

# KANSAS FARMER

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GROUP OF SHORTHORNS FROM HERD OF V. R. ELLIS, GARDNER, JOHNSON COUNTY, KANSAS.

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We are offering boars ready for service at lower prices than ever. Sows and Gilts safe in pig also very low. And we own the best bred son of Chief Tecumseh 2d 9115. Will take a few sows at low service fee. Write quick. We will please you sure.

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**Silver Spring Herd Poland-China Hogs.** Headed by HADLEY'S MODEL T. Bred sows, gilts and boars of choicest breeding for sale. Address WALTER ROSWURM, Council Grove, Kas.

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

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Has some fine sows, 1 year old this fall, sired by Tecumseh Chief (he by Chief Tecumseh 2d), and are bred to Look Over Me (he by Look Me Over); also, an extra lot of Spring Gilts, bred the same, and some good Spring Males of the same breeding. Come and see, or write and get prices. Wm. Maguire, HAVEN, KAS.

#### H. W. CHENEY, North Topeka, Ks. POLAND-CHINAS

of the fashionable prize-winning Chief I Know strain. Cheney's Chief I Know at head of herd. Pigs for sale. Prices low.

#### BLUE MOUND HERD BERKSHIRE SWINE.

Herd boars, Victor Hugo 41799 (sire imp.), Barkis 30040 (weight 800 lbs.), Prince Jr. 17th, from World's Fair winner. Choice pigs from five different strains. Also bred Shropshire sheep, M. B. turkeys and B. P. Rock chickens. Write.  
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### SWINE.

#### CRESCENT HERD POLAND-CHINAS.

Boars and gilts for sale.  
**S. W. HILL, Hutchinson, Kas.**

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**RIVERDALE HERD OF** Chester White swine and Light Brahma poultry. J. T. LAWTON, BURTON, KAS., proprietor. All stock guaranteed. I can also ship from Topeka, my former place.

#### VERDIGRIS VALLEY HERD—Large-Boned Poland-Chinas.

Three hundred head, six good spring boars, good bone, large and growthy, very cheap. Six June boars, very heavy bone and fancy, four of them will make herd-headers. Twenty yearling sows and spring gilts, bred, good ones, at from \$12 to \$16. One hundred and fifty of the finest fall pigs we ever produced. For sale cheaper than you ever bought as good pigs before. **WAIT & EAST, Altoona, Wilson Co., Kans.**

#### CAP-A-PIE HERD OF Poland-Chinas

**Geo. W. Falk, Richmond, Mo.,**

Is still doing business at the old stand, where, for the past fifteen years, he has been breeding and selling a class of hogs that have been winners at the leading State fairs, and have been topping the markets in Chicago and Kansas City—the end of all hogdom. Has constantly on hand boars large enough for service and sows bred and unbred. Write for prices, which are always reasonable.

### SWINE.

#### POLAND-CHINA SWINE.

Chief I Know and Hadley Jr. strains.  
**J. H. TAYLOR, Rhinehart, Kans.**

**Wamego** Imp. Chester Whites and Poland-Chinas. for best results. Arrived Plymouth pens and eggs. Correspondence to FARMER, Wamego, Kas.

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he purple for sale at natives. We keep ar prices and be convinced.  
**MANV** OS., Lawrence, Kans.

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**EHLER'S FIRE ALARM—**Patented November 9, 1897, will give you instant notice when fire breaks out in your barn or store. Ingenious metal pipe containing quick fuses, which sparks ignite, and explode bomb outside of house. Heard a mile away. Costs only 15 cents per foot, length of building. Send 15 cents for sample and be convinced. Insurance saved. Agents wanted. **Automatic Fire Alarm Co., Box 357, Richmond, Va.**



## Agricultural Matters.

### YEARBOOK OF THE UNITED STATES DEPARTMENT OF AGRICULTURE.

The Yearbook of the United States Department of Agriculture for 1898 is now ready for distribution. It is a volume of 768 pages, and is divided into three parts. The first part, as usual, consists of the Annual Report of the Secretary of Agriculture for the fiscal year 1898, and covers the operations of the Department for that year. The second part embraces miscellaneous papers, prepared with few exceptions by the chiefs of bureaus, divisions, and offices of the Department.

The third part is the Appendix. Special attention has been given to this part of the volume with a view to increasing its scope and usefulness, and an effort has been made to give the Appendix the character of an agricultural directory. In addition to the usual Department directory and the directory of colleges and experiment stations, there have been included lists of the principal officials having charge of agriculture in the several States; of managers of farmers' institutes; of national and State dairy officials; of the several associations of cattle, horse, sheep, and swine breeders with their secretaries; of poultry associations; of State veterinarians and State health officers; of the forestry officers of the different States and of the State forestry associations; of the officers of horticultural and kindred societies, State granges, etc.

The editor, Mr. Geo. Wm. Hill, calls attention to the great difficulty of securing such information, and suggests that its publication in an edition of 500,000 copies for distribution among the farmers of the country should make it worth while for the many officials interested to supply the necessary data for the presentation of this information in the Yearbook. If possible it should be in the hands of the editor by January 31 of each year.

The Appendix also contains the usual statistics relating to crops, prices of farm animals and farm products, the imports and exports of agricultural products, and transportation rates; and in addition brief articles showing the amount of the foreign trade of Cuba and the Philippines, methods of control of injurious insects, preparation and use of insecticides, and other useful information.

The publication contains 41 plates and 136 text figures.

The edition of the Yearbook is 500,000 copies, 470,000 of which are by law reserved for the exclusive use of Senators, Representatives, and Delegates in Congress, and 30,000 are allotted to the Department of Agriculture. This allotment is consumed in the distribution to crop correspondents and others co-operating with the Department or rendering it some service. Very few copies, therefore, are available for miscellaneous distribution, and applicants will generally be obliged to apply to Senators or Representatives in Congress.

The following is a list of the miscellaneous papers in the volume:

Some Types of American Agricultural Colleges. By A. C. True, Ph. D.—In this article are set forth the chief characteristics of different kinds of institutions in which agricultural instruction of college grade is provided.

New Work in the Weather Bureau. By Willis L. Moore.—A review of the most important new lines of work in the Bureau. These consist of the establishment of additional observing stations in the arid and subarid West and in the principal cotton-producing regions of the South; of seventeen aerial meteorological stations; and the inauguration of a tentative West Indian daily cablegraphic meteorological service.

The Danger of Introducing Noxious Animals and Birds. By T. S. Palmer.—An argument in favor of restricting the introduction into this country of animals and birds of doubtful value. The animals and birds which have thus far proved most injurious are the rabbit, mongoose, stoat, weasel, flying fox, English sparrow, starling, and mina.

The Preparation and Use of Tuberculin. By E. A. Schweinitz, Ph. D.—What tuberculin is, methods of preparation and use, cost, and diagnostic value.

The Principal Insects Affecting the Tobacco Plant. By L. O. Howard, Ph. D.—A description of tobacco insects, their life history, when they make their appearance, damage, and remedies.

Pruning of Trees and Other Plants. By William Saunders.—How and when to prune trees, hedges, and plants.

Pollination of Pomaceous Fruits. By M. B. Waite.—Shows that cross pollination is an important factor in the production of pome fruits.

Notes on Some Forest Problems. By Gifford Pinchot.—Treats of forestry in the wooded regions and in the treeless regions, Government forest work, forest grazing,

tree planting on the plains, and forest fires.

Weeds in Cities and Towns. By Lyster H. Dewey.—Gives an account of the characteristics of weeds that grow in cities and towns; their good and bad effects, together with suggestions for the improvement of lots where they grow.

The Use of Kites in the Exploration of the Upper Air. By C. F. Marvin.—History and construction of the scientific kite, and description of the apparatus used in making explorations of the upper air.

Utilization of Residues from Beet-Sugar Manufacture in Cattle Feeding. By Guilford L. Spencer.—Calls attention to the good results from feeding pulp to cattle in Europe and shows the great value to American farmers of a large extension of the beet-sugar industry.

Birds as Weed-Destroyers. By Sylvester D. Judd, Ph. D.—The author describes a weed as a plant out of place and gives descriptions of birds that destroy weeds, mentions the weeds they destroy, and says these little birds are little weedeaters, whose work is seldom noted, but always felt.

Insects Injurious to Beans and Peas. By F. H. Chittenden.—History, origin, development, general appearance, and method of work of insects that are injurious to beans and peas.

Work in Vegetable Physiology and Pathology. By Albert F. Woods.—Results of investigations of the grain smuts, grain rust, black rot of the cabbage, and various important diseases; also a report of the advance made in tree planting.

Millet. By Thomas A. Williams.—What is designated as millet, the different varieties, their place on the farm, habit and conditions of growth, uses, feeding and fertilizing value.

Steel-Track Wagon Roads. By Martin Dodge.—Advantages of steel-track wagon roads, tests of utility, methods of laying, and cost of construction.

Work of the Division of Forestry for the Farmer. By Gifford Pinchot.—Relates to the introduction of suitable trees for planting in the treeless portions of the West, and to better methods of handling wood lots on farms in regions where trees now grow, so that the forest of the farmer may be improved without appreciably increasing the cost of harvesting.

Utilizing Surplus Fruits. By G. B. Brackett.—Three processes of disposing of surplus fruits are given; also the methods of treatment. The processes are sun drying or evaporation by artificial heat, canning, and extracting the juice for cider, vinegar, jellies, etc.

Construction of Good Country Roads. By Maurice O. Eldridge.—What constitutes good country roads and how to construct them.

The Public Domain of the United States. By Max West, Ph. D.—A statement of the extent and character of the public lands of the United States by political divisions and by States and Territories, and the chances left for the homesteader.

Improvement of Plants by Selection. By Herbert J. Webber.—Discusses the process of fixation of desirable variations in plant breeding by methodical selection, and the gradual improvement of plants resulting from the cumulative effect of selecting through many generations those which normally occur in all plants.

Can Perfumery Farming Succeed in the United States? By Edward S. Steele.—The writer states the value of the importations of perfumery, describes the methods of extracting essential oils, the plants suitable for the purpose, and says that the two points of difficulty in the way of producing perfumery in this country are the lack of information and the cost of labor, but points the way for an advance in perfumery farming.

The Movement and Retention of Water in Soils. By Lyman J. Briggs.—An illustration of the surface tension and capillary movement of water and the influence of the texture of soils upon its movement.

Sand-Binding Grasses. By F. Lamson-Scribner.—Descriptions and Importance of grasses suitable for sand binding.

Keeping Goats for Profit. By Almont Barnes.—Directs attention to the large number of goat skins imported and their value, the large area of unimproved farm lands suitable for the maintenance of goats, and the favorable conditions for raising them; also shows how the industry may be made profitable.

Some Results of Dietary Studies in the United States. By A. P. Bryant.—Results of investigations on the food and nutrition of man as shown by studies of the similarity of food consumption of people living under similar conditions, difference in food consumption among people of different occupations, among Mexicans and negroes, and in farmers' families; also showing some effects of different combinations of food on dietary, and the desirability of considering nutritive value in the purchase of food.

Cattle Dipping, Experimental and Practical. By Victor A. Norgaard V. S.—A consideration of the experiments in cattle

dipping or immersion of cattle in solutions of various chemical preparations for the purpose of destroying parasites which infest the skin, with particular reference to freeing the cattle of the parasites known as ticks, especially the *Boophilus bovis*, the tick which causes Texas or Southern fever.

Grass Seed and Its Impurities. By the late Gilbert H. Hicks.—Recites the difficulties in securing good grass seed; points out the distinguishing marks, where such exist, between the different species, so that they can be identified; also gives warning against the most common impurities, and states briefly the essential qualities of good seed.

The Soluble Mineral Matter of Soils. By Thomas H. Means.—Treats of the soluble matter in soils, absorption of salts, classification of soluble matter, physical absorption, etc.

Agriculture in Puerto Rico. By Roy Stone.—A brief outline of the agricultural conditions, topography, climate, soil conditions, distribution of products, cattle-raising, and land ownership of the island; also calls attention to the need of experiment stations, transportation facilities, and irrigation.

Agricultural Experiments in Alaska. By C. C. Georgeson, M. S.—A brief account of experiment work in Alaska with vegetables, cereals, forage plants, and flax, with some observations on cattle-raising.

Cyclones, Hurricanes, and Tornadoes. By F. H. Bigelow.—The nature, occurrence, characteristics, and physical features of these three types of storms and the conditions producing them are described.

Forage Plants for Cultivation on Alkali Soils. By Jared G. Smith.—Gives a list of plants that will grow on alkali soils, including some that will stand ten times as much alkali as wheat and one hundred times as much as Kentucky blue-grass.

The Present Condition of Grape Culture in California. By George Husman, of Napa, Cal.—A sketch of the development of the grape industry in California and the prospects for its expansion and growth.

The Hawaiian Islands. By Walter Maxwell.—A brief history of the Hawaiian Islands, showing the area, population, climatic conditions, and products.

Notes on Some English Farms and Farmers. By Geo. Wm. Hill.—A presentation of facts connected with the management of some English farms, showing the thrift and businesslike methods of the British farmer.

#### A One-Horse Cultivator.

Editor Kansas Farmer:—Recently I received a letter from a subscriber in Missouri, stating that he thought me a good judge of machines and asking me to name the best make of one-horse cultivators. He said he used eagle claw gangs that pleased him, and if I could tell him of a single cultivator that would do as good work as these gangs, he would consider he had the worth of his subscription price. As a further inducement he added that doubtless many more would profit by the answer.

The eagle claw gangs mentioned are no better than many others and are thought to be inferior to some, but the work done by all makes of eagle claws is very similar, and, to my notion, far ahead of any work done by the old-style murderous-looking large shovels. It would cost my friend about \$8 to get a single cultivator, and I will now save him the \$8 and pay him for his subscription besides, and I hope many others also.

Take out the four short bolts that hold the beams of the gangs to the casting of the carriage, put between the ends of the beams a piece of wood as thick as the castings and put back one of the bolts in each gang, putting the other two bolts in carriage casting so they will not get lost. Take off one inside shovel and its casting on one gang and bolt the two gangs together, using the bolt holes in the beams.

Now, then, the two eagle claw gangs are bolted firmly together at the rear and only need to be bolted together at the front end and a gauge-wheel put on to make a seven-tooth single cultivator that will do as good work as any double cultivator.

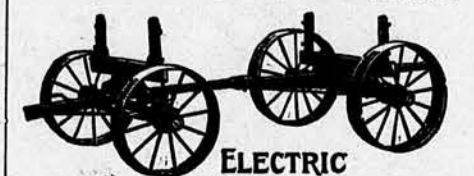
Cut off a gas pipe the proper length to brace the front end of the beams apart; have it of such size that it will just slip into the hub of one of the wheels; put the wheel, or both of them, on the pipe and fasten them in place by collars with set-screws in them. Now run a bolt of the proper length through the gas pipe and the two forward holes in the beams, and screw up tight, and you have your one-horse cultivator that will run alone and will stand without tipping over, and any work can be done with it that any of them will do. Two ropes or chains must be used to draw by.

If a gas pipe is not handy, make a hard wood axle for the gauge-wheel and clamp the ends, or use wood lag-screws to screw into the ends, the wheel or wheels being kept in place by nails driven in the axle.

The two handles both slant one way,

#### Farm Wagon Economy.

The economy of this proposition is not all found in the very reasonable price of the wagon itself, but in the great amount of labor it will save, and its great durability. The Electric Wheel Co., who make this Electric Handy Wagon and the now famous Electric Wheels, have solved the problem of a successful and durable low down wagon at a reasonable price.



ELECTRIC

This wagon is composed of the best material throughout—white hickory axles, steel wheels, steel hounds, etc. Guaranteed to carry 4,000 pounds. These Electric Steel Wheels are made to fit any wagon, and make practically a new wagon out of the old one. They can be had in any height desired and any width of tire up to eight inches. With an extra set of these wheels a farmer can interchange them with his regular wheels and have a high or low down wagon at will. Write for catalogue of the full "Electric Line" to Electric Wheel Co., Box 46, Quincy, Ill.

and may be too awkward for one to use, but in this case another handle can be temporarily lashed on in place.

There are so many little things like this that farmers can give to each other, that I suggest that every one who reads this would send to the Farmer, or to me, the description of any labor-saving device they may know of.

One of the handiest things I know of is to have an extra clevis screwed into an extra hole in every pair of doubletrees on the farm. I have always had them on all of my eveners, and I never had to spend any time looking up clevises when needed. I always have one screwed through the rear end of the wagon coupling-pole and am always prepared to couple to any machine or wagon, and it is the proper thing to tie horses to when leading them. I always have a wrench on every wagon and every machine, no matter how many it takes.

Horseshoes nailed to gate posts make good supports or fastenings for the gate. This is a little thing, yet I presume many use a poorer way, while many others use some improvement.

Brother farmers, let us hear from you. Eli Benedict, what can you tell us? I have waited a long time to read an article from your able pen. For push, vim, and vigor in an article, I will always take off my hat to Brother Benedict, my old-time neighbor, but now of Medicine Lodge.

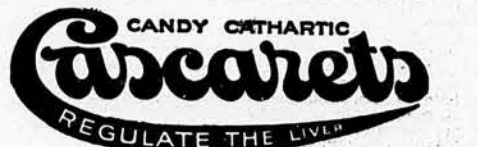
J. CLARENCE NORTON.  
Morantown, Kans.

#### The Provision Puzzle.

The provision prospect is a puzzling one, says the Chicago Times-Herald. It is not the season for an advance in product, for there should be a heavy run of hogs in May and June. It is not particularly the season for consumption. Yet hog receipts are considerably under the expectation, and so high as to make losses for those packers who are killing. Even the hog situation is itself a puzzle. The quality of the receipts is good, indicating no scarcity; there are no reports of sickness; the country advices are of a plentiful supply. Why the hogs do not come faster is a question no interest seems certain about. The season has been a little behind for the farmer from the start—April very much like March, and May very much like April. Perhaps it is the fact that the farmer is just about enough behind in his work to throw the usual May run of hogs over to June and the June to July. The lard stock is not decreasing appreciably; the supply of meats is large enough to keep the manufacturer from getting very enthusiastic about prices. Besides, he does not care to see the market bull just now; he'd rather see the run of hogs he has been expecting. There is a general feeling that product can not stay under hogs forever, and that provisions will not forever be the one property to drag and decline with money plenty and everything else more or less enhanced. The provision man in a fatalistic way expects a good time to come, but can not tell when, and certainly can not explain why.

He—I suppose you would scream and wake up everybody in the house if I were to kiss you.

She—Why is it that some folks can't help borrowing trouble?—Chicago Evening News.





## The Stock Interest.

### THOROUGHbred STOCK SALES.

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

NOVEMBER 1—W. T. Clay, Plattsburg, Mo., Short-horns.

### Balanced Rations for Work Horses.

Editor Kansas Farmer:—The season of land work for horses is well begun and will continue on the majority of the Kansas farms till the first of next November. Unless this season is an exception to the rule, the majority of horses will begin the year's work in good flesh and spirits, but before the season is over thousands of them will be so poor as to be almost literally "nothing but skin and bones," and will require a winter of high feeding to make them able to begin another year's work. This method of treating horses is ruinous to the horse as well as expensive to its owner. Horses so treated are weak at a time when the heaviest work is required of them. Their bones protrude in such a way as to make it almost impossible to prevent the harness from galling them and we almost invariably find them with shoulders covered with collar boils, with sore backs, and with large patches of skin rubbed off their hip and stifle joints. Such conditions are not due so much to excess of hard work as they are to lack of the proper kind and amount of food. All animals require different kinds of food in proportions which vary according to the conditions under which they are fed. For example, the young, growing colt must have different food from that given to the adult horse. It is equally true that the horse working hard should have different food and that in different proportions from the food given to the horse that is not working. Eminent scientists have devoted much time and money to digestion experiments and to analyses of foods needed by certain animals under certain conditions. Their results have been published in various tables of feeding standards. By the use of these tables any ration may be compiled to suit the conditions under which it is fed. The calculations necessary to determine the quantity of each kind of food to take are performed by a sort of "cut and try" method, and for this reason are rather laborious to one who has not had experience. Few farmers have cared to take the time necessary to learn to calculate rations quickly, and consequently very few have ever given the subject of "balanced rations" any attention whatever. It is the purpose of this article to present a table of rations for horses hard at work in which the quantities of each kind of food necessary to be fed in one day are given. The rations are not all intended to be ideal, but are designed to furnish standards for feeding the various feeds that the Kansas farmer is likely to have on hand or to have easy access to at this time. I am aware that 11 to 14 pounds is a large amount of bran for one horse to eat in a day, but, nevertheless, it is the amount necessary to balance the ration where only such other feeds as corn, and prairie hay or timothy hay are available. In such cases the ration should be as nearly balanced as possible. In the following table the amounts of each feed to be used in each ration are calculated from Wolf's feeding standards and are sufficient to feed a horse weighing 1,000 pounds one day. For heavier or lighter horses the quantities may be varied proportionally.

Amount of feed in pounds required per day, per 1,000 pounds live weight, for horses working hard:

1. Alfalfa hay 10, oats 10, prairie hay 10.
  2. Alfalfa hay 13, corn 12.
  3. Alfalfa hay 15, corn 6, prairie hay 8.
  4. Alfalfa hay 15, Kaffir corn 5, prairie hay 10.
  5. Bran 11, corn 6, prairie hay 10.
  6. Bran 13, corn 6, timothy hay 10.
  7. Bran 11, Kaffir corn 8, prairie hay 10.
  8. Bran 6, corn 7, prairie hay 11, linseed meal 2.
  9. Bran 7, corn 6, timothy hay 12, linseed meal 2.
  10. Bran 7, Kaffir corn 8, prairie hay 12, linseed meal 2½.
  11. Corn 9, linseed meal 4, prairie hay 13.
  12. Kaffir corn 10, linseed meal 3¼, prairie hay 14.
  13. Sorghum hay 8, alfalfa hay 14, Kaffir corn 8.
  14. Corn 8, bran 7, linseed meal 2, sorghum hay 10.
  15. Kaffir corn 8, bran 7, linseed meal 2, sorghum hay 11.
  16. Oats 14, linseed meal 2, prairie hay 12.
  17. Oats 12, bran 7, prairie hay 10.
  18. Oats 8, corn 5, linseed meal 3, prairie hay 10.
- R. W. CLOTHIER.  
Kansas State Agricultural College.

### The Shorthorn Color Controversy.

Editor Kansas Farmer:—Much light we get from the pens of your correspondents, but sometimes none too much consistency. A. E. Harmon, in your issue of May 11, seeks to have us understand that expansion is a political question, while the trust problem is a question of some other kind; yet in his half column of how to head off the trusts he fails to prescribe any remedy but politics or through political channels. True, as he says, wire and nails have been advanced in the last ten months about 33 per cent, but we take it that this is because of the tariff. Whenever a tariff of 20 per cent has been levied on manufactures it is any uncommon thing for the factory to advance its price about 40 per cent? Now, if the tariff is to continue, we may put it down that such advance as the trust may see fit to assess will simply be an addition to the present price.

But, changing the subject slightly, I will suggest that the Shorthorn color craze is not yet settled, and I will as briefly as possible try to indicate to your readers how this discussion as far as it has gone appears to a breeder down here in the suburbs of Wichita. One point, however, is settled, namely, that the breeders who are making this gallant fight for the off-colors are the ones who have disregarded the demand for the reds, and now have, to a considerable extent, the unsalable colors on their hands. But now comes our esteemed friend, D. P. Norton, and wants a fool-killer, and wants him bad. Whom would he slay? The man who makes color a point in breeding? What breeder does not? The Hereford breeders would not tolerate the least mottling in the face or red on the feet; but they were not always thus particular. Jersey breeders must have the fawn color; yet the Jerseys we saw forty years ago were the color of a buffalo. The Berkshire used to be a very spotted hog; where is the breeder of Berkshire swine that would tolerate the spotted kind now? The Poland-China hog was once sandy, white, grizzly, and black; but these colors have just about all been bred out save the black; and not one of a thousand breeders in Kansas in that line of swine would accept a breeder of the old color. Robert S. Cook, of Wichita, who has climbed to the top round of the Poland-China ladder, was asked by a reporter less than a week ago if he did any culling or sold all. He replied: "Yes, sometimes the markings are not perfect."

Oh, what a contract that fool-killer would have on his hands! Yes, Brother Norton, we want reds, and good ones; want them because there is no prettier color; want them to supply a demand that the roans and whites won't reach. Imagine a merchant persisting that he will keep nothing in stock but an unpopular color of dress-goods. Can he hope thus to succeed? Jacob of old bred for color, and behold his come-out. Suppose that, when the idea suggested itself to him to place the spotted sticks in the water-troughs, he had simply sneered at it as too little a business for him to breed and raise spotted cattle. Ah, no. Jacob was too enterprising for that. He wanted to beat old Laban, who had treated him badly, and he wanted to succeed. After seven years of faithful service he was denied the beautiful Rachel, and, as I heard a preacher once put it, given for wife the blear-eyed Leah. But seven years more found his herds greater than Laban's. He was successful in more ways than one, for we are told he got Rachel and two more wives besides.

After speaking of the cattle he beheld over the waters as repeaters and prepotent as breeders, Mr. S. C. Hanna says: "The grand white bull, Count Arthur, was, in my opinion, the equal of any bull I saw in Great Britain. From the appearance of his first crop of calves at Colynie I would expect him to become a famous sire. His calves, some 20 in number, were all reds and roans but one."

Now I think Count Arthur is indeed a famous sire. His 20 calves all the color of himself but 19. Nay, not that good. The one may have been blue, so far as our information goes. WM. H. RANSOM.  
North Wichita, Kans.

