coal black, 10 years old, weight 1,800 pounds. Can show colts from 5 years old down. Price \$200. W. C. Brown, Cedar Junction, Kas.

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

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

FOR SALE—Jersey bulls, four months to a year old. I will also sell my breeding bull, Oakland Disk. He is a fine animal. They are all solid color and come from the best of registered Jersey stock. For further information write to Chas. H. Johnson, Minneapolis, Kas. Lindsay Creek Jersey Farm.

FARM FOR SALE.—\$500 buys an eighty-acre farm in Edwards county, two miles north of Kinsley, Kas. A living stream of water runs over the farm. The buyer will get a clear deed of it and all tax receipts paid in full. A. L. Brundage, 30 West Twenty-fourth St., Chicago, Ill.

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LIGHT BRAHMA EGGS—\$1 per 15; \$2 for 45; \$3 per 100. A few cockerels for \$1 each. Mrs. N. Van Buskirk, Blue Mound, Kas.

FOR SALE—Light Brahma cockerels, heavy weight and first-class. Prices, \$1 and upward. Address John Kemp, North Topeka, Kas.

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500 BUSHELS SEED SWEET POTATOES—For sale. Nine best kinds. Rates low. Call on or write to N. H. Fixley, Wamego, Kas.

ALFALFA SEED—I will furnish nice, clean alfalfa seed at 4 1/2 cents per pound. Sacks 15 cents each. H. L. Zimmerman, Garden City, Kas.

BARRED PLYMOUTH ROCKS exclusively. Eggs, \$1.50 per 15. David Enoch, Salina, Kas.

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ALFALFA SEED.—If you want any, write C. W. Jenkins, Kinsley, Kas.

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ARTICHOKEES—Cheapest and best of all hog feed. Often yield 1,000 bushels per acre. Price, single bushel, \$1. Cash with order. Write for prices and freight rates to all points. H. E. Shuler & Co., 2900 East Fifteenth St., Wichita, Kas., or H. E. Shuler & Co., Box 277, Topeka, Kas.

FOR SALE OR TRADE—A first-class Morgan and Hambletonian stallion. For pedigree and description address J. E. Barnes, Mound City, Kas.

FOR SALE—A Wilcox & White organ for \$35, at 1338 Mulvane St., Topeka.

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

SHORT-HORN FOR SALE.—A choice lot of young bulls; in good condition; good individuals and bred right. A few choice heifers, coming 2. H. R. Little, Hope, Kas.

PLANTS—Strawberry, raspberry, rhubarb, grape, gooseberry, currant. J. C. Banta, Lawrence, Kas.

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CANE AND MILLET SEED WANTED—Highest market price. Send samples; state quantity. Kansas City Grain & Seed Co., Kansas City, Mo.

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THE STRAY LIST.

FOR WEEK ENDING MARCH 17, 1898. Crawford County—F. Cunningham, Clerk. COLT—Taken up by R. D. Werley, in Crawford tp., one black horse colt, 56 inches high, two white hind feet, white star in forehead.

FOR WEEK ENDING MARCH 31, 1898. Brown County—Mrs. D. P. Leslie, Clerk. HEIFER—Taken up by H. H. Kimmel, in Pottawatomie tp., February 28, 1898, one heifer, 1 year old, weight about 500 pounds, red and white spotted, no marks or brands visible, dehorned or natural muley; valued at \$15.

Cherokee County—S. W. Swinney, Clerk. HORSE—Taken up by D. C. Williams, in Shawnee tp. (P. O. Messer), March 14, 1898, one sorrel gelding, fourteen hands high, blaze face, foretop cropped, shod all around, 7 years old; valued at \$20.

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Canna and Dahlia bulbs, 7c; per hundred, \$5; Gladiolus and Tuberoses, 3c; Geraniums, 5c; Roses, Two-year Climbers and Hy. Perpetuals, 15c; Teas, potted, 10c; Asparagus, 50c per hundred; Rhubarb, 50c per twelve; Raspberry and Blackberry, 60c per hundred. Twenty-five plants and bulbs, \$1. Mail or express.

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Table with 4 columns: Cattle and Calves, Hogs, Sheep, Cows. Rows include Official Receipts for 1897, Slaughtered in Kansas City, Sold to feeders, Sold to shippers, Total Sold in Kansas City 1897.

CHARGES: YARDAGE—Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, 80c per 100 pounds. CORN, 60c per bushel. OATS, 60c per bushel.

NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED. C. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUST Vice Pres. and Gen. Mgr. Secy. and Treas. Asst. Gen. Mgr. Traffic Manager.

ALVIN HOOD, President. L. A. ALLEN, Vice President. H. S. BOICE, T. J. EAMAN, Sec'y and Treas.

Kansas City Live Stock Commission Co.

Rooms 277 A, B, C, D Stock Exchange, KANSAS CITY STOCK YARDS.

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Correspondence and consignments solicited. Good sales, prompt returns. Ample capital. Twenty years actual experience. Market reports free on application.

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 10,000 Acres Tennessee Farming Lands,
 Twenty-five miles from Nashville, Tenn.
FIFTY ACRES FOR \$200.
 Good Climate—Good Water—Good Land. Sales
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 P. E. COX, Manager.
 Address all communication to
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"The World's Orchard."
 Buy a home along the "Iron Mountain
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 For full particulars and prices of land write to
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of the best quality. Rich soil. On railroad.
 Streams and Lakes. Coal. Big crops. Your
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LOOK THIS UP. It will pay you. For free
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DON'T WASTE Grain
 or money sowing by hand or
 with cheap imitations of the
CAHOON
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SEED SOWER
 which is the most
 economical, accurate,
 durable and rapid
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 made. Acknowledged
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 "Get the Best." If
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 Circulars Free.
 GOODELL COMPANY, Astoria, N. E.



STOP THAT LEAK
ZENOLEUM
ABSOLUTELY NON-POISONOUS
 The shepherds' profit often leaks
 away through the invisible chan-
 nel of Lice, Ticks, Itch, Scab
 and other insect or parasite pests
 without his knowing what is wrong.
THE REMEDY—that which will
 stop the leak and turn the tide toward
 profit is **ZENOLEUM...**
the Non-Poisonous Cure for all
 these ills and others. Can be used hot or
 cold. **Does not stain the fleece.**
 It is cheap—1 gallon makes 100 gallons.
WANT RELIABLE AGENTS everywhere. Write
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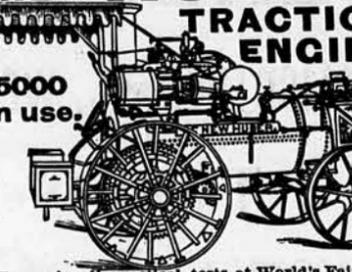
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Victory Implement and
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 Home-made and the best
 made for all purposes.
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 If your dealer does not carry
 these goods send direct to
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THE NEW HUBER TRACTION ENGINE

5000
In use.
 Winner in all practical tests at World's Fair. All
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 General Western Agents for
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The Kansas City Star.

By Mail, Daily and Sunday, \$4.00 a Year
 The Weekly, One Year . . . 25 Cents

Going East!

Then take the Santa Fe Route to
 Chicago. Thirty miles the short-
 est; rock-ballasted track; few
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 of Pullman palace sleepers and
 free reclining chair cars lighted
 by electricity. Dining cars serve
 all meals and you pay only for
 what you order. If you want
 safety, speed and comfort,

Travel via Santa Fe Route.

W. C. GARVEY, Agent, Topeka.

There is Danger in Smoking Meat OVER A FIRE.

Smoke it with Wright's Condensed Smoke, made from hickory wood, con-
 taining a new meat preservative. Gives
 meat a fine flavor and protects it from
 insects. Satisfaction guaranteed. A 75c
 bottle (quart) smokes a butchering. Sold
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 sample (smokes two or three hams) by
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 Never sold in bulk. Made only by
E. H. Wright & Co., Ulysses, Neb.



Pressure between burrs in grinding is carried on chilled roller bearings.
 Large inside burr revolves twice as sweep's one. Ordinary length sweep.
DAIN DOUBLE MILL
 Sold under an absolute guarantee to do double the amount of work of any other mill of same size or money refunded. Write for circulars and prices.
DAIN MFG. CO., Carrollton, Mo.



HERE • YOU • ARE!

COMBINATION OUTFIT.

