KANSAS FARMER

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Iams' Favorite (59321), 3-year-old Black Percheron Stallion, weight 2060 pounds. Prize-Winner at Illinois, Iowa, and Nebraska State Fairs, 1906.

THE JAPANESE QUESTION.

The American Federation of Labor, at its recent meeting at Minneapolis, Minn., adopted a resolution "demanding that Japanese and Koreans be excluded from this country in the same manner as the Chinese."

About the year 1869 the migration of Chinese laborers to the United States began to assume formidable proportions. Then, as now, China had too many people by a hundred million or more. Then, as now, large employers of labor in this country found it difficult to secure the requisite number of operatives at wages that left as large a margin of profit as was desired. A great company was formed for the importation of Chinese laborers under contract. The profits to this company promised to be immense. The agitation for restriction of Chinese immigration resulted in the enactment of laws and amendments thereto which practically ended the migration of Chinese to this country.

Japan finds her territory overcrowded to a greater degree than is China's. As a result of her war with Russia, Japan has opened Korea to her people. Manchuria is affording great opportunities for Japanese enterprise. Our own Sandwich Islands are rapidly becoming a Japanese settlement. About 12,000 Japanese reach our Pacific Coast in twelve months. Along the railroads, even in Kansas, where extensive betterments are in course of construction, one may see Japanese camps. Should one inquire, he will be told that as a laborer the Jap is faithful and efficient. The wage he receives is princely in comparison with the compensation for like service in his own country.

There are several elements of the situation which lend interest to the demand of the Federation of Labor.

Japan can readily and for many years send to this country 1,200,000 instead of 12,000 a year.

Our treaty with Japan, according to Secretary Metcalf, is such that neither the Nation nor any State nor municipality can discriminate against the Japs any more than against the English, the Germans, and the French.

Japan is fully able to enforce her treaty rights. Her war with Russia demonstrated fighting qualities that no nation would willingly go against.

China fears, admires, and emulates Japan, and is placing herself under Japanese tutelage and guidance. Should China's millions of men and her resources, which all nations are teaching her to develop and use—should these be placed under Japanese organization and drill and be made available in war, the fighting strength of the East would present an aspect more terrible than that which made Russia almost contemptible as a war power.

The Japanese navy which sent much of Russia's navy to the bottom of the sea; which captured and made over for Japan's use most of the Russian vessels that were not sunk; which even raised, repaired, and added to the Japanese strength many of the sunken Russian vessels—this reinforced, efficient, powerful navy under command of the ablest seamen in the world floats on one side of the Pacific. The greater part of the American navy would have to round Cape Horn to reach our Pacific shores. Our Pacific Coast defenses are not such as could offer long and effective resistance against the war craft, armed with the guns and officered and manned with the fighters before whose fatalistic and persistent onslaught Port Arthur fell.

Japanese statesmanship has learned the statesmanship of all the world. Japanese art has learned the art of all the world. Japanese science has absorbed the science of all the world. Japanese organizing genius has profited by the organizations of all the world. Japanese fighting efficiency has improved upon the fighting efficiency of all the ages. Japanese national spirit is the most intense in all the world. Japan's pride in her own people is not excelled in any nation.

The incident that now creates interest in the relations existing between this country and Japan is the exclusion of Japanese pupils from the public schools of San Francisco. It is stated that separate schools have been provided for Japanese pupils. Again, it is stated that since the late catastrophe these separate schools have not been adequate. Another statement is that the objection is to having full-grown Japanese placed in the schools with

the young American children, but that they must go to primary schools because of their lack of such knowledge of the English rudiments as would enable them to enter higher grades.

Doubtless the San Francisco situation is one of some complication and delicacy. But it is one that judiciously handled would present no insuperable obstacles. It is even intimated that should the Administration undertake to enforce in San Francisco the treaty rights of Japan in the matter of privileges in the public schools, Uncle Sam may find internal complications on his hands. Oddly enough, the portions of the country in which the negro problem is acute is echoing this semi-threat of the Pacific Coast.

Just at this juncture, it is reported that a large fleet of Japanese war vessels will visit our Pacific Coast. This visit is of course a friendly one, perhaps akin to the friendly visit paid by several American cruisers to Turkish water at the time this country was urging certain claims upon the consideration of the Sultan. Should the roar of the guns of this Japanese fleet some morning awake the Californians while most of the American Navy lies in the Atlantic, there would come over our occidentals a realization of the importance of observing treaty obligations by the United States. It is not only very wrong for any nation to be unfaithful to its treaties, but it is also very unsafe to violate a treaty with a nation that is able to inflict great punishment for wrongdoing, whereby its interest, its dignity, or the pride of its people may be outraged.

There is, however, one aspect of this Oriental question that is more difficult than this of the admission of Japanese pupils to the schools of San Francisco. This school question may go through the courts and be finally adjudicated by the Supreme Court, which settlement will doubtless be accepted by all interests because of the authority behind it and because it will be a broad-minded settlement of a matter of international importance. But the aspect of the case which prompted the action of the Federation of Labor is more serious. On the one hand laborers in this country are demanding and receiving increased pay for their servises. Shorter hours and more pay is the slogan of organized labor. Employers find it increasingly difficult to obtain necessary operatives, even at the increased wage. The tendency to increase the size of industrial enterprises at the expense of their number is, singularly enough, promoted by the demand for higher wages. This arises from the fact that to be able to realize from labor returns sufficient to pay the wage, employers must have the full advantage of large operations. The small employer is crushed and compelled to join the forces of the wage-earners. But into these conditions there is projected the possibility that millions of competent Japanese laborers may migrate to this country and make labor unions and federations of no avail in the competition for jobs.

Since man began to be a fighter, every strong people has found occasion to satisfy its need for more room either by crowding out weaker peoples or by crowding in among them. Many of the great wars of the world have been wars for land. Japan is full of people to overflowing. Her people are possessed of energy and aggressiveness. To their vision Western America seems not half occupied and its resources appear to be still awaiting the hand of industry. Americans and Europeans have insisted upon and enforced the right to live in their country and have by treaty conceded reciprocal rights to the Japanese. This concession carried no apparently serious consequences when made, but now the world appears to some to be at the beginning of an era of transition. Without very serious difficulty, America has accumulated great hordes of immigrants from Western Europe. But the later of these white immigrants are loudest in their protest against an inundation of dark-skinned workers from Eastern Asia. The questions that are liable to confront American statesmen in the near future are large ones.

The present alignment of the world's naval strength presents some interesting features. England has easily the strongest navy in the world. Her principal base lies in her islands along the western shores of Europe. America is England's strong friend, almost her ally. America commands the western shore of the Atlantic and the eastern shore of the Pacific. Japan, a close ally of England and a strong friend of the United States, is felt and feared as a naval power on the Asiatic Coast of the Pacific. It is not likely that the amicable relations of these three will be strained, but it will be necessary for each to deal fairly with the others.

A COMPETITOR FOR THE GRAIN TRUST.

Next in importance to the problem of producing good crops is the problem of finding a good market for them. Combinations of market operators have sought to eliminate competition among buyers, at least among those buyers into whose hands farm products first pass on leaving the possession of the producer. In no branch of the market has combination been carried to greater efficiency than in the grain market. On taking a load or on offering his crop in his local market, the farmer usually finds that there is practically only one buyer. He finds also on investigation that the same condition obtains in neighboring towns. The combination is so complete that competition is eliminated.

This condition has led to formation of many farmers' independent elevator companies. The entrance of these into the field was promptly met by the combine whose headquarters and controlling spirits were in the terminal markets. The independent elevators were hampered and thwarted in every possible way by all the devices known to a crafty adversary. For a time they found difficulty in getting their grain handled at the terminals. They were docked unmercifully on weights and subjected to every possible extra charge. Their grain was reported as out of condition. The market was off at the time their grain arrived. Worst of all, their competitors were given special freight rates, rebates, or other advantage in transportation, which enabled them to bid higher prices in the independent elevator's own town than the independent could realize on its shipments.

Some of these conditions are improving. The Interstate Commerce Commission is applying the law to freight discriminations. In this the aid and backing of farmers will be most valuable. While most of the rascalities of this kind are carefully concealed and can be uncovered only by experts, there are many incidents in the experience of the independent shippers which would be very useful if communicated to the commission. Those having knowledge of these should forward carefully prepared statements of them to the Interstate Commerce Commission, Washington, D. C.

In the restoration of competition at the terminal markets must be found the greatest measure of relief aside from that which is coming through the enforcement of the transportation laws. Every farmers' elevator and every farmer who ships his own grain will find it profitable for the present and wise for the future to encourage competition in the terminal markets. This seems now to be the principal problem. Farmers have the means and the knowledge of the business needed to provide local shipping facilities. By a united effort they should be able to force fair terms in the terminal market.

THE KANSAS FARMER is glad to know that at the present time the grain trust has a lusty competitor at Kansas City.

RAILROAD CROSSING.

EDITOR KANSAS FARMER:—I have a farm through which the Missouri Pacific Railroad passes, and there is no crossing on the section line. The road has not been used in the past, but would be if there was a crossing. Also, I need one to get to the other side of the place. I applied for one and they offered to put in the crossing if I would grade up the approaches on each side. Now my question is: Does the law require the railroad company to make this crossing complete or not? Who is the proper official to "jack up" about it? H. P. GOODELL.

Reno County.

The General Statutes of Kansas, Sec. 6324, provide as follows:

"It shall be the duty of each and every railway within this State to construct and keep in repair, at each crossing of any regularly laid out public highway, a good and substantial crossing, by securing on each side of each rail a board not less than twelve feet long and not less than ten inches wide and two inches thick, and shall fill the space between the two inside boards with gravel or broken stones, or shall floor the space with boards not less than two inches thick and twelve feet long."

The Supreme Court has held that a way, traveled, but not regularly laid out, is not within this statute.

It will be observed that the statute is specific in its statement of what the railway company must do. The company is not required to do any grading according to the wording of this statute. It appears, therefore, that the company has offered to do all that can be legally required.

The Missouri Pacific official who has such matters in charge for our correspondent's section is A. H. Webb, Superintendent Missouri Pacific Railway, Wichita, Kans.

RESUBMISSION.

A foolish agitation for the resubmission of the clause of the Kansas Constitution which prohibits the manufacture and sale of intoxicating liquors in this State for any other than medical, mechanical, or scientific purposes is resumed periodically. For many years the advocates of resubmission were able to induce the makers of platforms for the Democrat party in Kansas to insert a resubmission plank. Finally, in the good year 1906, the better element of the Kansas Democracy got the upper hand, and in lieu of the old-time resubmission plank made a stalwart demand for law-enforcement, and on this platform came near electing the Governor.

The Legislature-elect is Republican by a very large majority, so that the Republican party will be held responsible for legislation enacted. This responsibility will not be forgotten by the temperance voters of Kansas.

The step that is necessarily first in every attempt of the liquor interests to obtain as free a hand in Kansas as they have in Missouri is to secure the resubmission of the prohibitory clause of the constitution. If the liquor forces can gain this ground, they then have a chance to carry into this State a corrupt and corrupting political contest such as this generation has not seen. In the hope of capturing Kansas, distillers and brewers could afford to place millions of money in the hands of the advocates of their cause.

It is stated by those who are inclined to acquiesce in the demand for resubmission that the majority for retaining the prohibitory clause would be decisive. The writer believes this estimate is correct. But why should the defenders of home and youth surrender the strong outposts of their position? What is to be gained by resubmission?

The Attorney General has entered upon a campaign to compel officers of the law to observe their oaths and enforce the law. This is in harmony with the awakening spirit of the times which demands greater fidelity to public trust, more strenuous government of forces that are likely to be harmful, and more faithful promotion of the general welfare. The Kansas Legislature can not afford to take a backward step just now when all the work is quickening its forward motion.

SLAUGHTER-HOUSES—FEED-LOTS.

EDITOR KANSAS FARMER:—Please answer through the columns of THE KANSAS FARMER:

1. How close to a main road, a city street, or a main street is a person allowed to erect and maintain a slaughter-house?

2. How close to a main street can a feed-lot be maintained?

Please give us the law on the subject, also how to proceed to stop it if it can be done. SUBSCRIBER.

Linn County.

The provision of the Kansas laws with reference to slaughter-houses are contained in three sections of the General Statutes.

In Sec. 789, the mayor and council of every City of first-class are authorized . . . "to regulate or suppress slaughter-houses and stock yards, and enforce regulations for cleaning and keeping the same in order."

In Sec. 2428 it is provided that if any slaughter-house be permitted to remain unclean, to the annoyance of citizens of this State or any of them, every person offending shall be fined for every such offence any sum not less than five nor more than fifty dollars; etc.

Sec. 7158 provides for the abatement of any slaughter-house nuisance within "one-half mile of any charitable or reformatory institution, school, or hospital over which the board of trustees of State charitable institutions or the board of trustees of State charities and corrections" have supervision.

Sec. 721 authorizes the mayor and council of any city of the second or third class to have removed or abated "any and all nuisances, including rank grass, weeds, or other vegetation," etc., and provides a course of procedure in such cases.

Sec. 1072 provides for the prevention and removal of nuisances in cities of the second class.

Sec. 1211 provides for the prevention and removal of nuisances in cities of the third class.

Sec. 927 authorizes any city of the first-class to "bring an action to enjoin and abate or prevent any nuisance that exists or is about to be created within the city limits or within three miles of its corporate limits."

If there are other laws bearing on the above inquiries, the writer has not seen them.

BUTTER-COLOR AND THE PURE-FOOD LAW.

EDITOR KANSAS FARMER:—What effect will the pure-food law have on the coloring of butter? E. L. BUGBEE.

Lyon County.

It is understood by those whose interest in this matter is so great as to compel them to investigate it with the utmost thoroughness that the use of a pure vegetable coloring matter for the sole purpose and with the effect only of giving a desirable color to butter will not be in contravention of the pure-food law. Any attempt to adulterate or to cheapen the production under the guise of coloring will doubtless bring down upon the offender the full penalties of the law.

BLOCKS OF TWO.

Every opportunity to do a favor to a friend or neighbor should be improved. The subscription price of THE KANSAS FARMER is $1 per year. It is worth the money. But the publishers are extending the circulation rapidly by means of their blocks of two proposition. It is this:

Every old subscriber on sending his dollar for renewal is authorized to send the name and address of some one not now taking THE KANSAS FARMER and the dollar will pay for both subscriptions for one year. Address, The Kansas Farmer Company, Topeka, Kans.

THE KANSAS FARMER has arranged for a series of articles on "Farm Accounting," by H. G. Phelps, who has been identified with the Montana Experiment Station and is a recognized authority on this subject. No other business of the magnitude and intricacy of farming does as little bookkeeping. It is safe to say that any other business would fail with the scant attention to accounts that is given to farm accounts. With the knowledge of "how," thousands of farmers who are uncertain as to the sources of profit and the causes of loss will doubtless "turn over a new leaf" at the beginning of the year 1907 and keep accounts that will be valuable in solving the problem of "making it pay." We bespeak a careful reading of the coming series of articles.

Congress convened on Monday of this week. This session is called the short one because it must adjourn by March 3, on which date the terms of present members of the House of Representatives expire. The short session is not usually expected to take up very important matters other than appropriation bills. Indications, however, point to an interesting session this winter.

Miscellany

Kansas Farm Products for 1906.

The Kansas State Board of Agriculture has issued its summary of the agricultural, horticultural, and live-stock products of Kansas—yields, numbers, and values—for the year 1906. It says:

"For the husbandmen of Kansas the year 1906 has been most fruitful; it was an all-round, evenly balanced, prosperous twelve-month, with an immense wheat-crop, a big corn yield, an abundance of other grains, and forage, with good prices for all.

"Never before have the soil products represented so much wealth, and the rewards of industry are revealed in the year's values of farm products and live stock, amounting to $424,222,277, or $15,582,455 in excess of their value in the best preceding year. They are about 85 per cent more than the value o fthe same items of ten years ago.

"This year's wheat is worth more than that of any preceding year; this year's corn ranks third in aggregate value; the value of animals slaughtered or sold for slaughter is 10 million dollars more than last year, and eclipses all former records; the value of her dairy products is more than one year ago, and her improving herds and flocks have a value greater than ever before.

THE WHEAT CROP.

The total yield of wheat, winter and spring, was 93,292,980 bushels. This is a quantity nearly 21 per cent greater than the yield of the year before. It is over 28 million bushels, or 43 per cent, more than in 1904, and is the second largest crop produced by Kansas. It is less than one per cent under the State's record-breaking crop of 1903, given by the State Board of Agriculture as 94,041,902 bushels. The United States Department of Agriculture, however, credited the State with a yield of nearly 100 million bushels in 1901. While this year's wheat output ranks second in aggregate yield, its worth is greater than that of any previous crop, or a home value of $55,178,712; this is more by $1,307,088 than the returns from the crop of 1905, which heretofore had the distinction of being the greatest income-bringer. Of this year's yield 2,135,566 bushels was spring wheat, worth $1,090,877. While all but five counties report greater or less areas devoted to spring wheat, the bulk of this crop, as usual, was produced in the northwestern portion—the seven adjoining counties there of Cheyenne, Rawlins, Decatur, Sherman, Thomas, Sheridan, and Gove having raised 70 per cent of the year's crop of spring wheat.

"The history of Kansas wheat-growing is the record of a marvelous development in the State's resources. Twenty years ago the value of the winter and spring wheat grown was less than six million dollars, and the yield about nine million bushels. Ten years later the yield was over 50 million bushels, worth $34,000,000, and in the past six years Kansas has raised three crops of over 90 million bushels each; in five of these six years her annual wheat-crops were worth at home over $50,000,000 each, or an amount aggregating $263,496,449—an eloquent tribute to the wealth-producing powers of Kansas soil and climate.

"The larger yields per acre this year, as was the case in 1905, were in the eastern counties, and with two or three exceptions all those reporting average yields of 20 bushels or more are found in a block of about 120 miles square, measuring from the State's northeastern corner. Doniphan and Brown report the highest average—29 bushels per acre each; the average for the State was 14.49 bushels.

"According to correspondents' estimates in August, Burton County was credited with leading in winter-wheat production this year, but in the final analysis Barton gives way to Sumner, the latter having raised 4,390,665 bushels, Barton following with 4,105,024 bushels; Reno, Stafford, and McPherson each raised over three million bushels; five counties range between that and two million bushels, and twenty-one have between two million and one million bushels, making 31 counties with yields of one million bushels or more each, and aggregating 63,895,026 bushels, or slightly over 70 per cent of the year's production of winter wheat. These counties are in the so-called "wheat belt" of the central portion of the State, and it is among these, too, that the higher average conditions are reported for the growing wheat sown this fall for the crop of 1907. In fact, the conditions for the fall-sown wheat have been quite generally excellent from the beginning, especially in the majority of the main wheat-growing counties throughout the State; the lower conditions are confined mostly to the northeastern counties in the block, 120 miles square previously mentioned, but the recent beneficent snow-and rain-falls have not only doubtless materially improved the situation there, but proved of incalculable benefit to the growing wheat elsewhere. The highest average condition is 105 for Thomas County; Greeley reports 104, Rooks 103, Graham and Wallace each 102, and nineteen others each 100; the general average for the State being 93.7 per cent, or 13.3 points above that reported at about the same date for the growing wheat of one year ago, and higher than at any similar time within the past few years. Reports indicate that the area sown in considerably increased, correspondents agreeing quite unanimously upon this.

CORN.

Corn yielded 187,021,214 bushels, which is 3,498,379 bushels less than in 1905. Its value is $65,115,203, and it is the third most valuable corn-crop ever raised in the State, surpassed only by the 1905 crop, which was worth $3,603,381 more, and by the crop of 1902. Although this year's wheat-crop is the most valuable ever raised in the State, the year's yield of corn outvalues it by nearly ten million dollars. Thirty-four counties report average yields of 30 or more bushels per acre, these larger yields being reported in the eastern counties and those counties in the south central portion of the State which are particularly and justly famed as great wheat-producers. Wyandotte leads with 41 bushels, followed by Johnson with 40, Doniphan with 39 Harvey, Pottawatomie, and Sumner each with 36, and Cowley, Brown, Douglas, Reno, and Wabaunsee each with 35 bushels per acre. Forty-six counties show aggregate yields of over two million bushels each; Marshall, which last year ranked second, leading with 6,328,805 bushels, followed by Nemaha with 5,400,380 bushels, Reno third with 4,777,290 bushels, Jewell, which in the three preceding years ranked first, this year occupying fourth place with 4,696,500 bushels, and Sedgwick ranking fifth with 4,505,424 bushels. The value of Marshall County's corn yield this year, $2,278,369.80, is greater than the value of the yield of any county since 1902. This year's crop was harvested from 6,584,535 acres, 215,220 acres or 3.16 per cent less than the 1905 acreage. The average yield per acre for the entire State was 28.4 bushels.

KANSAS' CROPS AND PRODUCTS IN 1906.

"A summary of the yields and values of the year's crops, and live stock, is as follows:

		Value.
Winter and spring wheat, bus.	93,292,980	$55,178,712
Corn, bus.	187,021,214	65,115,203
Oats, bus.	26,560,919	7,760,396
Rye, bus.	711,118	344,050
Barley, bus.	7,231,947	2,280,518
Buckwheat, bus.	6,161	5,655
Irish and sweet Potatoes bus.	6,188,540	3,938,219
Castor Beans, bus.	405	405
Cotton, lbs.	18,030	1,803
Flax, bus.	440,639	381,299
Tobacco, lbs.	6,295	629
Broom Corn, lbs.	10,715,665	331,433
Millet and Hungarian, tons	459,718	1,745,724
Sorghum and syrup, gal	1,113,040	433,100
Sorghum, Kafir-corn, Milo maize, and Jerusalem corn for forage		8,158,653
* Tame hay, tons	1,682,699	10,516,869
* Prairie hay, tons	1,474,382	6,844,331
Wool clip, lbs.	378,501	87,055
Cheese, butter and milk		9,192,746
Poultry and eggs sold		9,085,896
Animals slaughtered or sold for slaughter		63,206,227
Horticultural and garden products		1,989,075
Honey and beeswax, lbs.	539,599	71,368
Wood marketed		122,495
Total value		$246,792,461

NUMBERS AND VALUES OF LIVE STOCK.

Horses	862,596	$79,358,832
Mules and asses	115,362	12,113,010
Milch cows	711,152	19,201,104
Other cattle	2,377,330	47,546,600
Sheep	176,177	704,708
Swine	2,177,125	18,505,562
Total value		$177,429,816
Grand total		$424,222,277

* Product of 1905.

Wheat Prospects in Kansas.

Reports to the State Board of Agriculture from leading wheat counties show increased acreage and fine condition. Following are summaries of some of the reports:

Cowley—Growing wheat is looking good and the recent rains and snow have been very beneficial. There is considerable corn in the fields, because the weather has been too bad to make husking possible.

Gray.—November has been a fine month for wheat. There has been plenty of moisture and for the most part good growing weather. The stand is good and the prospects are for a good crop.

Nemaha.—Wheat is in good condition and the snow helped to put it into shape to go through the winter. The fine weather during a part of the month made corn-husking easy. Help is scarce and farmers are paying 3 and 4 cents a bushel to get their corn gathered.

Norton.—Winter wheat is in good condition. The ground has been put into fine shape by the rain and snow.

Harper.—Winter wheat condition very fine. Heavy rains and snow made conditions especially good for this time of the year. The acreage is smaller than last year, but the condition is better.

Reno.—The snow was of great benefit to the wheat in this section of the State. The heavy rains, with the snow, have put the plants into excellent condition.

Republic.—The weather has been favorable for wheat during the past month and the condition is above par. The prospects are good.

Program Kansas Good Roads Association Meeting.

To be held at the State Agricultural College, Manhattan, Kans., January 2 and 3, 1907:

WEDNESDAY AFTERNOON, JAN. 2.

2.00 p. m.—President's address, C. F. Miller, Fort Scott, Kans.

2.30 p. m.—"The Gospel of Good Roads," Barney Sheridan, Paola, Kans.

3.00 p. m.—"Good Dirt Roads Right Now," C. D. Skinner, Topeka, Kans.

3.30 p. m.—"Some Engineering Problems in Road-Building," Prof. W. C. Hoad, State University, Lawrence, Kan.

WEDNESDAY EVENING, JANUARY 2.