### Cattle on a Thousand Hills.

Editor Kansas Farmer:—We are firing in the Kaffir corn and cane. Corn is now up, but we farmers down here on the Medicine River, where our cattle are on a thousand hills, only plant corn enough for our work horses and saddle ponies, and shoot thousands of acres of the rest of the land into Kaffir corn and cane to rough through the winter the cattle now eating our grass. Our cattle are doing well. Grass was never better, and it is knocking the old hair off the cattle, and in about three weeks they will be pretty, fat, and ready for beef. I sold a Texas cattle man, a Mr. Irving, four red bull calves to go to Texas to be placed in his Hereford herd. How is that? Last year the Hereford boys sold

three Hereford bulls to one of our Short-horns; this year we have got them "bottled up" and "knocking the wadding out of them," by selling three to their one, because, to get the wide hips and broad back, they must have the Shorthorn. I am corresponding with your friend D. P. Norton, one of our best Shorthorn breeders in Kansas, to help me secure the best Short-horn bull in the West for my herd. I have sold my Bates bull, and also sold Wildwood to S. M. Axline this week. My crop of 1899 cherry-red calves I like better than commission Western cattle, for one of the cherry-reds brings about as much as three or four of the commission breed. Mr. Norton advises me to jump on the train and go buy old Goldfinch 115705, or Plumed Knight 120515. I may buy one of these. I have letters from your other advertisers, and they all say they are nearly sold out of their 1898 crop of calves. I like to hear this. It shows we are forging to the front; but the Herefords are grand cattle. I wish every Kansas farmer had a herd of Short-horns and Herefords. We would make the railroad folks fire up to pull us to market, using a few cars instead of making up a train a mile long, as they do now for hauling Western cattle. The railroad people are afraid of the scales, and the owner is too. But we will grade them up in time.

We all feel happy now with the cattle on grass and the old feed wagon pulled down under a tree to rest. We can ride a pony around and tack up wire, and see the cattle get fat, for they are growing while we are asleep. Pretty good business, this! Mr. Editor, come down and see us.  
ELI C. BENEDICT.  
Medicine Lodge, Kans.

### Those Who Fail With Sheep.

There are farmers who breed sheep without profit. These are not found at a sheep-breeders' convention, and are seldom seen at an agricultural show, says C. C. Shaw, in the National Stockman, unless perchance they are drawn out by a horse race, balloon ascension, or something of that sort; but occasionally a pair of them may be seen sauntering along the sheep pens making such remarks as these: "These sheep wouldn't look like that if you or I had them," "Sheep as fat as that never breed," "That ewe didn't raise a lamb," "They are only kept for show purposes," "They don't pretend to breed from them," "There's no profit in sheep like that," "But," says the other, "see what a lot of money they take in prizes on them." "Yes, but that won't pay for the extra feed. It takes a powerful lot of feed to get sheep as fat as that, and if you or I had the same sheep we couldn't get a prize. You can't do anything at these shows unless you are in the ring. The judges know all these men and there is no chance for a man getting a prize who hasn't got his name up, but if I could get one of these rams for what he is worth I would try one just to see if there is really anything in the breed or not."

He will probably turn up again just as the exhibitor is about to remove his stock from the show ground, when he may perchance pick on a ram worth \$100 or \$150, and inquire if he is for sale. The owner, who has already sized him up, answers that he is. "What is the least that will buy him?" "Well," says the owner, "I am very anxious to sell. What is he worth to you? Is he worth \$15?" "Well, no, I could hardly stand that." "Would he be worth \$10 to you?" "Ten dollars is a big price for a sheep in these times. There is no money in sheep anyway." The result is he picks up some cull lamb from the most ordinary flock for \$5 or \$6. He makes no provision to supply them with proper food, either in winter or summer. So long as the ground is bare they are left in some field to shift for themselves, and at best may get for shelter the side of a barn, board fence, straw stack, or some old building that can be used for nothing else, with a little straw or poor hay thrown on the ground. This and what snow they can lick constitutes a bill of fare for the winter. In summer they are supposed to pick their living in the brush lot, lane, summer fallow, or highway. Then the owner can't understand how it is he has such poor luck with sheep, losing half or more of the lambs and a large number of the old sheep every year. If one by chance ever gets fat it goes to the butcher; hence the flock grows worse from year to year. These farmers believe in the theory that sheep can not be kept long on the same farm, but require frequent changing and are a delicate animal at best.

Now, this system of sheep farming is unprofitable. The only time sheep kept in this way are worth a good price is when they are killed by dogs. It is sometimes quite amusing to hear the owners giving their evidence before the commissioners, especially when they are aware of the fact that they only pay two-thirds of the damage.

There is another class that breed sheep without profit. It is those who invest in some good, well-bred sheep at high figures,

## "A Word to the Wise is Sufficient."

But some stubborn people wait until "down sick" before trying to ward off illness or cure it. The wise recognize in the word "Hood's" assurance of health.

For all blood troubles, scrofula, pimples, as well as diseases of the kidneys, liver and bowels, Hood's Sarsaparilla is the effective and faultless cure.

**Poor Blood**—"The doctor said there were not seven drops of good blood in my body. Hood's Sarsaparilla built me up and made me strong and well." SUSIE E. BROWN, 16 Astor Hill, Lynn, Mass.

**Dyspepsia**—"We all use Hood's Sarsaparilla. It cured my brother-in-law and myself of dyspepsia. I owe my life to it." M. H. KIRK, 607 Franklin St., Philadelphia.

**Hood's Sarsaparilla**  
Never Disappoints

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

and then neglect to breed and feed them properly, and so let them degenerate till their experience tells them there is no profit in sheep.

It is a mistake to suppose that there is not plenty of room for many more to engage in and make a success of this branch of the business; nor is it absolutely necessary to get to the very top of the ladder in the show ring to be able to sell good pedigree sheep. The time is coming and now is when pure-bred sheep, no matter how well bred or what their individual merits may be, if not eligible to record in their respective flock books, will have a value very little, if any, above what they will bring in the market for mutton. Those who are starting with any of the improved breeds will do well to see that the matter of pedigree is all right, as no number of crosses will otherwise entitle them to be admitted for record.

Of good sheep, with pedigrees all right, there is a demand for all that can be produced, and will be for years to come. Individual merit is one thing, and pedigree is another. To those who combine the two in the same animal in the highest degree success is sure.

### Clean Water for Stock.

Editor Kansas Farmer:—In your issue of May 11, I notice an advertisement of the Dewey stock waterer. We have been using one for some time and have just ordered a dozen for the college hogs. It will pay every farmer in Kansas who raises either calves or hogs to use this waterer. It provides clean fresh water at hand whenever the animal is thirsty. We notice that in our hog yards where the Dewey waterer is used a hog may be seen drinking at almost every hour of the day. The hogs drink often, though but little at a time, never gorging the stomach, and the water is always clean. We believe that the general introduction of this system in Kansas this summer would greatly lessen losses by cholera and other swine diseases. Calves, especially those raised by hand, suffer greatly from lack of water in hot weather, and, whenever deprived of water, their growth is checked. We have one of these waterers attached to a barrel in our calf lot where we are keeping 15 skim-milk calves. We fill the barrel every other day, keep it in the shade, and the waterer attached keeps always before the calves clean, fresh water. It saves time, the calves enjoy it and are doing well.

It is very seldom that we advocate a patented article in this way, but we believe that the Kansas farmers should use this method of watering.

H. M. COTTRELL.  
Kansas State Agricultural College, May 17, 1899.


Health for 10 cents. Cascarets make the bowels and kidneys act naturally, destroy microbes, cure headache, biliousness and constipation. All druggists.

### First of the Season.

Excursion to Buffalo via the Nickel Plate Road, at one fare for the round trip. Tickets on sale June 11, 12 and 13, good returning to and including July 2, 1899, providing they are deposited with joint agent in Buffalo on or before June 17, 1899. Do not miss this opportunity of visiting Buffalo and Niagara Falls at a very reasonable expense. City Ticket Office 111 Adams St., Chicago. Depot, Van Buren Street Passenger Station, Chicago, on the Elevated Loop. (10)



**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 action. Removes Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Cleveland O.

#### Government Crop Circular for May, 1899.

Winter Wheat.—Returns made up to May 1 show, the area in winter wheat, after the elimination of the acreage believed to be winter-killed, to be about 25,900,000 acres. This is about 4,000,000 acres, or 13.5 per cent, less than the area estimated to have been sown last fall, but it still exceeds by about 160,000 acres, or six-tenths of 1 per cent, the area of winter wheat harvested last year. The area in the principal States, as compared with that sown last fall, shows a reduction as follows, in round figures: In Kansas, 808,000 acres, or 19 per cent; Illinois, 701,000 acres, or 36 per cent; Indiana, 394,000 acres, or 15 per cent; Missouri, 345,000 acres, or 22 per cent; Texas, 227,000 acres, or 22 per cent; Ohio, 149,000 acres, or 6 per cent; Nebraska, 144,000 acres, or 69 per cent; Michigan, 128,000 acres, or 8 per cent; Wisconsin, 120,000 acres, or 35 per cent, and Tennessee 106,000 acres, or 10 per cent. For the area remaining under cultivation the average condition is 76.2, as compared with 86.5 on May 1 of last year, 80.2 at the corresponding date in 1897, and 85.9, the mean of the averages of the last ten years. The condition in the principal States, after reducing the acreage as indicated, is as follows: Pennsylvania, 86; Maryland, 83; Virginia, 78; Texas, 67; Tennessee, 78; Kentucky, 76; Ohio, 82; Michigan, 60; Indiana, 68; Illinois, 54; Missouri, 65; Kansas, 64; California, 96, and Oklahoma, 86.

Winter Rye.—The average condition of winter rye is 85.2, as compared with 84.9 one month ago, 94.5 on May 1 of last year, 88 at the corresponding date in 1897, and a ten-year average of 90.8. About one-half of the entire winter rye crop is grown in New York and Pennsylvania, where the conditions are 96 and 87, respectively. In Kansas the condition is 81, in Michigan 80, in Illinois 71, and in New Jersey 88. All these States had 50,000 acres or upward sown to winter rye last year.

Meadows.—The average condition of meadows is 84.9, against 92.9 on May 1 of last year, and 93.4 at the corresponding date in 1897. In the fourteen States in which 1,000,000 acres or more were cut last year, the averages are as follows: New York, 91; Pennsylvania, 92; Ohio and Missouri, 86; Michigan, 76; Indiana, 87; Illinois and Wisconsin, 80; Minnesota, 79; Iowa, 68; South Dakota and Kansas, 82; Nebraska, 78; and California, 110.

Spring Pasture.—The average condition of spring pasture is 83.5, against 91.2 on May 1 of last year, and 93.4 at the corresponding date in 1897. Among the more important State averages are the following: New York, 90; Pennsylvania and Missouri, 87; Michigan, 81; Ohio, 83; Indiana and Illinois, 84; Kansas, 78; Minnesota, 80; Iowa, 72; Wisconsin, 79; Nebraska, 76. With the exception of Missouri, where the condition is about the same as on May 1 of last year, all the foregoing States make an unfavorable comparative showing, the decline, as compared with last year, ranging from five points in Pennsylvania to twelve in Indiana and Kansas, fifteen in Wisconsin, and twenty-two in Iowa and Nebraska. In general the unfavorable conditions testify merely to a late season, but in Iowa the clover and much of the bluegrass are winter-killed, and the reports as to clover are also especially unfavorable from Michigan and Wisconsin.

Spring Plowing.—The proportion of spring plowing usually done by May 1 is about 75 per cent of the whole amount. The proportion done this year by that date was 57.2 per cent of the total expected, as compared with 72.4 per cent last year, and 61.9 per cent in 1897.

Cotton.—The cotton report for the month of May indicates merely the belief of correspondents on May 1 as to the intentions of planters regarding the acreage to be planted, and the estimates being liable to modification during May, they should be regarded merely as a general indication of the strength of the tendency toward an enlargement or reduction of acreage. In every cotton-growing State the indications on the first pointed to a reduced acreage, with a corresponding decrease in the sale of fertilizers and an increased acreage in the various feed crops. The probable reduction by States is as follows: In Mississippi and

Indian Territory 5 per cent, in Alabama 8, Texas 9, Arkansas 10, South Carolina 11, Louisiana 12, Georgia 13, North Carolina and Tennessee 14, and Oklahoma 18 per cent.

#### Gossip About Stock.

The horn-fly and common flies have become quite a pest for all classes of stock, but inventive genius has devised the animal's friend in a preparation called "Shoo-Fly." The dairymen and horsemen certainly will appreciate this simple remedy, now advertised in the Farmer by the manufacturer, also on sale by Swift & Holliday Drug Co., Topeka. Try a small can and ascertain just how profitable the investment is.

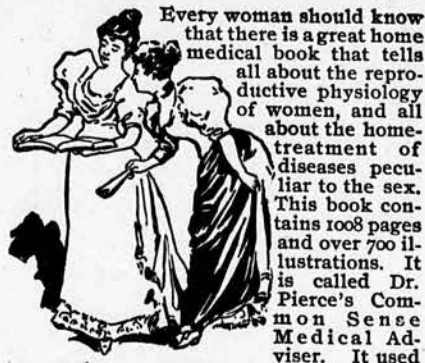
J. R. Killough, Ottawa, Kans., a breeder of the right sort of Poland-Chinas, also president of the Franklin County Breeders' Association, was a caller at the Farmer office last week. He reports a grand lot of pigs for this season's trade. He is greatly pleased with the Annual Report of the Stock Breeders' Association, and thinks every Kansas breeder should have a copy. The Franklin County Association will hold its next meeting at Ottawa, June 13, when matters pertaining to a State show of stock will be considered.

A stock sale will be held at Wyndon farm, ten miles west of Topeka, on Thursday, June 1, by Sheldon & Co., consisting of nine registered Shorthorn cows and two mature registered bulls and two grades; also a number of Poland-China hogs, and horses. The Shorthorns are of pronounced milking strains through the dams and all trace back to Imp. Thistle Top and Col. Napier 2d, two noted breeding bulls of beef type, making a combination of practical farm cattle hard to beat. A discount of 8 per cent to cash purchasers.

C. F. Wolf & Son, owners of the Glendale Shorthorns, Ottawa, Kans., write the Kansas Farmer that they have recently sold one of their herd bulls, Glendoy 119370, to that noted Missouri breeder, H. C. Duncan, who, after visiting a large number of representative herds, finally selected this animal for a herd sire. His calves have given general satisfaction and met with ready sale whenever offered. They have a few of his calves on hand, one out of Butterfly 60th, a straight-bred Cruickshank cow. Messrs. Wolf & Son will now use Scotland's Charm 127264, a Scotch-bred bull, bred by Mr. Dustan, of Illinois.

"New blood counts for a good deal," writes Frank B. Hearne, secretary of the American Galloway Breeders' Association. In a communication he remarks: "Galloways are getting there and we are receiving a large number of new members, and you know new blood counts for a good deal. The transfers are also coming in rapidly, which indicates much activity in the selling. Although only four months since Vol. 9 was issued, I have about half as many entries for Vol. 10 as were in Vol. 9, so you see the entries are also on the increase. Do not forget to say a word for Galloways occasionally."

Our first-page illustration shows the Shorthorn cattle as a profitable and all-round useful breed for the farmer. This quality is in a large measure due to the work of such breeders as Mr. V. R. Ellis, owner of the Norwood herd, at Gardner, Johnson County, Kansas. He is a practical man with common-sense ideas, and has for a great many years been breeding Shorthorns which combine in a high degree the desirable qualities of beef and milk. He has paid considerable attention to the size of his cattle. He has well-defined opinions as to the best type of Shorthorn, and he said to his credit that he has not allowed himself to be "side-tracked" on the color question. Some of the largest, finest and best breeding cows in his herd have been roans, and the Cruickshank bull, Godwin, used previous to the introduction of Sir Charming 4th, was a roan. The group picture shows his present stock bull, Sir Charming 4th, and the cows Duchess 39th and Grace Greenwood 7th. These are a pair of typical, representative cows of the herd. They are business cows—the kind that give tone and command admiration in any herd. The red cow, Duchess 39th, is a Rose of Sharon, raises a calf every year, and is a 1,600-pound cow any day in the year. She has been shown without defeat in class since a calf, until last fall, when she was tied by the beautiful roan cow, Grace Greenwood 7th, but a consulting judge finally gave her the blue. She has been awarded first in sweepstakes every time shown since she was 3 years old until last fall, when she was beaten for first prize by Grace Greenwood 7th, who has also been shown since a calf without defeat until 3 years old, since which time she was shown with Duchess 39th, but never defeated her until last fall. Mr. Ellis was never defeated for herd prize with a herd made up of these cows and others but once. Grace Greenwood 7th is of the Lady Elizabeth family, and the top sires in her pedigree show crosses of such historic bulls as



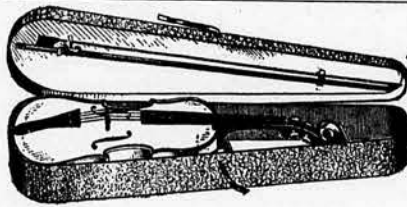
Every woman should know that there is a great home medical book that tells all about the reproductive physiology of women, and all about the home-treatment of diseases peculiar to the sex. This book contains 1008 pages and over 700 illustrations. It is called Dr. Pierce's Common Sense Medical Adviser. It used to cost \$1.50. Over seven hundred thousand people purchased it at that price and over 1,200,000 people now own copies of it. For a limited time copies will be given away free.

This great book contains the names, addresses, photographs and experiences of hundreds of women who were once hopeless invalids, but who have been restored to robust womanly health by the use of Dr. Pierce's Favorite Prescription. This marvelous medicine acts directly on the delicate organs distinctly feminine. It makes them strong, healthy, vigorous, virile and elastic. It fits for wifehood and motherhood. It banishes the usual suffering of the expectant months, and makes baby's advent easy and almost painless. It robs motherhood of its perils. It insures the robust health of the little new-comer and a bountiful supply of nature's nourishment. It transforms weak, sickly, nervous invalids into healthy, happy wives and mothers. For a paper-covered copy of Dr. Pierce's Common Sense Medical Adviser, send 21 one-cent stamps, to cover cost of mailing only, to World's Dispensary Medical Association, Buffalo, N. Y. For elegant French cloth binding, 31 stamps.

Miss Edith Cain, of Clinton, Allegheny Co., Pa., writes: "After two years of suffering, I began taking Dr. Pierce's Favorite Prescription and am now entirely cured. I had been troubled with female weakness for some time and also with a troublesome drain on the system, but now I am happy and well."

In cases of constipation and torpid liver, no remedy is equal to Dr. Pierce's Pleasant Pellets. They regulate and invigorate the stomach, liver and bowels. They never fail. One little "Pellet" is a gentle laxative and two a mild cathartic. They never gripe. An honest dealer will not urge a substitute upon you.

#### Violin Outfit.



A \$10 Violin Outfit for... **\$4.80**

It consists of one of the best models of the justly famous Stradivarius, nicely shaded and finished, ebony-trimmed; fine, broad tone.

Excellent quality, Brazil-wood bow, with ebony frog, extra set of best Crescent strings and cake of fine rosin. A fine wood or canvas case sent for 78 cents extra.

Don't imagine from the price this is a cheap outfit. It is not. Your dealer will not sell you one as good for less than \$10. On receipt of \$1 sent C. O. D., with privilege of examination, and if you don't find it the best outfit you ever saw for the price, return and we will refund money. Complete illustrated catalogue sent for the asking. Order at once.

**CRANER & CURTICE CO.,**  
WHOLESALE MUSIC. LINCOLN, NEBR.

#### Excursion Rates to Western Canada

And particulars how to secure 160 acres of the best wheat-growing land on the continent, can be secured on application to the Superintendent of Immigration, Ottawa, Canada, or to the undersigned.

Specially conducted excursions will leave St. Paul, Minn., on the first and third Tuesdays of each month during the summer for Manitoba, Assiniboia, Alberta and Saskatchewan.

Settlers' rates from St. Paul on the Great Northern to Neche on the boundary line, \$6; on the Northern Pacific to Pembina, \$8; on the "Soo" Line to Portage, \$10.

#### J. S. CRAWFORD,

214 West Ninth St., Kansas City, Mo.,  
Government Agent.

#### Successful Dairymen use 1 cent's worth of SHOO-FLY.

Saves 3 quarts milk daily if used in time. NO FLIES, TICKS, VERMIN OR SORES ON COWS.

Thousands duplicate 10 gallons. Beware of imitations. "I have used several so-called 'Cattle Comforts', none equal to 'SHOO-FLY'. It is effective and cheap. Used 100 gallons." H. W. COMFORT, Fallington, Pa., President Pennsylvania Dairy Union. Send 25 cents. Money refunded if cow is not protected. SHOO-FLY MFG. CO., 1005 Fairmount Ave., Philadelphia, Pa.

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THE THROUGH EXPRESS FROM  
Colorado—Kansas—Nebraska  
VIA OMAHA,



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In addition to Pullman Sleepers, Free Chair Cars, and the Best Dining Car Service in the World, are equipped with

Buffet Library Smoking Cars furnished in club style and supplied with latest periodicals, illustrated papers and a select library of recent fiction.

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Fast, carries Dining Cars and Pullman Sleepers. Leave Omaha, 6:40 p. m.; Kansas City, 6:30 p. m.; St. Joseph, 4:50 p. m. Arrive Denver and Colorado Springs, next morning.

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Five (5) Daily passenger trains are run on the main line in each direction between Kansas City and St. Louis.  
The famous Hot Springs of Arkansas is reached only by this line.

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#### SEEDS AND POULTRY SUPPLIES.

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

The American Steel Tank Co. is making the same high grade Tanks, all shapes and sizes. If you are interested, write for prices and catalogue "A."

Farmers, Stockmen, Creamery, Dairy and Sheep-Dipping **TANKS.**  
**AMERICAN STEEL TANK CO.,**  
3119 West Eighth St., Kansas City, Mo.

#### 20th Kansas Attention!!

**BINDER TWINE** 7½, 8½, 9½ cents per pound.  
GET UP CLUBS.  
KANSAS CITY TWINE COMPANY,  
Station "A." Kansas City, Mo.

**RAPE** IS THE BEST FORAGE PLANT.  
It furnishes succulent food from May to December. No equal for summer and autumn SHEEP FOOD. Equally good for cattle, calves and pigs. Beats clover and alfalfa by scientific test.  
Grows 20 to 40 Tons Green Feed to Acre—no green food approaches it for fattening. Balzer's Dwarf Essex, best, 100 lbs. \$7.00; 10 lbs. \$1; 15 to 22 lbs. 8 cents per lb.; for less than 100 lbs. add 25 cts. cartage if sent by freight. Send 5 cents for pamphlet on Rape.  
Seed Dep. Amer'n Sheep Breeder, 124 Michigan St. Chicago.

#### RUPTURE Positively & Permanently CURED

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



Imp. Baron Victor and Imp. Duke of Richmond. Individually she is all the picture represents. Like Duchess 39th, she is a valuable breeding cow, and on March 29 dropped a red bull calf to the service of Sir Charming 4th, which, about fair time, is likely to give trouble to all comers. The bull illustrated is Sir Charming 4th. He was placed at the head of the herd last year. He was bred by C. C. Norton, of Corning, Iowa, sired by Imp. Salamis 110075, dam Sweet Charity, she by Imp. Band Master (56845), and out of Imp. Charity 3d by McGregor (54667). Mr. Ellis does not keep as large a herd as many, preferring to have just what he can give his personal attention and have them to suit him. He disposes of all his surplus stock at private sale.

#### Southern Cattle Prices.

Speaking on the above subject the Denver Stockman says: The truth of the matter is that the principal buyers of southern cattle are from the northern ranges. These cattle have not proven as profitable on grain feed as on grass, and as a result the buyers from the corn States are practically out of the market this year. Northern buyers must be able to buy the cattle at a price that will enable them to run them on the range for a year and then bring them into the market as feeders. Heretofore for the past two or three years it has been a losing proposition, but at the prices which the southerners sold at here yesterday, the northern buyers can handle them with impunity. It may be disappointing to the southern breeders, but the prices paid leave a fair profit, and as the quality of their cattle improves, the price will advance.

#### Low Rates to the East.

Your attention is directed to the exceptionally low rates in effect this coming season to nearly every prominent point in the East.

Never before has such an excellent opportunity been afforded for a Summer Vacation Tour, or for visiting friends in the East. We mention below a few of the places to which greatly reduced rates have been made. The Union Pacific is the line that will give you the best service to any of these points.

Columbus, Ohio, June 6-9. Rate—One Fare, plus \$2.00, for the Round Trip.

St. Paul, Minn., June 9-13. Rate—One Fare and One-Third for the Round Trip, on Certificate Plan.

Buffalo, N. Y., June 14-15. Rate—One Fare, plus \$2.00, for the Round Trip.

Chicago, Ill., June 14-15. Rate—One Fare and One-Third for the Round Trip, on Certificate Plan.

Milwaukee, Wis., June 14-16. Rate—One Fare and One-Third for the Round Trip, on Certificate Plan.

St. Louis, Mo., June 20-23. Rate—One Fare, plus \$2.00, for the Round Trip.

Detroit, Mich., July 5-10. Rate—One Fare, plus \$2.00, for the Round Trip.

Richmond, Va., July 13-16. Rate—One Fare, plus \$2.00, for the Round Trip.

Indianapolis, Ind., July 20-23. Rate—One Fare, plus \$2.00, for the Round Trip.

For full information as to dates of sale and limits, on tickets, time of trains, etc., call on F. A. Lewis, city ticket agent, or J. C. Fulton, depot agent.

#### Buffalo and Return at One Fare for the Round Trip

via the Nickel Plate Road, June 11, 12 and 13. Tickets good to return to and including July 2, 1899, providing they are deposited with joint agent in Buffalo on or before June 17, 1899. City Ticket Office, 111 Adams St., Chicago. Depot (on the Loop), Van Buren St. and Pacific Ave., near Clark. (9)

#### No Money in Advance!

**\$1550** HIGH GRADE BICYCLES shipped anywhere C. O. D., with privilege to examine. Latest styles for Men, Women, Boys and Girls, well made and durable.