- CONTENTS:**
- 1 Iron stand for lasts.
 - 1 Iron last for men's w'rk
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 - 1 Shoemaker's hammer.
 - 1 Shoemaker's knife.
 - 1 Patent peg awl.
 - 1 Peg awl.
 - 1 Sewing awl handle.
 - 1 Sewing awl.
 - 1 Harness awl handle.
 - 1 Harness awl.
 - 1 W'rk'ch for pg-awl h'ndl
 - 1 Bottle leather cement.
 - 1 Bottle rubber cement.
 - 1 Bunch bristles.
 - 1 Ball shoe thread.
 - 1 Ball shoe wax.
 - 1 Pkg 1/2 half-soleing nails
 - 1 Pkg 3/4 " " "
 - 1 Pkg 1 " " "
 - 1 Pkg 1 1/2 " " "
 - 4 Pairs heel plates.
 - 1/2 Doz. shoe and hrns ndls
 - 1 Saw and harness clamp
 - 1 Bx. h'rns and belt rivts
 - 1 H'rns and belt punch
 - 1 Pair pliers.
 - 1 Sold'ng iron, with hndl
 - 1 Bar solder.
 - 1 Box resin.
 - 1 Box soldering fluid.
 - 1 Dir'ct'ns for sold'ng, etc
 - 1 Copy directions for half soleing, etc.

Securely packed in wooden box with hinged lid.
 Weight 23 pounds. No family can afford to be with-
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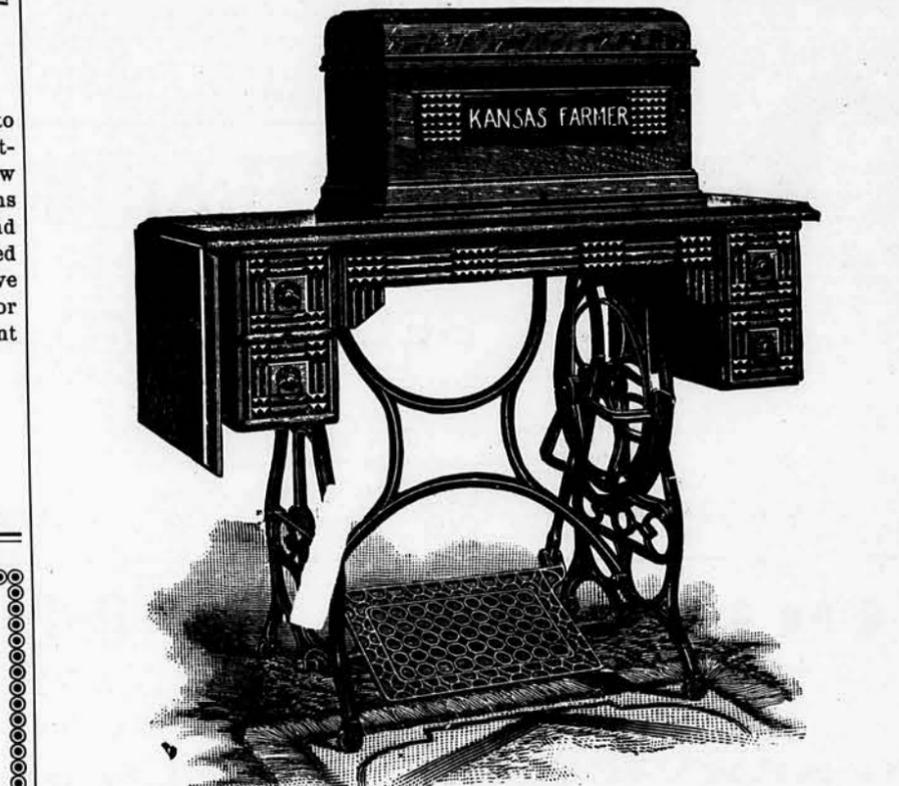
OUR PRICE—Delivered, east of Rocky moun-
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THE COMBINATION
 FAMILY COBBLER TINKER HARNESSE MENDER
 A COMPLETE OUTFIT FOR GENERAL
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\$20 This Machine and Kansas Farmer one year **\$20**
THE
Kansas Farmer Sewing Machine



Finished in Either Oak or Walnut. Freight Charges Prepaid to All Points East of the Rocky Mountains.

High Arm Sewing Machine. This machine is of the same high grade that is usually sold by agents and dealers for from \$45 to \$50.

We Claim for It That it has all the good points found in all other machines of whatever make; that it is as light running a machine as any made; that every part is adjustable and all lost motion can be readily taken up; that it has the simplest and most easily threaded shuttle made; that all the wearing parts are of the best case-hardened steel.