7.30 p. m.—"Report of Work in Atchison County," L. S. Hereford, Atchison, Kans.

8.00 p. m.—"Bridges and Culverts," Prof. E. B. McCormick, Engineering Department, Agricultural College, Manhattan, Kans.

8.30 p. m.—Stereopticon Lecture, M. O. Eldridge, Chief of Records, Office of Road Inquiry, U. S. Department of Agriculture, Washington, D. C.

THURSDAY MORNING, JANUARY 3.

8.00 a. m.—"The Relation of Drainage to Good Roads Construction," W. R. Goit, Oklahoma, City, Okla.

8.30 a. m.—"My Experience with the King Road Drag," Hon. Bradford Miller, Topeka, Kans.

9.00 a. m.—"Report on State Experiments on Oiling Roads," Prof. Albert Dickens, State Agricultural College, Manhattan, Kans.

9.30 a. m.—"Importance of Engineering Control in Road Construction," Lute P. Stover, Engineer Wichita Natural Gas Co., Wichita, Kans.

10.00 a. m.—"Good Roads Commission and the Fort Scott Idea," Hon. Robt. Stone, Topeka, Kans.

10.30 a. m.—"Report of Work in Bourbon County," A. J. Sherman, Fort Scott, Kans.

11.00 a. m.—Business Session.

I. D. GRAHAM, Secretary, Topeka, Kans.

C. F. MILLER, President, Fort Scott, Kans.

Program of the State Dairy Association Meeting.

To be held at the State Agricultural College, Manhattan, Kans., January 3 and 4, 1907:

THURSDAY AFTERNOON, JANUARY 3.

2. p. m.—"My Success in the Dairy Business," F. F. Fairchild, Tonganoxie, Kans.

2.30 p. m.—"The Dairy for Profit," F. E. Uhl, Kansas City, Kans.

3.00 p. m.—"The Farmer and the Dairy Cow," C. F. Stone, Peabody, Kans.

3.30 p. m.—"The Lesson of Care in the Dairy Business," Prof. Oscar Erf, Manhattan, Kans.

4.15 p. m.—Milking Machine Demonstration, Prof. Oscar Erf.

THURSDAY EVENING, JANUARY 3.

7.30 p. m.—"The Necessity for State Supervision and Inspection," Hon. R. M. Washburn, State Dairy Commissioner, Columbia, Mo.

8.15 p. m.—"Competition by Large Creameries and the Place of the Small Independent Creamery," Hon. Ed. H. Webster, Chief of Dairy Division, United States Department of Agriculture, Washington, D. C.

FRIDAY MORNING, JANUARY 4.

8.15 a. m.—Cream-Separator Demonstration, Prof. Oscar Erf.

9.00 a. m.—"Modern Methods of Dairying," Prof. E. W. Curtis, Kansas City, Mo.

9.30 a. m.—"How to Interest the Farmer in the Dairy Business," T. A. Borman, Continental Creamery Co., Topeka, Kans.

10.00 a. m.—"Dairying, an Important Factor in Economic Agriculture," Director C. W. Burkett, Kansas Experiment Station, Manhattan, Kans.

10.30 a. m.—"The Dairyman of the Future," W. W. Marple, Chicago, Ill.

11.15 a. m.—Business Session.

I. D. GRAHAM, Secretary,
H. VAN LEEUWEN, President,

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Buy them for Christmas. Pure linen, hemstitched, new all over, barred patterns with embroidered borders, all over embroidered in dots, o rplain barred, each 15c.
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Stock Interests

PURE-BRED STOCK SALES.

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

December 11-12, 1906—Imported and American bred Aerefords, James A. Funkhouser and Charles W. Armour, sale pavilion, Kansas City.

December 13, 1906—Hereford cattle at Coffeyville Kans. H. E. Bachelder, Fredonia, Kans., manager.

December 14, 1906—Shorthorn cattle at Coffeyville, Kans. H. E. Bachelder, Fredonia, Kans., manager.

December 14-15, 1906—Dickinson and Marion County Breeders Sale of Herefords, at Hope, Kans. J. B. Shields, Lost Spring, Kans., Secretary.

December 15, 1906—Poland Chinas, Duroc Jerseys and Berkshires at Coffeyville, Kans. H. E. Bachelder, Fredonia, Kans., manager.

December 18, 19, 20 and 21, 1906—Shorthorns, Herefores, Aberdeen-Angus and Galloway at South Omaha, Neb. D. R. Mills, Des Moines, Iowa, Manager.

December 19, 1906—Herefords, E. R. Morgan Blue Rapids, Kans.

January 4, 1907—Poland-Chinas, B. M. Bell, Beatie, Kansas.

January 9-10-11, 1907—Percheron, French Draft, Shire and Clydesdale stallions, mares and fillies at Bloomington, Ill. D. Augustin, Carlock, Ill., and C. W. Hurt, Arrowsmith, Ill.

January 10, 1907—R. B. Marshall, Willard, Kans., Duroc-Jerseys.

January 11, 1907—Grade Draft, Coach, Trotting bred, All Purpose and Saddle horses, mares and gelding, at Bloomington, Ill. D. Augustin, Carlock, Ill., C. W. Hurt, Arrowsmith, Ill.

Jan. 17, 18 and 19, 1907—Shorthorns, Aberdeen-Angus and Herefords, South Omaha, Neb., W. C. McGavock, Mgr., Springfield, Ill.

January 29, 1907—Grant Chapin, Greene, Clay County, Duroc-Jerseys.

February 2, 1907—Shorthorn cattle, W. J. Snodgrass, Douglass, Kans.

February 5, 1907—C. A. Cook, Salem, Nebr., Duroc-Jerseys.

February 6, 1907—E. M. Jenkins & Son, Byron, Nebr., Poland-Chinas.

February 6, 1907—Wm. Brandon, Humboldt, Neb., Duroc-Jerseys.

February 7, 1907—R. F. Miner, Tecumseh, Nebr. Duroc-Jerseys.

Feb. 7, 1907—Ward Bros., Republic, Kans., Duroc-Jerseys.

February 8, 1907—T. J. Charles, Republic, Kans., Poland-Chinas.

February 8, 1907—A. J. Russell, Crab Orchard, Nebr., Duroc-Jerseys.

February 9, 1907—Poland-Chinas, C. O. Parsons Clearwater, Kans.

February 12, 1907—John Morrison & Son, College View, Neb., Poland-Chinas.

February 12, 1907—Duroc-Jerseys, T. P. Teagarden, Wayne, Kans.

February 13, 1907—Poland-Chinas, H. B. Walters, Wayne, Kans., at Concordia, Kans.

February 13, 1907—J. B. Davis & Son, Fairview, Kans., Duroc-Jerseys.

February 13, 1907—W. A. Kirkpatrick, Lincoln, Neb., Duroc-Jerseys.

February 14, 1907—Gilber Van Patten, Sutton, Neb., Duroc-Jerseys.

February 14, 1907—Poland-China bred sow sale at Abilene, Kans. L. D. Arnold, Route 1, Enterprise, Kans.

February 15, 1907—Frank Dawley, Osborne, Kas., Poland-Chinas.

February 15, 1907—Geo. Briggs & Son, Clay Center, Neb., Duroc-Jerseys.

February 16, 1907—Duroc-Jerseys, F. W. Wettrock, Falls City, Neb.

February 16, 1907—Roberts & Harter, Hebron, Nebr., Duroc-Jerseys.

Feb 18, 1907—C. W. Taylor, Pearl, Kans., Durocs.

February 19, 1907—Jno W. Jones & Son, Concordia, Duroc-Jerseys.

December 19, 20, 1906—Webber, Apperson & Co., Tecumseh, Neb., Berkshires, Shorthorns, Polled Durhams and Jerseys cattle.

February 22 1907—Poland-Chinas, Lemon Ford, Minneapolis, Kans.

Feb. 20, 1907—J. E. Jolnes, Clyde, Kansas, Duroc-Jerseys.

Feb. 21, 1907—Leon Carter & Co., Asherville, Kans Duroc-Jerseys.

February 23, 1907—Peerless Perfection and Grand Perfection Poland-China bred sow sale. Harry E. Lunt, Burden, Kans.

February 22, 1907—J. C. Larrimer, Derby, Kans., Poland-Chinas.

February 25, 1907—Poland-Chinas, Bollin & Aaron, Leavenworth, Kans.

February 26, 1907—G. E. Avery, at Kansas State Agricultural College Manhattan, Kans. Aberdeen-Angus cattle.

February 26 1907—Poland-Chinas, Holmes & McDaniels, Edmund, Kans.

February 27, 1907—Poland-Chinas, W. H. Bullen, Belleville, Kans.

April 3, 4 and 5, 1907—Herefords, Aberdeen-Angus and Shorthorns, Kansas City, Mo., W. C. McGavock, Mgr., Springfield, Ill.

May 1, 2 and 3, 1907—Aberdeen-Angus, Shorthorns and Herefords, South Omaha, Neb., W. C. McGavock, Mgr., Springfield, Ill.

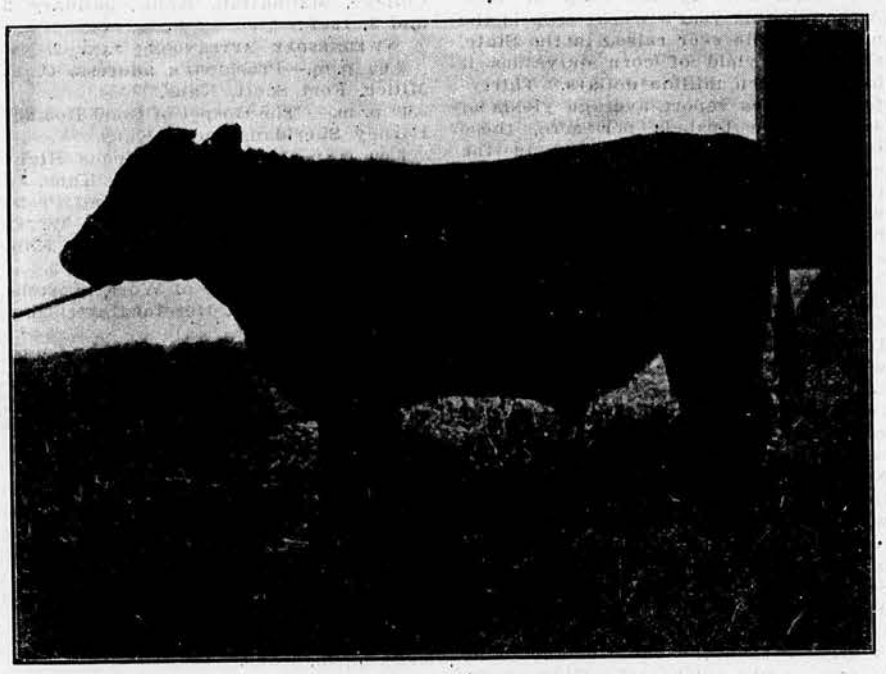
Improved Stock Breeders Association of the Wheat Belt—November 13, 14, 15, 1906, at Arkansas City, Kans., I. E. Knox, Nardin, O. T., manager; Dec. 5, 6, 7, 1906, at Anthony, Kans., Chas. M. Johnston, Caldwell, Kans., manager; Dec. 18, 19, 1906, at Wichita, Kans., J. C. Larrimer, Derby, Kans., Manager; Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Making Christmas Beef.

COPYRIGHT 1906, H. W. MUMFORD.

The fattening of cattle with especial reference to their fitness for Christmas market requirements has become a specialty among quite a large number of cattle-feeders. While the demand for Christmas beef is limited, it has thus far been sufficiently extensive to absorb the supply offered and that at good prices. The prices paid in the leading markets for prime Christmas beef look attractive to the average beef-producer who is not very closely in touch with market conditions. These prices frequently tempt men to feed cattle for this particular market, that are not at all suited for the trade. The good prices are only paid for the prime cattle, and to make prime cattle requires careful attention to every detail of the enterprise, including the selection of the feeding cattle to be finished and the fattening of them. It requires skill of a high order to produce cattle that are good enough in quality and condition to attract buyers during the holiday season. The production of such cattle is by no means an easy or sure way to secure profits in the cattle-feeding business. It requires choice to fancy qualities in feeding cattle to begin with and it is but seldom that such cattle can be purchased except at a premium. Then frequently it is desirable, in order to secure the highest finish, to feed some nitrogenous commercial feeds which are relatively high priced, and last, in order to secure the high finish demanded it requires an extended feeding period. The experienced cattle-feeder recognizes at once that the factors enumerated above each increases materially the cost of production. This increased cost amounts to considerable when all these factors are combined.

The so-called Christmas market for such cattle is made by three classes of buyers: Buyers for local slaughter, as for example, in the Chicago market, the packers; order buyers for shipment to other cities, and exporters. The proper time to market Christmas cattle is from about November 23 to December 15. Between these dates buyers for local slaughter, for shipment, and for export are on the market until their orders are filled. Exporters who buy for the foreign holiday trade usually buy most of their cattle from November 25 to 27, although these dates may vary a little one way or the other, depending upon the days of the week export boats sail for foreign ports. Ordinarily, exporters take from one quarter to one third of the total supply of Christmas cattle offered on the Chicago market. The larger proportion of holiday beef is exported alive, and for this purpose cattle possessing fancy quality and thick fat, weighing from 1,300 to 1,500 pounds, are wanted. From 1,300 to 1,400 pounds is the popular weight, although some prime 1,100 to 1,200-pound cattle are used for that trade, and a few weighing as much as 1,600 pounds. For the New York and Eastern holiday trade, the first ten days of December, mostly from the fifth to the eight, is considered a favorable time to market. For the Chicago city trade and nearby cities ad towns, from December 10 to 15; New York, Boston, and some other Eastern cities use more heavy good weight cattle than the Western cities. They also use a good proportion of yearlings and light weights, and the light and medium weight prime cattle seem to be getting more popular every year. It has been intimated that the supply is not as large as it would be if it were not a difficult matter to produce prime Christmas bullocks. The accompanying illustration will give the reader an idea of the quality or grade of beef demanded by discriminating buyers of Christmas beef, the grade of cattle which produce such beef—and lastly the kind of feeding cattle it is necessary to select if one expects to achieve success in the production of Christmas beef.



A Good Kind to Begin With.

The prime steers which are slaughtered to supply the demand for this grade of beef are invariably well bred. No dairy bred or scrub steer need apply. They will receive no consideration. By well bred we mean steers which contain a high percentage of the blood of some of our improved beef breeds like the Aberdeen Angus, Shorthorn, Hereford, Galloway, or Polled Durham. Nor is the preserving of beef blood in abundance a passport to this exclusive class. Beef blood in abundance they must have, but it must be accompanied with the characteristics associated with highest excellence of such grades.

The accompaning illustration shows the quality or breeding and the individual excellence necessary in feeding cattle suitable for the production of Christmas beef. With quality similar to this to start with and thorough familiarity of the cattle-feeding problems, the farmer is equipped with the necessary equipment for producing Christmas beef. Whether or not such production will result in profit will depend upon the cost of the feeding cattle and feeds use, the skill of the feeder and the state of the market at the time they go forward to market. It should be emphasized that the making of Christmas cattle is a costly business, and not at all well calculated to yield up large profits if indeed any at all to the novice. It is a business that is hazardous at best, and a goodly portion of those who follow it do so from a spirit of rivalry or pride. Those who make it pay are experienced cattle-feeders of long standing.

Cooked or Chopped Feed for Steers.

Which is the best way to prepare feed for a lot of steers, cook it or chop it? J. C. THOMPSON.

Lincoln County.

Many years ago cooking feed for cattle, also hogs, was quite generally recommended, and many feeders went to considerable expense fixing up apparatus for cooking feeds. But this method was soon discarded, as it was found to be unprofitable. This was shown from the results of the experiments at many of our experiment stations. If there are any advantages at all they are very slight and not worth the trouble of building a fire or fitting up the apparatus for cooking. Mr. Thompson does not state what kinds of feed he intends using, but if he expects to feed the common feeds of the State, such as corn and alfalfa, and intends making a long feed, he will doubtless find that it will be profitable to chop or grind his feed, especially during the latter part of the feeding period. One of the very best rations that we have found for feeding cattle is corn and cob meal, finely ground, with alfalfa hay. The advantage of grinding corn varies considerably, depending upon the hardness of the corn. Cattle can easily be crowded faster, and will make better gains where ground feed is used. But by all means either grind or chop the feed in preference to cooking it. R. J. KINZER.

Wallow or No Wallow.

That the hog can live and thrive without a wallow is no more true than that he will use one often if he can get it. Because the average mud-hole in the hog-lot or pasture becomes a nuisance sooner or later, and is a filth-producer and disease-disseminator has led many a careful breeder of swine to denounce them and take special pains to keep all depressions filled so no water will stand and invite the hog to make a bigger hole. A very small depression in which water may stand is enough to start the hog to wallow and make mud and carry it off on his back to plaster fences and gates. The better the gate or fence, and the whiter it is painted or whitewashed, the more attractive it seems for the sow and her family to place their mark—to show this is our happy home. Wallowing and rooting are two hog characteristics that have given young and old business and pleasure for ages past.

Because these characteristics are so universal to hogs of all breeds, wild and tame, men have concluded they are a hog necessity for health. Under the restrained and artificial life that follows increased value of farm lands and

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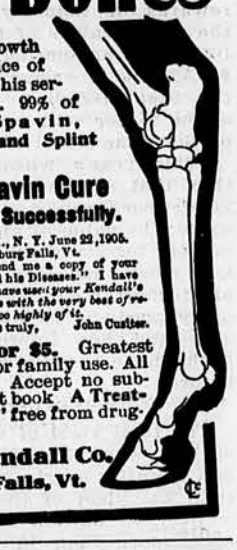
A Safe, Speedy, and Positive Cure

The safest, Best BLISTER ever used. Takes the place of all linaments for mild or severe action. Removes all 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.

Clean Bones



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Used Two Years Successfully.

West Hampton Beach, L. I., N. Y. June 22, 1905. Dr. B. J. Kendall Co., Enosburg Falls, Vt. Gentlemen:—Please send me a copy of your "Treatise on the Horse and his Diseases." I have a stable of fine horses and have used your Kendall's Spavin Cure for two years with the very best of results, and cannot speak too highly of it. Yours truly, John Custer.

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Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

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is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't imitate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

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describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

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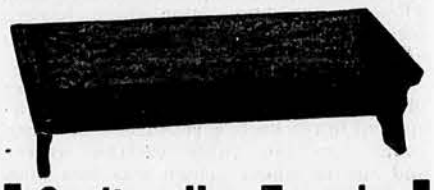

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Will not rust or rot out and will last a life time. Every breeder should use them. Prices furnished on application.

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A positive and thorough cure easily accomplished. Latest scientific treatment, inexpensive and harmless. NO CURE, NO PAY. Our method fully explained on receipt of postal. Chas. E. Bartlett, Columbus, Kans.

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reduced size of farms and range, more men have kept hogs and have found they can be profitably and successfully grown without wallows, and even in dry lots, or in basement barns, or in pens paved or floored.

This answers the argument in favor of wallows based on hog nature. It shows that the modern hog is an artificial creation, yet, like the educated Indian, is ready to return to old habits of ancestors at every opportunity. There are ducks that will not take to water, but it is doubtful if there are hogs that will not take to the wallow when the day is hot and the puddle is handy.

That neglected wallows may become a source of filth and disease is so generally accepted as true that many have assumed it is better to do without them. There are others who recognize the wallow as a comfort to the hog and a possible means of so much better growth, that they allow hogs to wallow when and where they may feel inclined.

That the hog belongs to the pachyderms is true, and is almost amphibious in a state of nature appeals to the humane owner to provide for these natural wants of the hog. As such a man naturally wants also to protect against disease, he has devised ways of giving the hog a bath for his health and comfort and yet avoid the filth and dangers inherent to the old neglected mud-hole and slough of filth.

My old neighbor, D. M. Magie, thought the bath was absolutely necessary for the best health and profitable growth of a pig. Through his farm ran a mill-race, with gravel bottom, always fed by a living stream of pure water. Here were ideal conditions for plenty of pure water to drink and not to be contaminated by the hogs entering it. They waded in it, wallowed in it, anl slept in it as they liked. My old friend told me it kept the pores of the skin and especially of the fore legs open, and the kidneys flushed, so as to correct all the ills that are incident to clogging of the circulation and digestive tract. Hundreds of visitors to his farm, seeing the effects of such water privileges in the hog-lots and pastures, went home and studied their farms to devise means of better supply of water for their hogs. Once, visiting the prairie farm of H. M. Sisson, he took me to see his way of utilizing the water that passed through his tile drains. He said he was "impressed with the value of pure water at all times for hogs, as never before, when he visited Magie's farm." "I have done the best I could on my prairie lands, but it is nothing to compare with the flowing spring along a gravelly bottom." His water supply from the tile was variable, and even when the hogs needed it the most, in hot weather, it sometimes failed altogether. But he was glad to utilize this water from his drain tiles, as it paid for the trouble of cutting out the sloping sides to below the tile level, and protecting the bottom and sides with 2-inch plank. I told him that I had been moved to utilize a spring on my farm. My supply of water was represented by a stream not larger than a lead pencil, but it was constant. It was conducted from a spring ninety feet above and forty rods distant from the intersection of three fields. At this intersection the water first enters a tank for the supply of water to horses and cattle, and from this tank the overflow falls into a vat or pool, walled on three sides by boulders, and the bottom and fourth side or approach well cemented. In this the spring water stands eight inches deep, covering the bottom 20 by 10 feet. There is an overflow in the side protected by a copper strainer set in the cement, letting the water pass under ground by tile to a well fifty feet distant, sunk into the gravel subsoil of the level field adjoining.

After it was completed it looked ideal, with its inlet and outlet, its cement bottom and approach, and rock-work walls, and grading therefrom to carry off all surface water and wash. The frequent visits of the pigs, old and young, told of their enjoyment of pure water. We tried to believe they preferred it to a filthy mud-hole. But, before the year ended, we found the old sows would work out holes in the field wherever or whenever there was moisture enough to make a good, old-fashioned wallow like those their mothers and fathers enjoyed when they were free to choose.

The sow will return to her wallow and the dog to his vomit, civilize them as long as you may.

My trouble was now akin to that of Mr. Sisson. The sows carried in mud and dust enough to defile the water, so it was not long pure tile or spring water, but a mixture of this with any old dirt a sow chose to carry on her into the bath. By cleaning out the pool every month or two, and keeping other puddles filled up, we have kept a valuable supply of water for stock for thirty-five years. It is in good order to-day, and as the weather is now too cool to invite hogs to enter the water, it will be pure until hot weather returns next June.

Aside from Friend Magie's mill-race with a gravel bottom, we know of no arrangement better utilizing a spring to furnish more comfort to our stock. The average pond, filled by surface water and polluted by the wading cattle and rooting hogs, becomes a menace to health every season, but can usually be made to supply pure water instead of filthy, if one has the gumption and enterprise to do the necessary work.

A hog wallow that is filthy and impure is worse than no wallow. One in which the water can be kept pure enough for drinking is of inestimable benefit.—P. C. Holme, in American Swineherd.

3 FEEDS FOR ONE CENT

My stallions, Dan Patch 1:55, Cresceus 2:02¼, Directum 2:05¼, Arion 2:07¼, Roy Wilkes 2:06¼, Buttonwood 2:17 and my one hundred high-class brood mares eat "International Stock Food" every day. Dan Patch has eaten "International Stock Food" every day for over four years and during this time has broken Fourteen World Records and his physical condition has been marvelous. It will pay you to use it for your Stallions, Brood Mares, Colts, Race Horses, Show Horses, Carriage or Coach Horses and Work Horses because it gives more Nerve Force, Endurance and Strength. "International Stock Food" is prepared from finely powdered medicinal Roots, Herbs, Seeds and Barks and is fed in tablespoonful amounts as an addition to the regular grain feed. It is equally good and very profitable to use for Horses, Colts, Fattening Cattle, Cows, Calves, Hogs, Pigs, Sheep or Lambs, because it Purifies the Blood, Tones Up and Permanently Strengthens the Entire System, Keeps them Healthy and Greatly Aids Digestion and Assimilation so that each anima obtains more nutrition from all grain eaten. In this way it saves grain and will make you a large extra profit. We have thousands of reliable testimonials on file in our office, and every pound of "International Stock Food" is sold, by over 125,000 dealers, on a "Spot Cash Guarantee" to refund your money if it ever fails. Constantly used by over two million stockmen throughout the world. If you desire any further information I will be pleased to have you write me.