\$60 "Oakwood" \$24.50 \$50 "Arlington" \$22.00 No better wheels made.

Others at \$10, \$12.50, \$15.50, \$17.50 & \$19.50; all splendid value. Buy direct from manufacturers, thus saving dealers' large profits. Write today for special offer. Illustrated Catalogue Free. **CASH BUYERS' UNION, 162 W. Van Buren St., B-64, Chicago, Ill.**

#### PIG-TIGHT BULL-STRONG HORSE-HIGH!

With our DUPLEX AUTOMATIC BALL-BEARING MACHINE, you can make 100 styles, and 50 to 70 rods a day of the best and most practical fence on earth.

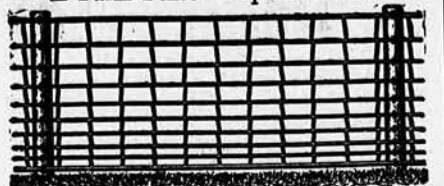
**12 to 22c. per Rod** is the cost of wire to make it. We send Machines on trial. Were awarded First Premium and

**Gold Medal** on Machines, Farm and Ornamental Fence at Omaha Exposition. Plain, Barbed and

**Coiled Spring Wire** Farm and Ornamental Fence to the farmer at wholesale prices. Illustrated Catalogue Free for the asking. Address

**KITSELMAN BROS., Box 64 Ridgeville, Ind.**

#### A Farm Fence of Special Merit.



The cut shown herewith is that of the Advance Woven Wire Fence, manufactured by the company of the same name, at Peoria, Ill. It combines in a high degree all the qualities of a good farm fence. It is strong, handsome, harmless and the way in which it is sold makes it reasonable in price. These people sell direct from the factory to the farmer at practically wholesale prices. They do not allow the dealer to handle it at all, but give you all the profit he would make on its sale. If you need fencing, write them for prices, circulars, etc. Address as follows: Advance Fence Co., 4105 Old St., Peoria, Illinois.

#### 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.

**CREAMERY OUTFIT FOR SALE.**—Will sell at sacrifice, fine creamery outfit. Acme Alpha De Laval Separator, nearly new. W. S. Marlin, Receiver, Eureka, Kans.

**FOR SALE.**—Or trade for cattle, an imported registered Hackney stallion, as owner is going abroad. Pedigree running back nearly 200 years. Gentle and a splendid animal in every respect. Address Kansas Farmer Co., Topeka, Kans.

**AGENTS WANTED.**—In your county, for the only pump governor on the market. Every user of windmill or hand-working pump buys the "Yankee" at eight. Six dollars a day, steady work, exclusive territory guaranteed, experience unnecessary. None but hustlers need apply. Address H. Fleming, Lawrence, Kans.

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

**2,000 BUSHELS SEED SWEET POTATOES FOR SALE.** Nine best kinds. Write N. H. Pixley Wamego, Kans.

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

**FOR SALE.**—\$3.00 per acre for improved 160-acre farm 1 1/2 miles north of Bushong Station, Lyon Co., Kans. Address, J. B. McAfee, Topeka, Kans.

**WANTED TO EXCHANGE.**—The pure-bred Crutshank bull, My Lord 116563, bred by Col. Harris; sire Imp. Spartan Hero 77832; dam Imp. Lady of the Meadow (Vol. 30, p. 615), for a pure-bred Crutshank bull—can't use him any longer in my herd. H. W. McAfee, Topeka, Kans.

**EGGS FROM PURE-BRED WHITE AND BARRED** Plymouth Rocks, \$1 per 15. S. F. Glass, Marion, Kans.

**FOR SALE.**—100 cars cottonseed meal. Also corn and feed. Address Western Grain and Storage Co., Wichita, Kans.

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

**CHOICE EGGS FOR HATCHING FROM HIGH-** scoring birds, Buff Cochins, Buff Leghorns and B. P. Rocks. Eggs \$1 per 15, \$4 per 100. Give them a trial, they are sure to please. Mrs. E. E. Bernard & Son, Dunlap, Kans.

**WANTED.**—To lease or buy a cattle ranch, from 1,000 to 1,500 acres; southern Kansas preferred. Must have living water. Address, J. H. Wallace, 2408 E. Eleventh Street, Kansas City, Mo.

**WRITE TO ALEX RICHTER.**—Hollywood, 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.

**SHEEP.**—Six hundred stock sheep and lambs for sale. H. W. Otken, Grinnell, Gove County, Kans.

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

**BERKSHIRE SOWS BRED.**—To farrow in May. Choice of individuality and breeding, eligible to registry, at \$20. Also two fine boars ready for service. Rutger Farms, Russell, Kans.

**HEREFORD BULLS FOR SALE.**—Four pure-bred and five high-grades; well marked. W. E. Spears Richmond, Kans.

**A LARGE BLACK KENTUCKY JACK** will make the season of 1899 at my farm five miles south of Topeka on the Burlingame road; mares kept until bred. W. W. Clark, Topeka, Kans.

**HEREFORD BULLS FOR SALE.**—One carload of very high-grades, some unregistered, from 10 to 14 months old; also 12 head of registered bulls, same age as above, all in good condition or fat. John Drennan, Blue Rapids, Kans.

**BLACK LANGSHANS EXCLUSIVELY.**—Eggs for hatching \$1 per 15. Mrs. T. E. Whitlow, Morantown, Kans.

**POLAND-CHINAS.**—No better anywhere. Five dollars each. Write for breeding. Hemenway, Hope, Kans.

**FOR SALE.**—Pure-bred Polands and Berkshires from weanlings up, at very low prices. O. P. Updegraff, North Topeka, Kas.

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

**EGGS FOR HATCHING.**—White Leghorns exclusively. One dollar per fifteen. E. F. Ney, Bonner Springs, Kans.

**FOR SALE.**—Hereford bulls. Two full-blood yearlings and 15 high-grade yearlings; also 10 high-grade Shorthorn yearling bulls. Address Hugh A. Hodgins, Topeka, Kans.

**TO EXCHANGE.**—A daughter of Hadley Jr., dam by Kiever's Model, for ten bushels of alfalfa seed on track. F. W. Baker, Council Grove, Kans.

## HODGES NEW STEEL CHAIN DRIVE HEADER

is the perfected result of 39 years of continuous header construction. In material, design, working ability, ease of draft, poise and balance this machine is without a peer. Among leading points of excellence are: the highest and widest wheels commensurate with perfect traction, application of power and easy draft. Lightest, strongest re-inforced steel frame. Power applied by steel drive chain—perfectly adjusted to save lost motion, strong and durable. Adjustable reel—easy to handle. Elevator has wagon rollers—prevents wear and friction and adds to life of spout and barge. Trussed steel tilting lever—strongest and lightest.



THE ONLY PERFECT HEADER MADE.

ACME HARVESTER COMPANY, PEKIN, ILL.

## California Irrigated Fruit Lands for Sale in Small Tracts

IN RICHFIELD IN Tehama County, California. Land and Irrigation Colony.

IF YOU WANT TO BUY A TEN OR TWENTY-ACRE TRACT of No. 1 Fruit, Vegetable, or Alfalfa Hay land, we can furnish it to you on terms to suit you. This is your chance to take out an insurance policy against look-outs, financial depressions, ill-health, and want. Those desiring to go to California, the land of sunshine and flowers, health and happiness, will do well to consult us before going. Write for catalogue.

HOUGHTON & BARHAM, 414 Park Bldg., Pittsburg, Pa.

## GALLOWAYS ARE THE ORIGINAL POLLED BEEF BREED!

For full particulars write to FRANK B. HEARNE, Secretary American Galloway Cattle Breeders' Association, Independence, Mo. If you want to buy a Galloway he can give you the address of breeders.

## THE SHAWNEE FIRE INSURANCE COMPANY,

.....TOPEKA, KANSAS.....

Insures Against Fire, Lightning, Windstorms, Cyclones and Tornadoes.

The only company in Kansas with a paid-up capital of \$100,000. It writes more business in Kansas than any other company. It has paid losses amounting to \$493,266.63. Call on your home agent or write the company.

## DO YOU WANT A FARM OR A RANCH?

7,000,000 acres Ranch land—1,000,000 acres Farm land, located in NEBRASKA, KANSAS, COLORADO, WYOMING and UTAH. For sale by the UNION PACIFIC RAILROAD COMPANY at greatly REDUCED PRICES on ten years' time and only 6 per cent interest. LIBERAL DISCOUNT FOR CASH. Please refer to this paper when answering advt. B. A. McALLISTER, Land Commissioner, U. P. R. CO., Omaha, Neb.

**FOR SALE.**—Poland-Chinas and Duroc-Jerseys, all sizes. Barred Plymouth Rocks and Single Comb Brown Leghorns. Eggs \$1 per 15. Write D. Trott, Abilene, Kans.

**FOR SALE.**—Good hedge posts, in car lots. E. W. Melville, Eudora, Kans.

**IF you have timothy, clover, prairie, alfalfa, or millet hay to market,** correspond with J. W. Lowe & Co., 1313 W. Eleventh street, Kansas City, Mo. Liberal advances on shipments.

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

**HIGH-CLASS LIGHT BRAHMA EGGS** \$1.50 per setting from yard 1; \$1.00 per setting from yards 2 and 3; \$2.50 per 45. A few good hens and pullets for sale, \$1.00 each—six for \$5.00. Stock is all first-class. Mrs. N. Van Buskirk, Blue Mound, Kans.

**6 1/2-ACRE FARM FOR SALE.**—Only ten miles from the State capital; improved; has never-failing water. \$15.50 per acre if taken soon. Address J. Ferguson, Station B, Topeka, Kans.

**FOR SALE.**—Soy beans at \$3 per bushel. Address H. L. Brinkerhoff, Eureka, Kans.

**CRAYON PORTRAITS** Life size bust post-paid, for \$1.50. Satisfaction or money back. Write me, or send cash with picture to be enlarged to T. A. HULL, Artist, 1132 Pennsylvania Ave., Columbus, Ohio.

## Gluten Feeds.

The cheapest source of Protein for a Balanced Ration.

Will produce richer milk and more of it; a more rapid growth and development of Cattle and Hogs, and better meat for market purposes than any other feed on the market. Highly recommended by Prof. H. M. Cottrell, of Manhattan Agricultural College. For information and prices address

N. T. GREEN & CO. Kansas City, Mo.

**Don't Pay High Prices TO YOUR DEALER.** You can buy the

**Advance Fence**

direct from us at wholesale prices. It's a first-class fence in every way. Write for circulars and prices.

**ADVANCE FENCE CO. 4105 Old St., Peoria, Ill.**

## THE STRAY LIST.

FOR WEEK ENDING MAY 18, 1899.

Cloud County—A. R. Moore, Clerk.

**MULE.**—Taken up by Louis Christie, in Summit tp., four miles east of Scottsville, April 15, 1899, one brown mare mule, about 8 years old, and weighing about 700 pounds, shod in front, stiff or stringhalted in hind legs, tip of right ear split; valued at \$15.

Lincoln County—J. S. Stover, Clerk.

**MULE.**—Taken up by Louis McKinney, in Battle Creek tp., (P. O. Yorktown), May 1, 1899, one brown mare mule, with dark stripes over shoulders, 2 years old; valued at \$25.

FOR WEEK ENDING MAY 25, 1899.

Bourbon County—H. Frankenburger, Clerk.

**MARE.**—Taken up by G. O. Cowan, in Marion tp., south of Uniontown, one flea-bitten gray mare, 15 hands high, weight about 1,000 pounds, and about 12 years old; valued at \$15.

Comanche County—J. E. Harbaugh, Clerk.

**COW.**—Taken up in Logan tp., one red and white cow, weight 700 pounds. A on right hip, G on left hip, M on left side, crop off left ear, half under-crop right ear; valued at \$20.

Cherokee County—S. W. Swinney, Clerk.

**HORSE.**—Taken up by Mrs. Malinda Turner, one and one-half miles west and one mile south of Baxter Springs, April 25, 1899, one brown horse 8 years old, and branded N X.

Clay County—J. G. Cowell, Clerk.

**MARE.**—Taken up by Ed Braden, in Sherman tp., April 28, 1899, one bay mare, 16 hands high, barb wire cut on left fore foot, rear left foot white, star in forehead; valued at \$35.

**STARK** have a 74-YR. Record. Fruit Book Free STARK BROS. PAY FREIGHT Stark, Mo. We

Best Corn for Kansas.

One Kansas customer says: "Your C. Y. Dent Corn is two weeks earlier than, and will make ten bushels per acre more than our native corn alongside." Twenty-six best kinds. Catalogue, two samples and proof free. J. C. SUFFERN, Seed Grower, Voorhies, Ill.

ON AGAIN—APRIL 30TH.

THE "KATY" FLYER.



## The Home Circle.

### AN OLD SONG.

It's the curioiest thing in creation,  
Whenever I hear that old song,  
"Do They Miss Me at Home?" I'm so  
bothered  
My life seems as short as it's long,  
For ev'rything 'pears like adzackly  
It 'peared in the years past and gone,  
When I started out sparkin' at twenty  
And had my first neckercher on.

Though I'm wrinkelder, older and grayer,  
Right now than my parents were then,  
You strike up that song, "Do They Miss  
Me?"

And I'm just a youngster again.  
I'm a-standin' back there in the furies  
A-wishin' fer evenin' to come,  
And a-whisperin' over and over  
Them words, "Do They Miss Me at  
Home?"

You see, Martha Ellen she sung it  
The first time I heard it, and so  
As she was my very first sweetheart  
It reminds me of her, don't you know—  
How her face ust to look in the twilight,  
As I tucked her to spellin', and she  
Kep' a-hummin' that song tel I ast her  
Pine blank ef she ever missed me.

I can shet my eyes now, as you sing it,  
And hear her low answerin' words,  
And then the glad chirp of the crickets,  
As clear as the twitter of birds,  
And the dust in the road is like velvet,  
And the ragweed and fennel and grass  
Is as sweet as the scent of the lilies  
Of Eden of old as we pass.

"Do They Miss Me at Home?" sing it  
lower—  
And softer—and sweet as the breeze  
That powdered our path with the snowy  
White bloom of the old locus' trees.  
Let the whippewills he'p you to sing it,  
And the echoes way over the hill,  
Tel the moon boogies out in a chorus  
Of stars and our voices is still.

But, oh, "There's a chord in the music  
That's missed when her voice is away,"  
Though I listen from midnight tel mornin',  
And dawn tel the dusk of the day,  
And I grope through the dark, lookin' up-  
ards  
And on through the heavenly dome,  
With my longin' soul singin' and sobbin'  
The words, "Do They Miss Me at Home?"  
—James Whitcomb Riley.

### FEYSHAD.

The slave Aziyade told the Caliph this:  
The merchant, Feyshad, Sire, in a jour-  
ney across the desert, fell apart one day  
from the caravan with which he traveled,  
and, causing his camel to kneel, he dis-  
mounted for the purpose of counting the  
emeralds and rubies in the sack which he  
wore at his belt.

In this sack there were balas rubies of  
the color of a white mouse's eye, and em-  
eralds colored like the grass after rain,  
and, also, there were green sapphires and  
sapphires of cornflower blue, and sapphires  
colored like the Bosphorus on a windless  
day; and pearls, Sire, some black and bean-  
shaped like the thumb of an Ethiopian  
woman, and some like a woman's little  
teeth, and some that blushed rose red, as  
if at the thought of their own beauty.

So lost was the merchant in contempla-  
tion of his treasures that he did not notice  
Sleep, who, passing by on his gray mule,  
cast a handful of poppy seeds upon the  
head of Feyshad and then rode on, laugh-  
ing, with eyes half closed, in the track of  
the vanishing caravan. Feyshad had slept  
scarcely an hour, Sire, when, awakening,  
he glanced around and found himself alone.  
His camel had forsaken him, and over all  
the yellow desert burning beneath the  
noonday sun there was no trace of life,  
save the bleaching bones that here and there  
marked the road of the caravans.

He turned to the east and to the west,  
to the north and to the south, and nothing  
did he see but the sands running to a rim  
against the sky, save in the east, where a  
sand devil danced upon the plain, making  
movements as if in derision of Feyshad.

"Alas!" cried the unhappy merchant as  
he tore his beard. "Fool that I am! That  
I might count my treasure in safety I with-  
drew me from the caravan, where was my  
real safety. I thirst, but where shall I find  
water here? The sun consumes me, but  
where shall I find shade?" Then he ceased  
for fear of his own voice, which sounded  
strange in that echoless desert, and sitting  
with his eyes fixed upon the sand devil,  
which was now dancing into the west, he  
gave himself to despair, till, suddenly, Sire,  
he was startled by a voice from behind,  
crying,

"Feyshad!"

The merchant, Sire, turned, and, to his as-  
tonishment, he saw before him, at twenty  
paces distant, an Arab veiled in white and  
seated upon an ass.

At this sight a great horror fell upon the  
soul of Feyshad, for, but a moment before,  
he had been alone seated amid the vast-  
ness of the desert. Nor did his horror  
grow less when he beheld the thing before  
him ceaselessly changing form as it spoke,  
yet speaking always in the same voice.

Now, it was an Arab seated upon an ass;  
now, a woman naked and bestriding a lion;  
it would shrink now to an ape seated upon  
a dog, and now it would swell to the form  
of a stout man upon a camel.

And the form cried to him, saying, "Fey-

shad, I am the Fata Morgana, the dreamer  
of the desert. I bring to the waste places  
the ghosts of the cities, with their mosques  
and towers, and the sapphire shadow of  
the Nile bends at my word through the  
heat-shaken air and past the feet of dying  
men. I give to man the one thing real—  
illusion. I am thine."

Then Feyshad, consumed by thirst, cried  
out, heedless of the horror before him,  
"Water, I pray you, water!"

"Before entering my lands," said the  
Fata Morgana, "bear well in mind, O Fey-  
shad, that should you meet there any one  
you love, should you see them, though it  
be a league away, or though it be but their  
reflection in a mirror, at that instant all  
will vanish and the world of Happy Illu-  
sion will be for you no more."

"Peace!" cried Feyshad; "I love no one,  
nor have I ever loved mortal in this world.  
Water, I pray you, water!"

"No man has lived in my cities," said the  
Fata Morgana, "for longer than a moment  
of time, for no man born of woman is con-  
tent even with happiness. One plucks a  
flower in my gardens, another a fruit from  
a tree, another a jewel from the tables in  
my bazaars. Not content, craving forever  
for the unreal which men have misnamed  
'the real,' they must touch and have, and  
that ever brings them to ill-luck, who  
drives them forth from the gates of my  
paradise. But enter, O Feyshad, and re-  
member!"

And lo! Sire, Feyshad found himself  
seated in the courtyard of his own house  
in Old Cairo, and the fountain in its center  
played beneath the sun, casting its di-  
mond-bright waters to the sky, and the  
great acacia planted by his father cast  
upon Feyshad its pleasant shadow. His  
thirst had vanished at the sight of the  
water, nor did he notice that the fountain  
was but the ghost or shade of a fountain  
without song or sound, and that the leaves  
of the acacia moved in the breeze without  
a whisper.

His tortoise crawled upon the pavement  
of the courtyard. Through an open door  
he saw within the house the figure of his  
wife like a brown shadow against the sun-  
light of a window that lay beyond. She  
was grinding coffee, but of the sound of  
grinding there was none. And though  
Feyshad was fond of coffee he did not call  
upon his wife to bring it to him, as was  
his wont. The thought of it was sufficient  
to satisfy his desire even as the thought  
of the fountain water was sufficient to  
satisfy his thirst.

Filled with a great happiness he sat, and  
as he sat thus he remembered the words  
of the Fata Morgana, "Should you meet  
there any one you love, should you see  
them, though it be a league away, or  
though it be but their reflection in a mir-  
ror, at that instant all will vanish."

And as he murmured the words he  
smiled, for Feyshad did not love his wife;  
and when his child entered the courtyard  
and ran in pursuit of a butterfly with am-  
ber wings he smiled again, for Feyshad did  
not love his child. He sat contentedly in  
the shade of the acacia and watched his  
wife and his child and the crawling tortoise,  
and the dancing water, and the waving  
leaves; and all this while, Sire, his  
body was sitting upon the desert sands be-  
neath the burning sun; but sun or sands  
were naught for him, for around him the  
Fata Morgana had laid the ghost of the  
city of Cairo, fetched from a hundred  
leagues away; where, indeed, his child  
was chasing a butterfly at that moment,  
and his wife was grinding coffee, and his  
fountain was playing in the sunlight, and  
his acacia waving in the breeze, just as  
he beheld them in the desert.

Forever he might have sat there, happy  
beyond the dreams of man, but a mer-  
chant, Sire, is ever a merchant, even  
though he live in Paradise; and presently  
Feyshad said to himself, "I will arise and  
go into the bazaars."

At that moment, Sire, might have been  
seen a great way off the caravan return-  
ing to seek for Feyshad, and the people of  
the caravan beheld before them, over  
against the place where Feyshad was, the  
city of Cairo, with its palm trees, mosques,  
and minarets, and they laughed, for they  
knew it was the work of Fata Morgana.

Feyshad, Sire, fearful of being robbed,  
placed his sack of jewels beneath the  
fountain, for a merchant, Sire, is always  
fearful of robbers, even in the land of  
Happy Illusion; and he placed them there,  
not knowing that he was burying them in  
the sand, where they would never be found  
again. And then he left what seemed to  
his eyes the courtyard of his house, and  
began to walk about upon the sands  
whereon Fata Morgana had laid the streets  
and bazaars of Cairo.

In the bazaars sat the merchants smok-  
ing their pipes, while around them lay  
piled their wealth, silks and brocades, and  
jewels; and as Feyshad wandered and  
looked the happiness fell from him. For  
though the sight of the fountain water had  
quenched his thirst, and the sight of his  
wife and of the coffee had satisfied his de-  
sires, the sight of the gems and rich silks,  
far from giving him satisfaction, made

## LIGHTENS LABOR

Cobwebs about a house are usually the sign  
that the housewife has more than she can do,  
the way she goes about it; that all her time  
and strength are utilized in doing heavy work;  
that she uses soap in her cleaning. If she  
would only use

# GOLD DUST



### Washing Powder

heavy work would be so lightened that the little things needn't be  
neglected. Gold Dust gives a woman time to rest, time to visit, time  
to read, and time to sew. It is much better and cheaper than soap for  
all cleaning. For greatest economy buy our large package.

### THE N. K. FAIRBANK COMPANY

CHICAGO

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him unhappy, inasmuch as they were not  
his. For Feyshad, Sire, was a merchant.

He paused at the shop of El Kobir, the  
goldsmith, and, seizing upon a vase of gold  
encrusted with turquoise, cried out, "El  
Kobir, what price?" But El Kobir neither  
drew the amber mouthpiece of his pipe  
from his lips nor turned his head, so Fey-  
shad put the vase beneath his robe and  
walked on.

As El Kobir did not cry after him he  
knew that the bazaars and all they con-  
tained were his; a great hunger for riches  
came upon him, and he cast the vase of  
gold in the street, and it fell upon a sleep-  
ing dog, who neither moved nor raised an  
eyelid. Then Feyshad ran to the shop of  
a silk merchant, and, taking therefrom a  
great bag of silk embroidered with golden  
melon flowers, returned with it on his  
shoulders to the shop of El Kobir. There  
he took all the diamonds he could find, and  
cast them in his sack, and rubies and em-  
eralds as well, and when there was nothing  
left for him to take, he cried out in  
derision, "El Kobir, what price?"

But El Kobir did not see him nor the  
loss of the jewels, but sat smoking his  
pipe and conversing with a Greek, heed-  
less of Feyshad and his evil doings.

Then, Sire, Feyshad went to the shop of  
a Jew and took a little vial of attar of  
roses, and a dagger with a ruby hilt, and  
an elephant of gold with jeweled eyes,  
and a bag of sequins; and the Jew, who,  
at that moment was, in fact, asleep in his  
shop in Cairo, dreamt that he was being  
robbed; but he could not prevent Feyshad  
from taking his things, and Feyshad hast-  
ened home rejoicing with the sack upon  
his shoulders.

Though it seemed to him that he had  
spent several hours in the bazaars, it is  
impossible that he could have been there  
longer than a moment, for, to his aston-  
ishment, when he entered the courtyard  
of his house, his child was still in pursuit  
of the butterfly with amber wings, and  
the tortoise he had left crawling upon the  
pavement had not gained an inch toward  
its goal, and his wife was still grinding  
the coffee.

Feyshad felt a great thirst from his ex-  
ertions, and the sight of the fountain did  
not allay it as before.

He emptied his sack of the stolen jewels  
and covered the glittering heap with leaves  
plucked from the acacia, and then he cried,  
"How happy am I that I have never loved,  
else the sight of my wife, or my child, or  
a friend would have banished me forever  
from this land, where I may rob all day  
and be happy. Now will I quench my  
thirst at the fountain and, leaving my  
jewels here, return to the bazaars for  
more."

But, Sire, the hand of Allah reaches even  
to the land of Happy Illusion. As Fey-  
shad bent to drink he beheld a person  
whom he loved, for, in the clear waters of  
the fountain, he beheld the reflection of  
his own face.

At that moment, Sire, the people of the  
approaching caravan saw the phantom city  
that lay before them trembling, from the  
green palm trees at its walls to the domes  
that cut the sky, and then it vanished like  
a dream, leaving naught by a black speck  
upon the sand, which was Feyshad. The  
jewels he had hidden for safety beneath  
the shadow fountain were never found  
again, or the jewels he had covered with  
the leaves of the acacia.

And to-day, Sire, he sits at the gates of  
Cairo begging alms, or wanders through  
the bazaars gazing upon the jewels that  
once were his—in the land of Happy Illu-  
sion.—H. De Vere Staepoole, in Literature.