The Attachments supplied without extra charge are of the latest design, interchangeable, and constructed to slip on the presser-bar. They are made throughout of the best steel, polished and nickel-plated, and there is not a particle of brass or other soft metal or a single soldered joint about them. They consist of Ruffler, Tucker, Binder, Braider Foot, Under Braider Slide Plate, Shirring Slide Plate, Four Hemmers of assorted widths, Quilter, Thread-Cutter, Foot Hemmer and Feller.

The Accessories include twelve Needles, six Bobbins, Oil Can filled with oil, large and small Screwdrivers, Sewing Guide, Guide Screw, Certificate of Warranty good for five years, and elaborately illustrated Instruction Book.

Guarantee: We give with it the manufacturers' guarantee, who agree to replace at any time in **TEN YEARS** any part that proves defective.

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

COLUMBIA CHAINLESS BICYCLES

STANDARD OF THE WORLD. PRICE \$125.

The Columbia chainless bicycle has already passed harder tests than any bicycle ever made, and has proved itself the best. Other makers may decry the Columbia chainless, yet they offer you an untried imitation in the same breath.

REMEMBER THIS—We make but one quality of Columbias, and that is the very best. There is no varying of material, construction or quality. All Columbias are made of 5 per cent. Nickel Steel Tubing, which costs twice as much and is 30 per cent. stronger than any other tubing known.

Columbia Chain Wheels	Price \$75
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POPE MFG. CO., Hartford, Conn.
 Catalogue free from any Columbia dealer, or by mail for one 2-cent stamp.

Culver & Bailey, Columbia Dealers,
TOPEKA, KANSAS.

Free Catalogue of Fresh Kansas Seeds—
Now ready. Send for one to **KANSAS SEED HOUSE,** F. BARTELDES & CO. Lawrence, Kas.

SEEDS

ALFALFA SEED A SPECIALTY,
Choice Cane and Millet, Kaffir, Spring Wheat and Jerusalem Corn, White Hulless Barley, Seed Oats. Full particulars and book, "How to Sow Alfalfa," free. **McBETH & KINISON,** Garden City, Kansas.

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GARDEN TOOLS, POULTRY SUPPLIES.
LANDRETH'S GARDEN SEEDS.

VERNON COUNTY HERD OF REGISTERED POLAND-CHINAS.

125 head in herd. Herd boars, King Hadley 16766 S. and Turley's Chief Tecumseh 2d 17978 S. Ten Choice Gilts sired by King Hadley 16766 S., the second prize boar in Missouri, and bred to Turley's Chief Tecumseh 2d 17978 S., at \$15 to \$20 each. Must have room for coming pig crop. **J. M. TURLEY,** Stotesbury, Vernon Co., Mo.

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BREEDER OF
The Prize-winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District fair, 1893; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 23441, Black Joe 28003, World Beater and King Hadley. For Sale, an extra-choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

Sir Charles Corwin 14520 and Darkness Wilkes 18150 HEADS OF HERD.



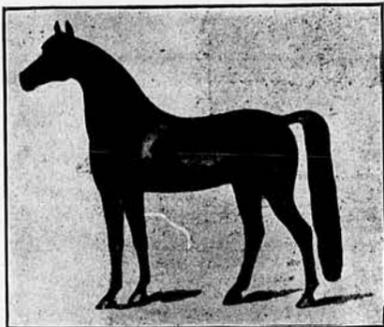
We have been in the show ring for the last three years, always winning the lion's share of the premiums. If you want prize-winners and pigs bred in the purple, we have them. All ages of Poland-China swine for sale. Write or come and see us. We have an office in the city—Rooms 1 and 2 Firebaugh Building.

ELM BEACH FARM, Wichita, Kas., C. M. IRWIN. S. C. DUNCAN, Supt



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

Kentucky Saddle Horses!



EAGLEITE, SON OF BLACK SQUIRREL. In service for Thoroughbred, Standard-bred and Saddle Mares. Mares received by freight, bred and returned. We also breed Shetland Ponies, Great Danes, Essex Swine, Toulouse Geese, Pekin Ducks and Indian Games.

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DEER PARK FARM.

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

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

200 EGG INCUBATOR, ONLY \$10
F. M. CURYEA, Hanna, Ind.

J. G. Peppard
1400-2 Union Avenue,
KANSAS CITY, MO.

MILLET CANE CLOVERS TIMOTHY GRASS SEEDS.