M. W. SAVAGE, Prop. of International Stock Food Co.
International Stock Food Farm.

Dan Patch 1:55, The Pacing King, Cresceus 2:02¼, The Trotting King,

THIS BEAUTIFUL PICTURE IN 6 BRILLIANT COLORS MAILED TO YOU FREE.

We have just published a large, colored lithograph of the above Photo-Engraving, which shows our World Famous Stallions, Dan Patch 1:55 and Cresceus 2:02¼ in an Exciting Contest and at Extreme Speed. The picture is 16 by 21 inches and shows both horses in their natural colors and as life-like as if you saw them racing on the track. It is a picture that would sell for $2 00 if gotten out in a small edition. You can have one of these Large and Beautiful Colored Pictures of the Two Most Valuable Harness Horse Stallions and Champions of the World, Absolutely Free and we will prepay the postage. This picture was made from life and every lover of a great horse should have one.

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First Start, Galesburg, 1:57¾. Third Start, Minnesota State Fair, 1:56½.
Second Start, Dubuque, 1:58. Fourth Start, Minnesota State Fair, 1:55.

The Veterinarian

We cordially invite our readers to consult us when they desire information in regard to sick or lame animals, and thus assist us in making this Department one of the most interesting features of The Kansas Farmer. Kindly give the age, color, and sex of the animals, stating symptoms accurately, and how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply all letters for this Department should give the inquirer's postoffice, should be signed with full name and should be addressed to the Veterinary Department of The Kansas Farmer, Topeka, Kansas, or to Dr. C. L. Barnes, Veterinary Department, Kansas State Agricultural College, Manhattan, Kansas.

If in addition to having the letter answered in The Kansas Farmer, an immediate answer is desired by mail, kindly enclose a 2-cent stamp. Write across top of letter: "To be answered in Kansas Farmer."

Ailing Shoats.—I have some ailing shoats that seem to get weak in the back. They tremble and jerk hind legs up and down and then fall. Some say it is kidney worm and others say it is rheumatism. One got down and lay for three weeks. It got worse all the time and I killed it. Now two more are affected the same way. I am feeding all the soaked corn they want. I rubbed turpentine on their backs and also put some in the water.

Reno County. A. G. Y.

Answer.—I believe you are feeding your pigs altogether too much corn. You are laying on too much fat and your hogs are not able to carry this weight. We are mailing you a press bulletin on "Some Troubles of Swine," which I think will help you in remedying the trouble.

Thrush.—In THE KANSAS FARMER I notice that you are ready to give advice or treatment for lame animals. I have a fine Percheron mare, 6 years old, that has had the thrush in both fore feet for a year. I have done nothing for it up to this time. Will you kindly advise me what to do?

Moundville, Mo. J. H. W.

Answer.—Have your blacksmith use a canker dressing shoe on the feet that are affected with thrush. Clear out all the pus and dirt from the frog and then use peroxide of hydrogen straight without any dilution. After you have cleaned out thoroughly, pack calomel into the diseased places.

Mule Has Affected Feet.—I have a 7-year-old bay mare mule that has been lame all summer. The frogs of her feet rot, partly split open, and leave holes that fill with dirt. The front feet are worse than the hind ones. I have trimmed her feet well and shod them, but it doesn't seem to help her; have also soaked her feet in oil, which seemed to help her for a short time only. W. A. G.

Wallace, Kans.

Answer.—I would suggest that you pack your horse's feet with one of the commercial foot packings for three or four days, then use calomel about the frogs of the feet. If the feet are in pretty bad shape, better have a canker dressing shoe applied so that you can keep the dressing in the feet.

Bone Spavin—Affected Breast-bone.—I have a draft mare, about 14 years old, that has what I believe to be a bone spavin on right hind leg. She has been an excellent breeder and is now in foal. The first symptoms were noticed last spring after working her on the road-grader a few days. In connection with this spavin she must have a bad thorough-pin which seems to have been removed by an application. The leg is stiff when moved sideways, and when first started to move after standing for some time. There is no inflammation that I can discover, but on the inside and a little to the front of the knee there is an enlargement of bone. Do you think the mare can be cured or helped in such a way that she will get no worse? If so, kindly mail me a bulletin referring to this ailment.

I also have another mare about the same age as the first one that has either been kicked on underside of her breast, or she might have been jammed against a post about the height of her breast. This happened about three years ago. About that time there appeared directly under the breast a large swelling that became so sore she could hardly walk. After this broke she seemed much better and has been just as good as ever most of the time with the exception that she doesn't carry her head quite so high as before. Once in a while this place swells a little and then breaks. This seems to give her relief. This is quite the same as fistula as to the odor and color of the discharge.

Wilson, Kans. C. R. J.

Answer.—We are mailing you a press bulletin on ringbone and spavin that may be helpful to you in treating your animal for the ringbone or spavin. I think you may be able to cure your animal or at least stop the lameness.

In regard to your other animal, that has some trouble with the breast bone causing a discharge, would suggest that you cauterize the fistulous tract with butter of antimony, using the butter of antimony on a swab. Two days later begin using one of the coal-tar products, such as Zenoleum, or even carbolic acid if you have it on hand, and irrigate the wound daily.

Horse With Colic.—I have a 9-year-old gray horse that has always been quite healthy. His weight is about 1,050 pounds. About two weeks ago he got the colic, or what I supposed was colic. The attack lasted about two hours. He got all right again without any treatment, but last Saturday and Sunday he had the same sort of attacks. I have not worked him since and am feeding only light feed of oats twice daily. About the time he first began to have this trouble I had just changed from oats to corn and had put him on the plow, and of course I was not much surprised on account of the change of feed and increase of work. I will also say that every time he took sick it was about 10 o'clock in the morning and he was at work each time except the last time. I think perhaps it is worms or bots, for he is not subject to colic. I have cut corn and Kafir-corn with him without muzzling and let him eat all he wanted, but I never knew him to get sick from overfeeding before.

Cottonwood Falls, Kans. A. J. S.

Answer.—We are mailing you an Agricultural Review which contains an article on indigestion and colic in horses. Failing to get the desired information out of this article to successfully treat your animal, write me again.

Tetanus.—I had a bunch of Poland-China shoats about five months old, all in good condition. Two are sick

DON'T BUY GASOLINE ENGINES UNTIL YOU INVESTIGATE "THE MASTER WORKMAN," a two-cylinder gasoline, kerosene or alcohol engine, superior to any one-cylinder engine; revolutionizing power. Its weight and bulk are half that of single cylinder engines, with greater durabilit . Costs Less to Buy—Less to Run. Quickly, easily started. Vibration practically overcome. Cheaply mounted on any wagon. It is a combination portable, stationary or traction engine. SEND FOR CATALOGUE. THE TEMPLE PUMP CO., Mfrs., Meagher and 15th Sts., Chicago. THIS IS OUR FIFTY-THIRD YEAR.

now and another, weighing about 110 pounds, suddenly showed symptoms of illness. I gave him one tablespoonful of copperas and used a little asafetida dissolved in warm water, to which I added one tablespoonful of turpentine in milk which made a drench of about one pint. He died soon after. Symptoms are: Ears pricked forward, back bows, eyes sink deep, jaws lock, after two days the whole body is rigid and joints perfectly stiff. There is great difficulty in breathing. These pigs eat and drink until jaws lock, but only live two or three days after being affected. There are some symptoms of worms in the head, but examination after death failed to reveal any traces of them. Every part of hog looked healthy except lungs which were somewhat inflamed.

The hogs have free access to green alfalfa and the run of the orchard with plenty of coal, salt, corn, shorts, twice a day, plenty of water, warm shelter, and the yard is dry and well drained. I shall appreciate any information as to name, cause, and cure of this disease. C. A. I.

Detroit, Kans.

Answer.—From the symptoms you give of your hogs, I believe that they have tetanus. They get the disease from some wound and the best thing to do is to disinfect any wound that you happen to see. Keep all stray objects out of the way that your hogs could get cut upon.

Chronic Catarrh.—I bought a 5-year-old sorrel mare two months ago. She runs at the left nostril. When in the stable it does not run, but as soon as I drive her then it will run in chunks. The discharge is yellowish. Otherwise she seems to be in good condition. There has been an epidemic around here that made all the horses cough and run at nose, but it lasted only a few days. F. R.

Valley Falls, Kans.

Answer.—I think your animal has chronic catarrh. Secure from your druggist a quart of white lotion. Use a teaspoonful of the white lotion in a pint of water and inject in your horse's nose twice daily.

Stifled Colt.—About a month ago I noticed a soft swelling on the front side of the stifle joint of my 6-months-old horse colt. I thought he had been kicked. He did not seem very lame, but seems to be getting worse. He becomes quite lame and stiff after lying down or when he backs and swings about on his hind legs. Kindly advise me what to do for him.

Pratt, Kans. C. G. C.

Answer.—I would advise you to use a stimulating liniment over the stifle that is enlarged on your colt. Failing to receive the desired results, write again. C. L. BARNES.

Cured by Annointing With Oil.

Cancer and Tumor permanently cured with a Combination of Oils. Write to the Originator for his free books. Beware of imitators. Address Dr. D. M. Bye, 316 N. Illinois St., Indianapolis, Ind.

Walton, Harvey County Breeders.

THE KANSAS FARMER representative recently visited Walton, Harvey County, Kans., and located a coterie of breeders of pure-bred stock, representing various breeds. Most of these breeders are regular advertisers in the KANSAS FARMER, except at certain seasons when they are sold too close.

SUNNY SIDE.

Fanciers of Duroc-Jerseys can always find some of the best of this breed of hogs at Sunny Side. Here H. H. Hague, so well known as the breeder of show Durocs, has produced a large number of swine that have taken blue ribbons wherever they were shown. Sunnyside Prince, the herd-boar, is a herd-header in every sense of the word and a great show hog. He has very heavy bone, great length of body, good back and loins, and possesses much vitality. He can be easily made to weigh 1000 lbs., but for all he is so large he is as smooth and spry as a colt. He has a long string of blue ribbons to his credit, captured at some of the largest shows and fairs. He was sired by Wichita Prince, he by Prince Eric 3d. His dam was Queen of Newton, she by Dandy Boy, he by Higgins Model first and champion at Nebraska State Fairs. Mr. Hague will be a consigner to the Wheat Belt Breeders' sale, which will be held at Wichita Dec. 18-19, 1906, of which J. C. Larimer, of Derby, Kans., is manager.

HERD EXPANSION.

Cecil McArthur, well known as a breeder of Shorthorns, located at Walton, Kans., is increasing his stock of this valuable breed of cattle. He has nothing to sell at the present time, but he has 30 fine cows and heifers that he is breeding to his bull, recently purchased of G. D. Stratton & Son, of Walton, Kans. This bull was the pick of their herd and was sired by their great herd-header, Count of Elm Park 191749, and from one of their best cows. Mr. McArthur will have some choice stuff to offer the readers of THE KANSAS FARMER next season. Watch for his card.

BERKSHIRE AND HEREFORDS.

J. P. Sands & Sons, of Walton, Kans., have some fine toppy stuff in their Berkshires and Herefords. They have recently purchased and placed at the head of their herd of Herefords the famous herd-bull, Gambrinas 129536. He is of the best breeding, and a wonderful individual, being almost perfect in size, form, and color. He was bred by Gudgell & Simpson, of Independence, Mo., and purchased by Mr. Sands from David Fox, of Atlanta, Kans.

The herd-boar, King Robinhood 86154, is a great hog one of those big-boned, long-bodied fellows, but smooth and spry as a colt. His pigs show his great breeding qualities. He was bred by C. A. Stannard, of Emporia, Kans., owner of the famous Sunny Slope herd of Berkshires. Sands & Sons still have some good stuff to sell. They are breeding twenty good tried sows to this fine boar and expect a fine crop of pigs of early March farrow that will be hard to beat.

FINE SHROPSHIRES.

J. D. Marshall, the well known breeder of Walton, Kans., has a nice flock of Shropshire sheep. His flock now numbers 130, consisting of 108 ewes and 22 fine young rams. Mr. Marshall has no sheep to sell at the present time, but will be on the market next season with a splendid offering. His flock of Shropshires, which are of the finest breeding, has some wonderfully fine individuals. One ram clipped a fleece of 19½ lbs. of wool at 1 year of age, and he has others that did nearly as well. This class of sheep is as valuable for mutton as they are for wool.

Mr. Marshall will be on the market next year with some fine Poland-China swine, of which he has none to sell now. He has some fine tried sows that he is breeding to his great boar, Acme Perfection, a wonderful individual, very heavy-boned and long-bodied one of the kind of herd-headers that gets pigs that will fill the pork-barrel. Watch for Mr. Marshall's card that will appear in THE KANSAS FARMER later, for he will have something good to offer.

A HERD-HEADER TO EXCHANGE.

G. D. Stratton & Son, of Walton, Kans., who are well-known as experienced and careful breeders of Shorthorn cattle, are not offering anything for sale this fall, but are building up a fine herd by natural selection and careful breeding, and will have a splendid offering a little later. Their herd-bull, Count of Elm Park 191749, is one of the finest in the country. He is an animal that would be hard to compete against in the show-ring. He has great length of body, heavy bone, fine back and loins, and a perfect head. His color is dark red, and he weighs at present time about 2,100 pounds. He was calved March 23, 1902. He was sired by Dandy Cup 163396, his dam was Countess of Peabody 9th, and he was raised by Mr. Stratton. He will probably be offered for sale in the spring, for Mr. Stratton can no longer use him on his cows.

Ross & Son's Fine Shorthorns and Poland-Chinas.

Geo. B. Ross & Son, of Alden, Kans., are breeding some choice stuff in the way of Shorthorns and Poland-Chinas. They have forty head of cows and heifers, thirty of these being pure Scotch. There are some fine individuals in this lot, a number of them with calf at foot and others to calve soon. Ross & Son have recently added to their herd the fine young bull, Lavender's Choice, a pure Scotch, bred by George Bothwell, of Nettleton, Mo. He was bought at the American Royal, and although not yet a year old, he bids fair to be a herd-header of the first quality. Their herd-bull, Cruickshank Clipper, is strictly choice, with very heavy bone, well sprung ribs, strong, straight back, and as square as a block. In color he is deep red. He is an excellent breeder, every one of his calves being copies of their great sire. This bull is for sale, and will be a snap for some breeder who wants the best.

Ross & Son's Poland-Chinas are in keeping with their Shorthorns, their breeding being of the richest quality. Two splendid boars have recently been purchased by them to head their herd. One is a Missouri Keep On boar, bred by E. E. Axline, of Oak Grove Mo., the other is Grand Prospect by Grand Perfection, bred by Deitrick & Spaulding, of Richmond, Kans. These are both of the herd-header kind and of the richest breeding. Their fine sow, Grownetta, is in every way worthy of mention. She was farrowed September 2, 1905. When less than a year old, she won first in a class of fifty at the Nebraska State Fair, and at the St. Joseph Live Stock Exposition, 1906, competeing against the best of four States, won sweepstakes. She weighed 510 pounds at one year old. At fourteen months old she farrowed nine pigs, saving eight of them, which she is now suckling, and they are a credit to their dam. Ross & Son will soon be on the market with a splendid offering. Watch for their card in THE KANSAS FARMER.

Stewart's Durocs.

R. O. Stewart, of Alden, Kans., is coming to the front as a breeder of Duroc swine. He is breeding about fifty sows and gilts for early spring farrow, and if he has no bad luck will have a crop of March pigs to be proud of. Mr. Stewart has been careful in his selection of foundation stock, and he is handling his herd just right to insure their usefulness for breeding purposes, by allowing them plenty of exercise and feeding them largely on alfalfa and other bone- and muscle-producing foods. His herd-boar, Nebraska George, is getting him some pigs that for uniformity of form and color are hard to beat. He seems to impart his vigorous constitution and good qualities to all of his offspring. Nebraska George was bred by George Briggs & Son, of Clay Center, Nebr. He was sired by Morton Prince 16797. His dam was Minta 46112. Mr. Stewart has recently added to his herd two fine young boars, both of the herd-header kind, which were bred by Marshall Bros., of Burden, Kans. One, Mc's Pride 2d, farrowed March 27, 1906, was sired by their famous boar Mc's Pride bred by McFarland Bros. This is a boar of great promise and one we predict will be heard from later in the show-ring. The other, Belle's Wonder 52145, farrowed August 17, 1906, was sired by Missouri Wonder, dam Corrector Belle. This is a pig of very rich breeding. Mr. Stewart expects to hold a bred-sow sale in February. Watch for his advertisement in THE KANSAS FARMER.

Iams' Great Horses.

There is no stallion importer just like Frank Iams, of St. Paul, Neb. He is in a special class by himself. His hobby is first-class stallions, with big bone, quality, style, and finish. Iams' "peaches and cream" "black boys" are noted the world over as the "best ever." Twenty-five years ago he began business with three stallions. Today he has over 160 imported stallions and mares 2 to 6 years old, weight 1,600 to 2,500, 90 per cent blacks, 50 per cent "ton horses." At the Iowa, Illinois, and Nebraska State Fairs his stallions caused a sensation. He smothered competitors with big, ripe, smooth "black boys," and in every class shown won ribbons, several sweepstakes and many first, second, and third prizes. In fact, everybody was "up in the air" over Iams' "horse show." His barns were filled with farmers, their wives, sweethearts, and cousins. They said: "Iams has the goods." His horses are better than the pictures he has in the papers, and if you visit him and don't find everylogue as represented, you get that $100 he hangs up. Iams guarantees to sell you a better stallion at $1,000 or $1,400 few higher) than are being sold to farmer stock companies at $2,500 to $4,000, with 60 per cent breeding guarantee. Freight and fare are paid by Iams. He gives buyers $1,000 or $1,500 insurance.

You say, why can Iams sell better stallions at half the price of others? Iams buys and sells every stallion himself at his home barns. He buys stallions by special train load, 80 to 150 at a time. He speaks the languages. He is not in the stallion trust, saving you $300. He pays no slick salesman $100 to $1,000 to sell you a fourth-rate stallion. He has no two to ten men as partners to share profits. He pays spot cash for his stallions, owns his farms, houses, barns, stock, and stallions. He sells stallions by his "hot advertising" and has the goods to make every statement good. Iams sells stallions so good that they do not need a slick peddler or the auction block to sell them. Iams will save you $1,000 or more in commissions and middlemen's profits.

Our illustration shows Iams' Favorite (59321), 2-year-old black Percheron stallion, whose weight is 2,060 pounds. He is a prize-winner at Illinois, Iowa, and Nebraska State Fairs. He is an up-to-date drafter with two good ends and a middle; a big-boned, high-class "Yankee Doodle boy" that makes all the boys "lift their lid" and say: "He is Iams' kind." Iams' town of barns is filled to the room with top-notchers. He is hypnotizing buyers with big bargains in stallions that will positively suit you. Write for his eye-opener and greatest horse catalogue on earth. Read it, and it is a certainty that you will buy a stallion of Iams.

Gossip About Stock.

The well-known breeder of Galloway cattle, Mr. Dean Bartlett, St. Marys, Kans., has on hand for sale sixty registered Galloway bulls, comprising calves to 2-year-olds, which he will sell singly or in car-lots to purchasers. Notice his advertisement this week on page 1295 and write him for further information.

P. L. Ware, proprietor of the Fairview Herd of Poland-Chinas at Paola, Kans., whose herd is headed by Perfection Chip 25519, writes that he is receiving many inquiries and making same sales to a good class of buyers and has on hand for sale some very choice gilts which are being bred; also a lot of spring boars for sale.

On November 15, Col. L. R. Brady, of Manhattan, Kans., made the largest sale of Hereford cattle ever made in Central Kansas. The sale was made by W. H. Anderson and S. Clark, who disposed of their entire herds of more than 100 pure-bred Herefords. While we do not have the figures, we understand the prices realized were quite satisfactory to the owners. Col-

.22 CARTRIDGES

Furnished with either Black or Smokeless Powder, greased or ungreased bullets. Shoot straight and strong. Preferred by marksmen and boys. Recommended by gallery men.

Send for free targets.

THE UNION METALLIC CARTRIDGE COMPANY,
BRIDGEPORT, CONN.
Agency, 313 Broadway, New York City.
Sales Office, San Francisco Cal.

A Large Egg Yield

A hen—any hen—will lay a great number of eggs (some more than others) if conditions and surroundings are such as meet the requirements of hen nature. Here is where *your* part comes in. Give the hen a regular daily portion (a penny's worth is enough for 30 hens) of Dr. Hess Poultry Pan-a-ce-a, and she will do the rest.

DR. HESS POULTRY PAN-A-CE-A

is *not a food*—it is a tonic, specially prepared to give "tone" to the digestive and reproductive organs, so that the maximum of food, over and above the maintenance ration, is used to make eggs. It has also a property foreign to a so-called poultry food. It is a germicide, that is, it destroys bacteria, the cause of nearly all poultry ailments. Poultry Pan-a-ce-a is the prescription of Dr. Hess (M.D., D.V.S.), is endorsed by the leading poultry associations in United States and Canada, and is **sold on a written guarantee.**

1¼ lbs. 25c., mail or express, 40c.
5 lbs., 60c.
12 lbs., $1.25.
25 lb. pail, $2.50.
Except in Canada and extreme West and South.

DR. HESS & CLARK,
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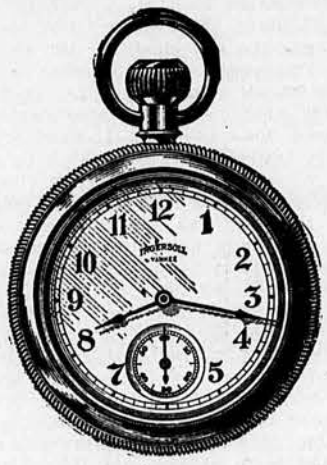
Instant Louse Killer Kills Lice.

Send 2c for Dr. Hess 48-page Poultry Book, FREE.

THE INGERSOLL DOLLAR WATCH



A First-class Nickle Watch, guaranteed a reliable time piece. Popular present for the boys. Sent only to our subscribers. The Kansas Farmer one year and the Yankee Watch delivered to your address for only

$1.50

By THE KANSAS FARMER CO.,
Topeka, Kans.

$500 Cash or Time Buys a FARM In Virginia

With cozy new 3-room cottage like cut, and 25 acres for poultry, fruit and vegetables. Only two miles from the live town of Waverly, on N. & W. Ry., midway between Norfolk and Richmond. Delightful climate, abundant water, unexcelled markets for produce. Splendid social advantages. "Go South,—Young Man!" Write today for Booklets, lists of bargains in farms, lowest excursion rates, etc.

P. H. LaBAUME,
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Box EJ. Roanoke, Va.

NEW NORFOLK & WESTERN

HIDES TANNED FOR ROBES

Send Your Hides to Us

Horse and Cattle Hides tanned by our process make the finest of Coats and Robes. All work guaranteed. FREE booklet on hides, also shipping tags and price list. Write today.

IOWA TANNING CO.,
Des Moines, Ia.

onel Brady, through this sale, has been instrumental in scattering the good seed of pure blood so that each buyer has more of it than formerly in his herd or else new herds have been started.

E. E. Potter, the well-known live-stock auctioneer of Sterling, Kans., is just completing one of the finest homes in that part of the State. He is also getting nicely started in the pure-bred stock business. His stock includes Poland-China hogs and Red Polled cattle. He has some Poland-Chinas that are strictly fine, all of them being Perfection stuff. As soon as Mr. Potter is settled in his new home, he will be prepared to give his best services to those needing a good live-stock auctioneer, and Mr. Potter is hard to beat in this, his chosen profession, as those who have employed him will know.

On December 12, Geo. W. Wright, of Windom, Kans., will dispose of his entire herd of Shorthorn and Polled Durham cattle. We believe that it will be to the interest of breeders who intend to add to their herd in the near future to attend this sale as it will contain some of the best blood of the country. The offering will consist of 46 head, made up of 24 cows, 7 heifers, and 11 bulls. Four of the cows have calves at foot. Much of this stuff was purchased only last winter by Mr. Wright from some of the leading herds of Illinois at a long price, and it offers an opportunity to breeders to obtain high-class animals at a nominal cost. Do not forget the date and arrange to attend the sale. The catalogue is now ready.