### Language of Russia.

Turgenev, the great Russian novelist,  
declared, in the glow of patriotic fervor,  
that so noble a tongue as his could not be  
spoken by a mean-spirited race. Lecturing  
before the members of the Anglo-Russian  
Literary Society at the Imperial Institute,

Alexander Kinloch expressed scarcely less  
admiration of the Russian language. Apart  
from the Russian's claim to possess one of  
the most musical tongues in Europe, Mr.  
Kinloch declared that the grammatical sys-  
tem was remarkable for its precision, and  
that the declensions and inflections made  
the sentences more readable than those of  
German. Mr. Kinloch's views appeared to  
be shared by all the other speakers. Mr.  
Marchant asserted that Russian was a key  
to the other Slavonic languages, one of  
which, Bulgarian, he regarded as being at  
present in a state of flux, what with hope-  
lessly confused inflections and the free ad-  
mixture of Persian and Turkish words.—  
London Telegraph.

### Her Pathetic Contrast.

It is not in the saying of pungent things,  
or even witty things, that children become  
interesting; and this is why so often the  
glimpses of children we have given us are  
so unsatisfactory. It is the utterance of  
things that have a heart of pathos that  
makes the talk of the little ones so wonder-  
ful. A lady standing between two beds at  
a children's hospital not long ago upon the  
occasion of a small feast opened conversa-  
tion with one of the patients by saying:

"What have you had, dear?"  
"The pleurisy, ma'am," came the answer.  
"And what has this little girl had?"  
"She's had cake, ma'am."

This may be the sort of thing you smile  
at while your throat tightens, but if you  
are a woman the heart of love in you is  
taken captive.—N. Y. Ledger.

### Another Form of Orank.

The audience applauded rapturously,  
and the favorite prima donna came before  
the curtain and bowed her thanks.

Again the audience applauded, and again  
the cantatrice appeared, smiled, bowed, and  
retired.

The great songstress was slow in ac-  
knowledging a third recall, and an earnest-  
looking man arose in one of the boxes,  
thrust one hand inside his waistcoat, com-  
manded silence with the other, and when  
the house became quiet he spoke as fol-  
lows:

"While the gifted queen of song whom  
we all admire is making up her mind as to  
the selection she will sing in response to  
your enthusiastic encore I wish to present  
a few of the reasons that have led me to  
the conclusion that the twentieth century  
will begin January 1, 1900."—Chicago  
Tribune.

He: "I have read that in the beginning  
it was woman who owned the trousers."  
She: "And now she owns the man who  
owns the trousers."—Cincinnati Enquirer.

### Mothers! Mothers!! Mothers!!!

MRS. WINSLOW'S SOOTHING SYRUP has been used  
for over FIFTY YEARS BY MILLIONS OF MOTHERS  
for their CHILDREN while TEETHING, with PER-  
FECT SUCCESS. IT SOOTHES the CHILD, SOFT-  
ENS the GUMS, ALLAYS all PAIN; CURES WIND  
COLIC, and is the best remedy for DIARRHEA. Sold  
by druggists in every part of the world. Be sure and  
ask for "Mrs. Winslow's Soothing Syrup," and take  
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switches that retail at \$5.00 to \$8.00.

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to us, inclose a good sized  
sample of the exact shade wanted, and cut it  
out as near the roots as possible, inclose  
our special price quoted and 6 cents extra to  
pay postage, and we will make the switch to  
match your hair exact, and send to you by  
mail, postpaid, and if you are not perfectly  
satisfied, return it and we will immediately  
refund your money.

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## The Young Folks.

### A READER'S LAMENT.

I can not read the old books  
I read long years ago;  
Elliot, Dickens, Thackeray,  
Bulwer, Scott and Poe.  
Marryat's yarns of sailor life,  
And Hugo's tales of crime—  
I can not read the old books,  
Because I haven't time.

I love the dear old stories,  
My thoughts to them will stray,  
But still one must keep posted on  
The writers of to-day.  
My desk is piled with latest books  
I'm striving to dispatch;  
But ere I've finished all of them  
There'll be another batch.

Hope's new one isn't opened yet,  
I've not read James's last;  
And Howell's is so prolific now,  
And Crawford writes so fast.  
"Evelyn Innes" I must skim,  
O'er "Helbeck" I must pore;  
"The Day's Work" I'll enjoy, although  
I've read the tales before.

And then there is "The King's Jackal,"  
"Silence," "The Forest Lovers," and  
I can't name all the rest.  
I'll try to keep up with the times,  
But oh, I hope that I  
May read my "David Copperfield"  
Once more before I die.  
—Carolyn Wells, in the Bookman.

### THE BATTLE OF WATERLOO.

M. Henry Houssaye is writing the history of the fall of the first empire, with the help of original documents. The two first volumes of this work had for their titles: "1814-1815—The First Restoration, The Return from Elba, The Hundred Days." The third and last volume has just appeared under the title, "1815—Waterloo." Many accounts of the battle of Waterloo have been written. M. Houssaye has evidently had the ambition to write the last and to leave nothing behind him for future historians. He enters first into infinite details upon the last army of the empire, the army which Napoleon organized after his return from Elba. For this purpose he has availed himself of the documents found in the archives of the ministry of war. Napoleon found only 200,000 men under the French flag on his return. "If," says M. Houssaye, "he had had his old absolute power, he would have doubled the army by an extraordinary call of the classes of 1806 to 1814, by the recall of the class of 1815 and the call by anticipation of the class of 1816." But he hesitated, having only just seized the crown again, before so unpopular a measure as the re-establishment of the conscription, which had been abolished by Louis XVIII. His only resource was the recall to the regiments of the soldiers who were absent on limited or unlimited leaves, and the recall of the great number of deserters who figured on the regimental lists as "absent without permission." The men who were absent on leave were 32,800, the deserters 85,000. It was difficult to count on many of this last number. Napoleon feared, besides, to put the army too suddenly on a war footing; he was trying by all means to enter into negotiations with the powers to maintain peace. The French population wished ardently for the continuation of peace. The west of France was agitated, the south was partly in arms; the royalists all over France predicted war. As soon as all hope was given up of an understanding with the powers, Napoleon published his decree; the French funds in one day suffered a fall of eight francs. France felt that she must prepare for a terrible war; perhaps for a new invasion.

The feeling of the country is well shown by the number of free volunteers; there were only 15,000. Napoleon had to augment the regular army by the mobilization of the national guard. He would have much liked to keep the four Swiss regiments of the army of Louis XVIII, but the Swiss officers refused to exchange the white cockade for the tricolor, and these regiments had to be disbanded. He could keep only two foreign regiments, Isenberg and the Irish regiment. Of the 234,720 national guards who were called into active service 150,000 were on their way to their regiments on the 15th of June; they were not enthusiastic, but resigned and determined to do their duty.

The correspondence of Napoleon shows what immense pains he took to equip and organize completely his new army, to form the corps, to choose the troops of the first line. The command of the corps was of the greatest importance. Of the twenty marshals of France, three had accompanied Louis XVIII to Belgium—Berthier, Marmont, Victor. Many of the others were wavering and did not inspire Napoleon with great confidence. He was especially discontented with Ney, but, after some hesitation, he wrote to the minister of war: "Call for Marshal Ney, and tell him that if he wishes to be in the first battles he must go on the 14th to Avesnes, where my headquarters will be." Napoleon refused to give a command to Murat; he had not forgiven him for having begun hostilities so late in 1814 against the Austrians. He

regretted this decision at St. Helena. "At Waterloo," he said in one of those conversations, or rather monologues, which have just been repeated to us in the "Memoirs of Gourgaud," "Murat would, perhaps, have given us the victory. What did we need? To break three or four English squares. Murat was just the man for it." Grouchy was an able officer, and, like Murat, could handle well great masses of cavalry. Napoleon gave him a command.

The choice of a major-general was all important. Berthier had always occupied this post, to the satisfaction of the Emperor; he had been an admirable instrument. He did not remain long at Ghent, but left for Bamberg, where lived his uncle by marriage, the King of Bavaria; he was kept there as a sort of prisoner of the allies. On the 1st of June, as a Russian regiment was passing before the castle on its way to France, Berthier was seen to leave a window on the first floor, to reappear at a window on the third floor, to fall from it on the pavement. His death was attributed to an accident; it was probably a suicide. Napoleon's choice for a major-general fell on Soult, who had never occupied the post. Napoleon wished to have it occupied by a marshal of France. He left Davout in the ministry of war. The commanders of the army corps were all able and experienced men. "Never," says M. Houssaye, "will the French army have such chiefs. All of them had made war for more than twenty years, and none of them was as much as fifty years old." Napoleon's age was 46 years, Davout was 45, Soult 46, Ney 46, Grouchy 49, Drouot d'Erlon 49, Loban 45, Lamarque 45, Kellermann 45, Reille 44, Vandamme 44, Rapp 43, Clausel 43, Suchet 43, Pajol 43, Gerard 42, Drouot 41, Exelmans 40. All these men, who had so often led their soldiers to victory, had no longer their old faith in the success of the French arms. They knew well what formidable armaments were preparing against the Emperor. Division reigned in the general staff; discipline suffered from the effect of a general suspicion; the soldiers believed only in the Emperor, they all wanted to be passed in review by him. They believed that they alone had brought Napoleon back to the Tuileries. The army of 1815, sensitive, undisciplined, distrustful of its chiefs, troubled by the fear of treason, but ardent for vengeance, was capable of the most heroic efforts. "Never," says M. Houssaye, "did Napoleon have in his hand a more dangerous or more fragile weapon."

Napoleon had made his plan of campaign early, long before the breaking out of hostilities; it was based on that of the allies, which was known to him. Six armies were to cross the French frontier—four from Maubeuge to Bale; the three others by way of the Alps. Napoleon decided to concentrate an army of 150,000 men on the northern frontier, to fight separately the English and the Prussians, and then to deal with his other enemies. It was necessary for him to operate so as to hinder the junction of Wellington and Blucher. The allies did not understand his movements of concentration. On the 15th of June, when Napoleon had already a foot in Belgium, Wellington wrote a long letter to the Czar, in which he said that he would assume the offensive at the end of the month. Blucher, a few days before, wrote to his wife from Namur: "We shall soon be in France. We might easily stay a year or longer here, for Napoleon will not attack us." I will not follow M. Houssaye into all the particulars of the campaign. After Charleroi was taken, Napoleon and Ney had an interview. The Emperor told Ney to take command of the first and second corps, to follow the enemy on the road, to Brussels, and to take position at a cross-road called Quatre-Bras. Ney, prudent for the first time in his life, took position only at some distance from Quatre-Bras; nevertheless, Napoleon had succeeded in establishing himself in the center of the enemy's position.

After Byron, after Thackeray, M. Houssaye gives us a description of the eve of Waterloo at Brussels. He is rather severe on Wellington. At the ball of the Duchess of Richmond, Wellington was very gay; he entered the room only toward midnight.

"This whole day he obstinately kept his troops dispersed at four, eight, ten, fifteen leagues from each other; and his evening orders, by which he flattered himself to have repaired his grave fault, were pitiable. \* \* \* If his orders had been executed, a gap of four leagues would have been opened between Nivelles and the Dyle, a gap through which Ney could have advanced half way to Brussels without firing a gun, or have fallen on the rear of the Prussian army and caused its utter destruction. \* \* \* Fortunately for the allies, some of the subordinates of Wellington took it upon themselves to act without awaiting his orders, and others intelligently disobeyed those which, after so much time lost, he decided to give."

I leave it to military judges to weigh the value of these remarks. M. Houssaye, on the other hand, defends the Emperor against the imputations of theoretical

strategists like Caharras (who wrote, during his exile under the second empire, a minute account of the battle of Waterloo), who denounces Napoleon's fatal indecision and torpor of mind during the campaign. Lord Wolseley has lately made similar criticisms; but, if we judge of Napoleon's state of mind by the incessant orders he gave during those momentous days, it is difficult to admit that his intelligence was impaired.

Wellington's and Blucher's meeting near the village of Brye must have been very impressive. It took place before the battle of Ligny, which ended in the defeat and retreat of the Prussian army. During the battle Napoleon sent nine dispatches to Marshal Ney, with whose help he hoped to annihilate completely the army of Blucher, but Ney "was no more the same man," said Napoleon at St. Helena; he had become too prudent, and had neglected to occupy the position of Quatre-Bras; his divisions were dispersed, and when Napoleon himself determined to attack Quatre-Bras he had to fight a real battle against Wellington. The battle was lost by him, or rather ended without any result, as in the evening the English and the French resumed nearly the same positions they had in the morning, with the difference only that the English were now in force in positions where before they had only detachments. When Wellington heard of the defeat of the Prussians at Ligny and their retreat on Wavre, he determined to occupy Mont-Saint-Jean, a strong defensive position, which he had studied the year before. He received news of Blucher on the night of the 17th to the 18th June at 2 o'clock in the morning, and, being assured of the co-operation of the Prussians, he resolved to accept the battle.

Napoleon dictated the same night his order of battle. All the details of the great struggle are known—the last review of the French troops, the dispositions for the attack, the storming of the farm of Hougomont, the orders sent to Grouchy, who had 30,000 men under his command when the first Prussian columns appeared, the charges of D'Erlon, of the Somerset Guards, of the Ponsonby Dragoons, the two attacks on La-Haye-Sainte, the repeated charges of the French Cuirassiers, the storming of La-Haye-Sainte by the French infantry, the coming into line of Bulow, the last general attacks, the assault on the Mont-Saint-Jean by the guard, the final defeat, the rout, and the confused retreat of the French army, followed by the Prussian cavalry. Napoleon had been warned before the battle by Gerard, who spoke to him of the tenacity of the British infantry. Instead of maneuvering and making flank movements, he wished to mark his victory by what he called a coup de tonnerre; he determined to concentrate on the English center in its trenches a terrific artillery fire, and to break this center so as to divide the English army in two, and to obtain a crushing and terrific victory. He did not reckon sufficiently with that "indomitable English courage," of which Macaulay speaks, which is never greater than in the evening of an undecided and murderous struggle.

The details of the French retreat given by M. Houssaye are appalling. The army had made too great an effort. All hope was given up, and the Prussian cavalry had too easy a task in following with merciless ardor the remnants of what was the last army of Napoleon.—Paris Correspondence of the New York Post.

### The Breaking of Bucephalus.

Mr. E. H. House rehearses in the March St. Nicholas the story of Alexander's taming of Bucephalus.

"The horse was certainly wild and fiery enough to intimidate most riders," said Uncle Claxton, "but his temper alone would not have made him so unmanageable on that particular day. He had been placed with his back to the sun, so that his own shadow fell before him on the ground, and as he plunged and pranced about the dark image also moved beneath his eyes and alarmed him greatly. The more he tried to get away from it the more it terrified him. Alexander's first action was to turn him around and as soon as the shadow disappeared Bucephalus was in a better mood for listening to reason. For a few minutes the Prince did nothing but talk pleasantly to him and stroke his head. At length he sprang lightly up and fixed himself firmly upon the bare back. Continuing to speak kindly, and avoiding all harshness and severity, he soon won the animal's confidence, and after riding a considerable distance in various directions he turned and galloped back at full speed, proud of his exploit and happy in having discovered the noblest warhorse in the land. For nearly twenty years the great conqueror and Bucephalus were constant companions. Some historians say that although the horse willingly consented to serve the Prince he would submit to no other authority and even refused to be mounted by any one else. They say, also, that he learned to kneel down when his



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master wished to ride. If he had been a human being, Alexander could hardly have loved him more dearly. Through most of the Asiatic campaigns Bucephalus was the monarch's chosen steed. In his first battle with the Persians, however, at the river Granicus, he rode another, which was killed under him, and it may have been this circumstance that led him afterward to take precautions for the safety of his favorite. As Bucephalus grew old his work was made lighter, but as long as he lived he was always called for at the close of a fight, when the final charge was ordered. It pleased Alexander to strike the decisive blow on the back of his tried comrade. Once Bucephalus was captured by a party of marauders in Hyrcania, and the King sent a messenger to tell the robbers that if they did not immediately give him up, they should all be put to death, with their wives and children. They made haste to obey, and Alexander was so delighted at getting his horse again that, instead of punishing the bandits, he caused to be given to them a large sum of money, calling it a ransom. \* \* \* To keep his name and fame from being forgotten Alexander built a city which he called Bucephala, near the spot where the famous charger died. I suppose no other horse was ever honored with such a monument as that."

Few men of spirit are able to bear up under the shame of getting cheated in a horse-trade.—Rochester Union.

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## ALFALFA PASTURES.

Can cattle and sheep be safely pastured on alfalfa? Is the danger of loss from bloat prohibitory? Many farmers could increase their profits if they could feel safe in turning animals into alfalfa pastures as freely as into blue-grass. The Colorado Experiment Station has made a careful investigation of the question as to sheep, and, in a bulletin just published, has given the experience of the station and of many sheepmen. In summing up the results of the investigation, the bulletin says:

"Is pasturing alfalfa safe? The answer must be given in the negative. But in view of the statements given by some of those who have had the most experience, the danger from bloat can be largely overcome and the loss reduced to at least [most] not more than 5 per cent. On the basis of the estimates already given, a 5 per cent loss by bloat would reduce the returns for the alfalfa 15 cents per ton. If there is any profit in pasturing alfalfa, a 5 per cent loss on the ewes would not reduce the net profit to any serious extent.

"There seem to be certain precautions that need to be observed in pasturing alfalfa to prevent bloat, and they can be summarized as follows:

"1. Have the sheep in small bunches, or if in a large bunch, divide into several lots in separate fields.

"2. Have a large enough field to supply them with an abundance of food with little effort.

"3. Leave them in the field day and night, and do not remove them when the field is irrigated.

"4. Have water and salt before them all the time, and, if there are no trees in the field, provide some sort of shelter against the sun.

"5. Be sure they are filled up with some other food and not thirsty when first turned on the alfalfa.

"6. Do not attempt to pasture on alfalfa anything but old ewes and their lambs."

Many readers of the *Kansas Farmer* have had experience with pasturing alfalfa and a recapitulation of these experiences would be most valuable. A statement of the facts may be written on a postal card or in a letter to the editor, who will take pleasure in presenting them for the benefit of the ever-increasing number of alfalfa-growers.

It will not be forgotten that in a paper published in the *Kansas Farmer* last winter, Mr. D. H. Watson, of Kearney, Nebr., stated that he had found alfalfa and blue-grass to grow well together, and that growing together they were safe pasture for ruminating animals. Mr. Watson could scarcely render a more valuable service than by giving at length an account of the experience on which this assertion was based. He may be able, too, to give additional facts from this season's experience.

Let us hear from the alfalfa pastures.

The foreign commerce of this country for March and April, 1899, exhibits considerable contrast as to its balances with that of the same months last year. Then there was a balance of trade in favor of this country amounting to \$94,400,000. This year the balance is only \$54,800,000, the falling off amounting to \$39,600,000. This country is not only selling less abroad but is buying more in foreign markets than a year ago.

## AGRICULTURE IN ALASKA.

This great Government of ours has just issued a second report to Congress on Agriculture in Alaska. The report consists of several parts, the first of which is the letter of transmittal. After looking the case over with some care, the writer is unable to see how agriculture in Alaska could ever have been expected to succeed without a letter of transmittal. Inasmuch as this is the second report, and doubtless the first also contained a letter of transmittal, there is considerable doubt whether either could have been spared if agriculture in Alaska were to be a howling success. There is really nothing bad about this letter of transmittal. It introduces the great subject of agriculture in Alaska to the Honorable Secretary of Agriculture.

Next there is a table of contents and a list of the plates printed in the book. These are good and essential to any book, more especially for one having to do with so important a subject as agriculture in Alaska.

On another page there is a message from the President of the United States. Besides the heading, the address, and the signature there are slightly less than four lines in this message. But doubtless these four lines from the great man are sufficient for the agriculturists in Alaska.

Next is another letter of transmittal; this one is from the Secretary of Agriculture to the President. This also is brief but in this respect entirely suited to the agriculture of Alaska.

Following all the above is a more weighty document of three full pages, which can be nothing less nor more than a letter of "submittal," this characteristic being sufficiently declared in the first line. The writer is not entirely clear as to its importance, having become somewhat involved in the mazes of the "red tape" thus far unwound, but, being a patriotic citizen, he is willing to admit that a letter of submittal is necessary for the prosperity of agriculture in Alaska.

Sure as death here is another letter of submittal. It is a short one, and mentions a trip from Washington to Alaska and return to Washington, all accomplished between April 18 and November 7. If, now, the reader can tell "where he is at" he will doubtless, as a true and loyal American, allow that agriculture in Alaska must be on the highway of prosperity.

But now we come to the report itself—the "hauptsache," as the Germans would say—by C. C. Georgeson, M. S. This report starts out bravely for three and a quarter lines and then drops to copious excerpts from the "instructions." How could agriculture in Alaska prosper without instructions?

Then follows an account of plans. Why not?

Next we get to the "office quarters," and a picture of the same, and of the weather bureau instruments at Sitka. It is not quite clear why that little wooden house is pictured in this elaborate report. There are many finer looking shanties on the plains of Kansas and nobody has ever thought of printing pictures of them. But this all is about agriculture in Alaska.

Later we are treated to this piece of information: "No section can lay claim to be called an agricultural country if it can not produce the grains which go to feed man and beast." Is not that rotund? Now we find three elegant pictures, and a beautifully executed diagram. We are informed, also, that barley, oats, and clover did very well. Who wouldn't with a \$2,000 man in charge, and expenses paid by our Uncle Sam, and a great report, like the one under consideration, to follow?

White people and Indians raise potatoes, and no doubt eat them, though on this latter point the report is not as definite as might be desired.

The land is naturally "sour," but when they once get it sweetened and otherwise ameliorated, it is better, and several kinds of garden vegetables will grow in it and some of them have had the good luck to escape the early frosts, especially if started in hot-beds in April.

There are in the report some fine diagrams of soil temperatures and a most attractive map of Alaska and some of the adjacent country and ocean; and there are letters from a lot of people, many of them ministers of the gospel and some of them Sisters of Charity; and there are more pictures and more diagrams—pictures of shanties and pictures of cows—these latter, of course, give an agricultural appearance to the report, which is quite proper, for it must not be forgotten that this is all about "agriculture" in Alaska.

But after going through the fifty and more pages the writer has not decided to pull up his farming interests in Kansas to transfer his sphere of influence to the agriculture of Alaska, and he must decline to

guarantee wealth beyond the dream of avarice to all who engage in agriculture in Alaska.

## JOHNSON GRASS.

In the *Kansas Farmer* of April 18, Mr. J. C. Weathers, of Howard, Kans., gave a valuable account of experience with Johnson grass, in the course of which he pointed out the serious difficulty—almost impossibility—of killing it when no longer wanted. However valuable a plant may be, it is important to the farmer to be able to exterminate it at will. This is especially true if the plant have a tendency to spread from underground rootstocks, as is the case with Johnson grass.

Mr. Alvin C. Owsley, of Denton, Texas, seems to have solved the problem to his own satisfaction, as well as to the satisfaction of a visitor at his place who reports that Mr. Owsley showed him an orchard of four acres as clean as though no Johnson grass had ever grown there, while in another orchard separated from this clean one by only a fence, the Johnson grass was over two feet high. Last fall the Johnson grass in Mr. Owsley's orchard was as high and thick as in the neighbor's orchard. This is Mr. Owsley's account of how he killed the Johnson grass:

"It is as easy to get rid of Johnson grass as almost anything else. I studied the plant and found that until the top gets about six inches above ground the roots do not begin to spread. There is only one root to be disposed of when the shoot first appears. When I began work on my orchard the grass was fully a foot and a half high and fully rooted. In December I plowed the ground about six inches deep and let it lay until February, when I broke it thoroughly both ways. The last plowing was about three inches deep. I let it lay till I was ready to plant in the spring. Then I disked it both ways and manured it well. We planted peanuts and peas and made a big crop. We have not been troubled by a re-appearance of the Johnson grass and will not be.

"To show that my theory is correct, continued Mr. Owsley, "I killed ten acres of Johnson grass unintentionally during my plowing last August. We were working the ground and one of the hands got over in the Johnson grass and plowed it, not very deep, before we discovered it. The grass died and it was months before we got another stand there.

"In my opinion, Johnson grass can be easily killed by one plowing in August, if the season is dry, but by waiting till then the farmer loses the chance of making a crop on the ground. By following the course I pursued in my orchard the farmer not only gets rid of the Johnson grass without trouble or expense, but can make a full crop on the land. It is a very simple and effective remedy and one that has been tried hereabouts with unfailing success. Johnson grass is not a bugaboo to us, because we know we can get rid of it whenever we choose."

The visitor observed a field of fifty-three acres in which wheat and Johnson grass were growing together and both appearing to do well.

He asked Mr. Owsley about this, and he said: "There seems to be a natural treaty of peace between wheat and Johnson grass. Last year I harvested twenty-eight bushels of wheat per acre off that field and then got ninety tons of Johnson grass. Johnson grass will not grow till after the wheat is ripe. You have to be careful, though, to harvest the wheat just when it is ripe because the Johnson grass comes fast and is liable to cause you a good deal of trouble unless you are prompt with your harvesting. You can not raise Johnson grass and oats in the same field, for the Johnson grass soon chokes out the oats and takes possession of the field. Look at my wheat field over there and then look at the oat field just across the road. The land is the same, and of course conditions have been the same."

In this there is an assumption that Johnson grass has a value for hay-making. Direct statement on this point, comparing it with well-known grasses, is desirable.

Professor Bogue, of the Oklahoma Experiment Station, recommends the following remedy for borers in trees: "It is made with ordinary softsoap, diluted or made thinner with a strong solution of common washing soda. Make the solution of washing soda as strong as possible; then thin the softsoap with that. If this wash is painted on the trees on a clear, warm day it will leave a thin varnish-like coating on the trunks, which will stay there for a number of weeks, and will prevent the female beetles from laying their eggs on the bark. The borers are grubs of beetles which hatch from eggs laid on the bark; if this coating of softsoap and soda is painted on the trees the mother beetles will not lay eggs there and the trees are safe. Other washes are sometimes recommended, but this is as good as any."