SEEDS

SOTHAM'S HEREFORD SALE!

CHILLICOTHE, MO., WEDNESDAY, APRIL 13, 1898.

Twenty-five Bulls, Twenty-five Cows and Heifers

The First Daughters of Corrector Yet Offered.

The only breeding establishment in the world that absolutely refuses to price cattle at private sale.



Everything held for our annual auction. Our stock has not been culled. The "tops" are included.

We confidently claim that our offering this year is **The Richest-bred Lot of Herefords Ever Sold in America** And individually the best we have ever catalogued.

Catalogue containing a portrait by Hills of every animal in the sale, complete tabulated pedigrees, full list of prizes won by the Weavergrace Herd since 1890, and other information, sent to any address on application. Address

T. F. B. SOTHAM, Chillicothe, Mo.

COLS. JAMES W. JUDY, S. A. SAWYER, F. M. WOODS and J. W. SPARKS, Auctioneers.
Sale begins at 1 p. m. Special trains from Chillicothe to farm day of sale.

DISPERSION SALE OF SHORT-HORNS

The Entire Maple Grove Herd of Short-horn Cattle, to be Sold at the Farm, Adjoining **BELTON, MO., SATURDAY, APRIL 16, 1898,** [BEGINNING AT 10 O'CLOCK A. M.]

The herd consists of fifteen Bulls and fifty-seven Cows and Heifers, all bred to the Cruickshank bull, Champion of Maple Hill 118358. The females in the herd are of the Princess, Bates, Barrington, Mazurka, Rose of Sharon, Booth, Kirklevington and Wild Eyes families. Special train from Kansas City to the Scott & March Sale, at Belton, April 15. Hotel and private accommodations over night. Write for catalogue.

COL. F. M. WOODS, } Auctioneers.
COL. J. W. SPARKS, }

H. H. GRIMES, Belton, Mo.

100 REGISTERED HEREFORD CATTLE AT AUCTION 100

AT BELTON, CASS CO., MO., FRIDAY, APRIL 15, 1898.

When we will offer at our breeding farm, adjoining Belton, from our herd of over five hundred head,

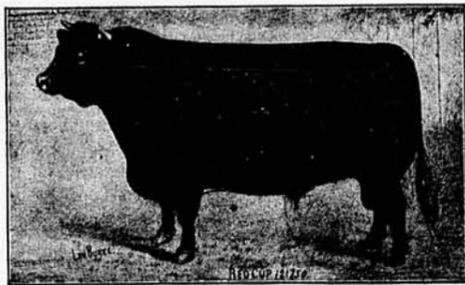
50 SERVICEABLE BULLS and 50 SELECTED HEIFERS

Ranging from thirteen to twenty-four months old. Thirty-two of the heifers are bred to our best herd bulls.

A SPECIAL TRAIN will leave Union Depot at Kansas City via Kansas City, Fort Scott & Memphis railroad, at 8 a. m. and arrive at Belton at 9:20 a. m. RETURNING TRAIN will leave Belton at 7 p. m. and reach Kansas City at 8:20 p. m. Usual sales-day lunch at 11:30 a. m. Sale will open at 12:30 sharp. For further information write for a free copy of sale catalogue.

COL. F. M. WOODS, } Auctioneers.
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SCOTT & MARCH, Belton, Cass Co., Mo.



COL. J. W. JUDY, Tallula, Ill.
COL. J. W. SPARKS, Marshall, Mo. } Auctioneers.

OUR FOURTH ANNUAL PUBLIC SALE HIGH-CLASS SHORT-HORN CATTLE

Will Take Place on the Fair Grounds at

CHILLICOTHE, MO., THURSDAY, APRIL 14, 1898.

51 HEAD The get of the Cruickshank bulls Imp. Chief Stewart 96703, Col. Scott 118452, Dick Thistletop 118676, and the great show and breeding bull, Red Cup 121750, the greatest son of the famous Cup Bearer. The bulls range in age from twelve to eighteen months, are of the short-legged, blocky, beefy sort, and are the best lot I have ever sold. The females are mostly of breeding age and will either have calves at foot by or be bred to the prize-winning bull Red Cup, whose get show him to be as good a breeder as he is a show bull. Quite a number in the offering were sired by either Red Cup or Col. Scott, and out of dams by Imp. Chief Stewart. Sale under cover. For Catalogue address,

JOHN MORRIS, Chillicothe, Livingston Co., Mo.