We desire to call the attention of our readers to the two days' sale of Polled Durhams, Shorthorns, and Jersey cattle, and Berkshire hogs held by Webber-Apperson & Co., of Tecumseh, Neb., on December 19 and 20. The offerin consists of forty choice Polled Durham and Shorthorn cattle, and includes their herd-bull, Duke of Brookside 2d 827, a 6-year-old animal with lots of quality. He is a dark red, has a fine polled head, is of a good disposition, and an excellent sire. There are also twenty fine young polled heifers in the sale, some bred and some open. The most of them are sired by this great bull. The offering of Berkshires is a good one. In it will be twenty young boars sired by Sunnyside King 2d 77793 by Lord Lee. This grand old sire will also go in the sale as will Royal Robin 93910 by Cock Robin, a son of Masterpiece and Longfellow's Prince, farrowed April 27, 1900, by Premier Longfellow. This young sire was purchased recently from F. A. Scherozinger, of Nelson, Neb., to assist in the herd, but he will go in this sale. The offering of Jersey cows and heifers is a good one. While they are not registered, they are all pure-breds. This is a strictly closing-out sale and nothing will be reserved. Catalogues are ready for distribution. Come to the sale or have C. E. Shaffer of THE KANSAS FARMER buy for you.

In a recent letter from Wilkie Blair, owner of the Beulah Land Herd of Red Polled cattle, Girard, Kans., he reports as follows: "I have just sold the yearling bull, 2d Majiolini 15000, to Chas. Foster & Son, of Eldorado, Kans. He was sired by Linwood Lad, the second prize 2-year-old and at the head of the aged herd, winning third prize at the Louisiana Purchase Exposition, but is named for his grandsire, Majiolini 2600, who won the championship at the English Royal show two years in succession. 2d Majiolini's dam, Beulah Dunbar 20819, on her maternal side comes of the famous Rose P's tribe, than which there is no greater family of prize-winning Red Polls living, while her paternal grandam is Primrose 2d 9701, who distinguished herself and won honors for the breed in the farmers' cow contest at the International show at Chicago. The junior member of the firm, Mr. C. E. Foster, came to Leulah Land and selected this calf, and although it was somewhat difficult for him to choose from among the Linwood Lad youngsters, we think he has made no mistake in selecting 2d Majiolini as a herd-header, for we are confident he will raise the Foster herd of Red Polls to even a higher standard than that to which it has already attained. There are yet three very choice Linwood Lad yearlings that will please and do some one good. Nine little fellows, all as fine as silk, have recently arrived. The older ones must go to give the babies a better chance."

Asthma Overcome.—Catarrh and Bronchitis Also Curable in Any Climate, Say Medical Experts.

Physicians are meeting in congress throughout the entire world in an endeavor to discover some method of checking the ravages of fatal pulmonary diseases. It will be joyful news to thousands of sufferers from catarrh, asthma, and bronchitis to learn that these lesser diseases can positively be cured. This is a marked advance in medical science and in order that every one needing the Toxico treatment can test it without cost, the Toxico Laboratory, 1269 Broadway, New York, are sending the remedy free by mail, to all who furnish their name and address.

The Grand Trunk Pacific Railroad and Western Canada.

The railway facilities of Western Canada have been taxed to the uttermost in recent years to transfer the surplus grain-crop to the Eastern markets and the seaboard. The large influx of settlers and the additional area put under crop have added largely to the grain product, and notwithstanding the increased railway facilities that have been placed at the disposal of the public, the question of transportation has proved to be a serious one.

It will therefore be good news to every one interested in Western Canada to know that an authoritative statement has been given out by Mr. C. M. Hays, president of the Grand Trunk Pacific Railway, that that railway will do its share towards moving the crop of 1907 from Alberta, Saskatchewan, and Manitoba to tidewater, and thus assist in removing a serious obstacle which has faced the settler during recent years. Mr. Hays, who has just completed a trip from Portage la Prairie to Edmonton in a prairie schooner, a distance of 735 miles, which was covered in eighteen days, is enthusiastic about the country.

This will be gratifying to settlers in the Canadian West, even if Mr. Hays declines to be bound to a time limit with the exactitude of a stop-watch. The Grand Trunk Pacific road will be in a position to take part in the transportation of the crop of 1907, and that will be satisfactory to the settlers of the country when the harvest is garnered.

The wheat-crop of 1906 in Western Canada was about 90,000,000 bushels, and, with the increased acreage which is confidently expected to be put under crop next year, it is safely calculated that fully 125,000,000 bushels will be harvested in 1907. The necessity for increased transportation facilities are, therefore, apparent, and the statement made by Mr. Hays will bring encouragement to the farmers of the Canadian West, new and old; a vast new country with an almost illimitable number of homesteads is being opened up.

Stannard's Processed Oil.

The following letter, written by Mr. N. H. Gentry, of Sedalia, Mo., one of the most successful breeders of Shorthorn cattle and Berkshire hogs in the world, is of interest to every grower of live stock in the country (Mr. Gentry has used three barrels of Processed crude-oil):

"Mr. C. A. Stannard, Emporia, Kans.

"Dear Sir:—It is a pleasure to testify to the worth of your prepared oil as a lice-killer. It certainly does the work better than anything I ever tried. It is the only preparation that kills both lice and nits at a single application, and it certainly does so most thoroughly."

If you are a user of dip, it will be worth your while to try Mr. Stannard's Processed crude-oil. Mr Stannard assures us that it is as effectual in curing mange as it is in killing lice. Read his advertisement on page 1320.

How You Can Test Standard Stock Food

Entirely at Our Risk

We want you to use Standard Stock Food this season whether we have a dealer in your town or not. Whether you deal with us direct, or with your dealer, we will take every particle of the risk of your being satisfied. If you are not or if the food does not do all we claim, then we will return every cent you have paid for it, and it shall cost you nothing. This paper stands behind this guaranty.

WE believe you will be fair with us. We want you to believe we will be fair with you—because we will.

Now if your dealer does not handle Standard Stock Food, we ask you to tell us and give us the privilege of making you our DIRECT OFFER. We will ship you the amount of food you need to make a thorough trial, and if it does not do everything we claim, we will refund every cent you have paid. If you are not fully satisfied, it shall not cost you anything.

Can you ask for a fairer offer.

* * *

Your animals are not like nature intended them to be; not like they would be under natural conditions. They are highly fed, quickly developed, and easy to get out of condition.

They need a little help from day to day—not medicine, or dope, or physic, but a condiment, a seasoning, to give variety to the feed ration, and make it taste better: a tonic to aid digestion and help get more nutrition out of the feed.

A Condiment-Tonic. It Makes Stock Thrive.

Your animals need a condiment, a flavoring, a seasoning just as you need salt and pepper, mustard and catsup, sauces and gravies, and various flavorings and seasonings to make your food taste better; to aid your digestion.

Standard Stock Food makes the ration taste better so your animals eat with a greater relish. It promotes the flow of all the the digestive juices so that they digest their feed more quickly, more easily, and more thoroughly.

Its tonic properties put the entire system in that prime condition which means more thrift, better finish, and bigger profits.

We can prove the value and the superiority of Standard Stock Food so fully on every point that all we need is the opportunity.

So we put it straight and plain—take all the risk—don't ask any conditions—nothing but your word that you will use the food fairly, thoroughly and according to directions.

A dollar's worth of Standard Stock Food contains more feeds, will go farther, last longer and produce more and better results than a dollar's worth of any other stock food made whether it costs 5c or 15c a pound.

We know there is no question about Standard Stock Food paying you, and paying you big too. We have been making and testing it over 20 years. We have over 400,000 customers who have proved that it is the best condiment-tonic to mix with the feed ration that can be had at any price.

You take no risk. We guarantee absolutely and without conditions, that it shall cost you nothing if you are not satisfied with it. You know that this paper would not print this advertisement unless we always make our word good.

We refer you to your own Bank, or to any Bank or business house in Omaha for information as to our responsibility.

If We Have a Dealer In Your Town See Him; If Not, Write Today For Our Direct Offer.

Tell us how much stock you keep, and we will tell you how much Standard Stock Food you need for a fair trial. If you request it, we will send you a copy, FREE, of our fine stock book, THE STANDARD FEEDER, regular price 50c, 160 pages, 200 illustrations, chock full of valuable information on the feeding and care of all kinds of live stock.

STANDARD STOCK FOOD COMPANY, 1517 Howard St., Omaha, Neb.

THREE DAYS SALE OF

Shorthorn and Hereford Cattle, Poland-China, Duroc-Jersey and Berkshire Hogs

At Coffeyville, Kans., December 13, 14 and 15, 1906.

40 Herefords, Thursday, Dec. 14—14 bulls and 26 cows and heifers; several calves at foot. This stock is contributed by Fred Perkins, Sam' Drybred, R. Yohe and J. D Canary.

40 Shorthorns, Friday, Dec 14—15 bulls and 25 cows and heifers; cows are bred to pure Scotch bulls. Contributed by H. M. Hill, Clark & Clark, W. B. Weakley, Isaac Sweeney, B. H. Jeter.

75 Hogs, Saturday, December 15.—55 Poland-Chinas; 15 boars, 40 gilts and brood sows, some have litt r by side. Contributors, Stryker Bros., G. W. Harman, John Shile, W. T. Anglin, Stewart & Burton and Robt O. Deming.

10 Duroc-Jerseys; 3 boars and 7 sows. Contributed by Samuel Drybread, G. H. Coleman and B. H. Jeter.

10 Berkshires; 2 boars and 8 sows. Contributed by W. C. Hatcliff and H. E. Bachelder.

For catalogue address

H. E. Bachelder, Secy., Fredonia, Kans.

Auctioneers: Cols. Edmonson, Bellows, Snyder, Sheets. Clerk, V. L. Polson.

WELL DRILLING MACHINES

Over 70 sizes and styles for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on sills. With engine or horse powers. Strong, simple and durable. Any mechanic can operate them easily. Send for catalog.

WILLIAMS BROS, Ithaca, N. Y.

Registered Galloway Bulls

for sale singly or in car lots. Calves, yearlings and 2-year-olds. 20 head of each. For further information write

Dean Bartlett, St. Marys, Kans

Horticulture

Protecting Trees From Winter Injury.

Professor Waldron, of the North Dakota Experiment Station, says:

"There is occasionally something said about stopping cultivation in August, so that the plants may have opportunity to ripen up their wood for winter. There may be regions where this is good advice, but our experience and observation have led us to just the opposite conclusion when practised for the Northwest. When winter once begins to settle down upon the land in North Dakota, even the trees have sense enough to detect it, and the suddenness and completeness with which they close up their summer affairs and get into winter attire suggests that they need no aid from us in this matter. Indeed, some of the plants that defer this change the longest, like the buffalo berry and lilac, are among the hardiest we have."

The chief danger in that section, according to Professor Waldron, is from the drying of the soil, due to the light autumn rainfall and the drying winds of winter. To preserve moisture and to prevent root-killing as winter comes on he says:

"Unless covered with snow, the ground soon becomes very dry and cracks open, allowing the roots to dry out and subjecting them also to an unusual and unnecessary degree of cold. By covering the ground with a light layer of straw or similar material about the first of November, this condition is avoided. This covering prevents the escape of moisture, as the drying winds can not come in contact with the soil, and also the escape of the heat, thus delaying freezing for a considerable time and shortening the period in which the plant is losing moisture without means of renewing its supply. Theoretically, then, the application of a mulch would seem to be an advantage, and in actual practise it has been found to be of the greatest importance, saving whole plantations in regions where unprotected trees were practically all killed."

An Over-Estimated Apple-Crop.

It is now stated that the apple-crop of the United States for 1906 amounts to 34,000,000 barrels. Of this quantity of fruit Missouri is said to have produced 2,500,000 barrels. We think this estimate is rather too low—so we will add 1,000,000 to this, making 3,500,000 barrels. Even when this is done, Missouri's apple-crop is less than half what some of our horticultural leaders claimed it would be.

We believe that part of the responsibility for the low prices for apples must be borne by these persons who filled the columns of the daily press during the summer with exaggerated reports of the apple-crop. These reports were made by persons high in authority and they were accepted as being correct.

Every month The Fruit-Grower has had reports from its correspondents, and as early as August 1 it was evident that some misguided persons were creating a false impression by over-estimating the size of the crop. In the September issue The Fruit-Grower called attention of these misleading reports—reports which were absolutely criminal in their effects upon prices—and protested against the low prices which were being made as a result of these false statements.

The Fruit-Grower can now sit back and say, "We told you so." But that will not restore to the growers throughout the country the money they have lost by reason of the exaggerated estimates. The thing now to consider is how to avoid the repetition of this year's experience.

Early in the season, of course, all the reports were most encouraging; they were simply interesting at that time, however, for no prices were then being made. As the season progressed the crop deteriorated, and yet some of our horticultural leaders continued to make estimates which were regarded as official, which were far from the truth. In no State was this more harmful than in Missouri, although other States furnished some of these unreliable reports also, and every apple-grower in the country suffered as a consequence.

Statements were made, and accepted as being correct, that Missouri alone would furnish a crop of 7,000,000 to 10,000,000 barrels. And the prices were made largely on estimates such as this.

In looking about for the cause of low prices, along with the combination of buyers, which we believe to exist, let us also place our over-enthusiastic horticulturists whose estimates have misled the buyers as well as the growers of the fruit. And at the same time let us resolve than in the future such misleading statements should be suppressed.—The Fruit Grower.

Pecans and Other Nuts in Commerce.

Nut-growing in America is in its infancy as compared with this industry in European countries. In those sections of France where walnuts are grown, more than half the population is busy for two or three months each year in gathering, cleaning, and shelling the nuts. In Southern Spain, in the almond districts, a large number of persons have no other employment the year around than gathering, picking, and preparing these nuts for the market. In Sicily, a large proportion of the population is engaged solely with the almond-crops. In America, with the exception of a very limited section, no considerable interest has been taken in nut-growing until the past few years, and even now, after the crops are produced, they are marketed, as a rule, just as they are gathered, while in European countries the growers clean and shell their walnuts and almonds and specially select and prepare all nuts that are offered to the trade. By this means they have not only increased the demands, but have increased their profits.

The pecan, the finest of the whole nut family, is grown exclusively in America. Confectioners now use this choice nut to a greater extent than walnuts or almonds. Pecans are smaller and lighter in weight. While the price of these nuts is higher, their use costs the manufacturer less, as only half the quantity is required as compared with walnuts, while the confection is made much better and finds greater favor with the consumer.

In hotels, where nuts were formerly served as a dessert with the nut-crackers on the table, shelled pecans, pecan meat—salted, deviled, or crystallized—are now served, and in these preparations pecans are considered the finest luxury. They are preferred to walnuts on account of their finer quality, finer taste, and more pleasant aroma, and besides, they keep better.

A considerable quantity of pecans is used by health-food manufacturers. Many sanitariums, which furnish their patients with vegetarian diet exclusively, have found that fruits and vegetables alone will not do, and have added nuts to the diet, and find that the protein and fat of the nut are pure and appetizing and replace animal meat.—R. C. Koerber, in American Fruit and Nut Journal.

MUSCULAR AILMENTS

The Old-Monk-Cure will straighten out a contracted muscle in a jiffy.

ST. JACOBS OIL

Don't play possum with pain, but 'tends strictly to business.

Price 25c and 50c

A WONDERFUL OIL HEATER.

It Solves the Problem of Fall and Spring Heating and Supplements the Regular Heating Apparatus in Mid-Winter.

With the passing of the summer months comes autumn, and with it the chilly nights and mornings which force us to turn our thoughts to the problem of heating our houses, and we begin to look over our stoves and furnaces and get them in repair for the cold winter months.

To start stoves and furnaces in the early autumn brings more or less discomfort for the reason that they furnish too great heat during those portions of the day when the heat of the sun is still considerable. For such times the Perfection Oil Heater, equipped with a device which prevents all possibility of smoking, solves this hitherto perplexing problem.

There are also many times during the cold winter months, while the furnace and stoves are in operation when they may not be equal to the task of warming remote rooms, hallways, etc. This is more apt to be true in the early morning before the full efficiency of the regular heating apparatus is developed. In many houses there are rooms not reached by the direct heat. At such times and in such places the Perfection Oil Heater will be found a very valuable auxiliary. It will enable the household to eat its breakfast in comfort instead of shivering with the morning chill.

The Perfection Oil Heater produces a surprising amount of heat immediately after lighting and will heat an ordinary room in a remarkably short time. They are strong and well made in a design pleasing to the eye, and they are light enough to be easily carried from room to room as required.

In these days of numerous devices for illumination, there are still many who have not provided themselves with satisfactory lamps. The Rayo Lamp makes it possible for every one to have adequate light at a small cost. The Rayo Lamp is the best lamp for all-round household use. It is made of brass and beautifully nickeled, and is an ornament to any room whether in palace or cottage.

The Perfection Oil Heater and the Rayo Lamp form a combination that makes home bright and comfortable. Their absolute safety and very moderate price makes them a valuable and easy acquisition to any home. Both heater and lamp are warranted.

Hides, Wool, Furs, Pelts.

Southward & Johnston, of Wichita, Kans., dealers in hides, wool, furs, and pelts start their card in this issue of THE KANSAS FARMER on page 1291 and their advertisement will appear regularly for the next six months. Southward & Johnston are one of the oldest and most reliable firms in the State, handling these commodities, having been established in 1880 and have been continuously in this business ever since.

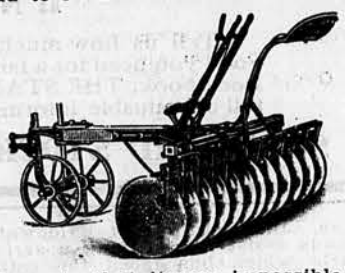
They will pay the highest market price for anything of this kind that the readers of THE KANSAS FARMER may have to sell. Any one desiring references can write R. G. Dun, Commercial Agency, Kansas National Bank, Wichita, Kans., or Citizens State Bank, El Reno, Okla. If you have anything of this kind to sell, write them at once for shipping tags and price list, which will be furnished free on application.

In writing please mention THE KANSAS FARMER.

Users of Disk Harrows, Take Notice.

One of our big advertisers, the American Harrow Company, of Detroit, Mich., are using our columns earlier this season than ever with announcements advising our readers who wish to be sure of having a disk harrow to use at the season of the year they need it to place their orders earlier because they can not guarantee to fill all orders in their rush season.

This company has had a remarkable sale on its Tongueless Disk Harrows, and last spring its books showed that it had to return 1,463 orders for these



implements that it was impossible for it to fill on account of its factory not being able to turn out enough harrows to go round.

This phenomenal sale was brought about on account of the merit of its patented Tongueless Disk Harrow, which has many points of advantage over the old-style disk harrows so generally used.

We can easily understand the points of superiority of the Tongueless Disk Harrow over any disk having a tongue. By doing away with a tongue, and using a forward truck, both horses pull alike at all times, either on straight-away pulls or short turns—the truck doing away with all side thrash and neck weight, which has "bunged up" so many horses just at the season of the year when they are most needed.

To any of our readers who are not familiar with the Detroit Tongueless Disk Harrow, we advise that they write to the American Harrow Company for its catalogue and other print-matter, and if they decide to buy one of these harrows, we see a good season why they should place their order early to be sure of getting their implement just when they need it.

A postal card addressed to the American Harrow Company, Detroit, Mich., will bring you full information.

Be Sure to Get What You Ask For.

THERE is a Reason—

Why the Good People of America buy Cascarets as Fast as the Clock Ticks.

Every second some one, somewhere, is Buying a little Ten-Cent Box of Cascarets.

1, 2, 3, 4, 5, 6—60 times to the Minute, 60 Minutes to the Hour, 3600 Boxes an an Hour, 36,000 Boxes a Day of Ten Hours, 1,080,000 Boxes a Month, and then some.

Think of it—220,000 People take a Cascaret tablet each day. Millions use Cascarets when necessary.

The Judgment of Millions of Bright Americans is Infallible. They have been Buying and Taking Cascarets at that rate for over Six years.

* * *

Over Five Millions of Dollars have been Spent to make the merits of Cascarets known, and every cent of it would be lost, did not sound merit claim and hold the constant, continued friendship, Patronage and Endorsement of well-pleased people year after year.

* * *

There is also a Reason—

Why there are Parasites who attach themselves to the Healthy Body of Cascaret's success—Imitators, Counterfeiters, Substitutors.

They are Trade Thieves who would rob Cascarets of the "Good Will" of the people, and sneak unearned profits, earned and paid for by Cascarets.

A Dishonest Purpose means a Dishonest Product and a Disregard of the Purchasers' Health or Welfare.

Beware of the Slick Salesman and his ancient "Just as Good" story that common sense refutes.

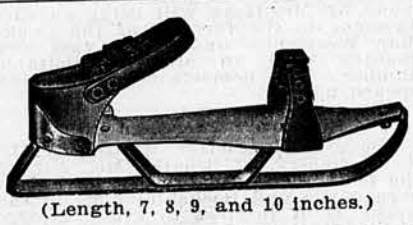
Cascarets are made only by the Sterling Remedy Company, and put up in metal box with the "long-tailed C" on the cover. They are never sold in bulk.

Every tablet marked "CCC."

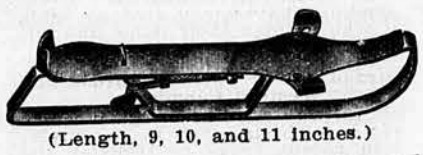
Be sure you get the genuine. 748

Wide Runner Skates

FOR SKATING ON SNOW OR COASTING. . . . .



(Length, 7, 8, 9, and 10 inches.)



(Length, 9, 10, and 11 inches.)

These are better and safer than ice skates anywhere and very attractive for rough or soft ice; also for use on road, sidewalk, or coasting. They are the newest and best thing on the market. Send us $2 for one old and one new subscriber, and we will deliver one pair of wide runner skates, either kind, any length wanted.

ADDRESS

THE KANSAS FARMER COMPANY,

Topeka, Kansas.

Agriculture

Annual Report of the Secretary of Agriculture, 1906.

Farmer Progressing.—Secretary Wilson in presenting to the President his tenth annual report takes occasion to indicate the position of the producer from the soil in the development of the country. He reports him as making progress in the sciences and arts of agriculture, aided by the researches of the Department and of the experiment stations, and states that "the time of the man and the yield of the acre become more responsive as more imperative demands are made upon them."

Enforcement of New Laws.—The laws made by Congress at its last session, to be executed by the Department, have required and received special attention. The meat law is being enforced, and inspection is now made in over a thousand houses. Not less than thirteen hundred experts have been added to the inspection force. Rules have been prepared for the execution of the pure-food law. Good has followed the operation of the law for the extermination of the cattle-fever ticks in some of the Southern States. In dealing with the gipsy and browntail moths of New England, imported parasites have been successfully established. A beginning has been made in the method of determining the grading of grain, and the law providing for the humane treatment of live stock in transit is receiving careful attention.

Estimated Value of Farm Products.—The economic revolution in the art and science of agriculture continued during 1906, with tremendous results on the National prosperity. The value of crops continues to rush forward beyond comprehension; crops are straining the freight-carrying ability of the railroads; and the farmer, alive to the importance of the place that he occupies in the Nation, offers this yearly account of himself to the people. The Secretary promises that the figures presented in his review of the year's full production are advance estimates preliminary to those to be made later by the department. Estimates are made for comparison with every detail presented by the census. The farm-products of the year have a farm value of very nearly six thousand eight hundred millons dollars, nearly half a billion above the value of 1905 and exceeding by over two billion dollars the figures for the last census.

Value of Leading Crops.—Corn remains by far the most valuable crop, estimated at eleven hundred million dollars. Next comes the cotton-crop, which, including seed, should be worth to the growers nearly six hundred and forty million dollars. The value of hay, which is third in order, approaches six hundred millions. Wheat, the fourth crop, may be worth four hundred and fifty millions; oats, three hundred millions; potatoes, one hundred and fifty millions. Barley, with a value of sixty-five million dollars, shows a gain of 21 per cent in production in the past seven years. The tobacco-crop will be worth about fifty-five millions. A remarkable development is that of the sugar-beet, now the ninth crop in value. The production in 1906 is placed at three hundred and forty-five thousand long tons, valued at thirty-four million dollars. Seven years ago the value of this crop was seven million dollars. The value of all kinds of sugar, sirup, and molasses aggregates seventy-five million dollars.