## BREEDERS' ANNUAL REPORT.

The Kansas Improved Stock Breeders' Association has just issued from the press of the *Kansas Farmer* its first published Annual Report in book form. It contains an introduction by Secretary Coburn, a history of the live stock organizations in Kansas by Secretary H. A. Heath, the full proceedings of the ninth annual meeting of the Kansas Improved Stock Breeders' Association, and the consolidation of the other live stock organizations of the State with it, together with the addresses, papers, and discussions as to the various branches of the animal industry of Kansas and live stock husbandry in general.

It is the first distinctive live stock report ever issued for Kansas and is a veritable live stock manual for the State. The Report also contains the Association's Kansas Breeders' Directory for 1899. As the association receives no State aid, but is supported entirely by its membership fee of \$1 per year, it has been decided to charge a nominal price for the annual report, as follows: Single copy, 25 cents; 10 copies, \$1.50; or 100 copies, \$10. Address all orders, or applications for membership, to H. A. Heath, Secretary Kansas Improved Stock Breeders' Association, Topeka, Kans.

## Publishers' Paragraphs.

Binder Twine.—The Kansas City Twine Co., Station A, Kansas City, Mo., calls the attention of the Twentieth Kansas and the readers of the *Kansas Farmer* to the advantages of securing twine at the lowest prevailing rates and have to pay freight only from Kansas City. Any of our readers who wish to buy binder twine will find it profitable to confer with this firm before purchasing.

We call attention to the advertisement of Houghton & Barham, of Pittsburg, Pa., who have some California irrigated fruit lands for sale in small tracts, located in Tehama County, California. This is the well-known Richfield colony and is said to be one of the best propositions on the coast for investors. Look up their advertisement in this issue and write them for detailed information.

The H. P. Deuser Co., of Hamilton, Ohio, advertise this week the McCollm Clod Crusher and Compress Steel Roller, an implement of special value and interest to every reader of this paper, and especially adapted for light soil. It crushes and grinds all clods, packs the soil without making a smooth, hard surface. The implement is very popular wherever used, being very durable, no parts to wear or get out of repair. Look up the advertisement and write for particulars.

## Spanish-American War Panorama

is one of the war books which is likely to be in continuous demand. It is a panoramic record of the triumph of Yankee Doodle. The eagle flaps his wings on every page, and "Old Glory" waves around and above every scene. Prominent officers connected with the war are here portrayed, as well as many of the "men behind the guns." Military life is pictured to the eye, from recruiting to guard mount and skirmish line. Nor is the ludicrous omitted. The company cook receives the attention due to his importance; the mess is shown; cavalry scenes are given; the hospital arrangements are depicted; the heroines of the Red Cross service are displayed; street scenes in Havana, Santiago, and elsewhere are unrolled, the new citizens or subjects (which are they?) of Uncle Sam appear and disappear as the leaves are turned.

In a word, the gazer visits the new localities and sees the tumultuous new life, without the risk or expense of a sea voyage.

The Album is 5½x8 inches, weighs 12 ounces, printed on finest coated paper.

Sent FREE to any address in the United States, Canada, or Mexico, for 12 cents in stamps or coin, to cover postage and packing. Copy may be seen at any ticket office of the Big Four Route.

Order at once, as the edition is limited. Address Warren J. Lynch, General Passenger and Ticket Agent "Big Four Route," Cincinnati, Ohio.

Mark envelope "War Album."

Present indications point to a grain crop larger than usual in foreign countries and smaller than usual in the United States.

In his circular of last Saturday, Henry Clews gives the following partial list of rich men: "John D. Rockefeller, worth \$300,000,000; William, his brother, \$150,000,000; the Astors, \$250,000,000; the Vanderbilts, \$400,000,000; Carnegie, \$150,000,000; the Goulds, \$100,000,000; D. O. Mills, \$40,000,000; C. P. Huntington, \$40,000,000." He further suggests that the country possesses a great many others, each of whom is worth at least twice ten million dollars.



## WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending May 22, 1899, prepared by T. B. Jennings, Section Director:

## GENERAL CONDITIONS.

The temperature for the week was slightly above the normal, the first part being very warm, the latter quite cool. Dry weather has prevailed in the southwestern counties and comparatively dry weather in the southeastern. Good rains fell in the central southern counties, the larger part of the eastern division, the eastern counties of the middle division, and the central northern counties, with heavy rains in the northwestern and very heavy rains in the northeastern.

## RESULTS.

## EASTERN DIVISION.

Wheat has generally improved and is beginning to head as far north as in Pottawatomie and Wyandotte. Unfavorable conditions have deteriorated wheat in Atchison, Bourbon, Douglas, and Shawnee, chinch-bugs being largely the cause, and in Atchison, Douglas, and Shawnee some fields have been plowed up and put in corn. Corn cultivation is becoming general. Many corn-fields were washed out in Marshall and Nemaha and will need to be replanted. Alfalfa is blooming in Pottawatomie and alfalfa-cutting has begun in Douglas. Clover is beginning to bloom in Wyandotte. Oats, flax, and grass are growing well. Apples are falling badly in Atchison and Wilson, and did not set well in Coffey. Cherokee reports fruit falling badly, but does not specify. Cherries are falling in Atchison, while Wyandotte reports no cherries. Strawberries are beginning to ripen in the more northern counties and are being marketed in the southern. Chinch-bugs are working on wheat and oats in Bourbon, Coffey, and Morris.

Allen County.—All crops doing nicely; wheat heading; cultivating progressing; live stock doing well.

Anderson.—High winds first of week hard on vegetation; good rains latter part of week have revived everything; wheat heading, on low lands it is very fine; corn growing well.

Atchison.—Wheat "going back," more of the ground being put in corn; some early

weather and chinch-bugs; corn, flax, and grass doing well; large acreage of millet, cane, and Kaffir being sown; heavy rain of 20th washed fields badly.

Nemaha.—Slight hail on 14th, and strong winds on 15th-16th did some damage to tender growth; rain Friday night washed out much corn; cool nights have checked growth somewhat; pasturage is very good.

Osage.—Crops now in fine growing condition; gardens and pastures doing very well; stock water replenished.

Pottawatomie.—A growing week; sweet potatoes nearly all set; wheat beginning to head; pastures good; alfalfa blooming; corn cultivation begun; rain very heavy in north part.

Riley.—Many re-listing corn drowned by overflow of last week; oats backward; corn fine; pastures very good; will be but little fruit in central portions.

Shawnee.—Corn coming up nicely and being cultivated, planting nearly done; chinch-bugs are very numerous in wheat and have damaged it greatly; several fields have been planted in corn; apples and grapes promise good crops; pastures good; cattle doing very well; stock water abundant.

Wilson.—Fine rains; corn getting grassy; wheat heading; flax looks fine; winter apples have dropped badly; pastures good.

Woodson.—Wheat looking well and promises good crop; corn growing nicely; alfalfa doing well.

Wyandotte.—A good week; wheat beginning to head; early-planted corn a poor stand; pastures excellent and stock doing well; clover beginning to bloom; a fine prospect for grapes; will be some blackberries and plums, but no cherries.

## MIDDLE DIVISION.

Wheat has improved in many of the counties. It has not improved in Barber, Barton, Pratt, and Stafford; and has been injured by the prevailing conditions in Edwards, Pawnee, Russell, and Saline. Corn is up and cultivation is becoming general; planting is about finished; some fields were washed out in the more northern counties. Oats have been injured in Edwards and Saline; in Butler some fields have been plowed under on account of chinch-bugs. Alfalfa has been cut in Barber. Much of the range was browned in Pawnee. Apples, pears, and small fruits generally promise well, but in Pawnee the fruit prospect has diminished.

Barber.—A fine growing week for all

**THE AMERICAN WALTHAM WATCH**  
Company guarantees every watch-movement it turns out against any defect in material or construction. That guaranty holds good the world over. One **WALTHAM** movement, the "**RIVERSIDE**" is within the reach of every one; it will keep accurate time and will last a lifetime. Any retail dealer will supply this movement in any quality of case desired either for ladies or gentlemen

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"The Perfected American Watch," an illustrated book of interesting information about watches, sent free on request.

AMERICAN WALTHAM WATCH CO., WALTHAM, MASS.

proving; all crops greatly benefited by recent rains.

Pratt.—Weather a little too cool and wind has injured small grain so that wheat, oats, and barley are not doing well; corn is fine, prospect never better.

Reno.—Dry and windy first of week, injuring wheat and oats; good rains last of week improving everything; corn all up, good stand, and good condition, is now being cultivated; alfalfa fair, growth was checked by the dry, windy weather; all fruit prospects fair except peaches and blackberries; strawberries beginning to ripen.

Republic.—A good growing week; wheat and oats greatly improved by recent rains.

Russell.—Wheat drying in spots and heading in others, poor heads, it is nearly a failure; corn not doing anything; fair rain last of week.

Saline.—Wheat has been deteriorating for the last ten days, badly fired, and some chinch-bugs; oats a failure; corn a poor stand and not growing, too dry; alfalfa in bloom.

Sedgwick.—Corn on smooth ground damaged considerably by high winds; chinch-bugs doing much damage to wheat and oats, recent rains will check them; corn fine stand; pastures good; alfalfa nearly ready to cut.

Stafford.—Corn growing fairly well; wheat, oats, and barley suffering for rain; sand-storm damaged fruit.

Sumner.—Good week for work; wheat, corn, and oats growing rapidly; wheat small but stooling well; corn very weedy.

Washington.—Corn mostly a good stand, early-planted being cultivated; wheat very uneven; pastures good.

## WESTERN DIVISION.

While wheat has been badly injured in Ford, Kearny, and Ness, in the more northern counties it is much improved by the rains of the week. Rye is beginning to head in Ness and Thomas. Alfalfa is nearly ready to cut in Rawlins. Corn is coming up well in the northern counties. Young grasshoppers are hatching out in Rawlins.

Decatur.—Weeds have gained on winter wheat; spring wheat generally very fine; corn, alfalfa, and wild grass doing well; fine rains benefiting everything.

Finney.—Rain needed badly; very small per cent of crops above ground; some blackleg among cattle.

Ford.—Wheat badly injured; alfalfa somewhat injured; cattle doing well.

Gove.—Wheat and fruit helped much by late rains; trees look well.

Gray.—Fine showers Friday, first in many weeks; spring crops and gardens very backward; alfalfa making better growth than anything else.

Greeley.—Windy and but little rain; seed germinating very slowly; good week for work but ground getting dry.

Hamilton.—Crops not doing well; high winds, no rains, cool nights.

Kearny.—Injurious effects of wind and dry weather somewhat abated by light rains; planting delayed for more moisture; wheat considered past redemption; pastures drying up.

Logan.—Good showers latter part of week have started vegetation growing again.

Ness.—Genuine hot winds on the 14th, damaging all field crops; rye heading short; rain on Friday has revived most crops, but many fields of rye and wheat are believed to be past help.

Norton.—Fine rains the latter part of week have greatly improved crop conditions, especially small grain; some damage to listed corn by washing.

Rawlins.—General rain Thursday night; listing corn about finished, corn coming up, a good stand; first crop of alfalfa nearly ready to cut; all growing grain much improved by the rains; grasshoppers hatching out and working around the edges of some wheat and rye fields.

Scott.—Wheat, barley and oats doing fairly well but a month late; grass fair; these light rains will improve the crops.

Sheridan.—Wheat and fall grain growing finely; gardens doing well; pastures excellent; alfalfa good but backward.

Thomas.—Fine rains helping all crops; corn coming up nicely; rye beginning to head; alfalfa fine; wheat jointing; potatoes very good; gardens very poor.

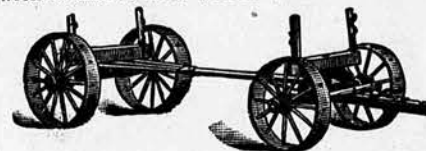
Trego.—Hot winds on 14th; barley drilled in stubble looks well; rye is stemming; wheat, some fields bad, some good; recent rains have improved the general appearance; potatoes promising.

The Shawnee County Horticultural Society will meet June 1 at the hospitable home of Mr. and Mrs. E. Marple, four miles north of Topeka. The usual picnic will be enjoyed.

Sample copies of Kansas Farmer mailed free to any address on application.

## Farm Wagon for Only \$19.95.

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon, sold at the low price of \$19.95. The wagon is only 25 inches high, fitted with 24 and 30 inch wheels with 4 inch tire.



This wagon is made of best material throughout, and really costs but a trifle more than a set of new wheels, and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Company, Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

## Farming in Colorado and New Mexico.

The Denver & Rio Grande railroad, "The Scenic Line of the World," has prepared an illustrated book upon the above subject, which will be sent free to farmers desiring to change their location. This publication gives valuable information in regard to the agricultural, horticultural and live stock interests of this section, and should be in the hands of everyone who desires to become acquainted with the methods of farming by irrigation. Write S. K. Hooper, G. P. & T. A., Denver, Colo.

## National Educational Association Meeting.

For the meeting of the National Educational Association at Los Angeles, Cal., July 11-14, 1899, the Union Pacific will make the greatly reduced rate of one fare, plus \$2.00, for the round trip.

The excellent service given by the Union Pacific was commented on by all who had the pleasure of using it to the convention at Washington in 1898. This year our educational friends meet in Los Angeles, and members of the Association and others from points East should by all means take the Union Pacific.

The service of the Union Pacific via Omaha or Kansas City is unexcelled and consists of Palace Sleeping-Cars, Buffet Smoking and Library-Cars, Dining-Cars, meals a-la-carte, Free Reclining-Chair Cars and Ordinary Sleeping-Cars.

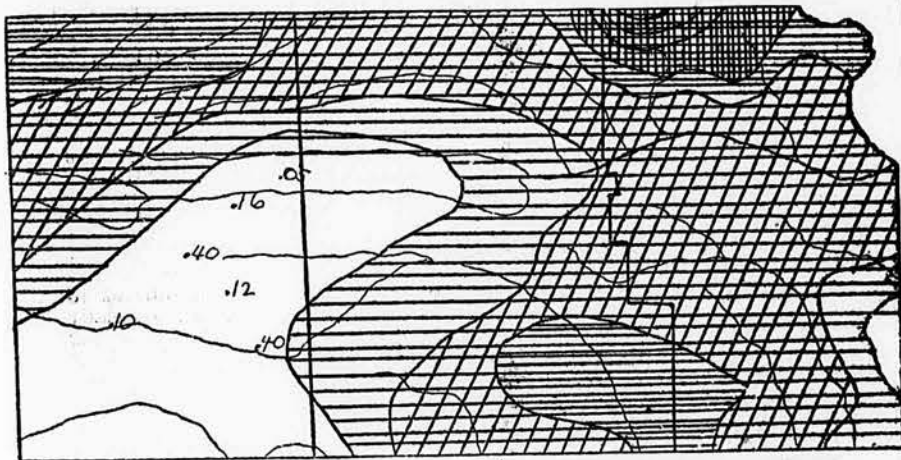
The Union Pacific is the Route for summer travel.

## A MONSTER MEETING

Of the Modern Woodmen of America, in the New Convention Hall, Kansas City.

The Head Camp Meeting of the Modern Woodmen of America, during the week beginning June 6, at Kansas City, Mo., promises to be one of the largest attended meetings ever held in the West. The Kansas City committee on arrangements have secured the new Convention Hall with a capacity of twenty thousand people for its sessions. One hundred thousand visitors are expected. Thirty-five bands and seventy-five Forester teams (uniform rank) with fully fifteen thousand marching men will be seen in line Thursday morning, June 8, in the great parade. Band and Forester team contests will extend through the week. The prizes are the largest ever offered. For Forester teams: First prize, \$500; second prize, \$200; third prize, \$100; fourth prize, \$75; fifth, \$50. Local Kansas City teams are excluded. Band prizes: First prize, \$150; second prize, \$100; third prize, \$50. All delegation bands admitted. Special railroad rates to this meeting.

J. H. LYON,  
Western Passenger Agent, Missouri Pacific Railway, Kansas City, Mo.



ACTUAL RAINFALL FOR WEEK ENDING MAY 20, 1899.

corn replanted, failed to germinate well; corn up and ready to cultivate; high winds and cool nights retard growth of crops; cherries and apples have fallen badly; strawberries a fair crop and ripening; grapes, blackberries, and raspberries promise well.

Bourbon.—Wheat has deteriorated—weeds and chinch-bugs—fields that promised half crops two weeks ago will not be worth cutting; oats in fine condition; corn a poor stand.

Chase.—Corn cultivation begun; some complaint of chinch-bugs; wheat has suffered from dry weather; oats in poor condition; apples setting well; corn and sorghum doing finely; old alfalfa a good crop.

Chautauqua.—Too wet for corn and wheat, fine for pastures and meadows. Cherokee.—Some farm work done this week, first for a month, and corn-planting resumed, most of the first planting had to be replanted; oats look well; flax, about half the acreage sown; fruit falling badly; early strawberries a light crop, late ones promise better; cherries nearly a failure.

Coffey.—Conditions more favorable; corn about all planted, mostly up and doing fairly well; chinch-bugs have seriously injured some of the wheat and oats; apples did not set well.

Douglas.—Fair week for work; corn not all planted; chinch-bugs very bad; some wheat being plowed up and planted to corn on account of the chinch-bugs; alfalfa being cut but too wet to cure; fruit still falling badly.

Franklin.—Too cool, otherwise conditions favorable to growing crops; getting too wet to work in corn-fields.

Greenwood.—Corn growing nicely; wheat doing well, bugs hurting some fields; grass fine; crop conditions very good.

Jackson.—Corn all planted, but some fields washed out, necessitating replanting; other crops doing well.

Jefferson.—Favorable week for farm work; some corn being replanted.

Johnson.—Cool week; corn all planted, some being cultivated; all crops growing rapidly; chinch-bugs reported in some wheat and oats fields.

Labette.—Farmers busy plowing, planting, and cultivating; wheat spotted; oats, flax, and corn doing well; some land too wet to plow yet; vegetables late; potatoes not doing well.

Lyon.—All crops doing well; corn is clean; the showers this week very beneficial.

Marshall.—Two and a half to six inches of rain washed out some corn-fields this week, otherwise a good growing week; corn being cultivated in the drier portions; grass fine; oats and remaining wheat look well.

Montgomery.—A good week for planting and cultivating; favorable for wheat, oats, and grass; strawberries being marketed, a good yield expected; blackberries in bloom.

Morris.—A good week for all spring crops; wheat spotted and yellow from dry

crops; corn, cane, and Kaffir-planting still progressing; corn being cultivated; no marked improvement in wheat, weeds have outgrown it; first crop of alfalfa cut; late rains beneficial; cattle doing well on range.

Barton.—Wheat suffering from dry weather; corn cultivation in progress.

Butler.—Dry weather and chinch-bugs have damaged wheat and oats to some extent, and some oats have been plowed under, but the fine rains have improved everything; vegetation of all kinds looking well.

Cloud.—Corn-planting done; good rains this week; pastures improving; fruit looks well.

Cowley.—Crops all doing well; wheat doing exceedingly well; early wheat heading; oats are looking better than for years past, the acreage is very large; some corn weedy on account of the rains, but generally in good condition; cattle doing well.

Dickinson.—Good rain 20th, first of any consequence since planting began; crops will be much benefited; wheat growing slowly; corn a poor stand; oats and corn damaged by high winds of 14-15th.

Edwards.—Dry and windy; wheat, oats, and barley much injured, wheat can make but a small crop, many will not get seed; alfalfa very light; cherries and plums are light crops; apples, pears, and small fruits promise well.

Harper.—Very favorable week; spring crops doing well; wheat not recovering rapidly; vegetables and fruit very promising; corn all planted; pasture good.

Harvey.—Corn growing slowly; good rains latter part of week improved everything.

Jewell.—Abundant rains last of week, reviving alfalfa, oats, and prairie-grass, but washing out some corn; corn mostly up and a good stand and clean.

Kingman.—Good week for farm work; corn cultivation progressing rapidly; some corn washed out by heavy rains; oats growing rapidly; wheat doing well; pastures fine.

McPherson.—Too windy and dry for wheat most of week, but late rains helping it.

Marion.—Wheat, oats, and grass improved by the late rains; corn a good stand and doing well.

Mitchell.—Good growing week; corn, alfalfa, and potatoes doing well; wheat prospects improving.

Ottawa.—Wheat not very promising; corn doing well; alfalfa good; oats short but benefited by recent rains; cattle doing well on pasture; potatoes fine; strawberries improving.

Pawnee.—Three-fourths of the wheat and rye will make nothing, the other fourth may make a small crop; barley and oats suffering; corn doing fairly well; has been too dry to plow; much of the range as brown as last winter; fruit prospects poorer.

Phillips.—Corn looking well; wheat im-



## Horticulture.

### KANSAS EXPERIENCE IN ORCHARDING.

From "The Kansas Apple."

J. H. Roach, Lowmont, Leavenworth County: Have been in Kansas forty-two years. Have an apple orchard of 5,500 trees; 800 planted thirty years, 1,200 planted thirteen years, and 3,500 planted three years. For commercial purposes I prefer Jonathan, Ben Davis, Missouri Pippin, Winesap, and Willow Twig. For family use I prefer Jonathan, Huntsman's Favorite, and Winesap. I have discarded Yellow Bellflower, Rawle's Janet, and Russets. I prefer black loam with red gravel subsoil, hilltop with extreme north slope, no matter how steep. I plant thrifty two-year-old trees, thirty-three feet apart each way, except Missouri Pippin, which may be closer. Cultivate up to twelve years of age; grow corn until seven, then clover two years; then corn one year, after that clover with a little timothy, to keep the weeds down. I cease cropping the clover when the orchard is from twelve to fourteen years old. I consider wind-breaks harmful. Any good axle grease or "dope" will keep off rabbits. I trim until five years old with a pocket-knife, to give shape and stout branches. I believe fertilizers are beneficial, put on every second or third year. I pasture my bearing orchard with horses and cattle after the fruit is gathered until the first of January; think it is advisable and a benefit; allow no hogs in at any time. Am bothered some with borers and codling moth. Have never tried spraying, but would advise it. We pick in sacks fastened over the shoulder with a snap and ring. Usually sell in the orchard. Have tried artificial cold storage satisfactorily, and think it the most reasonable plan. Prices have ranged from \$1 to \$1.50 per barrel, for firsts and seconds, in the orchard. I employ men at 70 cents per day.

A. D. Arnold, Longford, Clay County: Have lived in Kansas twenty years. Have 300 apple trees, sixteen years planted, from ten to fifteen inches in diameter. Grow only Ben Davis, Winesap, and Missouri Pippin for all purposes. I prefer bottom land in this locality, sandy loam with a northern aspect. Plant two-year, stocky trees, with a low top. I cultivate with the plow and disk, and grow no crop in the orchard. I believe a wind-break of box-elder or evergreens is beneficial but not essential. I prune very little, using my knife with judgment. I use stable litter as a mulch, and think it pays. I never pasture my orchard. Have few insects but codling moth. I shade the body of the tree to keep borers out, and dig them out if any get in. I use ladders, and pick into baskets, and sort into two classes—perfect and imperfect. My trees have never borne a full crop, only enough for home use and the neighbors. We have had several dry seasons, causing the fruit to fall badly.

J. S. Gaylord, Muscotah, Atchison County: Have lived in Kansas twenty-six years; have 5,000 apple trees, planted from one to twelve years. For market I prefer Missouri Pippin, Ben Davis, Winesap, and York Imperial, and for family would add Yellow Transparent, Cooper's Early White, Maiden's Blush, Grimes' Golden Pippin, Jonathan, Rawle's Janet, and Little Romanite. I prefer hilltop with eastern slope, and would plant only two-year-old trees. I have grown both seedlings for stock and root grafts, in the nursery. I believe in thorough cultivation with two-horse cultivator and double-shovel plow, using a five-tooth cultivator near the trees. I crop with corn from seven to nine years, and then sow to clover. I do not think wind-breaks essential. For rabbits and to prevent borers I use equal parts of carbolic acid and water as a wash. I prune a little by cutting back on the north side and keeping out the water-sprouts, which I think pays. I think it pays to thin apples by hand in July and August. I have used some stable litter in the orchard, and think it pays. I pasture horses in my orchard during winter, but no stock at any other time. I spray, after blossoms fall, three times, two weeks apart, with Paris green, for the codling moth, and my apples are quite free from worms. I dig out borers and pick off worm nests. I pick by hand in half-bushel baskets, sell at wholesale, and the buyer sorts to suit himself. I have never dried or stored any. Prices in 1896 and 1897, 75 cents per barrel; spring of 1898, \$1.25 to \$1.65. I use laborers at \$1 per day.

Alex. Spiers, Linn, Washington County: Have lived in Kansas twenty-eight years. For commercial orchard I prefer Jonathan, Cooper's Early White, Ben Davis, Missouri Pippin, Rawle's Janet, Dominie, Winesap; and for family orchard Jonathan, Winesap, Cooper's Early White, and Ben Davis. Have tried and discarded Yellow Bellflower on account of shy bearing. I prefer rolling

upland, black, sandy loam with porous subsoil, and a southeast slope. I prefer two-year-old trees; have tried root grafts and seedlings with good success. I cultivate with a diamond plow up to bearing age. Wind-breaks are essential, and I would make them of ash, box-elder, maple, and elm; I would plant either the young trees or seed. I prune with a saw, and use a chisel on water-sprouts. I think it beneficial. I thin by shaking the tree when the fruit is small. I fertilize; think it benefits the trees, by making them grow stronger, and they fruit better; think it advisable on all soils. I pasture my orchard with hogs, but would not advise it; does not pay. Flathead borer and fall webworm affect my trees. I spray, as soon as the bloom falls, with London purple. I sometimes sell my apples in the orchard, and sometimes from the cellar. I store apples in the cellar, and am successful. I do not irrigate. Prices have been from 25 cents to \$1 per bushel.

Theo. Bedker, Linn, Washington County: I have lived in Kansas thirty years; have an apple orchard of 100 trees from two to twelve years old. For market I prefer Ben Davis, and for a family orchard Winesap. I prefer bottom land with a sandy loam and a northeast aspect. I plant my trees in squares thirty feet apart. I cultivate my orchard for three years with a single-horse cultivator. Plant corn and potatoes in a young orchard; cease cropping after four years; plant timothy and clover mixed in bearing orchard. Wind-breaks are essential; would make them of willows, by planting on north and south sides of the orchard. For rabbits I wrap the trees with corn-stalks in the winter, and dig the borers out. I prune my trees with a saw to make thinner; I think it beneficial, and that it pays. I do not thin the fruit while on the trees. I do not think it would pay. I fertilize my orchard with slaked lime, and would advise it on all soils. It helps to keep off borers. I do not pasture my orchard; do not think it advisable. My apple trees are troubled with bud moth, twig borer, and leaf crumpler, and my apples with curculio. I have sprayed when in bloom with London purple, but do not think I have reduced the codling moth. I pick my apples by hand, and sort into two classes—good keepers and cider apples. Put them all in one pile and then sort. I prefer barrels or boxes, from three to twenty bushels; fill them full. I retail my apples. I sell the best in sacks by the bushel. Make cider for vinegar of the culls. Never tried distant markets. I dry some for home use in the sun; this is satisfactory. I am successful in storing apples in boxes and barrels in the cellar. I find the Rawle's Janet and Winesap keep best. I never tried artificial cold storage; I lose about one-twentieth of my stored apples. I do not irrigate. Prices have been from 35 to 50 cents per bushel.

John Fulcomer, Belleville, Republic County: Have lived in Kansas twenty-seven years; have raised for market Ben Davis, Winesap, and Jonathan; would prefer for family orchard Early Harvest, Red June, Duchess of Oldenburg, Cooper's Early White, Smith's Cider, Minkler, Missouri Pippin, Winesap, Ben Davis, Golden Sweet, and Maiden's Blush. Have tried and discarded about all varieties excepting the above named on account of being tender and unprofitable. I prefer bottom land, limestone soil with a gravel subsoil, and a northeast or eastern slope. I prefer for planting strong, stocky yearlings—never over two years old—set at the crossing of furrows plowed with a lister. I cultivate my orchard to potatoes, pumpkins, squashes, melons, or any low-hoed crop. I use an ordinary ten or twelve-inch plow, and a five-tooth cultivator, and keep this up until they begin to bear; then seed to clover, mow it, and let it rot on the ground; then let the clover seed fall under, harrow, and let it come up again. Wind-breaks are beneficial; would make them of ash and Osage orange, by planting a few rows of trees inside of the hedge. To protect against rabbits, I wrap the trees. I prune with a saw and knife to remove chafing and dead limbs, and to make the tree more healthy and vigorous. I think it beneficial. I never thin the fruit on the trees. I fertilize my orchard with coal and wood ashes; think it beneficial, and would advise their use on all soils. I do not pasture my orchard. My trees are troubled with cankerworm, and my apples with codling moth. I never have sprayed to any extent. I hand-pick my apples, in one-half bushel splint baskets; sort into two classes as soon as picked.

Low. Miller, Perry, Jefferson County: Have lived in Kansas thirty years. Have an apple orchard of 2,400 trees, from one to fifteen years old. For commercial purposes I prefer Jonathan, Missouri Pippin, Ben Davis, and for family orchard Early Harvest, Red Winter Pearmain, Cooper's Early White, and Rambo. I prefer bottom land, clay soil, and a porous subsoil, with a north and east slope. I prefer two-year-old, low-headed, stocky trees, planted twenty-

## The Continent in Hand



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five by thirty feet. I cultivate my orchard to corn for six years, using a plow, cultivator, and harrow, and cease cropping after six or seven years. Grow only weeds in a bearing orchard. Wind-breaks are essential; would make them of maples, planted two rods apart around orchard. For rabbits I keep two hounds and a shot-gun. I get after the borers with a knife. I prune with a knife to keep out water-sprouts. Never have thinned fruit on the trees. I fertilize my orchard with stable litter, and think it has proven beneficial, but would not advise its use on all soils. I pasture my orchard with horses, but would not advise it. I doubt if it pays. My trees are troubled with borers, and my apples with codling moth. I do not spray. Pick my apples by hand into sacks. I sort into three classes—first, second, and culls—into baskets from the ground. I sell apples in the orchard at wholesale. I market my best apples in barrels; sell second and third grades to vinegar and cider-mills. My best market is at home. Never tried distant markets. Do not dry any. I store some apples in bulk in a cellar, and am successful. Ben Davis and Missouri Pippin keep best. Prices have been 75 cents to \$1.50 per barrel. I employ men and boys at \$1 per day.

Wm. Gurwell, Fanning, Doniphan County: I have lived in Kansas thirty-five years; have 5,000 apple trees, planted from two to thirty years. For commercial orchard I prefer Ben Davis, Winesap, Jonathan, White Winter Pearmain, and Rawle's Janet; and would add for family use Early Harvest and Dominie. Have tried and discarded Yellow Bellflower; not prolific in this climate. I prefer hill with black loam and clay subsoil; any slope but southwest is good. I prefer two-year-old trees, and set them in holes dug two and a half to three feet square with a spade, and set the trees two or three inches deeper than they stood in the nursery. Have tried home-grown root grafts, and was successful. I cultivate to corn, potatoes, pumpkins, and melons, using plow and harrow. I crop a bearing orchard lightly, and cease when in full bearing. I kill the rabbits. I prune with saw, knife, and clippers, and think it beneficial. I seldom thin fruit on the trees. My trees are planted in blocks. I fertilize the land near the trees with stable litter; I would advise its use on thin soil. I pasture my orchard with calves and hogs, and think it advisable; it pays in some orchards. Trees are troubled with borers; I hunt the borers with a wire. We pick carefully in large baskets and sacks from a step-ladder; I pack in barrels. My best market is northwest of here; I sometimes sell in the orchard at wholesale, retail, and peddle; dry and make cider of the culls; never dry for market. I sometimes store a few apples, and find the Winesap, White Winter Pearmain, and Rawle's Janet keep the best. We have to repack stored apples before marketing them. Do not irrigate. Prices have been from 60 cents to \$1.25 per barrel. I employ all kinds of help, and pay \$1 per day.

Samuel H. Bert, Moonlight, Dickinson County: Have been in Kansas nineteen years; have 500 apple trees, from four to twenty-two years planted; the oldest are

twelve inches in diameter. For commercial purposes use Winesap, Missouri Pippin, and Janet, and for family use would add Red June and Maiden's Blush. Have tried and discarded Red Streak, Romanite, Rambo, and Bellflower. I prefer bottom in this locality with a northeast slope. I plant twenty-eight or thirty feet apart. I plant two-year-old trees; rather plant a yearling than three-year-olds. Have never tried root grafts or seedlings. I cultivate even my oldest trees, using a plow and harrow; it pays. I grow corn in young orchard until too large; then nothing, just cultivate. Wind-breaks are essential, and should be made of Osage orange or mulberries; but not too close to the orchard. I tie corn-stalks around the trees to protect from rabbits, and keep the trees low, to shade the trunks to protect them against borers. I prune to prevent forks, to keep from splitting. I thin apples when necessary; this should be done when they are about half grown. I prefer to plant my trees in blocks. An orchard should be fertilized with fine stable litter. I would advise the use of it, especially on upland soil. Never pasture my orchard. My trees are troubled with flathead borers. Never sprayed much, but think it would be beneficial. I pick in sack hung over shoulder. We make three classes of our apples—large, small, and specked. Have no particular way to market; sell any way I can, but never in the orchard. We make cider, boiled cider, and apple-butter of the culls. Never have tried distant markets. Never dry any. Store some for winter in bulk and in barrels in cellar; am successful: find that the Winesaps keep best. Have never tried artificial cold storage. We have to repack stored apples before marketing; lost very few this winter, as I kept them out of the cellar until December; then they kept well. Do not irrigate. Prices have been from 60 cents to \$1.50 per barrel.

Learn to say "No" when a dealer offers you something "just as good" in place of Hood's Sarsaparilla. There can be no substitute for America's Greatest Medicine.

Hood's Pills cure nausea, sick headache, biliousness and all liver ills. Price 25 cents.

### Nobles of the Mystic Shrine.

Excursion Chicago to Buffalo via the Nickel Plate Road, on occasion of the Annual Meeting of above order, June 14 and 15. Tickets on sale June 11, 12 and 13, at one first-class limited fare for the round trip. Tickets will be available leaving Buffalo to and including July 2, 1899, providing they are deposited with joint agent in Buffalo on or before June 17, 1899. Passengers may, if desired, have the privilege of either rail or water trip between Cleveland and Buffalo. The Nickel Plate Road has three first-class trains daily from Chicago to Buffalo, New York and Boston. For sleeping car reservation address General Agent, 111 Adams St., Chicago. (7)

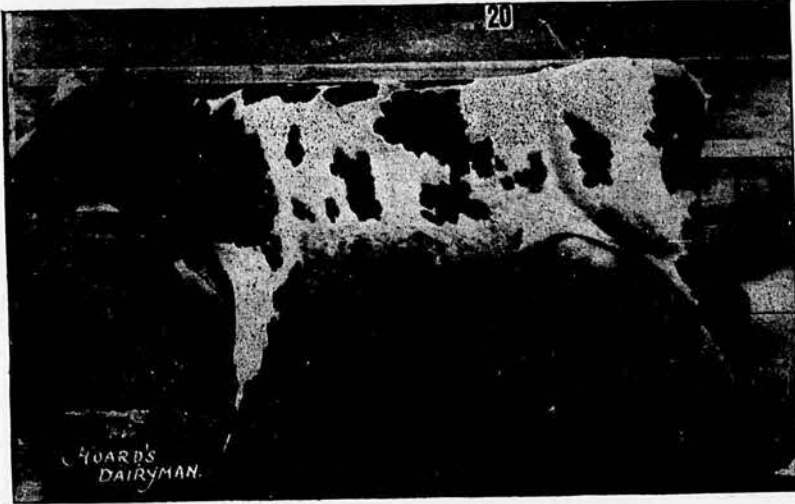


## In the Dairy.

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

### Our Illustrations.

This week we present our readers with two illustrations from the scrub herd of the Kansas Agricultural College. For a detailed report of the herd for 1898 see Kansas Farmer for March 9, 1899. No. 20 is the cow that produced in one year 9,116 pounds of milk which yielded 383.7 pounds of butter fat, and brought a total income, including skim-milk at 15 cents per hundred, of \$73.17. No. 5 gave the poorest record for the year, 3,583 pounds of milk, 135.7 pounds of butter fat, and a total income of \$26.22. No. 20 produced butter fat at 8 cents per pound and No. 5 at 19 cents. No. 20 brought \$40.37 above the cost



SCRUB COW NUMBER 20, KANSAS EXPERIMENT STATION.

Record for 12 months, 9,116 pounds of milk, containing 383.7 pounds of butter fat. Food cost of butter fat, 8.5 cents per pound.

of feed; No. 5 lacked 43 cents of paying for her feed. From these figures can anybody doubt the value of weeding out the poor cows?

It pays to feed good cows and feed them well, but it does not pay to feed poor ones. The herd average of 5,707 pounds of milk and 238 pounds of butter fat shows what liberal feeding will do with common or scrub cows. These cows when purchased, were below the average of the State and what has been done by the Kansas station can be done by any farmer in the State,

young yet, but is fast building up a reputation for quality. The demand for Kansas cheese is greatly above the supply. As it makes a market for a large amount of the rough product of the Kansas fields, through the medium of the Kansas cow (especially the improved breeds of same), we think it speaks very well for the industry.

J. H. TAYLOR.

Rhinehart, Kans.

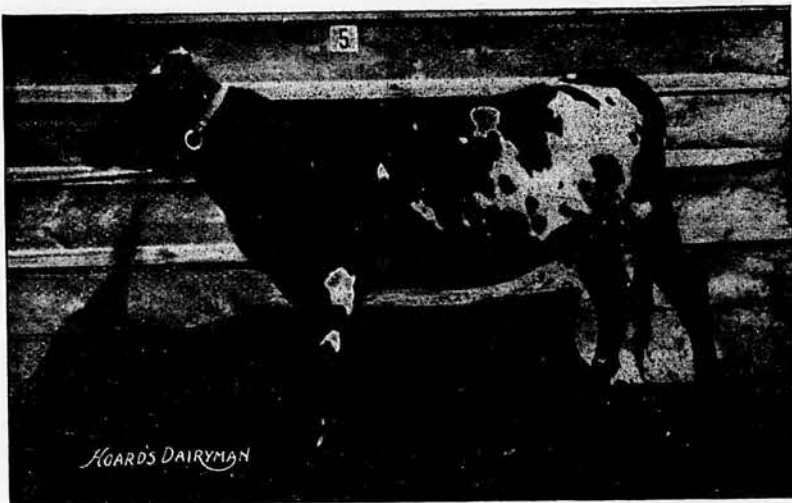
### A Calf Experiment.

The Kansas Experiment Station has under way an interesting calf experiment. A herd of thirteen calves, varying in age from 3 weeks to 5 months, is divided, when fed, into two lots, one lot receiving fresh skim-milk from a hand separator, and the other sterilized skim-milk from the creamery.

The fresh skim-milk is separated every evening, and what is not used immediately is cooled and rewarmed when fed the next morning. With the exception of what is

fed a few hours after arrival, the creamery skim-milk is cooled and rewarmed when used.

Each lot is subdivided into three parts, one part getting Blachford's meal mixed with the skim-milk, another part flax seed meal and a third part takes the skim-milk without any substitute for the butter fat. All the calves receive what Kaffir corn meal and mixed hay they will eat. A little green alfalfa is cut for them each day, and this will be increased gradually until they are allowed the run on a pasture. They have free access to fresh water and



SCRUB COW NUMBER 5, KANSAS EXPERIMENT STATION.

Record for 12 months, 3,583 pounds of milk, containing 135.7 pounds of butter fat. Food cost of butter fat, 19.7 cents per pound.

and even more, for when the unprofitable cows are removed the average of the remainder will be materially increased. With 104 pounds of butter fat as the average yield per cow of 82 patrons of one of the leading creameries of the State, it would appear that the dairy farmer might with profit give more attention to weeding out his poor cows and to better feeding of his good ones.

D. H. O.

### Kansas Cheese.

Editor Kansas Farmer:—We are in receipt of the "Improved Stock Breeders' Annual Report." This makes a very good showing for Kansas improved live stock.

Have also received the report of the Kansas commission to the Trans-Mississippi and International Exposition at Omaha. In looking over the report of the dairy department, we see that the exhibit of the Rhinehart Cheese Co., from four of its plants, has not been mentioned. As this was the only exhibit in that department from Kansas, we think this matter was accidentally omitted.

The cheese industry of the State is very

salt. The experiment has not progressed far enough to give definite conclusions. So far the calves are doing nicely, gaining from one to two pounds daily.

D. H. O.

### Care of Creamery Machinery.

Paper by W. S. Boyd, LaCygne, Kans., read before Kansas State Dairy Association.

If one had written an article on creamery machinery twenty years ago, the task would have been somewhat different from the task of the present time. There have been many important additions and improvements made in creamery machinery. The butter-maker of twenty years ago, in many instances, found his first duty in the early morning hours firing up an old worn-out horse or gentle bull, as the case might be, with a peck of oats, and wiping his "power" with a curry-comb. Ye gods, imagine one of the present day butter-makers, with his immaculate white suit, operating a creamery by horse-power, as many of the early-day plants were! When hot water was needed a fire was built in an iron box, set in a tank or barrel of water. But all this is changed; improvements have been

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made all along the line, until machinery used in creameries ranks with other leading manufactories, and vast capital and many men are employed in turning out many different kinds of fixtures. And this is only the beginning. Who can tell what the next twenty years will bring forth?

Supposing a butter-maker wishes to fit up a creamery in modern style, he can select a steel horizontal boiler from many different makes, all good. A boiler should be of sufficient capacity to do the work required of it, economically and easily; better have more power than needed, as some steam-using device is sure to be added. Set the boiler in double walls of brick, leaving space between walls so outside wall will not crack; fire brick should be used in furnace, rear, and boiler; stack should be high enough to assure good draught, and save fuel; put damper in stack; use some good boiler-cleansing compound—it will aid in keeping boiler free from scales; keep ash pit clean and damp; a good plan is to let the overflow from injector discharge in ash pit; keep boiler-front and pipes painted.

In the selection of an engine secure a plain and well-built one; set it on good foundation; keep it clean and well oiled. Too many creamery engines are neglected in the matter of oiling. Some prefer a gasoline engine, although they have not come into general use in creameries.

Some improvements have been made in belting. We now have the Gandy and Leviathan, which seem to be giving good satisfaction. Along the line of pumps the only improvement has been in the way of applying the driving power; if one wishes a good steam-pump it can be had for either a deep or shallow well.

One of the greatest improvements that has been made, is in the manner of skimming milk. Unless one has had practical experience in skimming with a curd-scoop or a conical dipper it is hard for them to appreciate the wonderful advantages of the separator. Formerly milk was set in shallow pans, vats, or pails, and the skimming was done by hand, and not very close. It is hard to estimate the thousands of dol-

lars that were lost annually before the separator came into use. Now the cry is for the last trace of butter fat.

In getting a separator one can choose from many different makes and get a good machine. Whatever machine is chosen, set it on a good stone or brick foundation; the machine will run better and last longer.

In the way of testing milk we have another grand invention, one which gives justice to all. Many tons of water and skim-milk were bought and paid for in the good old days before Dr. Babcock gave his test to the creamery world.

It is but a short time ago that pasteurizing and sterilizing devices were added to creamery machinery. As yet the method has not come into general use. All skim-milk should be sterilized, as it then reaches the patrons in better condition. There are several devices to select from.

Another excellent addition to the creameries is the ammonia-compressor, or mechanical refrigerator, which enables an operator to produce cold of any degree by a simple turn of the wrist. The advantages of artificial refrigeration are many. It is a well-known fact that temperature has more to do with producing good butter than any other one thing.

With an ammonia-compressor, the cream can be cooled quickly and nicely and the butter room can be kept cool much better than by ice.

The box churn and table worker have been discarded along with other out-of-date machinery. In their place we have the combined churn and worker, a great labor-saving machine; it does the work while the butter-maker does the "rest."

Skim-milk-weighers, check pumps, and many other devices to keep man on the straight and narrow way, have been added to creamery machinery. In fact, the haphazard plan of operating creameries has given way to sound business principle, and the demand is for bright, progressive, up-to-date men, men that can handle successfully machinery of any up-to-date plant.

Butter-makers must study their art to keep up with the procession; something

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new is being brought up right along; what is new to-day soon becomes old.

There is still room for improvements. A large and simple cream-pump is needed, a machine that will turn out prints at the rate of sixty a minute.

And last, but not least, a separator that will not clog, one that will get that last trace of butter fat we are after.

The cuts for the dairy page of this issue of the Farmer were kindly loaned by Hoard's Dairyman. They were made from photographs furnished by the Kansas Agricultural College.

## The Apiary.

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

### Storage Capacity for Bees.

Probably the greatest mistake made by those who keep a few bees, but do not make a specialty of studying scientific beekeeping, is that they do not give their bees enough storage room to store surplus honey. A ten or fifteen-pound box of surplus capacity is usually added to the hive at the beginning of the honey harvest, and this is about all the attention the bees get until, perhaps, in autumn, when the box is removed, when the produce of the colony for the season in the line of surplus is but a few pounds of honey. It is remarkable how slow some learn that bees can not store honey if they do not have a place to store it. In a good honey season all the bees thus handled resort to swarming, as it is the only thing they can do for a livelihood, and the result is an increase of colonies without the ready returns in profit of surplus honey. The usual capacity now given a colony of bees for the brood chamber is about 200 cubic inches and the surplus capacity for the time being is of the same dimensions. This is not all by any means, for the apiarist generally counts on a colony filling this amount of surplus room in the first two weeks of the honey harvest, and if the season is good, he will perhaps double this amount during the principal honey harvest, and at other times during the remaining part of the season he may accomplish the same thing.

Bees need much more room for surplus storage than they need for the brood chamber or hive containing the bees proper. Even if we add storage room of the same capacity as that of the hive proper, it does not answer throughout the season by any means, for when this is filled it should be removed at once and the same again furnished, and do not allow them to check up, for they will then prepare to swarm. If bees are thus furnished plenty of storage room, it is exceptional that they swarm at all, and the results are that a large crop of surplus honey is obtained. The manner in which surplus honey receptacles are arranged on the hives and handled has much to do with obtaining results—good returns as well, and of this we will have more to say later.

A. H. D.

### Profitable Queens.

Queen bees live several years. Their average life is perhaps two and a half years, but I have had them 5 years old. How long will queens live and prove profitable? is a question frequently asked. It is my experience that a large per cent of queens prove the most profitable the first season, and that their retention is not desirable the second season. Some queens are better than others, and some are better at 3 years old than others at 2 years.

The apiarist who goes into the honey season with all young queens of the present early spring rearing, is usually ahead at the end of the honey season with the largest crop of honey. Not only this, but his colonies go into winter quarters the winter following in the best condition. Young queens are most prolific, and are less inclined to swarm, and continue to lay eggs to some extent during the summer and autumn after the honey season has closed, and thus keep the colony replenished with young bees so essential in successful wintering.

Old queens may be moderately prolific early in spring, and also during the principal honey harvest, but immediately on the close of the same they will cease laying eggs, and only begin again when a flow of honey starts up, and frequently it takes a pretty good flow to again start them to laying. It often occurs in many locations that no honey is to be gathered or found during the latter summer or autumn months, so that colonies containing old queens are destitute of brood, and no young bees reared in the hive during all this time, so that such colonies are scarcely worth going into winter quarters with.

Old queens will also spoil a good honey crop by wanting to swarm. They will

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than in skimming by hand—25 per cent more. The Little Giant costs no more than the pans will in the long run. It will pay you to adopt modern, up-to-date dairy methods.

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stop brood-rearing before the brood combs are near full of brood, and deposit eggs in the queen cells and almost entirely cease laying in the brood comb, and put in the time by simply waiting until the young queens are near enough matured that they may come out with swarm. When the swarming fever thus takes hold of them, and the queen neglects to keep the brood combs full of brood, the filling of the surplus honey boxes stops.

A. H. D.

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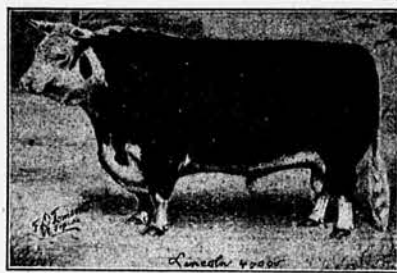
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**25 Cruickshank Topped SHORTHORN BULLS** 6 to 13 months old. Come and make your own selection, or write for my prices this month.



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Lincoln 47065 by Beau Real, and Klondike 42001, at the head of the herd. Young stock of fine quality and extra breeding for sale. Personal inspection invited.

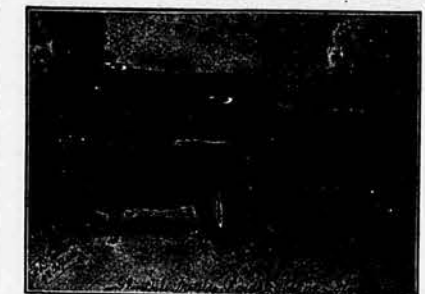
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### CEDAR HILL FARM.

Golden Knight 108086 by Craven Knight, out of Norton's Gold Drop, and Baron Ury 2d by Godoy, out of Mysie 50th, head the herd, which is composed of the leading families. Young bulls of fine quality for sale.

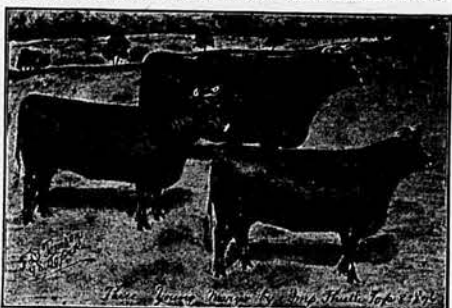
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## SHORTHORN CATTLE.

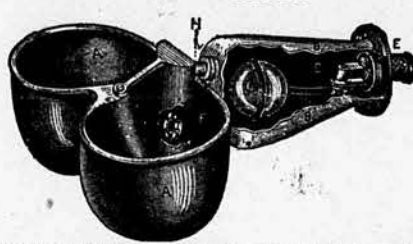
I have combined with my herd the Chambers Shorthorns and have the very best blood lines of the Bates and Cruickshank families. Herd headed by Baron Flower 114352 and Kirklevington Duke of Shannon Hill 126104. The Cruickshank Ambassador 110811 lately in service.

Best of shipping facilities on the A. T. & S. F. and two branches of the Missouri Pacific Railways. Parties met by appointment.

B. W. GOWDY, GARNETT, KANS.

**ON AGAIN—APRIL 30TH.**  
**THE "KATY" FLYER.**

## The "Dewey" Double Automatic Stock Waterer.



Valve eight inches in water; governed by water closet brass float which cannot rust, freeze nor allow mud to collect under it. Attachable to tank, barrel or pipe instantly by the most inexperienced. Waters 150 to 300 hogs a day, also sheep, calves, chickens and ducks. **Stock Fountain Co., Lake City, Ia.**

## FOUND!

For **\$7.**

### A Cream Separator

THAT

## DOES THE WORK

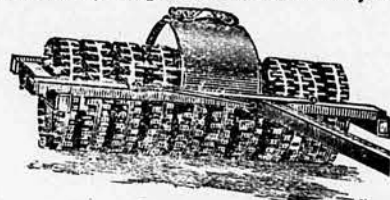
For particulars address

**The R. A. C. SEPARATOR CO.,**

107 K. & P. Bldg. - - KANSAS CITY, MO.  
RELIABLE AGENTS WANTED.

## Here is the Implement That You Want FOR YOUR LIGHT SOIL.

It is Used by Progressive Farmers Everywhere.