High Total Value.—On the whole, crop values have been neither notably high or low in comparison with recent years, but the high-price level in the general average has raised the total crop value somewhat as compared with 1905 and the high preceeding years. To reach a still higher point in this series of high annual values is an achievement worthy of attention.

Agricultural Exports Exceed all Former Years.—The farm still overshadows the mill, the factory, and the workshop in providing exports, and with his surplus beyond the Nation's need the farmer has loaded the fleets of oceans. For the fiscal year ended June 30, 1906, this surplus had been exported to the value of nine hundred and seventy-six millions, the largest amount ever reached by agricultural exports for this or any other country and exceeding the export value of 1901, previously the record year. Among chief exports cotton maintains a long lead, with a value of four hundred millions. The packing-house products exported amounted to a value of two hundred and seven millions.

Imports of Farm Products.—The imports of agricultural products consist mainly of the same articles year after year, and reached their highest value in 1906—five hundred and fifty-four millions. These included packing-house products, ninety-six millions; sugar and molasses, eighty-six millions; coffee, seventy-three millions; silk, fifty-four millions; vegetable fibers, fifty millions; wool, thirty-nine millions; tobacco, twenty-two millions; fruits, twenty-one millions; tea, fourteen millions. In forest-products, 1906 shows an import value exceeding ninety-five millions, against a total value of similar products amounting to seventy-seven millions.

Favorable Balance of Trade Due to Farm Products.—For 1906 the agricultural exports exceeded similar imports by four hundred and thirty-three millions, while products of all other industries secured a balance in our favor of only eighty-five millions. During the last seventeen years the exports of the farmer have exceeded the agricultural imports by six billions of dollars, while all other producers find themselves at the end of the same period with a total on the debtor side amounting to four hundred and fifty-nine millions.

Increase in Farm Capital.—If real estate, domestic animals, other live stock, implements, and machinery are included, the farmer's capital has increased since the census valuation by probably eight billions of dollars, the present valuation being probably twenty-eight billions.

Meat Supply.—The report contains some interesting figures on meat-production, the result of a recent large and searching investigation by the Department. In the last census year, 1900, 93,502,000 meat animals were slaughtered and exported. "Every time the clock ticks a second during ten hours of a work-day, the farmer drives nine meat animals to the butcher." The meat-production in pounds attains such numbers that they may be better understood if reduced to the average of a private family—according to the census, 4.6 persons. To each such family in 1900 the farmer supplied one thousand and fourteen pounds of meat and then had one-eight of his supply left over for the foreigner. It is upon the selling of this surplus in foreign countries that the farmer depends for the maintenance of profitable prices for his meat animals. As a meat-producer the importance of the hog appears in these statements. The meat of hogs, including lard, produced in 1900 exceeded the weight of veal and beef by one-half billion pounds and was over eight times more than the weight of lamb and mutton. In a single State, Iowa, the production for 1906 was equivalent in pounds to nearly the entire exports of the meat of swine in 1900. Meat contributes one-third or more of the total assimilated nutrients of the National dietary, and at average meat prices and with the meat consumption of 1900 the National retail meat bill that year exceeded two billion dollars. Every increase of one-fourth of a cent per pound in the National average retail price of meat raises the total yearly expense to consumers by $41-883,000.

Agriculture Becomes More Scientific as Need arises.—The mighty production of the farmer for one-third of a century has come out on an agriculture having many faults, yet the course of agriculture in this country, unscientific as it may seem, has had economic justification. Pioneers, poor and in debt, have no capital, even if they have knowledge. They must have buildings, machinery, and live stock even at the expense of the soil. Moreover, millions of acres of fresh land have been coming into production faster than domestic consumption required. A more scientific agriculture would have raised crops in excess of the demands; but, when consumption demands and prices sustain, the farmer will respond, for the doors of knowledge and example are opening wider to him. No miracle would be required to double or even treble the production of cotton per acre. The corn-crop can be increased by one-half per acre within one-fourth of a century and yet without reaching the limit, and the same may be said of wheat and many other crops. One-fourth of the dairy-cows of the country do not pay for their feed, and more than one-half of them pay no profit. The egg-production per hen will be increased by at least a dozen a year within a generation, while some poultrymen foretell double that increase. If the hens of this year had each laid a dozen eggs more than they did, the increased value of this production would have possibly aggregated fifty millions of dollars. The farmer will not fail the Nation if the Nation does not fail the farmer. He needs education to open the powers of the soil now hidden from him. The work of the Department has already had results valued at hundreds of millions of dollars annually and yet has barely crossed the threshold of its mission of discovery and education. Cooperating to the same ends are the experiments stations in every State and Territory, agricultural colleges, farmers' institutes, and many excellent agricultural publications and books.

Great Improvements in Farmer's Conditions.—Cotton planters are now out of their former bondage to future maintenance, and in the Middle West there has been a conversion of a million agricultural debtors, paying high rates of interest, into financially independent farmers, debt-free and offering their savings to the banks at as small a rate of interest as 2 per cent. Farmers are using their new capital to abolish the waste places of the land and along many lines of improved production. Formerly there was an abundace of farm labor and a scarcity of farm capital. Now these conditions are reversed; labor is scarce and capital abundant.

A new dignity has come to agriculture along with its economic strength, and for the abundance the Creator has enabled the farmer to supply, for the stability of the National agriculture, for the comforting prospect of a potent future, the people are ready to join in a day of reverent and joyous thanksgiving.

Department's Share in Promoting Prosperity.—It is no little gratification to the head of the Department of Agriculture in presenting this picture of the farmer's place in the economy of the country and picturing the possibilities of his future to realize that his department has had an important share in producing the farmer's present prosperity, and must, if intelligently and generously administered, play an important part in developing his future. With that reflection the Secretary proceeds to review in some detail the work of the various channels through which the department performs its functions.

Extension of the Weather Service.—The Weather Bureau has widely extended its fields of observation in the hope that a view of the atmospheric conditions prevailing over the great oceanic and continental areas will prove of especial value. Wireless telegraphy has made possible the adoption of a plan to communicate warnings to vessels at sea. The number of telephone subscribers receiving daily forcast has been increased to more than a million. Outside of Washington there are 105 stations issuing an aggregate of 25,000 weather maps daily, and the number of monthly climatological reports printed at 40 different section centers exceeds 30,000. At the Mount Weather Research Observatory a station of the first order has been maintained, and a number of improved instruments have been installed and made ready for systematic work. During the coming year about fifteen or twenty additional stations will be equipped with seismographs.

Broadening the Meat Inspection—The new meat-inspection law was passed by Congress June 30, 1906, and promises to correct the inadequacy of the laws under which the Department had to carry on the inspection. Even before the appearance of criticisms upon the insanitary conditions in the Chicago packing-houses, steps had been taken to investigate these matters, the Secretary having appointed a special committee of investigation. This committee's report was promptly transmitted to the President and afterwards laid by him before Congress. While prompt measures were taken to remedy the conditions disclosed by the report of this committee and that of the special committee appointed by the President, it was found that little could be done under the law then existing. With the greater authority now vested in the Secretary, and with a largely increased appropriation, the service will be greatly extended in scope and will include as rapidly as possible all establishments engaged in interstate or foreign commerce which come within the law. American live stock has long been considered the healthiest in the world. With our enlarged and improved inspection system the stamp of the Government will more than ever be a mark of wholesomeness. It must be remembered, however that while the department insists on inspecting the entire output of each establishment at which its inspection is maintained, the Federal inspection does not and can not reach establishments doing business exclusively within the State.

Export Animals Inspected.—During the fiscal year more than a millon in-

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HEAVIEST FENCE MADE
All No. 9 Steel Wire. Well galvanized. Weighs ¼ more than most fences. 15 to 35c per rod delivered. We send free sample for inspection and test. Write for fence book of 139 styles. The Brown Fence & Wire Co., Cleveland, Ohio.

Well Drills and Drillers' Supplies
The best on the market. Manufactured by
THATCHER & SONS, Stillwater, Oklahoma.
Write for circulars and prices.

BOWSHER SWEEP MILLS
Different from all others. Grind Corn with shucks or without. Kaffir in the head and all kinds small grain. 4 and 2 horsesizes. Geared 10 to 1 or 7 to 1. (Also make 7 sizes belt mills.)
C. N. P. Bowsher Co., South Bend, Ind.

FENCE STRONGEST MADE. Bull-strong chicken-tight. Sold to the Farmer at Wholesale Prices. Fully warranted. Catalog free
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$7.00 Daily Av. selling Only Pump Equalizers Make all pumps work Easy. Windmills run in slightest wind. Fits all Pumps. Merit sells them. Fully Warranted. Exclusive territory. Write Equalizer Mfg. Co., Waseca, Minn. Dept. 13

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THE LARGEST AND BEST LINE OF
WELL DRILLING MACHINERY in America. We have been making it for over 20 years. Do not buy until you see our new Illustrated Catalogue No. 41. Send for it now. It is FREE.
Austin Manufacturing Co., Chicago

$10.00 Sweep Feed Grinder. | $14.00 Galvanized Steel Wind Mill.
We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.
CURRIE WIND MILL CO., Topeka, Kansas.

OREGON VIEWS FREE
SEND US THREE NAMES and addresses of farmers who may move west, and we will send you book of Oregon views FREE.
OREGON DEVELOPMENT LEAGUE
DEPT. B, PORTLAND, OREGON
On request we will furnish authentic information as to farming opportunities in Oregon

Don't Eat Glucose.
Use our Percolator (the family size and with the simple use of granulated sugar and cold water, make the purest and best syrup in the world, at a much less cost than you are paying for glucose or corn syrup. Operation perfectly automatic. Syrup cannot sour or crystalize. No waste. Price $2.50. Write for full information.
Ever-Ready Syrup Percolator Co., 188 C. Monroe St. Chicago
Agents wanted.

COILED SPRING FENCE
Closely Woven. Can not Sag. Every wire and every twist is a brace to all other wires and twists full height of the fence. Horse-high, Bull-strong, Pig-tight. Every rod guaranteed.
30 DAYS FREE TRIAL and sold direct to farmer, freight prepaid, at lowest factory price. Our Catalogue tells how Wire is made—how it is galvanized—why some is good and some is bad. Its brimful of fence facts. You should have this information. Write for it today. Its Free.
KITSELMAN BROS., Box 61 MUNCIE, INDIANA.

STRENGTH
DURABILITY
ECONOMY
These are the characteristics of Page Fence. Strong because made of high carbon double strength Page Wire. Durable because it will spring and not break. Economical because it requires fewer posts, no repairs and lasts.
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spections were made before exportation, and over half a million animals were again inspected by American inspectors on arrival at British ports. Seven hundred and forty-nine inspections of vessels carrying export animals were made and the percentage of animals lost in transit was less than one-quarter of 1 per cent.

Prospect of Eradicating the Cattle-Tick.—The work for the control and eradication of contagious diseases of live stock has been attended with encouraging results. for years the cattle-tick, and the infection of Texas fever which it transmits has been an incubus to the live-stock industry of the South. The eradication of this pest is a large and difficult undertaking and will require several years for its accomplishment, but the department experts are confident that each year a portion of the infested area may be freed from the ticks and released from quarantine. The cooperation and support of State authorities and of the individual farmers in the infested section is essential to the success of this work.

Tuberculosis in Hogs.—The increasing frequency of tuberculosis in hogs, as observed in the meat-inspection service in recent years, led to experiments to determine the most probable source of infection of those animals, and the conclusion was reached that the most frequent causes of tuberculosis in hogs are found in the common practise of allowing these animals to follow cattle in the feed-lot and feeding them on skim-milk or separator refuse. This emphasizes anew the importance of every farmer keeping his herd free from tuberculosis.

Efforts to Secure a Vaccine for Hog-Cholera.—Successful results have attended experiments with a view to producing a vaccine which will prevent or cure hog-cholera. The method has been patented in such a manner as to insure to all the people in the United States a right to its use free from royalty.

Blackleg Vaccine Distributed.—The department continues to supply blackleg vaccine free of charge. During the year 1,350,915 doses were distributed. The losses among animals treated during the previous year were less than half of 1 per cent.

Breeding Animals.—The Secretary reports some important changes in the regulations regarding importation of animals for breeding purposes. Satisfactory progress is being made in the experiments in breeding heavy harness horses at the Colorado Experiment Station. A study of the pedigree records of Poland-China sows showed an increase in fecundity rather than a decrease. Investigations with a view to increasing the egg-laying capacity of poultry are being made in connection with the Maine Experiment Station.

Chemical and pathological studies are being made with a view to discovering the cause of the harmful effect of cotton-seed when fed to hogs.

Dairy Work.—The work of the Dairy Division has been considerably extended during the year, and results both valuable and practical have been obtained from investigations in the manufacture and cold storage of butter and cheese and the production and delivery of milk, while good work has been done toward developing the dairy industry in the South. In the administration of that portion of the law of May 9, 1902, which relates to renovated butter, the department has continued its supervision of the manufacture and sale of that article.

Introduction of Valuable Plants.—In the Bureau of Plant Industry the leading features of the work of the past year have been the cooperative demonstration work with farmers, fruit-growers and others under the careful supervision of department experts and the introduction of new crops of economic value. One of the most important achievements in this latter line is the discovery of the existence of a Siberian alfalfa, a plant native on the dry steppes of Siberia, where the mercury freezes without snow, thus proving the ability of the plant to withstand without protection a temperature of 40 degrees below zero. This discovery may mark an epoch in the agriculture of the northwest prairie regions of the United States. Among other valuable plants introduced are a vigorous alfalfa from Arabia, and the Tangier pea, which has yielded as high as nine tons of green feed per acre. With a view to increasing the matting industry, the department's explorers have secured living plants of the best foreign varieties of rushes. Experiments in the propagation of many seeds and plants introduced from foreign countries are being carried on at the Plant Introduction Garden at Chico, Cal.

Success with Introduced Plants.—Success is reported with the date palms in California and Arizona. Kharkof wheat, the hardiest winter wheat grown in this country, is now thoroughly established, and wherever it has been introduced the yield per acre is being increased by an average of five bushels. The durum-wheat crop is estimated at about fifty million bushels.

Plant Diseases.—The year has been an unusual one in the field of plant pathology. Serious outbreaks of disease kept the staff busy. Success is reported in controlling the pear blight. The efficacy of the method adopted for controlling the little peach disease has been successfully illustrated in Michigan. At the Mississippi Valley laboratory at St. Louis have been conducted investigations of many of the diseases affecting forest- and fruit-trees. At the subtropical laboratory at Miami, Fla., are conducted investigations of diseases affecting tropical and subtropical plants.

Grain Standardization.—The department holds that some system of standardization is necessary as a first step toward securing uniformity of grain grading. Congress at its last session authorized the establishment of laboratories with a view to eventually bringing about this standardization. Two laboratories have been established, one at Baltimore and the other at New Orleans, where a thorough study in the present system of grain grading will be made with a view to reaching methods which will make standardization possible.

Dry-Land Farming.—The Secretary voices a caution to the prospective settlers in the Great Plains area. While there are great agricultural possibilities in this region, farming there must be conducted along radically different lines from those in the more humid portions of the United States. In spite of recent abundant rainfall, conditions will doubtless soon resume their normal state, which is one of semiaridity.

Good Seed.—Much work has been done in the investigation of seed-adulteration, and in carrying on the campaign of education on behalf of good seed. Good results have attended work in securing high-grade strains of sugar-beet seed, and especially satisfactory results have been secured in the development of the sugar-beet seed containing a single germ, which will eliminate a considerable portion of the work of thinning.

Fruit Transportation.—Interesting and practical investigations in the methods of harvesting, packing, and storing fresh fruits have been continued throughout the year. Studies in fruit transportation have dealt chiefly with the transcontinental shipment of deciduous and citrus fruits of the Pacific Coast for the Eastern markets.

New Fruits and Plants.—The work of developing by breeding and selection of new types of various plants has been very successful during the past year. This includes new citrus fruits, new pineapple varieties, new early variety of cotton, and new kinds of corn. The tobacco-breeding experiments have proved especially successful, new sorts having already been planted by tobacco-growers and are giving excellent results. The tobacco-breeding experiments are being extended to the tobacco-producing areas of Kentucky, Ohio, and Virginia, with the promise of results as important as those in Connecticut and Florida.

Tea Experiments, Inoculation Tests, etc.—The Secretary reports the greatest yield in the history of the tea experiments—something over 12,000 pounds of dry tea. Many field tests in the inoculation of leguminous crops with nitrogen-fixing bacteria are under way on large farms. Farm-management investigations have been continued throughout the year along two principal lines—the study of farm practise and the demonstration of improved methods.

Special work on cotton, having for its object the meeting of ravages of the boll-veevil, has been coutinued. The cooperative work with farmers has been extended to Louisiana, Mississippi, and Arkansas.

Forest-Reserve Policy.—Great progress has been made in the practical application of a National forest-reserve policy. In area the reserves were increased during the year from 85,693,422 to 106,999,138 acres. In revenue, the reserves brought in $767,219.96, as against $60,142.62 for the preceding year. One fiscal year of full control under the Forest Service has established two facts, viz, that the reserves advance the present interests of the people of the West, and that they will speedily pay the cost of administering them. Through Government control the interests of the future are safeguarded without sacrificing those of the present. The reserves powerfully promote development, they work counter to the prosecution of no industry, and retard the beneficial use of no resource. The reserves do not withhold land from agricultural use, but greatly increase the amount of available farm land. The promotion of agriculture is one of the main ends of the forest-reserve policy. By guaranteeing future supplies of timber they are indispensable to the future development of mining. The sentiment of stockmen throughout the West is now united in favor of the forest-reserve system, because of the gain to them now that the reserve ranges are safe from overcrowding and deterioration. The Secretary especially commends the good will with which the associations of Western stockmen have cooperated with him. Finally, the reserves have proved beneficial alike to the lumber industry and to the timber-consuming public. The available merchantable timber is not locked up from present use, but it will not be disposed of under a short-sighted policy of utilization, which would leave a gap between the end of the present supply and the oncoming of a second crop. The administration of the reserves is now on a sound business basis. They meet from their receipts a large part of the cost of their maintenance and are even now beginning to show a decrease in net expense to the Government. In reaching these results no unjust burden has been laid on any interest. By making over to the several States in which they are situated 10 per cent of the gross receipts from the National reserves, for the benefit of counties which would otherwise receive no revenue from a part of their area, a real grievance was redressed. By this means they will contribute far more to the local public needs than they would pay in taxes if they were private property. Protection of the reserves from fire has been a most important task laid upon the Forest Service. It is cause for congratulation that the loss by fire during the year was slight, even by comparison with that of 1905. This favorable result is due to increased efficiency of the patrol system, combined with favorable climatic conditions. The important fact has been demonstrated that the Forest Service is able to substitute conservative for destructive use, while greatly increasing the use itself. The largest total of sales were, in board feet, seventy-three millions in South Dakota, seventy-one millions in Wyoming, and fifty-three millions in Montana. In South Dakota a special reason exists for pressing the sale of timber with energy. The ravages of a bark-beetle threaten the annihilation of the entire forest, and only by extensive cutting of infested trees can the spread of this pest be checked and the damaged timber utilized.

Aid to Private Owners of Forests.—The Forest Service continues to receive applications from private owners for aid in introducing forest management upon their holdings. In the wood-lot work, which assists the small owners, particularly farmers, special attention was given to the Middle West.

Extension of Forests.—The field of forest-planting in the United States broadens with every year. By far the most important part, however, is that of reserve planting. Of the 107,000,000 acres of forest reserves, vast areas are partly or wholly unforested. For planting on the reserves the Forest Service must raise its own material. Six stations are now established with an annual capacity of six million seedlings, yet to plant one square mile requires more than seven hundred thousand seedlings. To meet the needs of the reserve preparations for planting must be made on a vastly greater scale. However, much remains to be done;

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what has been done already demonstrates that success is within reach.

Work With Forest Products.—Careful experiments are under way to determine the most effective and economical methods of treating railroad-ties, telephone-poles, fence-posts, etc. Over twelve thousand tests of the strength of timber were made. New woods have been brought into use, and economy in the use of material has been promoted. The establishment of a special laboratory for this work at Washington is recommended.

Chemical Investigations.—The investigations of the Bureau of Chemistry included the examination of 800 samples of butter to see if they complied with the requirements of law relating to renovated butter. The effect of environment upon the content of sugar in Indian sweet corn was studied. It was found that within twenty-four hours after harvest, if exposed to ordinary temperatures, a very considerable percentage of the sugar had disappeared from the grains. An important investigation was begun upon the economic production of alcohol from various raw materials in relation to the production of denatured alcohol for industrial purposes. This work will prove of value to our farmers in developing new sources of income from the production of denatured alcohol. In the contracts laboratory examinations were made of materials furnished to the different departments of the Government under contract. Work was done for the following departments: War, Navy, Interior, Treasury, Postoffice, Commerce and Labor, Government Printing Office, and Agriculture. Five hundred and fifty-three samples of drugs were examined for purity and quality. As a result, a large number of fraud orders were issued by the Postoffice Department forbidding the use of the mails for such purposes. Thirty-nine samples of insecticides were investigated during the year, and 154 samples of cattle food were analyzed.

Improved Quality of Imported Foods.—During the year 5,749 samples of imported food products were examined. Of the 1,246 samples found not to comply with the law 531 were released without prejudice, there being no intent to defraud or deceive; 577 were admitted after being relabeled; and 138 were required to be reshipped beyond the jurisdiction of the United States. There has been a decided improvement in the quality of imported food products due to inspection.

Soil Surveys.—During the year the surveys of the Bureau of Soils have covered 19,341 square miles, or 12,370,240 acres, in 29 States and 2 Territories. In all, up to the end of the year, 251 surveys have been made in 43 States and 4 Territories, and the total area covered was 118,687 square miles, or very nearly seventy-six million acres. The opening of large areas for agricultural occupation has necessitated in several States a study of the existing soil types, in order that appropriate crops for production upon each might be determined. The introduction of new crops has been accomplished along lines suggested by the surveys. In the work of the survey, since its inception, 461 distinct types of soil have been encountered. The same crop is produced with the greatest diversity of success or failure upon a great variety of soils, to some of which it is well suited, while upon others it is annually produced at a loss. To reduce agriculture to a basis of permanent business success, the knowledge of these facts must be thoroughly disseminated. In addition to the broad subdivision of the country into a humid, an arid, and a semiarid region, there are at least thirteen grand divisions among the soils, which may be termed soil provinces. When the significance of the differences in these soils comes to be understood, the country will be able, by the introduction of new crops and by greater specialization in crop-production, to greatly increase the agricultural efficiency of every tilled acre. Each year brings an increasing number of requests for survey work, to serve a great diversity of interests. As the result there are always on file requests for many times the number of surveys that can be made during any one year.

Alkali Lands Reclaimed.—The progress of the work on the several alkali-reclamation tracts has been gratifying, as regards both the success of the experiments and the stimulating effects that these results have had upon private initiative. These tracts are located in Utah, California, Washington, Arizona, and Montana. The experience on these tracts demonstrates the wisdom of extending the work to other alkali districts.

Success of the Work With Tobacco.—Investigations for the improvement of tobacco in Texas, Alabama, Ohio, Virginia, and Connecticut are being continued. Satisfactory evidence has been secured that the tobacco produced in Texas meets the requirements of the trade as a high-class domestic filler. A ready market has been found for the filler leaf produced in Alabama, the product being similar in quality to the Texas and Florida leaf. The work of introducing the bulk method of fermentation in Ohio has been continued, and the method prescribed by the Bureau has been applied to over twenty-five million pounds. It has been demonstrated in Virginia that by the use of carefully selected fertilizers the profits in growing tobacco can be considerably increased, and the accumulative effects of fertilizer and cultural methods give highly significant results. In the Connecticut Valley the work of producing under shade a wrapper leaf having all the qualities demanded by the trade is being continued, in connection with the breeding experiments conducted by the Bureau of Plant Industry.

Work Against the Mexican Cotton-Boll-weevil.—The Entomologist reports encouraging progress in the work against the Mexican cotton-boll weevil among the cotton-planters who have followed the recommendations of his office. The continuation of the experimental farms in fourteen places in Texas has been found desirable, and two additional experimental farms are being carried on in Louisiana, the whole area under contract in these experiments being 877 acres. In the laboratory at Dallas, Texas, the effects of temperatures and food supply upon the development of the weevil were tested, and special study was made of a native ant which seems to be becoming more and more an important factor in the natural control of the weevil. Much attention is being paid to the parasite question. A field agent of the bureau was stationed at the Texas Agricultural College, devoting his attention to other insects affecting the cotton-plant.

Parasites of the Gipsy and Brown-tail Moths.—European parasites of the gipsy moth and brown-tail moth have been successfully introduced into this country. Several colonies of parasites were liberated in the open. In return for the services of official entomologists abroad in securing the introduction of beneficial insects into this country, the Bureau of Entomology has sought to render to its foreign colleagues similar service. It has been done in several cases successfully.

Insects damaging Forests.—Investigations of insects damaging forests have progressed in a satisfactory manner, in cooperation with the Forest Service, resulting in the accumulation of a large store of general information upon forest insects.

Other Insect Studies.—Investigations of the insect enemies of deciduous fruit have been carried on at field stations in New York, Georgia, Pennsylvania, and Nebraska. Especial investigations have been made on the Hessian fly in the spring-wheat regions, and the work on insects affecting vegetable-crops and stored products has been continued. Records have been brought together on the life histories and geographic distribution of the majority of mosquitoes inhabiting North and Central America and the West Indies. A publication has been issued calling attention to the tendency of the house fly to spread the typhoid fever and urging the adoption of methods for its control. In bee-culture a large number of queen bees of different varieties were reared and distributed by the department, and studies of bee diseases and on the subject of honey-producing plants have been carried on.

Efforts to Keep Wolves and Rodents in Check.—The observations of the bureau of Biological Survey show that the losses inflicted upon the agricultural and stock-raising districts of the United States by noxious animals amount annually to many millions of dollars, the most serious offenders being wolves and rodents. In the hope of finding a remedy for these pests, experiments have been made with epidemic diseases, such as, in the course of nature, break out at intervals and suffice to reduce the numbers of such animals below the danger point. The subject is one of large possibilities, and time and money will be well spent if effective methods are found to enable the farmer to rid his crops of rodent pests. Cooperative effort between the Biological Survey and the Forest Service has been undertaken with a view of reducing the number of wolves on the stock ranges and on the game and forest reserves.

Birds, Beneficial and Harmful.—Encouraging results have attended inves-

(Continued on page 1302.)

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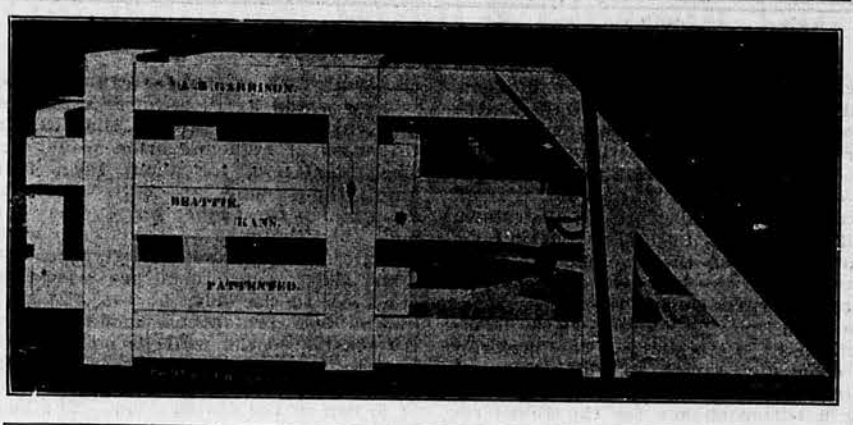

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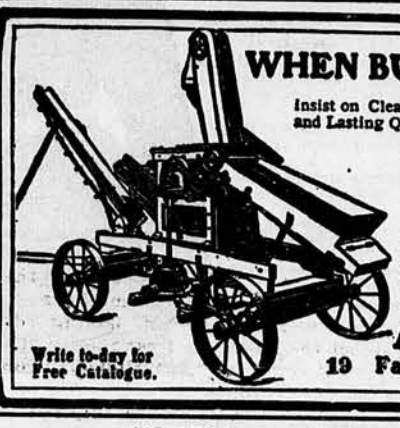

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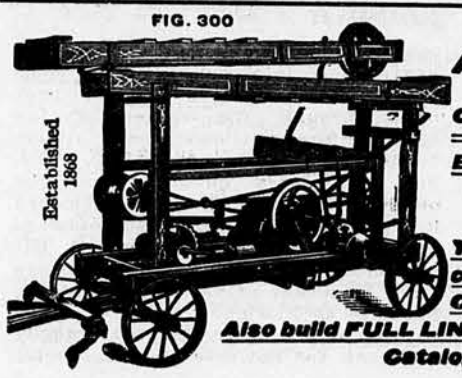
FIG. 300



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Miscellany

RUSSIA BEHIND THE VEIL.

BY ONE WHO WAS THERE.

II

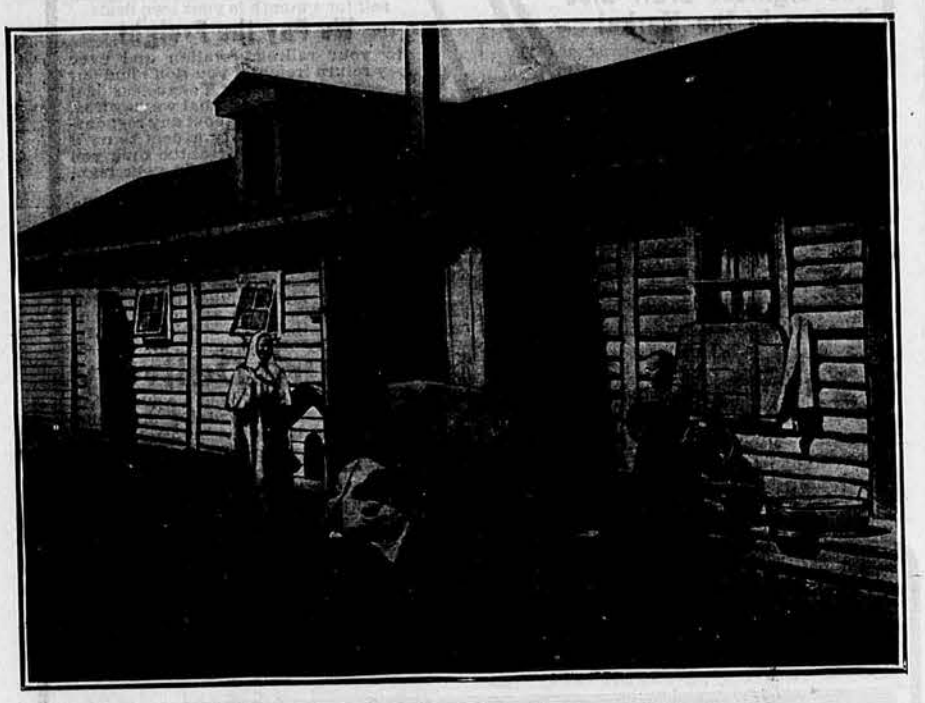
A NOBLE'S ESTATE AND HOW ITS AFFAIRS ARE MANAGED.

Nearly every Russian, whether a more or less permanent resident in a town, or living altogether in the country, is either a landowner or has some family interest in land. Of the Russian nobles no fewer than 114,716 are landed proprietors. Recent statistics show that among the classes regarded as distinctly "urban," merchants are proprietors of 26,460,000 acres, and professional men, "citizens," etc., possess 5,400,000 acres. Besides these, nearly all the lower classes are landowners. Most Russian workmen, even in the towns, were originally peasants, and, in fact, a very large proportion of them still are for the summer half of the year. Each has his peasant holding, perhaps in some distant locality, which the law will not permit him to sell or be deprived of; and when work is slack in town he goes back to his little farm and his family in his native village. The exodus of the hackmen, for instance, from the cities in the spring is notably large. During the winter there are some times as many as 20,000 hackmen in St. Petersburg. The majority of them own farms, to which they repair when the snow disappears, leaving a better chance for the Jehus remaining to make a living during the summer months. The prosperous tradesman and his sleek assistants, even the wealthy and highly educated bauher, are almost certainly landowners somewhere in Russia, and very probably they are peasants, too, but they do not like to admit this to strangers. The very last thing the average educated Russian desires his foreign friends to know anything about is his connection with country life, and the highly important part it plays in his existence. He will talk freely of art, literature, society, politics, and the latest court pageant, but of matters concerning his estate in the country—which, if he be not rich enough to enjoy the luxury of absenteeism, must occupy more than half his life—he will generally profess a lordly ignorance.

No contrast could well be greater than that presented by the life of the typical Russian noble in town and his normal existence upon his estate in the country, and nothing could show more strikingly the versatility of the Slavonic character than his ready adaptability to either mode of life. No sooner has he quitted the nearest railway station, and completed the long and wearisome journey of often a hundred miles by road that has brought him to his home, than the man himself seems to be transformed—he has again become a boyard, like his father before him. Most probably a group of peasants will be waiting to welcome him and kiss his hands, and the older ones his feet, just as they would have done in the days of serfdom. Let us look into the country life of this landed proprietor and see of what his estate consists and how its affairs are conducted.

FARMHOUSES OF RUSSIA.

There are few picturesque old ruins in rural Russia. It is the newest of European countries, and rarely indeed can evidence be found of the life of even a hundred years ago, and so far as that offered by buildings is concerned, one might believe that rural Russia had no past. Over almost the whole of the country districts, wherever timber is obtainable, wood alone is employed in the construction of nearly every kind of building. The average life of a wooden building rarely exceeds sixty or seventy years in the Russian climate. A farmhouse usually has a ground floor only. The walls are formed of square beams from a foot to eighteen inches thick, laid horizontally one upon the other, the end of each being skilfully dove-tailed into that of the adjoining one at the corners—much like our Western log houses. The interstices are calked with sun-dried moss saturated with pitch, and the whole is then covered with a sheathing of planks on the inside as well as the outside of the walls. When painted outside, and plastered within, the walls are as impenetrable to the wintry winds as those of a ship, and far warmer than several times their thickness of stone or brick would be. The foundation, for about three feet above the ground, are built of stone, upon which the timber rests. The roof may be thatched or covered with shingles. The rooms are lofty, and the wide attics over them are used for storage. In the older houses, and also in the less pretentious modern ones, the plaster on the walls is merely colored by a wash of rose, green, or blue in the drawing room and some shade of brown in the dining room. The bed rooms, which are generally numerous, usually open into each other, but communicate also with a corridor running through the center of the house. The windows are always double, one pair of sashes opening like doors outward, and the other pair (which are removed in summer) inward. The outward pair of sashes are never opened, but are hermetically sealed. The rooms are aired by means of vasitas—one of the panes in each window being arranged to open like a door. These are amply sufficient, for however clear the outer air in winter may be, the moment the cold current rushes through the opened vasitas into the room it instantly freezes all the moisture in the warm air it meets with, and deposits little heaps of snow and hoar-frost on the furniture.



A Russian Farm Scene.

RUSSIAN STOVES.

The Russian stoves are monumental constructions of fire-brick, covered with ornamental tiles, and reach nearly to the ceiling. The lower part contains a chamber about three feet in length and a little more than half as much in depth and height. The stoves are generally placed in the wall between two rooms. When filled with wood and lighted, the flames rush upward to the top of the stove and then descend usually two or three times, until at length the fumes and gases, which have transmitted nearly all their heat to the stove itself, pass into the chimney and escape. When the wood is burned out, in about half an hour, the whole mass of fire-brick, often weighing two or three tons, is too hot to touch with the hand, and for more than twenty-four hours radiates a steady degree of heat, amply sufficient to warm two rooms. In the large country houses there are often ten or fifteen such stoves.

SOCIAL RANK AMONG THE LOWER CLASSES.

Under the house there is a cellar, which is divided into various compartments for the storage of the winter supply of vegetables, salted meats and fish, preserved fruits, oils, cheese, flour and other foodstuffs. The stock must be large on a nobleman's estate, for it must last for six months, and there may be not fewer than fifty or sixty or a hundred mouths to feed. A corridor leads from the underground storeroom to the winter kitchen, which is partially below the surface. The summer kitchen is a separate building. Both are paved with brick. There are usually two servants' dining rooms, and in many parts of Russia three, one of which is always in the house. The others are built outside. The necessity for these separate dining rooms is due to the rigid insistence of the peasantry and the lower classes upon a strict observance of differences in social rank. The first-class dining room is reserved for the superior house servants, including possibly the housekeeper, though she and the heads of one or two departments in the farm often represent a fourth section. The other servants and working people, who had never been serfs, take their meals in the second-class dining room outside. The third-class dining room is intended for ordinary peasants, ex-serfs, working on the farm. Notwithstanding these accommodations, the meals have sometimes to be served successively, to avoid wounding the susceptibilities of some other class division. The most respectable Jewish citizens or even tradsmen could not eat with Christians, and in many localities there are communities of dissenters from the orthodox church who refuse to take a meal with others of a differet faith.

A St. Petersburg Hackman.

The farm buildings and izbas, or peasants' huts, on a nobleman's estate, are straw-thatched, timber-built cottages, containing generally three rooms. One is the store-room, filled with tools and agricultural implements. The other two are the kitchen and sleeping room. The stove is arranged to warm both these rooms in winter. The roof is low, black with smoke, and there is generally an earthen floor. The furniture consists of a few stools, benches, boxes, and a table. In the sleeping

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YOUNG MEN WANTED
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room there are often only long, wide platforms, placed near the stove, upon which the beds are laid.

Among the out-buildings is usually a dairy and little houses in which fruit and vegetables are dried or preserved, and other buildings for various purposes, besides the stables and barns. The Russian well is a picturesque object. The water is raised by means of a long pole, with a heavy pole or sack of sand attached as a counterpoise, working like a lever, exactly on the same principle as is employed in Egypt.

SIZE OF AN ESTATE.

The average size of a nobleman's estate varies from fifteen to twenty thousand acres in the north—where, however, a large part would be forest and waste land—to from three to four thousand in the steppe region. Far larger estates exist, but we will pre-

Peasants of Southern Russia.

sume that the one being described has an area of about ten thousand acres. Of this about half consists of forest and waste land, one thousand acres is retained by the proprietor, and the remainder is cultivated under conditions that will introduce to us some very curious phases of Russian life. Very frequently villages and peasant lands will be found in the center of a large estate, and the peasant holdings thus stretching across in all directions often hamper its successful administration. The reason for this is that before the emancipation villages had been built and land given to the serfs for their support in any spot that was suited to the requirements of the landowner at the time. The peasants were his own property, and could be shifted about on the estate as he pleased, or sold to another landowner if they increased too fast. At the emancipation, however, the village and peasant lands became the inalienable property of the ex-serfs, and often these holdings were very considerably increased in size. In many cases the land thus taken from the landowner amounted to a quarter or even half the portion of the estate that was capable of cultivation. These peasants lands, that must be constantly passed through to reach another part of the estate, are easily recognizable. As the families increase the holdings of each became smaller and smaller by constant subdivision; and as certain crops must in any case be grown on each, they are planted in strips across the holding like a long ribbon, often but a few feet in width. The peasant rarely sells any of his produce, and as a rule only plants what he needs for his family use—rye, cabbages, potatoes, and as much flax as he can find space for. His izba provides him with shelter, and if only his holding can supply his family with food and flax for his home-spun clothing, he is fortunate indeed. The deficit can be made up only by working on the landowner's estate.

CORPORATIVE SYSTEM BETWEEN LANDOWNER AND PEASANT.

Few landowners are rich enough to hire laborers at regular wages, though they could be hired for from sixteen to twenty-four cents, without food, for a sixteen or eighteen-hour day's work. There exists a cooperative system which is more advantageous to both sides. Arrangements are made in winter with groups of peasants who form associations called artels by which they undertake to carry out certain agricultural work for the landlord during the ensuing year, receiving a share of the proceeds in kind instead of wages. Several such groups of peasants will undertake, for instance, to plow so many acres of land, bringing their own horses and home-made implements with them. The landlord supplies them with seed and manure, and when the grain is ripe, the contract is completed by the harvest labor and the carting of the corn, cabbages, potatoes, and other field-crops to the owner's barns. When the harvesting is over, the peasants collect the crops into a number of stacks or heaps, as nearly as possible of the same size, and the landowner or his agent then selects which of them shall form his share of the cooperative partnership, the proportion being generally about two-thirds for the landowner and one-third for the peasants. This proportion, however, varies according to the quality of the land. The terms of the contract with the landowner are not always the same, but the general principle is that the tenant provides the labor and the ordinary farm implements, while the proprietor contributes the land and buildings and pays the taxes. The landlord also generally pays the cost of insuring the buildings on the estate against fire, and a portion of the insurance of the farm stock. There is no fixed rule, for the live-stock is sometimes provided entirely by the landlord, and sometimes partly by him and partly by the farmer.

Another form of profit-sharing must be mentioned. On most large estates in Russia there is a considerable portion of waste land. To bring this into cultivation the landowner frequently makes a contract for several years with an artel of peasants, to whom he gives permission to cultivate a certain number of acres rent free for four or five years, also supplying them with seed-corn, potatoes, and sometimes manure. For the first four or five years the artel retains the whole of the harvest for its trouble, but after that date, as the land improves in value, it hands over every year an increasing proportion of the harvest to the landlord. When fully reclaimed, the land is disposed of like any other portion of the estate.

(To be continued.)

For Mothers.

Don't worry the children.

Don't indulge them foolishly.

Don't repel their little confidences.

Don't show the slightest favoritism.

Don't lose your temper with the children.

Don't get impatient at their most unanswerable questions.

Don't give way when you have decided on any plan for them.

Don't forget that they are God's children, lent to you for a season.

Don't forget to encourage them and praise their little efforts to please you.

Don't worry about them. Guardian angels still exist, even in the twentieth century.

Don't disagree about them. Their father and mother should always be in unison in their training.

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ENTERPRISE Sausage Stuffer

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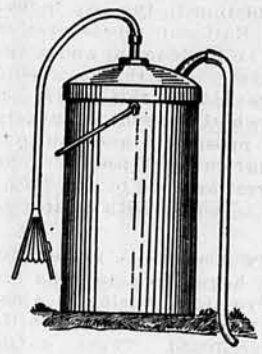
References—The Editor of this paper.



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Annual Report of the Secretary of Agriculture.

(Continued from page 1299.)

tigations in the Texas cotton district in reference to birds that feed on the cotton-boll weevil. Twenty-eight species of birds have been found to be more or less enemies to the insect. In California a study is being made of birds that live near orchards, in order that the fruit-grower may discriminate between friends and foes.

Large Numbers of Mammals and Birds Imported.—Since 1900 the Department of Agriculture has supervised the importation of all live birds and mammals into the United States. The number thus entered during the year was 654 mammals, nearly 275,000 canaries, and 47,256 miscellaneous birds. Many of the birds belong to several foreign game-bird species, imported for the stocking of covers.

Game Protection.—Close surveillance of the interstate traffic in game has brought the situation in the Middle West under partial control, and during the coming year attention will be centered on the Southwest, where a systematic violation of the law is frequent. The Secretary favors the setting aside of certain regions containing important colonies of breeding birds as "refuges." Several countries have followed this plan with great success. Already several such refuges have been established in the United States, viz, in Florida, Louisiana, North Dakota, and Michigan. These reservations contain large colonies of water birds, and, at the suggestion of this department, Congress passed an act, approved June 29, 1906, providing a penalty for trespass on the birds and game reservations. The preservation of the game of Alaska presents a difficult problem. In the absence of satisfactory game laws, the department can only seek to prevent the export of hides and skins by trophy hunters and dealers in hides.

Increase in Department Publications.—The work of publication continues inevitably to increase with the growth of the department. The total number of publications issued in 1906 was 1,171, aggregating nearly thirteen and one-half million copies; of these, more than six and one-half million copies were Farmers' Bulletins. The number of these bulletins distributed during the year on Congressional orders aggregated 5, 279,476. The increased demand for the publications of this department has been so rapid as to compel the virtual abandonment of gratuitous distribution of all save Farmers' Bulletins and Circulars. The sale of Government publications, especially of this department, by the Superintendent of Documents, continues to grow; out of a total of 75,828 Government publications sold during the year, 47,745 were publications of the Department of Agriculture. The Superintendent of Documents has also, under the law authorizing him to do so, reprinted, with the approval of the head of this department, forty-three department publications, in order to satisfy the continued requests of purchasers. Under this law these reprints are paid for from moneys received by the Superintendent of Documents from the sale of the publications of this department. A great demand exists for the department publications for use by educational institutions as text-books. An effort has been made hitherto to supply all such requests, but, as they involve supplying whole classes of students, it takes a large number of publications to satisfy this demand. In many cases the number desired is so great that the parties themselves desire the privilege of purchasing hundreds and sometimes thousands of copies. The Secretary recommends some modification of the law, facilitating such purchase.

Crop Reports and Statistics of Foreign Trade.—In the Bureau of Statistics the domestic crop-report work has been greatly broadened, twenty-five crops not previously reported by the bureau having been added. The special field service of the bureau, as well as the corps of State statistical agents, has been considerably strengthened. The methods adopted to prevent a possibility of information regarding these reports being given out prematurely have been found fully adequate. Investigations conducted by the Division of Foreign Markets have included the world's meat trade, the comparative healthfulness of meat animals in various countries, cotton production of the world, etc. One agent of the Bureau of Statistics is maintained in London, from which point he visits different European countries, collecting information regarding the crops, conditions, and yields. These have been reported to Washington each month for publication in the Crop Reporter.

Growth of the Department Library.—The collection of scientific books, periodicals, and pamphlets now in the department library numbers over ninety-two thousand. The library has probably the most complete collection of agricultural literature in the country. The additions during the year numbered five thousand. Cooperation with the Library of Congress and other institutions has enabled this library to secure a larger number of printed cards for its catalogue than ever before. The library is found indispensable in connection with the work of the department and is moreover of great service to visiting specialists and to many of the agricultural colleges and experiment stations, to which temporary loans of publications not found elsewhere have been made.

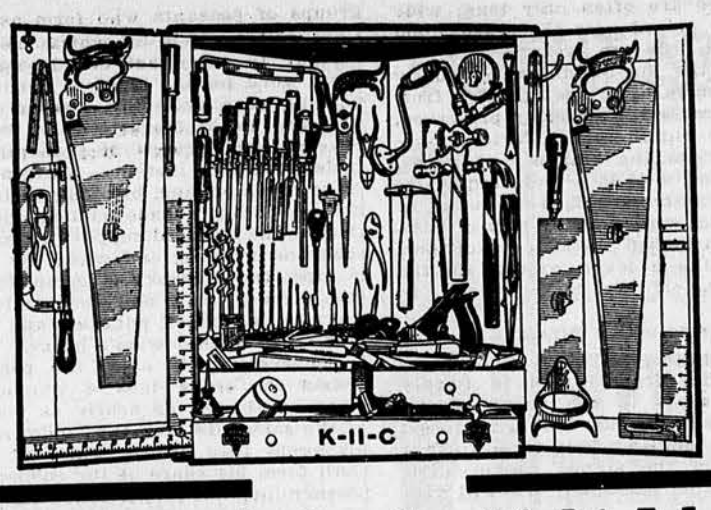
Increased Appropriation for Experiment Stations.—Recognition by Congress of the great value of the experiment stations as agencies of agricultural advancement through scientific research is reported by the Secretary as manifested by the passage of the Adams act, under which the present appropriation of each experiment station, under the Hatch act, will shortly be doubled. In this connection he pays tribute to the late Henry C. Adams, of Wisconsin, the author of this act. He states that the untimely death of Mr. Adams has taken away one of the foremost men in the cause of agricultural progress in this country, and concludes with the assertion that the name of Representative Adams, of Wisconsin, will ever be linked with that of Senator Morrill, of Vermont, and of Representative Hatch, of Missouri, as the author of a measure of fundamental and permanent importance to the institutions which advance and disseminate the knowledge on which our agricultural progress and permanent possibilities largely depend.