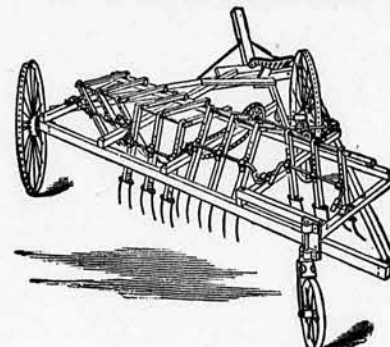
### The McColm Clod Crusher and Compress Field Roller.

It crushes and grinds all clods, packs the soil without making a smooth, hard surface, no parts to wear or get out of repair. For particulars, address

**THE H. P. DEUSCHER CO.,**  
Hamilton, Ohio.

## Nine Years in the Field.

ONLY SUCCESSFUL ONE MADE.



### C. B. & Q. Side Delivery Hay Rake

throws the hay in a loose continuous windrow, so that the sun and wind can penetrate, and thus obviate the necessity of a hay tedder.

The team goes around the field the same as the mower, taking up the driest hay, leaving it shaken loosely in the windrows so that the sun and wind will dry it out if not quite dry when raked.

**CHAMBERS, BERING, QUINLAN CO.,**  
Manufacturers, Decatur, Illinois.

## Publication Notice.

(No. 20013.)

In the District Court of Shawnee County, State of Kansas.

Clayton M. Parke, Plaintiff,

vs.

A. F. Hilton, Emma M. Hilton,  
I. B. Mason, et al., Defendants.

The above-named defendants, I. B. Mason and Emma M. Hilton, will take notice that the plaintiff, the said Clayton M. Parke, did on the second day of May, 1899, file his petition in said District Court within and for Shawnee County, Kansas, against you as co-defendants with A. F. Hilton, and that you and each of you must answer said petition, filed as aforesaid, on or before the 25th day of June, 1899, or said petition will be taken as true and a judgment rendered against the defendant A. F. Hilton in said action, for \$3,625.00, together with interest at 10 per cent per annum from the 17th day of April, 1899, and for costs of suit, and also a decree of foreclosure against all of the above-named defendants of mortgage dated May 26, 1891, given by the defendant A. F. Hilton, on the following described real estate, situate in Shawnee County, Kansas, to wit: A part of the southwest quarter of section number thirty (30), township number eleven (11), south of range number sixteen (16), east of the sixth principal meridian in Kansas, adjacent to the city of Topeka. Commencing at a point thirty-two and one-half (32 1/2) feet southerly from the intersection of the center of First Avenue in the city of Topeka extended upon the said quarter section and the east line of the alley between Fillmore street and Western Avenue in said city of Topeka extended as aforesaid, said point being in the east line of said alley; thence southerly along said east line of said alley extended eighty-two and one-half (82 1/2) feet; thence at right angles easterly one hundred and eighty-five (185) feet; thence northerly at right angles eighty-two and one-half (82 1/2) feet; thence westerly at right angles one hundred and eighty-five (185) feet to place of beginning, and you will be forever enjoined from claiming any right, title or interest in and in the said described real estate.

A. M. CALLAHAN,  
Clerk of District Court.  
[SEAL]  
NELLIS & NELLIS, Attorneys for Plaintiff.

**BICYCLE FREE OR CASH TO ANY ONE** distributing my soaps, etc. I trust you. F. Parker, 277 E. Madison St., Chicago, Ill.



## MARKET REPORTS.

## Kansas City Live Stock.

Kansas City, May 22.—Cattle—Receipts since Saturday, 3,246; calves, 68; shipped Saturday, 196; cattle, 6 calves. The market was steady to weak. The following are representative sales:

No.	Ave Price.	No.	Ave Price.
49.....	1.286 \$5.00	35.....	1.155 \$4.85
60.....	1.072 4.75	47.....	1.178 4.65
1.....	980 4.55	19.....	1.104 4.50
2.....	1.035 4.25	1 J.....	620 3.85

## WESTERN STEERS.

135.....	1.303 \$4.90	4.....	1.275 \$4.90
45.....	1.256 4.85	37.....	1.087 4.80
50.....	1.108 4.65	55.....	977 4.60
57.....	1.021 4.55	18.....	1.144 4.30

## NATIVE HEIFERS.

50.....	678 \$4.80	1.....	730 \$4.75
4.....	575 4.50	4.....	737 4.40
21.....	955 4.20	2.....	670 4.10
2.....	855 4.00	2.....	720 3.90

## NATIVE COWS.

2.....	1.150 \$4.25	26 mx.....	963 \$4.00
5.....	1.110 3.75	5.....	918 3.40
1.....	1.020 3.10	1.....	1.070 2.85
1.....	730 2.50	1.....	820 2.35

## NATIVE FEEDERS.

4.....	955 \$4.75	2.....	1.005 \$4.70
2.....	910 4.65	5.....	930 4.60
10.....	1.128 4.60	4.....	1.070 4.55
5.....	980 4.35	2.....	925 4.30

## NATIVE STOCKERS.

21.....	697 \$5.25	3.....	573 \$5.00
20.....	693 4.85	8.....	490 4.75
40.....	486 4.50	6.....	883 4.35
19.....	772 4.30	1.....	830 3.85

Hogs—Receipts since Saturday, 7,324; shipped Saturday 496. The market steady to 2½ cents lower. The following are representative sales:

54.....	345 \$3.80	49.....	286 \$3.77½	60.....	266 \$3.77½
71.....	277 3.77½	60.....	354 3.77½	89.....	267 3.75
58.....	280 3.75	72.....	251 3.72½	71.....	276 3.72½
80.....	214 3.70	79.....	278 3.70	73.....	225 3.67½
70.....	242 3.67½	72.....	238 3.67½	75.....	204 3.67½
84.....	225 3.67½	11.....	307 3.65	12.....	226 3.65
82.....	234 3.65	84.....	202 3.65	73.....	225 3.65
47.....	214 3.62½	93.....	204 3.62½	86.....	197 3.62½
73.....	217 3.62½	157.....	176 3.60	25.....	199 3.60
40.....	318 3.60	98.....	183 3.57½	100.....	193 3.57½
8.....	188 3.57½	10.....	262 3.55	64.....	207 3.55
90.....	155 3.52½	4.....	457 3.50	38.....	134 3.50
2.....	450 3.50	10.....	147 3.47½	114.....	163 3.47½
89.....	209 3.45	19.....	137 3.45	27.....	239 3.45
36.....	120 3.42½	18.....	137 3.52½	11.....	130 3.40
10.....	116 3.35	10.....	130 3.35	2.....	260 3.35
3.....	380 3.25	1.....	280 3.25	1.....	890 3.25
1.....	290 3.00	2.....	290 3.00	1.....	80 3.00

Sheep—Receipts since Saturday, 2,223; shipped Saturday, none. The market was strong to 10 cents higher. The following are representative sales:

10 spg. lbs.....	52 \$7.80	31 spg. lb.....	57 \$7.50
647 N. M. cl. L.....	61 6.25	20 spg. lbs.....	45 7.00
226 clp. nat.....	85 5.05	10 cl. s & y.....	83 5.25
288 clp. T. m.....	58 4.10	539 clp. T.....	72 4.90

## St. Louis Live Stock.

St. Louis, May 22.—Cattle—Receipts, 1,500; market steady; native shipping steers, \$4.60 @5.50; light and dressed beef and butcher steers, \$4.30@5.20; stockers and feeders, \$3.30@4.65; cows and heifers, \$2.25@4.75; Texas and Indian steers, \$3.50@4.85; cows and heifers, \$3.30@4.50.

Hogs—Receipts, 4,000; market steady; pigs and lights, \$3.60@3.85; packers, \$3.75@3.90; butchers, \$3.85@4.00.

Sheep—Receipts, 1,800; market steady; native muttons, \$4.75@5.25; spring lambs, \$6.00@8.00.

## Chicago Live Stock.

Chicago, May 22.—Cattle—Receipts, 20,000; market steady to 10c lower; heaves, \$4.20@5.50; cows and heifers, \$1.90@5.00; Texas steers, \$4.00@5.00; stockers and feeders, \$3.50@5.15.

Hogs—Receipts, 44,000; market 2½ to 5c lower; mixed and butchers, \$3.60@3.90; good heavy, \$3.80@3.95; rough heavy, \$3.50@3.70; light, \$3.80@3.87½.

Sheep—Receipts, 15,000; market stronger; sheep, \$4.50@5.60; shorn lambs, \$5.00@5.50; woolled lambs, \$5.50@6.90.

## Chicago Grain and Provisions.

	May 22.	Opened	High'st	Lowest	Closing
Wht—May.....	72½	74	72½	74	
July.....	73½	75½	73½	75	
Sept.....	73½	74½	73½	74½	
Corn—May.....	32½	33	32½	33	
July.....	33½	33½	32½	33½	
Sept.....	34½	34½	34	34½	
Oats—May.....	27½	27½	26½	26½	
July.....	23½	24	23½	24	
Sept.....	20½	21	20½	21	
Pork—May.....			8 15	8 15	
July.....	8 77½	8 25	8 15	8 25	
Sept.....	8 35	8 40	8 30	8 40	
Lard—May.....			5 10	5 10	
July.....	5 10	5 15	5 10	5 15	
Sept.....	5 22½	5 27½	5 22½	5 27½	
Ribs—May.....			4 65	4 65	
July.....	4 70	4 72½	4 67½	4 72½	
Sept.....	4 80	4 87½	4 80	4 87½	

## Kansas City Grain.

Kansas City, May 22.—Wheat—Receipts here to-day were 107 cars; a week ago, 87 cars; a year ago, 195 cars. Sales by sample on track: Hard, No. 2, 67½@69c; No. 3 hard, 64½@68c; No. 4 hard 61½@64½; rejected hard, 61c. Soft, No. 2, 76½@80c; No. 3 red, 68c; No. 4 red, 61c; rejected, 57c. Spring, No. 2, nominally 66@68½c; No. 3 spring, 61½@66c.

Corn—Receipts here to-day were 91 cars; a week ago, 48 cars; a year ago, 216 cars. Sales by sample on track: Mixed, No. 2, 32@32½c; No. 3 mixed, 32c; No. 4 mixed, nominally 31c; no grade, nominally 25@28c. White, No. 2, 33c; No. 3 white, nominally 32½c; No. 4 white, nominally 31½c.

Oats—Receipts here to-day were 8 cars; a week ago, 6 cars; a year ago, 17 cars. Sales by sample on track: Mixed, No. 2, 27½c; No. 3 mixed 26c; No. 4 mixed, 25c. White, No. 2, nominally 28½@29c; No. 3 white, 28½c; No. 4 nominally 27@27½c.

Rye—No. 2, nominally 56c; No. 3, nominally 55c; No. 4, nominally 54c.

Hay—Receipts here to-day were 58 cars; a week ago, 60 cars; a year ago, 23 cars. Quotations are: Choice prairie, \$7.50@8.00; No. 1, \$6.50 @7.25. Timothy, choice, \$8.75@9.25. Clover, pure, \$6.50@7.25. Alfalfa, \$7.00@8.00.

## Chicago Cash Grain.

Chicago, May 22.—Wheat—Cash, No. 2 red, 74@76½c; No. 3 red, 72½@74c; No. 2 hard winter, 70 @72c; No. 3 hard winter, 69@70c; No. 1 northern spring, 73½@74½c; No. 2 northern spring, 72½@74½c; No. 3 northern spring, 68@72½c.

Corn—Cash, No. 2, 33½c; No. 3, 32½c.  
Oats—Cash, No. 2, 27½c; No. 3, 26½c.

## St. Louis Cash Grain.

St. Louis, May 22.—Wheat—Cash, No. 2 red, elevator, 76c; track, 77c; No. 2 hard, 72@73c. Corn—Cash, No. 2, 33c bid; track, 34½c. Oats—Cash, No. 2, 28c bid; track, 28c; No. 2 white, 29½@30c.

## Kansas City Produce.

Kansas City, May 22.—Eggs—Strictly fresh, 11½c per doz.

Butter—Extra fancy separator, 15c; firsts, 13c; seconds, 11c; dairy fancy, 13c; country roll, 11@12c; store packed, 10@11c; packing stock, 9½c.

Poultry—Hens, 7½c; broilers, 18c; roosters, 20c each; ducks, 7c; geese, 5c; turkeys, hens, 7c; young toms, 6c; old toms, 6c; pigeons, \$1.00 per doz.

Berries—Strawberries, choice to fancy, \$1.00@1.25 per 24-box crate; poor to fair, 50@75c.

Vegetables—Lettuce, home grown, 50c per bu. Pieplant, 10c per doz. bunches. Spinach, home grown, 20@35c per bu. Asparagus, home grown, 20@40c per doz bunches. Radishes, 75c@1.00 per ½ bu. basket.

Potatoes—Home grown, 35@40c per bu.

**"Weaver" "Grace."**  
T. F. B. SOTHAM, Proprietor. EDW. J. TAYLOR, Director.

W. H. SOTHAM, 1839. T. F. B. SOTHAM, 1899.

CHILLICOTHE, MO.

**"The Home of the Correctors."**

Breeder, Commissioner, Exporter and Importer

## HEREFORD CATTLE.

We feel our obligation to the entire Hereford fraternity for appreciation expressed March 1 for our work and herd which encourages and enables us to expend greater effort in behalf of the peerless Hereford. We are not pricing Weavergrace-bred Herefords, though we will try to meet the views of customers who cannot attend our annual auction, when they make acceptable offers. No Corrector females for sale at any price for two years.

**Pure-bred Herefords.** So many orders constantly being placed with us to purchase Herefords, we feel it would be wrong to have our own stock on price. Farmers and ranchmen requiring bulls will find it to their interest to entrust their orders to us. We give the benefit of our experience and will save buyers ten times what we charge in fees. We make a specialty of foundation stock for herds. Fees \$5 per head and railway fare.

**Grade Herefords.** No grade bulls handled on any terms. Grade Hereford steers and heifers bought on commission. Fees, \$1 per head and railway fare. Steers that can top the market our special pride. We will not touch inferior stock.

**Buying orders wanted for the 8,000 top steer calves of America for delivery at Kansas City, October 25-28, during the Hereford show.**

**No Commissions Accepted From Sellers.**

The buyer pays us. Sellers will confer a favor by listing saleable stock with us. We desire to locate all unsold Herefords and this does not prevent the seller from selling elsewhere.

Order blanks and blanks for listing sale stock.

Colotype of Corrector (16x22) suitable for framing.

New General Weavergrace Catalogue and Star List (June 1).

Hereford tract giving history and characteristics of the breed. Address

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

**Agents Wanted.**

**Acme Home Fastener** a great money maker for agents. Sells Quick and Easy. Send 25 cents for sample or 40 cents pair by mail. Circular and terms to agents for stamp.

ACME HOME FASTENER CO., Sixth and Vermont St., Quincy, Ill.

**NO DRUGS. NO MEDICINE.**

Cures every known disease, without Medicine or Knife. Hundreds willingly add their testimony

**Prof. Axtell** heals all manner of diseases, and teaches this art to others.

He grants to all men the power he claims for himself. The reason why he can heal without medicine is because he knows how; he not only cures all manner of diseases in his office but HE CURES AT A DISTANCE WITH EQUAL EFFICACY. Circulars of many prominent people—who sign their names and recommend his treatment—mailed on application.

Prof. Axtell is endorsed by the leading business men of this city. Address all communications to

**PROF. S. W. AXTELL,** 200 W. 3d St., Sedalia, Mo.

**VARICOCELE** cured without knife, pain or danger. Illustrated booklet free. Call or write. DR. H. J. WHITTIER, Kansas City, Mo.

**SILBERMAN**

**The Most Money For Your Wool,**

will be secured by sending it to people who can afford to hold it for you until market conditions are right for selling; who have the best facilities for handling, grading and storing it. Who have stock enough to attract the largest buyers and manufacturers.

**We are the Largest Wool House in the West,** handling annually over 15,000,000 lbs. of wool.

We have the best and lightest lofts. We have the best reputation with the trade, both as to quantity and quality of wool and as to methods of doing business. We make liberal advances on consignments at the low rate of 5 per cent. per annum for money thus loaned. We supply all our customers with free wool sacks and sewing twine. We mail our Circular Letter to all who ask for it. Gives prices on all classes and grades of wool and the existing market conditions.

**SILBERMAN BROS.**  
122-124-126-128  
Michigan Street,  
CHICAGO, ILL.

**BROTHERS**

## WOOL WANTED!

500,000 Pounds of Wool,

For which we will pay the highest market price in cash. Send us sample, giving number of fleeces. Place your name on sample, and on receipt of same we will quote you prices. For small lots you can send sample by mail. Address Oakland, Kans.; or you may ship direct to us and we will allow you all it is worth. For large clips send three or four fleeces by freight or express. We will furnish sacks or wool twine if desired. Address TOPEKA WOOLEN MILL, Topeka, Kans.

## Higgins' Hope Herd Registered Poland-China Hogs.

I am now offering a Choice Lot of Gilts and Sows bred to my Herd Boar, Eberley's Model 20854. If you are looking for the right kind, drop me a line and get my list before buying.

**J. W. Higgins, Jr., Hope, Kans.**

## VALLEY GROVE SHORT-HORNS.

THE SCOTCH BRED BULLS

Lord Mayor 112727 and

Laird of Linwood 127149

HEAD OF THE HERD.

LORD MAYOR was by the Baron Victor bull Baron Lavender 24, out of Imp. Lady of the Meadow and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahad out of lith Linwood Golden Drop. Lord Mayor heifers bred to Laird of Linwood for sale. Also bred Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

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

## Nelson &amp; Doyle

Room 220, Stock Yards Exchange Building, KANSAS CITY, MO.,

Have for sale at all times, singly

or in car lots... **Registered Herefords and Short-horns.**

Stock on Sale at Stock Yards Sale Barn, also at Farm Adjoining City.

N. B.—We have secured the services of John Gosling, well and favorably known as a practical and expert judge of beef cattle, who will in the future assist us in this branch of our business.

## PASTEUR VACCINE

IS THE ORIGINAL AND SUCCESSFUL PREVENTIVE REMEDY FOR

## BLACK • LEG.

Write for particulars, official endorsements of our Vaccine and testimonials from thousands of stockmen who have used Pasteur Vaccine upon nearly one million head in the United States during the last three and a half years and prevented losses from Black Leg. "Single" Vaccine and "Double" Vaccine, as preferred.

**PASTEUR VACCINE CO., 52 Fifth Ave., CHICAGO.**

**THE KANSAS CITY STOCK YARDS**

Are the Finest Equipped, Most Modern in Construction and afford the Best Facilities for the handling of Live Stock of any in the World. The Kansas City Market, owing to its Central Location, its Immense Railroad System and its Financial Resources, offers greater advantages than any other. It is the Largest Stocker and Feeder Market in the World, while buyers for the great packing houses and export trade make Kansas City a market second to no other for every class of live stock.

Official Receipts for 1898 ..... 1,846,233  
Sold in Kansas City 1898 ..... 1,757,163

Cattle and Calves. Hogs. Sheep.

1,846,233 3,672,909 980,303

1,757,163 3,596,828 815,580

C. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUSSELL

Vice Pres. and Gen. Mgr. Secy and Treas. Asst. Gen. Mgr. Traffic Manager.

New, complete, ready to ride. Agents Wanted. Others \$17.50 to \$35.00, cash or time. Sent on approval. Guaranteed one year.

**\$13 SOLD ON TIME.** Beautiful catalog free. Bicycle sundries cheap. Get our prices before buying. Write quick.

AMERICAN MACHINE CO., Dept. 207, Flint, Mich.



## The Poultry Yard

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

### INCUBATOR AND BROODER MANAGEMENT.

Editor Kansas Farmer:—I have read with interest the reply in Kansas Farmer to Mrs. Seekamp. I have an incubator and have the same trouble with chicks dying in the shell. I bought a 200-egg incubator, and for my first hatch I only got 55 per cent, and for my second hatch I got 73 per cent. My next hatch will be out next Sunday. With my third hatch I am trying a new way of taking care of the eggs while hatching. If I have any more success I will let you know about it. But my question is, how to raise young chicks? I have not had much success with raising them so far. They get weak after about 2 weeks old, hang their wings for two or three days, and then die. We feed them corn meal, potatoes raw, fresh cheese, green rye cut fine, and bone meal. They have fresh water two or three times daily. I have them in a brooder, but use no lamp while the weather is warm. I have them in a room about 12 by 60 feet. My second hatch is about 2 weeks old and I lost 25 per cent of them. Out of first hatch I lost 60 per cent, but the other 40 per cent are all right now. If you can tell me anything I can do for my chicks I would be well pleased to hear through the Kansas Farmer. WM. BACHNICK.

Bonner Springs, Kans.

The main trouble in this case seems to be in raising the chicks after they are hatched. Twenty-five, 40, or 60 per cent of loss is entirely too great. If chicks come out strong and with good vitality, 2 to 5 per cent ought to cover all losses, and these should be confined principally to accidents.

It would seem, from the bill of fare given, that there was sufficient variety, but the trouble probably lies in the feeding. The writer does not at all like the idea of raw corn meal. It has killed more brooder chicks than, perhaps, any other food given them. Nothing is said about grit, unless the bone meal is intended for that purpose, and, while it is all right to feed some of it, bone meal will not answer for grit. The chick as well as an old fowl needs something hard and sharp to grind up the food.

The editor would suggest the following plan of feeding, which, if adhered to strictly, will give the best results:

Leave chicks in incubator for twenty-four to thirty-six hours after all are hatched; give no food for at least twenty-four hours, then give them a feed of grit of suitable size for chicks, or broken glass or crockeryware, fine enough to go through a common flour sieve. Now, for a feed, take your corn meal and mix it into a stiff batter with sour milk or water—milk, of course, is best—using one or more eggs and soda sufficient to make it light, in fact, just as if you were to eat it yourself, with the addition of a handful or so of the grit, and bake it in the oven until thoroughly done. Let cool, and crumble up fine and feed at least five times a day for the first few days.

After the chicks are 3 or 4 days old scatter some millet seed or cracked wheat in the litter or sand on the brooder floor for them to scratch for and get exercise. As soon as able to eat it, millet, wheat, Kaffir corn, and cracked Indian corn can be added and made one of the regular feeds. Give as much variety as possible, but feed all grains dry or thoroughly cooked. Some green grass or rye is necessary if chicks are confined in the brooder, but if the weather is warm enough, it is better to let them run out and pick it for themselves. A little cottage-cheese is also good for a variety, but do not give too much.

Give, each time they are fed, only what they will eat up clean; keep them a trifle hungry, so they will scratch for the rest. Do not have the brooder too hot nor too cold. If chicks are chilled, diarrhea is almost sure to result, and if kept too hot, the same result is likely to follow. Too much heat will also cause them to get weak in the legs. Start brooder at about 90° or 95° when chicks are first put in—that is, under the hover—and at this time of year it can be gradually reduced, say in a week, to 70°. After they are a week old, much of the time in clear weather they will need heat only at night.

To sum up, the essentials are proper warmth, plenty of exercise, pure fresh water, a variety of dry or well-cooked

food, with none left over to sour, and plenty of good sharp grit. Don't forget the grit. See also articles in Kansas Farmer for July 14, July 28, and November 3, 1898, this department.

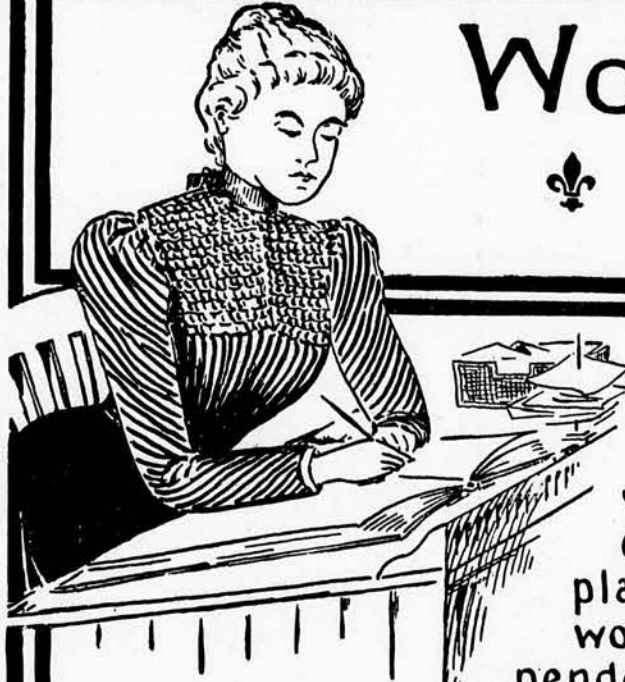
### Poultry Items.

Diarrhea in fowls may be caused by improper or sour food, filthy water, or filthy quarters. Putting a little alum in the drinking water and feeding a little cheese will sometimes cure it; at the same time it will be found a good plan to mix a little charcoal and bone meal in the food, as this will help to correct any disorder of the stomach or digestive organs.

Ducks to be profitable must find a good part of their own food, hence they should have the run of the orchard or of a good pasture. More than any other class of poultry they require coarse, bulky food, and, if given a good range, will find a good variety. On the average farm, one good feed of grain a day will be sufficient from now on. If the pasture has a good stream of running water, all the better.