Department's Work for Agricultural Education.—The work of the department relating to agricultural education has broadened till now it touches nearly every phase of the subject. The general interests of higher education in agriculture have been promoted through cooperation with the agricultural experiment stations and colleges. Several ways in which the department should aid the cause of agricultural education are breifly summarized. Among these the Secretary strongly urges the establishment of agricultural high schools in the several States to do for agricultural industry what has already been largely done for the promotion of instruction in the city industries. As the National representative of agricultural enlightenment and progress, the department, he thinks, should render effective aid in this work, on the success of which depends so largely the permanent prosperity and continuance of our agricultural people. The continued interest aroused by the farmers' institutes is noted with gratification.

Live Stock in Alaska.—A systematic effort has been begun to determine the feasibility of live-stock raising in Alaska. A small herd of Galloway cattle has been introduced. These cattle have subsisted during the summer upon the native grasses, and a considerable supply of grain hay has been grown to maintain them through the winter.

Experiment Station Work in Hawaii and Porto Rico.—Good work has been done at the Hawaii Station toward diversifying the agricultural industries of the islands. This year fully 200 acres of tobacco have been planted. Investigations have been begun looking toward the rehabilitation of the rice industry. In Porto Rico coffee experiments give promising results. An increased yield has resulted from improved methods of cultivation. The Porto Ricans are large consumers of rice, most of which is now imported, and experiments on the suitability of the country for rice-growing are being conducted.

Nutrition Experiments.—Experiments in nutrition continued at the California Experiment Station furnish evidence of the immense amount of nutritive material which may be supplied in very digestible form in nuts and fruits. In Maine and Minnesota studies on cereal breakfast foods have been undertaken in connection with the experiment stations. These foods have been found generally nutritious and reasonably economical. Methods of cooking meat have been studied at the University of Illinois, and investigations on the digestibility and nutritive value of cheese at Middletown, Conn., have shown that cheese is very fully assimilated and not productive of digestive disturbances—as many suppose. Extended use has been made of the nutrition publications as text-books in the colleges and agricultural institutions throughout the



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We want YOU to send us the name and addresses of from ten to twenty-five farmers living in the United States, having a few head of stock (cows, horses, pigs). You can send us the names from any number of different post-offices. If you will send us these names we will send you TWO BEAUTIFUL COLORED PICTURES FREE. These pictures are reproductions of the most celebrated paintings in the world, and they are of high quality, and we know that you will be pleased and delighted with them; no picture will be given for a list of less than ten farmers.

We want to send a sample copy of the RURAL HOME to a lot of farmers who are not now taking our paper, and for that reason we want these names.

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country, satisfactory text-books on this subject not having been hitherto available.

Instruction in Right Methods of Irrigation.—Through the Office of Experiment Stations, irrigation experts have been detailed to work out and introduce the right methods of irrigation, and to give practical advice to beginners in irrigation in sections where it has been introduced. Wherever this educational work was begun there has been marked appreciation of its value. Requests for aid of this kind have been numerous, and the number of men engaged in this work should be increased. The most practical manner of carrying on this work is through the establishment of farms where the best methods are worked out and their results demonstrated. Such a farm should be established as an object lesson on each reclamation area. Five irrigation-extension stations have been located in the semiarid belt during the year. At these stations it is expected to work out and demonstrate the methods and practices in utilizing limited water supplies in irrigating from one to ten acres of land. Provision for such irrigation would enable the farmer to plant trees for shade and to have a limited area of high-priced products, vegetables for his family, and forage for the cows and horses.

Drainage Work.—During the past year the department has carried on extended drainage investigations in some of the irrigated districts in Utah, Washington, Nebraska, and California, this work being paid for in part by State appropriations. The drainage of swamp lands in humid parts of the United States will result in extending or improving agriculture over an area equal to the States of Illinois, Indiana, and Ohio. This makes farm drainage a matter of National importance. During the past year the Office of Experiment Stations has aided State officials and others in making surveys and inspections to determine the feasibility of large drainage projects and the proper plans for the work. These survey investigations have been carried on in 31 of the 46 States.

Object-Lesson Roads Built.—Throughout the country, especially in rural districts, the demand for information as to the best methods of road construction is steadily growing, where people are willing to expend money on mending their highways. Owing to inexperience and lack of organization, money is frequently wasted. In some counties well able to support a system of good roads, little work is done owing to lack of knowledge. It is in just such cases that the work of the Office of Public Roads is proving of signal value. The department does not undertake the construction of roads, which can be and should be the work of counties within the States, but the educational value of employing experts in the construction of sections of improved roads in different parts of the country has been fully demonstrated. Expert advice on road construction has been given and experimental field work carried on, and, wherever possible, object-lesson roads are being constructed for the purpose of illustrating the best methods of road-building. The local authorities furnish material, common labor, teams, and fuel, the Office of Public Roads supplying supervising engineers and in some cases part or all of the machinery. During the past year 17 roads were built in 11 States, representing a wide diversity in character of construction and kinds of material used. Much has been done by the office in developing the use of sand clay and burnt clay for roads in areas of the country where no stone is available.

Tar and Oil on Roads.—During the past year methods of rendering roads dustless have been investigated. Tests were also made with Texas oil and its effect on earth and macadam roads. After more than seven months tarred roads were found in excellent condition.

Recruits from Engineering Schools.—In order to recruit the number of engineers necessary to the success of the work, graduates were appointed from civil engineering schools to the position of civil engineering student. Out of nine such students, three have received permanent appointments.

A number of schools and colleges have, within recent years, established summer schools in road building.

Studies of Road Materials.—During the year 384 samples were received at the road laboratory for routine tests, of which 273 were samples of rock intended for macadam road-building. Studies of the decomposition of various kinds of rock under the action of water, undertaken to determine reasons for the quality of binding power in macadam road materials, has brought to light some interesting facts. It has been found that by mixing certain rocks of inferior binding power on the surface of the road a much higher binding power results.

Cement Concrete.—The scarcity of timber in many sections not only for construction work, but for fence-posts, has led in recent years to a more general use of concrete, admirably adapted for farm purposes, and the Office of Public Roads has been instrumental in giving information concerning cement, the mixing of concrete, etc. The information is conveyed to the farmers that unless special forms and devices of reinforcement were employed which were distictly patentable no rights were infringed by the use of concrete with plain metal reinforcement.

Advice in Improving Rural Mail Roads.—Cooperation with the Postoffice Department has been begun, in order to facilitate rural delivery by improvement of country roads. The plan approved by the Secretary of Agriculture and the Postmaster General, provides that when a road upon which a rural route has been or is about to be established is reported by the carrier or inspector to be impassable or in bad repair, the Office of Public Roads shall be at once advised of the fact through the postoffice, and an engineer inspector will be detailed to examine the road and give necessary advice to the local officials.

Growing Need for the New Building.—In regard to the new building, the Secretary reports that, in view of the necessity for making arrangements for future requirements, it was concluded to erect two segments of a building, readily adapted to extension, to be used primarily for laboratory work and to provide fireproof quarters for the library. He regards the progress made in these buildings as justifying the expectation that the same will be completed within the contract time, namely, November 14, 1907, and within the $1,500,000 authorized by Congress. The estimate of the growth of the department, made at the time this appropriation was approved, has been greatly exceeded. During this period, approximately three and a half years, the increase in the number of employes in Washington, exclusive of the Weather Bureau, was from 1,037 to 1,483. Moreover, the space required to accommodate this force has increased from 138,000 to approximately 264,000 square feet. Furthermore, the rentals paid from the department's appropriations have increased from $21,700 to $54,408.96.

Estimates for Coming Year Conservative.—The report concludes with the declaration that the estimates for the ensuing year have been most conservatively prepared, based upon the lines of work imposed upon the department by Congress, and they are therefore earnestly commended to the favorable consideration of that body.

Why Johnnie Saved His Pennies.

A penny saved was more than a penny made, according to Johnnie's figuring. "If I spend a penny, I lose one penny. If I save a penny, I am ahead one penny. One penny I didn't lose, plus one penny I saved, equals two pennies made," he reasoned.

No one in the family knew why Johnnie saved his pennies so systematically. Early in the summer he began by taking out weeds in the front yard, receiving a few cents a basket from his father. Then came potato bugs that must be kept out of the garden patch. These commanded two cents a dozen. As fall came around, Johnnie found it worth while to make kindling of the woodpile. Shows had come and gone, but Johnnie didn't let them entice any pennies from his bank.

One fall day the expressman arrived, and the mystery of the pennies was solved when Johnnie proudly unwrapped a glistening rifle that he had bought with his savings.

His father complimented him on his thrift, self-denial, and management. But the greatest factor in developing Johnnie's character was yet to come. Decision, quickness of eye, and self-reliance came from the days he spent in the field with his rifle.

In keeping with the spirit of this story is the campaign being made by the J. Stevens Arms & Tool Co., of Chicopee Falls, Mass., to make parents realize the great benefits that will come from firearms placed in the hands of growing boys and girls.

They have issued a 140-page free catalogue containing much of interest to every parent as well as lovers of a gun. Ammunition, sights, and the care and selection of firearms are interestingly discussed. We understand the catalogue is sent free to any one sending a couple of two-cent stamps to cover postage.

For Twenty-Five Years a Matchless Cure for Spavin.

Wiarton, Ont., February 1, 1906.
Dr. B. J. Kendall Co.

Gentlemen:—**During the last twenty-five years I have scarcely been without your matchless liniment,** "Kendall's Spavin Cure," and have used it successfully in the cure of spavins and many ills on human flesh in our family, particularly in rheumatic afflictions and can not think of trying to get along without it. Very respectfully,

T. SCOTT.

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SPECIAL OFFER NO. 1.

The Greatest Magazine Bargain of the year. A saving of 40 per cent on the best you can buy.

Review of Reviews	$3.00
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Our Price Only $3.75.

SPECIAL OFFER NO. 2.

Another great offer which includes Country Life in America, the most beautiful magazine published.

Country Life in America	$4.00
The Garden Magazine	1.00
McClure's Magazine	1.00
The Kansas Farmer	1.00
Regular Price	$7 00

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SPECIAL OFFER NO. 3.

A splendid household magazine of special interest to the ladies is The American Queen.

The American Queen	$1.00
The Kansas Farmer	1.00
Cosmopolitan Magazine	1.00
Regular Price	$3.00

Our Price Only $1.60.

Pearson's Magazine, National Magazine, American Boy or Physical Culture Magazine may be substituted for the Cosmopolitan Magazine in this offer.

OUR GREAT OFFER ON DAILIES.

The Kansas Farmer one year and any one of the following dailies for the price of the daily alone:

Topeka Daily Capital	$4.00
Topeka Daily State Journal	3.65
Topeka Daily Herald	3.65
Kansas City Daily Journal	4.00
Kansas City Daily Star and Times	7.00
Kansas City Daily World	2.00

Our Clubbing Offers on Weeklies Cannot Be Excelled

The Kansas Farmer one year and any one of the following weeklies for the price named below:

Breeders Gazette	$2.00
Scientific American	4.00
The Commoner	1.50
Hoard's Dairyman	1.50
Inter-Ocean	1.00
New York Tribune & Farmer	1.00
Western Swine Breeder	1.00
American Swine Herd	1.00
The Helpful Hen	1.00

A BOOK FOR EVERYBODY.

The Kansas Farmer has just bought a number of The Busy Man's Friend for its subscribers. This is a book of 250 pages of things that every one should know. It is a compendium of Legal and Business Forms. A Fund of Practical Information for Every-day Life. It contains the Busy Man's Code; The Hows of Business; Points of Law and Legal Forms; Digest of Laws; Practical Information for Busy Men; The Busy Man's Digest of Facts; Computations at Sight. The book is illustrated and bound in cloth. Any old subscriber who will send us $1 for two new subscriptions will receive this book, postpaid, as a present. This offer is good as long as the books last. Order early and get "The Busy Man's Friend" absolutely free.

—ADDRESS—

The Kansas Farmer Co.,
TOPEKA, KANS.

Home Departments

CONDUCTED BY RUTH COWGILL.

The Little Mother.

She is a little woman quite;
But few know such another
To cherish comfort and delight
As she, the little mother.

Though fifty years upon her weigh,
She stands erect and cheery,
Her look is open as the day,
Her spirit never weary.

Whenever through the house she goes,
There goes a subtle essence
From which continual comfort flows
To all within her presence.

Our love and reverence keep her fair;
And, through their magic simple,
A halo crowns her silver hair,
Each wrinkle grows a dimple.

Before her there the work-box lies,
Where armed with golden thimble,
Her hand so oft the needle plies
With stitches true and nimble.

She sees it not, nor aught around;
The present from her banished.
Her memory springs with sudden bound
To days and scenes long vanished.

Her heart goes back to other days,
And seeks the moments olden
When blossoms spread within her ways,
And skies were always golden.

She sees the scenes of later years,
The pure domestic pleasures,
And partly blinded by her tears,
Her darling, living treasures.

The words of love that thrilled her heart,
Again she hears them spoken;
The solemn vow—"till death doth part"—
Kept sacredly unbroken.

The cooing of her baby boys;
Her little daughter singing;
The thousand dear, familiar joys
From memory's store-house bringing.

She sees amid the long gone past,
Even the woes and crosses,
But blurred by time, until at last
She does not deem them losses.

And then before the present flies,
The days of former gladness;
Emotion fills again her eyes
With tears, but not of sadness.

For o'er her bend her stalwart sons
In stature so above her;
Proud is she of those precious ones,
And happy that they love her;

Her husband stands her chair beside,
With glances kind and tender—
What ill or harm can now betide,
When such as these defend her?

She is a little woman quite;
But their experience teaches
Exactly to their heart in height
The little mother reaches.

She reaches there, and there she grows,
And there, as they caress her,
A stream of feeling through them flows—
The little mother—bless her!

—Thomas Dunn English.

The Greatest Thing.

Drummond's little book on love ought to be perused often to remind one of this attribute, for it seems sometimes as though selfish greed will crush out the meek and gentle spirit; as though in the battle for bread, it will be put to flight. It is indeed the greatest thing in life, and without it we are like "sounding brass and tinkling cymbal." Love is humble, unselfish, gentle, and mindful of the rights of others. It is not easily offended and it puts the best construction on the words and actions of others; it finds the best there is in humanity and shuts its eyes to the faults. Love is always glad for the happiness and well-being of others, and is ever ready to lift the burdens of the overburdened. Love never scoffs, never gossips, and is sorry for the misfortunes of another, even though they are the result of his own misdoing. Love is an optimist; it "believeth all things, hopeth all things, and rejoices in the truth." This is the love that is the "greatest thing in the world."

I did not start out to write a dissertation on this subject, but was thinking of it in connection with the training of the young. It is sad to look upon the pinched features and frail form of a half-nourished child, but it is sadder still to see in the eyes the longing for affection and, still worse, look upon the hardened, defiant expression which plainly says, "There is no such thing as love." Children are naturally affectionate and respond readily to any act of love. They love to be loved, and it is easier to love a child into the right kind than to force him. Love softens his nature and calls forth the best instincts. Love is as natural to him as is the perfume to the pink, but it can be crushed until it is undiscernable. Parents, in training your boys and girls, do not neglect to cultivate their affection. Cherish every demonstration of love, and if there is a seeming lack of it, give special attention to its cultivation. Surround them with an atmosphere of love, and make them feel that whatever you do for them is because you love them. Children feel its absence greatly and long for the demonstration of it. This is not true of girls only, but the boys like it too, even though they may shy from mother's caress. They will be kept from many sins and make better husbands for having a loving mother and sisters. Love enriches their natures, and helps to develop other virtues in their characters. Daughters especially enjoy the loving attention of the father. I believe many early, unhappy marriages are made because of the absence of loving attention in the home. Children crave it and accept it where ever they can find it.

I was reading a little incident about a mother who did not want her little boy in the house with her. She would send him out to be with the hired men, saying the house was not the place for boys, that the barn was good enough for them. I have heard it so said of dogs. He wanted to be with her and would beg to stay, but she was persistent and threatened to whip him. He was shut out from his mother's love and association and learned to find pleasure in the company of rough men, imbibing into his character what he learned from their example. One is not surprised to know the outcome of his career. He became a thief and a murderer, and was sent to end his days in the penitentiary. Who sent him there? This mother lacked the love that is unselfish, that "seeketh not its own," but another's good. She did not want to be bothered and was afraid he would spoil the house. It was this lack of affection from the mother that hardened the boy's heart. The love germ in his own heart was finally killed, leaving it a cold and unfeeling thing. His association with the men might not have influenced him had he felt that mother loved him and that her arms were always glad to take him to her heart, even if he did forget to leave all the mud and hay-seed outside.

The Sense of Honor.

There are many things which no one calls wrong, yet in doing them we are conscious of an uneasy sense of falling below the standard of perfect honor.

They are mostly acts born of thoughtlessness or curiosity, or even idleness, and it is just because of this that the high-minded mother can impress her ideas of honor upon her little ones by her daily example and daily precept.

A step is made in the right direction when a child is taught to restrain his curiosity about other people's affairs. This will prove a good foundation for the future sense of honor, since to curiosity many little acts of meanness and underhandedness owe their birth.

Children should be trained, too, to be trustworthy in word and in deed. Secrets should be told them—not very important ones at first, perhaps—and they should be encouraged to keep them sacred, a betrayal being treated with the stern and bitter contempt which is so much worse than any punishment.

The habit of petty pilfering, which so often goes on in the home pantry, should be considered and treated as a breach of trust.

It is not hard to make the youngest child recognize the difference between the taking of things from the grocer's—which is a real theft—and the taking of them from the family reserve put aside for the common use, and in a measure under the care of all. This last is a breach of trust mother placed in him, and is a dishonor to the culprit.

Another small way in which our carelessness may make the children careless is in our attitude toward the letters we receive. Of course, we say that the contents of a letter are sacred, and yet we do not hold them so always. We, too, often read a letter or tell its contents before those in whom the writer would not have confided were choice possible, and surely there is lack of honor in this.

A grown person is not apt to read a letter addressed to another. Of those who would read it and take advantage of its contents it is not necessary to speak here; but many who would scorn to do this would not acknowledge the meanness of finding out some private or personal affair of an acquaintance and making it the subject of gossip.

The temptation of the letter and the bit of gossip is pretty sure to come some time, and is often too strong to be resisted if there has been no training in the belief that a correspondence is hemmed in by stronger bolts and bars than those of iron.

We all need—men and women alike—more of the sense of honor in our lives, and women especially need it in these small matters; but no increase of this grace can be looked for until we realize—and teach our children from the cradle up—that honor is a virtue in itself, like cleanliness or bravery, and is not a quality which we may use when we please or neglect at will.—Public Ledger.

The Red Cranberry.

Cranberries make the most appetizing sause to be eaten with meats, game, fish, or fowl, and also make delicious shortcake, tarts, dumplings, and puddings, etc., and since they have the advantage of being the most wholesome of fruits should be plentifully used in season. Always cook them in an earthenware or porcelain or granite lined kettle.

Cranberry Sauce.—Carefully pick over a quart of cranberries; cover with cold water and boil until the skins burst; then pour off the water. This preliminary boiling will remove some of the acidity of the berry; then add a cupful of water and a pound of sugar and boil for twenty minutes, or if you do not care to have it to jell boil about ten minutes.

Cranberry Jelly. Cook the cranberries and strain off the juice. Allow one pound of sugar to one pint of juice; boil until it jellies. Pour into molds and let cool.

Cranberry Whipped Jelly.—Whip cranberry jelly with a wire egg-beater until light; then stir in the whites of three eggs that have been beaten until stiff. Heap on a pretty dish and serve.

Cranberry Sauce with Raisins.—Simmer one cupful of raisins in a cupful of water until tender; then add the juice and rind of an orange, and one quart of cranberries. Cook until the cranberries pop, then add a pint of sugar and a cupful of water, boil until the required thickness.

Cranberry Pie.—Take a deep pie tin and line with pie crust, then fill with fruit well seasoned with sugar; you can scarcely put in too much. Add two tablespoonfuls of water, sift over the top a little flour of cornstarch. Cut a tablespoonful of butter in small bits and dot over the top. Cover with puff paste, and bake slowly for about thirty minutes. When done sift powdered sugar over the top.

Cranberry Dumplings.—Make a stiff biscuit dough. Roll out about half an inch thick, cut in squares. Fill with raw cranberries, season with sugar; press the edges of the dough together carefully. These can be baked, steamed, or boiled.

Cranberry Pudding.—Cook a pint of cranberries and run through a sieve; add a cupful of sugar, one-fourth of a cupful of butter, six well-beaten eggs. Mix all together, cover with bread crumbs, and bake in oven for about thirty minutes.

Cranberry Batter Pudding.—To a cupful of sour milk add half a cupful of sugar. a teaspoonful of salt, two eggs, and one teaspoonful of soda. Beat until light then add enough flour to make a thin batter. Flour a pint of cranberries and stir into the batter. Bake in a moderate oven until baked through. Serve with sauce.

Cranberry Roll.—Make a rich biscuit dough; roll out one-fourth of an inch in thickness, spread with cranberry sauce. Roll up and press the edges well together. Sew up in a floured cloth and steam for over an hour. Serve with cream and sugar or sauce.

Not So Funny Then.

"If I should die 'fore I wake," said Donny. kneeling at grandmother's knee, "if I should die 'fore I wake—" "I pray,' prompted the gentle voice, "Go on, Donny."

"Wait a minute," interposed the small boy, scrambling to his feet and hurrying away downstairs. In a brief space he was back again, and, dropping down in his place, took up his petition where he had left it. But when the little white-gowned form was safely tucked in bed, the grandmother questioned with loving rebuke concerning the interruption.

"But I did think what I was sayin', grandmother; that's why I had to stop. You see, I'd upset Ted's menagerie and stood all his wooden soldiers on their heads, just to see how he'd

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No alum, no phosphate—which are the principal elements of the so-called cheap baking powders and which are derived from bones, rock and sulphuric acid.

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If you have a loved one whom you wish to cure of Drinking, I will gladly tell you free of all cost just what I used to cure my husband, who drank for over 20 years. Write me in confidence.

Mrs. Margaret Anderson
8197 Maple Ave., Hillburn, N.Y.

tear around in the morning. But 'f—I should die 'fore I wake, why—I didn't want him to find them that way, so I had to go down and fix 'em right. There's lots of things that seem funny if you're goin' to keep on livin', but you don't want 'em that way if you should die 'fore you wake."—Baptist Commonwealth.

The Young Folks

Young Women's Christian Association.

Any Young Woman who is planning to come to Topeka, will find peculiar advantages at the rooms of the Young Women's Christian Association, 623 Jackson Street. Rest rooms, reading room and lunch room are at the disposal of all women at any time. A boarding house directory is kept at the rooms, and also an employment bureau, free of charge. On each Sunday afternoon, at 4:15, a gospel meeting held to which all women are invited. The first week of October is the time set for the opening of the club work, and the classes in Bible Study, in English, Parliamentary Law, Sewing, Water Color and Travel. The Gymnasium also opens then, with classes in Physical Training under a competent instructor. The printed announcements will be mailed on application to the General Secretary. A cordial invitation is extended to out-of-town women, especially to make use of the rooms.

The New Star.

Another new star in the field of blue,
It is young Oklahoma, strong and true.
She takes her seat with the pride of a queen,
And views from the summit this beautiful scene;
Her wide fields of cotton, her billows of grain,
And all the rich treasures of her vast domain;
Her motto is justice, she has furled it on high,
And proudly it waves in the blue vaulted sky.
O, beautiful star, star of the West!
We know thou art truest, purest and best;
Long may your light a beacon be
For principle and justice in the land of the free.

—Mrs. Anna Kellogg, Guthrie, Ok.

"Way Out West."

RUTH COWGILL.

TO SAN DIEGO BY WATER.

I have just had my first ocean voyage. It was only a short one, about sixty miles, but it was real ocean traveling, for we were out of sight of land for some hours.