One of the ways by which cholera is communicated from one fowl to another is by eating food that has been thrown on ground that is already contaminated by the disease. For this reason all the fowls should be removed to different quarters

## Women in Business



Business men often express the opinion that there is one thing which will prevent women from completely filling man's place in the business world—they can't be depended upon because they are sick too often. It is true that many women are compelled to look forward to times when they are unable to attend to social or business duties. Their appearance plainly indicates their condition and they are reluctant to be seen, even by their friends. Read what a business woman says to such sufferers:

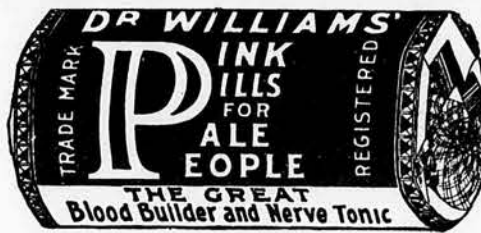
Mrs. C. W. Mansfield, of 58 Farrar St., Detroit, Mich., says:

"A complication of female ailments kept me awake nights and wore me out. I could get no relief from medicine and hope was slipping away from me. A young lady in my employ gave me a box of Dr. Williams' Pink Pills for Pale People. I took them and was able to rest at night for the first time in months. I bought more and took them and they cured me as they also cured several other people to my knowledge. I think that if you should ask any of the druggists of Detroit, who are the best buyers of Dr. Williams' Pink Pills they would say the young women. These pills certainly build up the nervous system and many a young woman owes her life to them.

"As a business woman I am pleased to recommend them as they did more for me than any physician and I can give Dr. Williams' Pink Pills for Pale People credit for my general good health to-day.

The hardest part of a woman's life is made easy by Dr. Williams' Pink Pills for Pale People. Our new book "PLAIN TALKS TO WOMEN" tells how. A copy sent free to any address on request.

The wrapper of the genuine package is printed in red ink on white paper and bears the full name. Look for the seven celebrated words.



Sold by all druggists or sent direct by the Dr. Williams Medicine Company, Box V. Schenectady, N. Y. Fifty cents per box; six boxes, \$2.50.

### INCUBATORS and BROODERS

at special low prices until June 1.



Free Catalogue.

Address... Sure Hatch Incubator Co., Clay Center, Neb.



THE WHITE MAN'S BURDEN of responsibility to the fence question is discharged to the extent that the Page is introduced. Have you taken it up? PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.



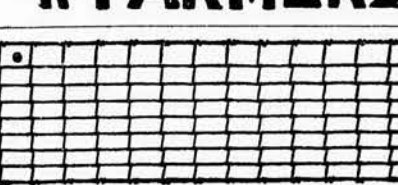
ON AGAIN—APRIL 30TH. THE "KATY" FLYER.

Our famous BLUE LABEL BRAND. It's the best in the world. Prices will surprise you. We deliver from Chicago, Omaha or St. Paul, as desired. Write for prices and samples. MONTGOMERY WARD & CO., CHICAGO

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Osgood's Scales are U. S. Standard. Surest scales made. Safest kind by which to sell or buy. Ask your hardware or implement dealer for an Osgood catalogue. Send for your Special Offer. Osgood Scale Co. 58 Central St., Binghamton, N. Y.

### FOR FARMERS



CABLED FIELD AND HOC FENCE With or without lower cable barbed. Cabled Poultry, Garden and Rabbit Fence, Steel Web Picket Fence for lawns and cemeteries, Steel Gates and Posts. DE KALB FENCE CO., 23 High St., DE KALB, ILL.



and the sick fowls separated and put in a place to themselves. There should be no risks run, as once cholera gets started it is very difficult to check.

So far as can be done it is best to select the fowls needed for breeders or desired for exhibition. With both of these classes there is no particular gain in pushing the growth too rapidly. Maintain good health and vigor by feeding sufficient to produce a good healthy growth and development, and in the end the fowls will be better than if they are pushed as they should be when designed especially for market.

Where any considerable number of fowls are kept it will be found a good plan to have a place in which sick fowls can be kept to themselves, so that, at the first symptoms of disease, they may be separated from the rest of the flock. This should be dry, warm, well ventilated, and sufficiently roomy to accommodate at least a dozen fowls conveniently. It should be kept clean, and, after being used even for one fowl, should be thoroughly disinfected.

There are two common causes for chickens dying in the shells. One is because the eggs are too old, and in consequence the chicks lack vitality and are so feeble they can not break through the shells. Another reason is a lack of moisture. This may easily be avoided by sprinkling the eggs with warm water the day before they are due to hatch. A still better plan, especially with turkey eggs, is to have a pan of warm water and put the eggs in it, allowing them to remain about one minute, and then return them to the nest.

Edison, Mo. N. J. SHEPHERD.

Editor Kansas Farmer:—Please answer the following through the Kansas Farmer: Does it do any good to dip chickens in kerosene emulsion, made of one gallon of kerosene to twelve gallons of water, to destroy lice? Also, how rid hen house of bedbugs? Haddam, Kans. LYDIA MACKLIN.

No, it is not best to use such a remedy; better use a good insect powder, or some of the liquid lice killers. They are much more effective, and, besides, there is no danger of giving the fowls colds.

For bedbugs, lice, or mites in the house, fumigate well with sulphur or bisulphide of carbon, then whitewash thoroughly with fresh-slaked lime. Paint the roosts and dropping boards with some good liquid lice killer. If this be persevered in, you will be master of the situation.

#### How's This!

We offer One Hundred Dollars Reward for any case of Catarrh that cannot be cured by Hall's Catarrh Cure.

F. J. CHENEY & CO., Props., Toledo, Ohio.

We, the undersigned, have known F. J. Cheney for the last 15 years, and believe him perfectly honorable in all business transactions and financially able to carry out any obligation made by the firm. WEST & TRUAX, Wholesale Druggists, Toledo, O.

WALDING, KINNAN & MARVIN, Wholesale Druggists, Toledo, O. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price 75c. per bottle. Sold by all druggists. Testimonials free.

A \$5 Genuine Meerschaum or French Briar Pipe for 15 Cents.

This is no lottery, gift enterprise or scheme of any kind, but a square proposition and a chance for every pipe smoker to get a splendid pipe for a mere song. Send 2-cent stamp for particulars. B. F. Kirtland, The Pipe Man, Trude Building, Chicago.



#### BINDER TWINE.

New, guaranteed. At prices that will tickle you. Send for prices delivered at your town. Riding Gang Plows, \$35. Sulky Plows, \$25. 64-T. Lever Harrow, \$7.00. 12-16 Disc Harrow, \$15.00. 10-in. S. B. Plow and Rolling Coupler, \$10.50. Mowers, \$20.40. Wagons, Buggies, Harness, Sewing Machines and 1000 other articles at one-half dealer's prices. Catalogue free.

Haggood Plow Co., Box 262 Alton, Ill. P. S.—Only Plow Factory in the United States selling direct to the farmer.



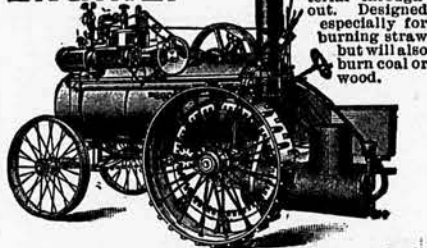
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helps the team. Saves wear and expense. Sold everywhere.

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**STANDARD OIL CO.**

### THIS IS THE NEW RUMELY STRAW BURNING TRACTION ENGINE.



Like all the Rumely engines it is composed of the best material throughout. Designed especially for burning straw but will also burn coal or wood.

Specially constructed boiler, presenting largest heating surface. It is a quick steamer. One of remarkably high power and efficiency, requiring the minimum amount of steam. Five-foot drive-wheels with 16-inch face. An efficient spark arrester prevents all danger from fire. The usual Rumely lightable and stationary engines; the famous "New Rumely Thresher," Horse Powers and Saw Mills. All are fully described in our illustrated Catalogue—FREE.

M. RUMELY CO., La Porte, Indiana.

**\$2.75 ON THIS HARNESS** GUARANTEED **\$19.75 ON THIS BUGGY** GUARANTEED

is the amount saved by buying direct from us. First-class make.

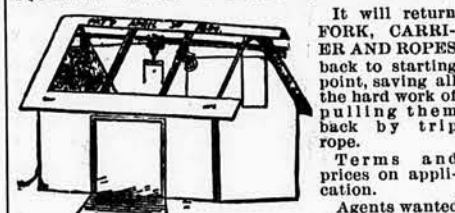
Send for our Catalogue, it's FREE, will post you on prices and save you money.

**CONSUMERS CARRIAGE & MFG. CO.**  
269-271 S. Dearborn St., CHICAGO, ILL.  
Special Reference: The Chicago National Bank.

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

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AGENTS WANTED. Manhattan, Kas.

#### RONEY HAY FORK RETURNER.



It will return FORK, CARRIER AND ROPES back to starting point, saving all the hard work of pulling them back by trip rope.

Terms and prices on application. Agents wanted.

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#### WE SELL DIRECT TO THE FARMER AT ONE-HALF DEALER'S PRICES.



New Disc Harrow, Grain Drill and Broadcast Seeder. Throwing the earth all one way. Revolutionizes the method of seeding, as the twine binder did the harvest. Discs 6 1/2 in. and 9 in. apart. Send for circular.

**DEATH TO HIGH PRICES.**  
16-in. Sulky Plow, \$25. 16-in. S. B. Plow, \$35. Rolling Coupler, Extra, \$1.50. 64-T. Lever Harrow, \$7.00. Mowers, \$20.40. Riding Gang Plows, \$35. 12-16 Disc Harrow, \$15. Hay Rakes, \$11.50. Wagons, Buggies, Harness, Sewing Machines, Cane and Cider Mills, Hay Tools and 1000 other things at one-half dealer's prices. Catalogue free. Haggood Plow Co., Box 262, Alton, Ill.

**Cut the Price in Half.**

When you buy a buggy of your neighborhood dealer you have to pay his profit and his freight bill as well as the manufacturer's profit. We are satisfied with our manufacturer's profit.

We will sell you an **Elegant Buggy at \$26.**

It is worth every cent of it. That is the manufacturer's price to the jobbers. We have all prices of buggies and surreys, all are fully guaranteed. Single driving harnesses for \$8.95. Farm Wagons, Farm Harness, etc. Do you want a first class Sewing Machine at manufacturer's price—fully guaranteed for 10 years? Send for our illustrated catalogue—FREE.

**Crawfordsville Carriage and Harness Co.,**  
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Indiana.



### OUR YOKES SAVE LAWSUITS

BRUISED HEADS AND FAMILY FEUDS,

**Because**

they keep cattle in a wire enclosure where they belong. Price, 75c each; or \$4.50 per dozen. Our Wire Harness only 20c, and the best appliance for the money that can be purchased anywhere; \$1.20 per dozen. Satisfaction guaranteed.

Drop us a postal card for full particulars.

Address **ROGERS MANUFACTURING CO., Harper, Kans.**



No. 314—Extension-Top Two-Spring Carriage. Is complete with lamps, fenders, side curtains, storm apron and pole or shafts. Price, \$63. Guaranteed as good in every way as others sell for \$80.

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is what every man is naturally seeking. He should be doubly careful when it comes to the purchase of vehicles and harness. A man's life and that of his wife and family often depend upon quality in his buggy or carriage and harness. We give extraordinary quality for the money. Then there are the advantages of our plan of doing business.

**WE HAVE NO AGENTS.** but sell all goods direct from our factory at wholesale prices.

We ship our goods anywhere for examination and guarantee everything. We make 170 styles of vehicles and 65 styles of harness. Don't buy any of these things until you get our large illustrated and descriptive catalogue. It's FREE.

Elkhart Carriage & Harness Mfg. Co. W. B. Pratt, Sec'y, Elkhart, Ind.



No. 100—Double Buggy Harness. Full nickel trimmed, price \$17; as good as retail for \$25.

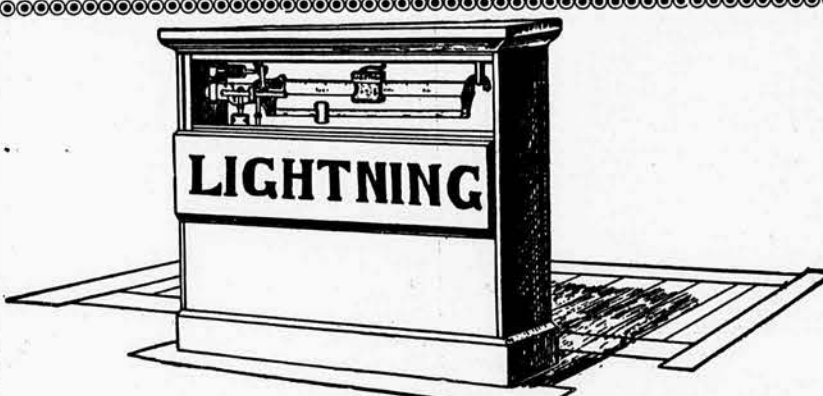
### KEYSTONE QUICK HAYING MACHINES.

**Keystone Side-Delivery Rake** means "Quick Haying, Quality Prices." Turns the hay completely and leaves it in a light, loose windrow ready for loader. Its use means air cured, not sun bleached hay. Better than a Sulky Rake and saves use of tedder. Takes up no trash, that means clean hay.

**Keystone Hay Loader.** Loads the hay from the windrow or cock, or direct from the ground if the hay is heavy. Takes the hay up clean but takes up no manure, rubbish, etc. It makes haying quick and easy. In showery weather it often saves enough to pay for itself in one day. Loads a wagon in 5 minutes.

**Keystone Three Feed Hay Press.** Made entirely of steel and iron. Horse power only. Mounted on steel wheels, and stands on the wheels when operating. Write for our special circular fully describing these machines.

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GUARANTEED ACCURACY, STRENGTH AND DURABILITY.

Compound Beam Furnished on all Scales. No Extra Charge.

**Kansas City Hay Press Co., 129 Mill St., Kansas City, Mo.**

### FAST HAY MAKING—

in the nick of time, when the weather is good saves many a crop. Fast hay making is only possible with implements of large capacity. We show you here a set of tools that are hay savers, labor savers and hence money savers.

**The Monarch Sweep Rake** excels in the following points: It is mounted on large strong wheels which gives it large capacity and easy draft; it has a wide sweep and gather and carries an unusually large load; it is easy to handle. Has a handy lever which raises the rake easily after it is loaded; it can be folded up and transported on the wheels so as to pass through gates, over bridges, etc. Easily stored away. Is constructed throughout of none but the best of materials. It will last indefinitely.



#### The Acme Hay Stacker

leaves nothing to be desired in a tool of this kind. It is simple and easy of operation; it rises quickly and returns quickly; an automatic brake controls the motion and avoids all shock and jar; it pitches with regularity, admitting of building always even stacks; its range of operation in one setting is so great that it will build a stack 30 ft. long by 25 ft. high. No man who grows hay in any quantity can afford to be without it. We also manufacture the famous HODGES HEADER, HERCULES MOWER, AND HODGES "LADDIE" and "LASSIE" HAND AND SELF DUMP RAKES. Our new catalogue illustrates and describes them all fully. We mail it free. Write for it before you buy.

**ACME HARVESTER COMPANY, PEKIN, ILLINOIS.**

**GEM FULL CIRCLE Baler**

Warranted the lightest, strongest, cheapest & fastest Full Circle Baler in the market. Made of wrought steel. Can be operated with one or two horses. Will bale 10 to 15 tons of hay a day. Write for description and price.

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Ladies Our Monthly Regulator never fails. Box FREE. Dr. F. May, Bloomington, Ill.

**Pennyroyal Pills** Original and Only Genuine. SAFE, always reliable. LADIES ask Druggist for **Chichester's English Diamond Brand** in Red and Gold Metal Boxes, sealed with blue ribbon. Take no other. Refuse dangerous substitutions and imitations. At Druggists, or send 2c. in stamps for particulars, testimonials and "Relief for Ladies," in letter, by return mail. 10,000 Testimonials. Name Paper. **Chichester Chemical Co., Madison Square, PHILADELPHIA, PA.** Sold by all Local Druggists.

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We have a few very fine Poland-China Boars ready for service that we will sell you so cheap you cannot afford to buy a scrub. Sired by Knox All Wilkes and Highland Chief. Some fancy fall boar pigs by same sires.

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### SUNNYSIDE HERD POLAND-CHINAS

BRED FROM LARGE-BONED, BROAD-BACKED, LOW-DOWN, MATURED STOCK.

Sanders, Short Stop, Corwin, Black Bess, Black U. S. and Tecumseh Blood.

Choice Young Stock for sale.

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Chief Tecumseh 2d, Kiever's Model, U. S. Model, Moorish Maid and Chief I Know strains. A selected lot of bred sows and young stock for sale at very reasonable prices. Over thirty years in the business. Stock equal to any. Satisfaction given.

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### F. L. and C. E. OARD, Proprietors, HEDGEWOOD HERD OF POLAND-CHINAS VASSAR, KANSAS.

Popular Blood. Individual Merit. Brood sows of the most popular strains and individual merit. The best that money can buy and experience can breed. Farm one and one-half miles south and half mile east of Vassar, Kas., on Missouri Pacific railroad.

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

**For Ready Sale Thirty Poland-China Bred Sows**  
One and two years old, bred for fall farrow; very choice; price low if ordered soon; must make room for 170 pigs now on hand. Come and see or write.

### THE WILKES QUALITY HERD OF POLAND-CHINA SWINE.

Thos. Symms, Prop., Hutchinson, Kas. Herd boars, Darkness Quality and Reno Wilkes. For ready sale 45 very choice pigs out of Bessie Wilkes, Beauty Sedom, Chief I Know, Standard Wilkes, Ideal Black U. S. and Chief Tecumseh 2d sows. Farm one mile west of Hutchinson, near Star Salt works.

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We breed POLAND-CHINA HOGS of the latest and best blood. Full of prize-winning blood. Largest hog-breeding farm in the West. Prices the lowest.

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The Prize-Winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District Fair, 1893; twelve firsts at Kansas State Fair, 1894; ten firsts and seven seconds at Kansas State Fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 2344, Black Joe 28603, World Beater and King Hadley. FOR SALE—An extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

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

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

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

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

### ROCKY • HILL • SHORTHORNS

Five yearling Scotch and Waterloo bulls for sale. Now offer one choice seven-eighths Scotch by the Linwood Lord Mayor, which we have reserved for service in our herd. Send for catalogue.

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### RIVERSIDE STOCK FARM.

Percheron and Roadster Horses and Shetland Ponies; also one Denmark Saddle Stallion; also Shorthorn Cattle. Stock of each class for sale.

Also a car-load of young Shorthorn bulls for sale. Pedigrees guaranteed. Address

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### BELVOIR HERD HEREFORDS OF THE VERY BEST BREEDING.

Herd bulls: Princeps 66683, Ben Butler 54079, and McKinley 68926. Ten yearling bulls and a few females for sale. **STEELE BROS.,** Belvoir, Douglas Co., Kans.

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**NORWOOD SHORT-HORNS—V. R. Ellis, Gardner, Kas.** Rose of Sharon, Lady Elizabeth and Young Marys. Highest breeding and individual merit. Young bulls by Godwin 11567 (head of Linwood herd). Sir Charming 4th now in service.

**D. P. NORTON,**  
Breeder of Registered Shorthorns,  
DUNLAP, KANSAS.

Imp. British Lion 133692 and Imp. Lord Lieutenant 120019 in service. Sixty breeding cows in herd. Lord Lieutenant sired the second prize yearling bull at Texas State Fair, 1898; that also headed the second prize herd of bull and four females, any age, and first prize young herd of bull and four females.

### SILVER CREEK HERD SHORT-HORN CATTLE.

Scotch and Scotch-topped, with the richly-bred Cruikshank bulls, Champion's Best 114671 and Gwendoline's Prince 130913, in service. Also high-class **DUROC-JERSEY SWINE.** Can ship on Santa Fe, Frisco and Missouri Pacific railroads.

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**FRENCH POULTRY YARDS—FLORENCE, KANS.**  
Houdans. \$1 per sitting of 15. **E. FIRMIN,** Proprietor.

**EGGS FOR HATCHING—**From high-scoring breeding yards of B. P. Rocks, W. Wyandottes and R. C. Brown Leghorns at low prices. A few good cockerels for sale. **P. C. Bowen & Son,** Cherryvale, Kans.

**BLACK LANGSHANS—PURE AND FINE.**  
Eggs, \$1.50 for 13, or \$2 for 26. **J. C. WITAM,** Cherryvale, Kans.

**Silver Wyandottes.**  
We are selling eggs from our prize-winners scored by Shellabarger & Savage, \$2 for 15; \$3.50 for 30. White P. Rock eggs, \$1 for 15. **R. F. MEEK,** Hutchinson, Kans.

**MAMMOTH BRONZE TURKEYS A ...SPECIALTY...**  
Eggs for sale at 25 cents each. **G. H. CLARK,** Delphos, Kans.

**BARRED PLYMOUTH ROCKS.**  
E. R. Lock's Barred Plymouth Rocks are still in it. Twice in succession my birds have won all of the prizes where shown. Write me for prices on stock. Eggs \$1 to \$2 per 15. Catalogue free for writing. **E. R. LOCK,** Hutchinson, Kans.

**Partridge Cochins and White Leghorns** at Hutchinson show took sweepstakes in Asiatic and Mediterranean classes (silver cup and silver teapot); Shellabarger judge. Eggs, after May 1, \$1 per 15. Write for descriptive circular. Address, **J. W. Cook** or **Carrie A. Cook,** Hutchinson, Kans.

**CHOICE BREEDING COCKS AND COCKERELS.**

Fifteen White P. Rocks, 15 Silver Wyandottes, 20 Brown Leghorns, 10 Light Brahmas, 10 S. S. Hamburgs, 10 Black Langshans, 5 Black Javas, 12 Pekin drakes. All strictly first-class. Some are scored by Hawes and others. **A. H. DUFF,** Larned, Kans.

**WHITE WYANDOTTES EXCLUSIVELY.**  
Eggs, \$1.00 Per Fifteen.

Also, free with each sitting, a recipe for making a cheap Lice Killer Paint. Send for circular. **P. O. Box 60. White 'Dotte Poultry Farm,** Wetmore, Kans. Mrs. V. Odell, Prop.

### EGGS FOR HATCHING

Royal Blue Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Buff Cochins, White Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Brown Leghorns, White Leghorns, Silver Spangled Hamburgs, Black Javas, White Guineas, Pearl Guineas and Pekin Ducks. Pairs, trios and breeding pens. Prices low, considering quality. Circular free.

**A. H. DUFF,** Larned, Kans.

**GEO. W. COOPER, BREEDER OF THE LORDLY** Black Langshan, 323 Lake street, Topeka, Kas. I won at our last State poultry show, January 9-14, with 107 Langshan competition, first on cock, first on cockerel, first on pen, tied first for pullet, tied second for hen, third on pullet, third on hen, and had the highest-scoring pen of chickens in show room. I have without doubt the best Langshans in the West. Eggs \$2 per sitting. Write me for prices on stock. Correspondence a pleasure. (Mention Kansas Farmer when you write.)

### EGGS AT HALF PRICE.

I am now selling Eggs for Hatching at one-half of former price. There's plenty of time yet to get out a lot of good chicks, if you "get a move on you." Send for circular giving matings and prices of eggs for 1899. Its free for 1 cent stamp.

I also sell all kinds of **POULTRY SUPPLIES.** If in need of anything, write me for prices. Guide to Poultry Culture, catalogue and price list sent for 10 cents (silver or stamps). It tells all about feeding and raising chicks and may be worth dollars to you.

**EXCELSIOR FARM,**  
**C. B. Tuttle, Prop., Topeka, Kans.**

### ROCKS WHITE and BLUE BARRED

Five Pens—Three Barred, Two White.  
One pen headed by E. B. Thompson Ringlet cockerel; one by a grand Lash cockerel; one by a bird of the Conger strain. My White Rocks are from Madison Square Garden winners—large, pure white birds. Eggs, \$1 for 15, \$2 for 30, \$3 for 60, \$5 per 100. White Guinea eggs same. Write for descriptive circular and prices. Printed recipe for making and using Liquid Lice Killer, 25 cents. Address

**T. E. LEFTWICH,** Larned, Kans.

### TWO NEW MILLETS FROM DAKOTA.

**NEW SIBERIAN AND DAKOTA HOG MILLET.**

Price per pound by mail, postpaid, 15 cents; price per peck at depot or express office, Lawrence, 50 cents; price per bushel at depot or express office, Lawrence, \$1.25. For description send to

**KANSAS SEED HOUSE, F. Barteldes & Co., Lawrence, Kans.**

Our New Catalogue for 1899 mailed free on application.

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Purest, Healthiest, Best. Highest Awards and Medals for Purity, World's Exposition, Chicago, 1893, Trans-Mississippi Exposition, Omaha, 1899.

**WESTERN ROCK SALT CO., ST. LOUIS, MO.**

Sole Agents for Bevis Rock Salt Co., and Royal Salt Co.

### GROUND ROCK SALT FOR STOCK.

Use Rock Salt for Hides, Pickles, Meats, Ice Cream, Ice Making, Fertilizing, &c., &c.

Mines and Works, Lyons and Kanopolis, Kan.

## SUNNY SLOPE HEREFORDS

ONE HUNDRED HEAD FOR SALE,

CONSISTING OF

32 BULLS, FROM 12 TO 18 MONTHS OLD,  
21 2-YEAR-OLD HEIFERS,

the get of Wild Tom 51292, Kodax of Rockland 40731 and Stone Mason 13th 42397, and bred to such bulls as Wild Tom, Archibald V 54433, Imported Keep On 76015 and Sentinel 76063, Java 64045.

40 1-YEAR-OLD HEIFERS and 7 COWS.

These cattle are as good individuals and as well bred as can be bought in this country. Finding that 400 head and the prospective increase of my 240 breeding cows is beyond the capacity of my farm, I have decided to sell the above-mentioned cattle at private sale, and will make prices an object to prospective buyers.



Address **C. A. STANNARD,** Emporia, Kans.



## THE COAL BLACK STALLION Orphan Knight [18696.]

Record: 2:19 1/4 Pacing,  
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