We boarded the boat at four in the morning. It was dark as pitch, dreary, and chilly and damp. We could only see dimly a vague big shape with lights here and there gleaming lonesomely. We went directly to our state-room, a tiny room with three wide shelves in one wall, which were our beds, and very comfortable ones they proved to be. We got up in two or three hours, before the sun arose, and it was surely damp and chilly then. Moisture dropped from the doors of the cabin, from the railing, from the rigging. It lay in big drops on the seats and trickled in little streams on the deck. The air was laden with moisture, we breathed it, we absorbed it, we felt it on our faces, it presently began to drip from our hair and our eyebrows. But we did not mind it. We stood taking deep breaths of the sweet air, till the sun began to arise crimson through the mist. We looked at the wonder of a world of water. We were the center of a circle—and it seemed not so very large—and that was the world to us. We looked over the rail and down, and there was only the deep blue water, rising and falling in great billows, through which our prow was cutting, sending the water outward in white foam, which spread itself out over the water likes miles of exquisite lace. Behind us was our "wake," a broad path in the water stretching as far back as we could see. The ocean where it is deep does not look like water as it is seen everywhere else. Because there is so deep and heavy a mass of it, it seems not just like water—not like anything else in the world. It seems to have a consistency like molten glass. The broad billows melt into one another smoothly. They rise and fall gently as if from the very bottom of the sea. Looking down we could see jelly-fish and other sea-creatures gleaming and flashing in the blue depths. Looking off we saw now and then other manifestations of the life of the deep. A long shape with its black head held out of the water caused some speculation among the passengers. Some thought is was a sea-serpent, others a whale. There were flying fish skimming low over the water like birds. then dropping down into their native element again. There were porpoises as we came near San Diego, and all along our way sea-birds flew high above us, ducks and gulls and pelicans.

San Diego, the southwest corner city of the United States, is situated upon a bay which makes one of the most perfect natural harbors in the world. Two long necks run out from the mainland into the water, leaving but a narrow passage, sufficient, however, for the great sea ships to pass through. The bay has none of the restless notion of the sea, but lies calm and quiet and serene from day to night and from night to day again. One of these outjutting necks of land is Point Loma, steep and high, from whose mountain top a lighthouse gleams. The other point is Coronado Beach, a long, low, narrow piece of land which has been utilized as a summer resort, one of the most popular in Southern California. Here is Hotel Coronado, one of the great hotels of the world. Here also is the Tent City, a village composed entirely of tents and thatched cottages, where tourists from everywhere gather in the summer-time for a month or two of beach life.

THE CITY OF SAN DIEGO.

Our boat sailed into the harbor and up to the wharf where it was anchored, between noon and 1 o'clock. We disembarked, hunted up our hotel, had dinner, and started out to see the sights.

San Diego is one of the oldest towns in Southern California. It has a settled air of middle-aged content which other towns out here lack. It was founded by the Spanish Catholic missionaries in 1769, years after the first white settlement on the Atlantic Coast at Plymouth. San Diego has some very fine houses. U. S. Grant has a home here which commands a wonderful view of the bay, Coronado, and the ocean beyond. The homes here, as elsewhere in California, have well-kept lawns and an abundance of trees and luxuriant bloom.

Just north of San Diego is a wide, deep ravine, in which the land is very fertile. Here are the truck-farms which supply the city with vegetables. They are owned and worked by Chinamen who do the most of that kind of work in California. We stood on the brink of the ravine and looked down upon the place, and the little fields of different kinds of vegetables, all precisely laid off, looked like a piece of calico with its accurate machine-made pattern. This land. like all the rest of California, must be irrigated to be productive of anything but sage-brush. On the higher ground beyond this truck-garden section is land owned by American farmers. There are both small farms and huge ranches. A certain millionaire has a ranch out there upon which he has built a magnificent home. He has imported all kinds of rare plants and trees and herbs, from tropical countries and elsewhere. He has built an Episcopal church there also, and hired a clergyman for the benefit of his family and the numerous renters and helpers on his ranch.

SWEETWATER DAM.

Some miles out from San Diego is what is called Sweetwater Dam, the largest dam in the world. It receives and reserves the water from the surrounding mountains, which is used for irrigation of the orange and lemon groves for miles around. But for it the country would be simply a desert of barren mountains and dusty commons. Now, wherever you can look you can see a house nestling in some hollow. surrounded by the beautiful green of orange groves and bright with flowers, little oases in the sedge-grown mountains.

The dam itself is a huge piece of masonry which spans a common in a curve like a quarter of a great circle. Upon the lower side is the green, rocky-sided common; above it the water, like a clear lake, back of which and on all sides rise the big brown mountains. The dam was built by the Government and cost one-fourth of a million dollars. It was made some years ago, and after a few months, time enough to entice many people to come and invest their money in orange groves and build them good homes, it suddenly and mysteriously went dry. No one knows what caused it, though it was suspected that it was tapped by some ill-disposed person. In a short time everything had dried up, the homes were deserted, and the farms went back to dilapidation and decay. The dam was finally repaired, however, and now once more prosperity is coming back to the scattered farms and settlements.

LA JOLLA.

One of the most beautiful places on the Pacific Coast is La Jolla (pronounced La Hoya), about thirteen miles from San Diego. Here, instead of rolling up on smooth sand, the water dashes against rocky cliffs. Instead of breaking of its own weight in long, low breakers, it is broken in a tremendous spray by the huge rocks which blocks its way as it rolls ceaselessly in. And with its constant beat-

One of the largest and best equipped institutions of learning in the west. Over $700,000.00 has been invested in buildings and equipments.

Special Terms open October 15th, November 27th, and January 2d, 1907.

The new school year opened September 4th, with students in attendance from twenty-one states and Canada, and with an increase of from fifteen to fifty per cent in the various departments of the school.

All regular College Courses are maintained and in addition to these the College maintains

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The Normal College. This is a thoroughly equipped Normal School which makes a specialty of preparing teachers for all grades of public school work. There is also a special Primary Training Department with practice school. Supervisors Course in public school drawing. Tuition for a quarter of twelve weeks, $12.00. Send for free catalogue.

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Regular Courses leading to the Ph. G. and Ph. C. degrees.

Special Course of three months to prepare druggists for examination before State Boards of Pharmacy.

Correspondence Course for druggists who can not leave their business.

All expenses for tuition, board, room, light, heat, library, gymnasium fee in the Ph. G. course may be reduced to $206.00, and for Ph. G. and Ph C. Courses to $300.00 if paid in advance. No entrance examinations.

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BIG PAY FOR FARMERS' NAMES

The publishers of THE FARM MAGAZINE want the names and addresses of farmers in your vicinity. They want to interest them in their splendid, big farm journal, which well-known farmers say is one of the very best farm papers. The subscription price is 50c a year, but by sending The Farm Magazine Co. the names of ONLY FIVE FARMERS and 10c, our readers can secure this interesting magazine one full year, together with a handsome, large, 10x14 photograph in colors of President Roosevelt and family, by the celebrated Washington artist, Cleindenst. Handsomest picture of the Roosevelts made. Just out.

THE FARM MAGAZINE CO., FLOOR T WORLD-HERALD BLDG. OMAHA, NEB.

ing, ages long, it has made its mighty mark upon the granite. The rocks are worn into fantastic shapes, some hang far out over the water; some are hollowed out till they make immense caves running back underground a hundred feet. One peculiar conformation is called the witch's caldron, a huge steep-sided basin, with one opening toward the ocean, in which the water seethes and rages simply with the force of its own terrific impact upon the rocks. There are shelves and tables of rock, isolated islands of rock, and sharp corners and harsh and jagged edges. There are archways and channels and long tunnels through which the water rushes with violent energy. Against the high cliffs it hurls itself, and the spray flies to twice the height of the rocks. It all makes a scene of wonderful beauty—the strange rugged rocks, the white sea-foam, light as a fairy, the blue sky over all, and far out and away the boundless blue sea.

INSIDE A CAVE.

We went into one of the caves. Looking through the mouth of it we could see the great heaving ocean which now and again with the tide would come rolling into the cave, sending us farther back and dashing its spray high over the opening, like a piece of white chiffon flung there for a moment and then snatched away. Inside the cave was only a half light, sufficient, however, to reveal the rare colors which the salt spray of the ocean had put upon the rocks. Different layers and strata of the rocks were of different materials, and there under the combined action of sea and air have taken various hues; dull reds and blues and greens, soft pinks and lavender, yellow, blue, gray, all colors were there in the softest shades and most delicate tints. To make this cave accessible at all times, a tunnel stairway has been made. It is long and dark and winding, and by the time we had gone down and up again, we were sure they had not put the figure too high when they told us there were 135 steps. I should have believed it if they had said 500.

AMONG THE ROCKS.

A few hours later, when the tide was low, we went back over the rocky cliffs again. We climbed all over them and clambered down their steep sides, and we saw many things that repaid us for drabbled skirts and wet shoes. In the tops of the flatter rocks, little hollows had been made by the water and now they were full of it, and in the sides and the bottom of them were dozens of tiny snails sticking tight, and another little animal in a stout little cone-shaped shell. I poked them loose with my parasol and laughed to see them stick out their funny little hands or feet (I do not know which to call them) and roll themselves around feeling for something to glue themselves to again. They are like some people who can not exist alone, who can not survive unless they have something upon which they stick tight—some stronger personality, some dogma, some fixed locality. Having that they are safe, and the waves of human life may dash over them, the winds may blow, the earth-born thing to which they cling may quiver and shake, yet they need not heed them so long as their coward heads are hid in their shells and their feet can still cling to the rocks. I suppose we are all more or less like that.

Upon the sides of the great rocks and in the larger water-filled fissures were other things. There were crabs, whose shells have most beautiful and delicate colors, and are almost identical with the crawfish which are so plentiful in our own fresh-water streams. They belong to the same family as the spider. It was funny to poke my parasol at them, and see them run backwards or sideways, every way but straight forward. It reminded me of some people, too, but I will not stop to moralize. But I understood then the meaning of the half-slang term, "crawfishing." Another interesting thing about crabs is that they shed their coats. I saw what I thought was a fine big crab, but when I poked at him he did not move. On investigation I found it was simply a discarded coat, while a foot or so distant my crab himself was scurrying away. I considered him very extravagant to throw away a good suit like that, for it was perfect in every particular. We found a star-fish, also, upon a wet rock. It was all limp and soft, but when we took it down, it grew harder and stiffer until it was completely dry. As long as a star-fish is soft, it is alive. Another very interesting specimen of sea-life is the sand-dollar. It is round upon one side, and slightly raised toward the middle on top. It is marked with a very pretty conventional design like a clover-leaf. It varies in size from a nickle to a dollar. Some sand-dollars are even a trifle larger. They are brittle and seem as if made of sand. But when they are alive, they are covered thick with tiny feelers, by means of which they move themselves around on the sand under the water. Their feelers drop off when they are kept out of the water. We saw moss growing upon rocks, looking like onions or peas when they first stick heads up out of the ground, and barnacles, very pretty in color, growing tightly to other shells and to rocks and floating bits of wood.

Here were lovely submarine gardens, seaweeds in numberless variety growing under the water, looking as beautiful, with their cool colors and graceful growth, as a clump of wild flowers in some cool dim nook in among the timber.

But we must not linger even in charming La Jolla. With a last backward look at the fantastic rocks and the silver sea-foam, we returned reluctantly to our primitive little excursion train, which soon carried us back to San Diego.

BACK TO LONG BEACH.

All this sight-seeing kept us in and about San Diego five busy days. We enjoyed them all and felt well repaid for our trip. Yet it was with real pleasure that we set our weary feet once more upon the rocking deck of our boat, and when in the morning we awoke to find our few months' home in sight, we had a thrill of real thankfulness. There is no place like home, even if it is only a two-roomed cottage with nothing in it but yourself and your cooking-stove.

If you will eat more

Uneeda Biscuit

you can do more work, enabling you to earn more money, so that you can buy more

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do *more* work and earn still *more* money.

5¢

NATIONAL BISCUIT COMPANY

The Little Ones

The Gingerbread Man.

Humpty, dumpty, dickery dan,
Sing hey, sing ho, for the gingerbread man!
With his smile so sweet and his form so neat,
With his gingerbread shoes on his gingerbread feet.

His eyes are two currants, so round and so black;
He's baked in a pan lying flat on his back;
He comes from the oven so glossy and brown,
The loveliest gingerbread man in town!

And why is his gingerbread smile so sweet?
And why is his gingerbread form so neat?
And why has he shoes on his gingerbread feet?
Because he is made for my Teddy to eat.

—Eva E. Rowlan.

"Debbie-Dear!"

A TRUE STORY

There were nine little girls who lived near together in the country. They were the beloved children of two families, five sisters—and four sisters. They had sweet, happy times. The two eldest were near the same age—and the two next and so on, every two and each pair called themselves "Lovies." They were doubled first cousins; and some of the children who read this may have a cousin, whose father is brother to their mother, and whose mother is sister to their father, and they will understand this relationship, which is so near and so beautiful. They felt like real sisters, and that is best of all! But they did not look alike, nor seem so, for the five were stronger and more healthy and loved the fresh air. They were allowed to run in the sunshine more than the four were permitted to do. Yet they loved well to be together; and one delight of their lives was to visit at each others homes, and "stay all night." That meant to take a neat little work-bag, with some sewing for the evening, which often was "patch-work," teaching them to make very neatly "over and over" seams, then, when the happy bed-time came to talk themselves to sleep. I wonder if any one who may read this, knows how to make an over-seam?

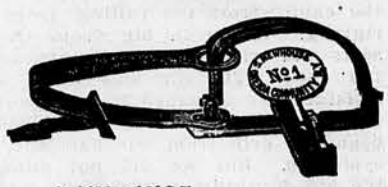
The two homes were about one-fourth of a mile apart, and on a fence between the grounds was placed a box, for a little post-office; and many notes and love letters from these maidens nine were dropped therein "to be called for," which was generally very promptly done, as the letter-carrier could easily be seen enroute. Thus it was, these children had first lessons in letter-writing, and perhaps a love for it started.

But the one thing I took my pen to tell, was of one of these little girls being so obedient to her parents; because I feel it may help other little children to be obedient and lovable. She was one of the four sisters; the second in age, about seven years. She was "Debbie-dear" to us all; we never knew her to be anything but sweet and kind and generous. And if she had not been beautifully obedient, this could never have been written to help you, as she helped her sisters and cousins.

One warm day in August these four sisters were out in the flower garden, and "Debbie-dear" left them to take a letter to the post-office for her "Lovie," and was running toward it.

Their father had been for some time watching a strange dog, which acted unnaturally as it trotted across the place with its head down and tongue out. The father felt alarmed, and as the dog passed on he was shocked to see his four precious children run out just in the direction the sick animal was taking. "Debbie-dear," hurrying on, would be sure to meet it! His heart seemed to stop beating, but it was lifted in swift prayer to his Heavenly Father, and He helped him to do just the right thing. Without frighening the little child, he called her back. When she first heard him call, "Debbie, come here," she stopped instantly

ONEIDA COMMUNITY TRAPS



The NEWHOUSE TRAP is the best in the world. It is a perfect machine. Hand-fitted! Thoroughly inspected and tested!

The VICTOR TRAP is the only reliable low-priced trap. Don't buy cheap imitations. Be sure the Trap Pan reads as follows:

ASK ANY TRAPPER

THE TRAPPER'S GUIDE
Send 25 cents for the Newhouse TRAPPERS' GUIDE. Tells best method of trapping and skinning game. Send to Dept. A.8, Oneida Community, Ltd., Oneida, N. Y

HUNTER-TRADER-TRAPPER
The only MAGAZINE devoted to the interests of the trapper. Send 10 cents for copy.
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SPORTSMEN'S SUPPLIES.
WE SAVE YOU MONEY.
Katalog for 3 cent stamp.
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410 Main St., Cincinnati.

THIS MEANS JUST WHAT IT SAYS.
FREE PIGS
These are not "razor backs" but pedigreed pigs, Eligible to Register and FREE, except Express to any live man or boy. One or more can be easily secured. For full particulars and a copy of the Best Swine Magazine Pub. Write, The Poland China News, Box 33, Freeport, Ill.

and ran to him, not seeing the dog nor knowing her danger. As he clasped her in his arms, she sweetly asked: "What is it, father, thee wants me for?" He could only say "to love," and then wept tears of joy. The dog passed on and was cared for by a kind man who lived nearby.

It is not always that children are in danger when spoken to, but it is always right for them to hear and heed without questioning why or wherefore at the time. There is nothing that makes little folks as attractive and lovely and enjoyable as obedience; it is beautiful, it is charming. You need to learn it when young, and we older people must be obedient too, or we can not be happy.—AUNT MERIBAH in Scattered Seeds.

Club Department

OFFICERS OF THE STATE FEDERATION OF WOMEN'S CLUBS.

President.....Mrs. May Belleville Brown, Salina
Vice-President.....Mrs. L. H. Wishard, Iola
Cor. Secretary.....Mrs. N. I. McDowell, Salina
Rec. Secretary.....Mrs. W. D. Atkinson, Parsons
Treasurer.....Mrs. H. B. Asher, Lawrence
Auditor.....Mrs. Grace L. Snyder, Cawker City

Our Club Roll.

Excelsior Club, Potwin, Kansas, (1902).
Women's Literary Club, Osborne, Osborne County, (1902).
Women's Club, Logan, Phillips County (1902).
Domestic Science Club, Osage, Osage County (1888).
Ladies' Social Society No. 1, Minneapolis, Ottawa County (1888).
Chalitso Club, Highland Park, Shawnee County 902).
Cultus Club, Phillipsburg, Phillips County (1902).
Literateur Club, Ford, Ford County (1903).
Star Valley Women's Club, Iola, Allen County (1902).
West Side Forestry Club, Topeka, Shawnee County, Route 8 (1903).
Fortnight Club, Grant Township, Reno County (1903).
Progressive Society, Rosalia, Butler County (1903)
Pleasant Hour Club, Wakarusa Township, Douglas County (1899).
The Lady Farmer's Institute, Marysville, Marshall County (1902).
Women's Country Club, Anthony, Harper County.
Richardson Embroidery Club, Madison, Greenwood County (1902).
Frentis Reading Club, Cawker City, Mitchell County (1903).
Cosmos Club, Russell, Kansas.
The Sunflower Club, Perry, Jefferson County (1905).
Chaldean Club, Sterling, Rice County (1904).
Jewell Reading Club, Osage County.
The Mutual Helpers, Madison, Kansas (1906).
West Side Study Club, Delphos (1906).
Domestic Science Club, Berryton, Shawnee County (1906).
Mutual Improvement Club, Vermillion, Marshall County (1903).
Centralia Reading Circle, Nemaha County.
(All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.)

About Forming A Club.

The following selection from a circular just received will be a help to those contemplating starting a club:

Do not hesitate on account of natural timidity, inexperience, or lack of mental development? To you the club will be a golden opportunity.

Lack of time? Four hours a month is plenty.

Lack of means? A dollar a year will usually cover all reasonable expense.

What will you be expected to do? It depends entirely on the kind of club and your own desires. If you have any special literary, musical, vocal, social, or domestic gifts, develop them. If you are possessed of useful knowledge, share it with others. If you prefer to be a listener, enjoy the fourteen entertainments.

What are women's clubs? Schools of all grades for all sorts and condition of women. They are self-governed and self-taught.

What is a club-room? A private sitting-room, a library reading-room, a church vestry, or a public hall in reality, but for the time being it becomes a social center for exchange of thought upon selected topics, where the rich woman forgets she is rich and the poor woman forgets she is poor, and all meet on a level and listen to talks, lectures, or papers, and perhaps discuss the subjects spoken of in orderly manner, occasionally interspered with music, readings, quotations, and refreshments.

What are the subjects spoken of? Those pertaining to the health, comfort, and amusement of human beings, particularly children. Some clubs take up only one study, others are divided into departments which cover a variety of subjects. Some clubs exist for the improvement of the members only, others for the improvement of the community and the State. All are educational. Club subjects may be selected from the following list: Schools, libraries, literature, music, arts and crafts, civics, household economies, philanthropy, travel, history, State needs, village or town improvements, true patriotism, etc.

Special requirements are not needed. There are no initiations, no secret obligations, no age limit, no frivolities, no excesses, no religious controversies, no partisan politics no recognition of social rank or fashion, no local gossip, no personal affairs.

What does the woman's club teach? True womanliness, love of home and children, unselfishness, charity, social purity, respect for good laws, and interest in the welfare of town, State and nation.

What is the State federation? The central agency which links together all the scattered clubs in a State, and makes it possible for each to know what the others are doing. It suggests but does not control. It awakens interest, points out needed reforms, and accomplishes results through united influence. What are the benefits to the individual from club membership? Profit and pleasure. By listening to carefully prepared papers she gains much useful knowledge; by assisting in the discussions she shares her knowledge with others; by preparing an occasional paper herself she studies a subject thoroughly and becomes an authority on it. For a few hours each month her mind is lifted above the little cares and worries of her own life-groove and directed into broader channels. She is refreshed, revigorated, and rejuvenated.

Every speaker in a woman's club is assured of courteous attention and appreciation. Timid natures are strengthened and encouraged, natural talents are developed, and indirectly the family and the community are benefited.

The Wonderful Davis Family.

We are showing herewith a photographic reproduction of Mr. B. J. Davis and his nine sons. This is the largest family of boys that has ever been brought to our attention, both in weight and height. The Davis family weighs 2,070 pounds, a trifle over a ton, and are nearly all "six footers." The father is still living and is now 95 years of age.

It is a strange coincidence that the Davis Brothers have all settled on the same line of business. The nine brothers are the owners of the Davis Cream Separator Co., Chicago, Ill., whose advertisement appears in this paper. This company has been in the separator business nearly twenty years and has grown from a small beginning to a $300,000.00 corporation.

The Davis Brothers have adopted a novel method of selling their cream separators direct from their large factory. As their catalogue states, there is "no one between you and them" consequently they save separator-buyers 20 to 50 per cent on the price of a high-grade cream-separator.

There is one thing the Davis Brothers will not do—they will not cut down the quality of the goods they manufacture. They stand back of every machine they send out with their iron clad guarantee which is backed by their entire capital stock. This assures anyone doing business that they will get the highest grade at lowest prices.

This wonderful money-saving proposition of theirs, as well as a large photograph of the Davis family, is more fully covered and shown in their catalogue No. 125, a copy of which will be gladly sent to any reader upon receipt of a postal request, if he will kindly mention this paper. Just address Davis Cream Separator Co., 540 North Clinton St., Chicago.

Free—for a Limited Time Only.

We will give a year's subscription to Farm and Fireside with THE KANSAS FARMER, both papers for $1.00—the price of THE KANSAS FARMER alone.

Farm and Fireside is America's greatest twice-a-month farm and family journal. It contains 32 large pages, 11 by 16 inches, brimful of high-grade matter for the farmer, his wife and children. November 15 issue contains reproduction in many colors of that famous painting "The Indian Canoe Girl." It alone is worth the price of both papers. But there will be five others during the year—all masterpieces from the world's greatest artists—suitable for framing. A great magazine section just added and a thrilling story by Maude Roosevelt, of that celebrated family, begins this issue.

Seventeen regular departments, each one edited by an authority in his line. It goes into over 400,000 homes every issue.

THE KANSAS FARMER is always looking for something special for its host of readers, so here is a rare opportunity—to old subscribers as well as to your friends. Send in your renewal and tell your neighbors about this extraordinary offer.

Don't miss this opportunity, but send in your order at once. You will regret it if you don't. We can make this offer for a short time only. Address, THE KANSAS FARMER, Dept. F., Topeka, Kans.

"A Kalamazoo Direct to You"

ROYAL STEEL RANGE For All Kinds of fuel.

Kalamazoos are fuel savers,—
They last a lifetime—
Economical in all respects—
They are low in price and high in quality,—
They are easily operated and quickly set up and made ready for business,—
Buy from the actual manufacturer,—
Your money returned if everything is not exactly as represented—
You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

WE PAY THE FREIGHT.

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo, at any price.

We want to show you *how* and *why* you save from 20% to 40% in buying direct from our factory at factory prices.
If you think $5, or $10, or $40, worth saving

Send Postal for Catalogue No. 189

OAK STOVE HEATER, For All Kinds of Fuel.

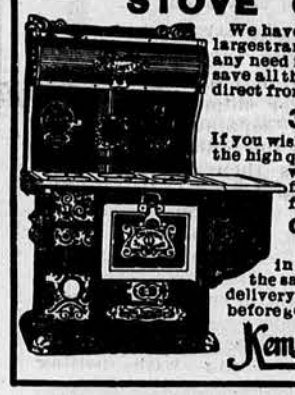
Examine our complete line of stoves and ranges for all kinds of fuel. Note the high quality; compare our prices with others, and then decide to buy from actual manufacturers and save all middlemen's profits. Catalog shows 267 styles and sizes for all kinds of fuel. Write now. Sold on 360 Days Approval Test.

Kalamazoo Stove Co., Manufacturers, Kalamazoo, Mich.

All Kalamazoo Cook Stoves and Ranges are fitted with patent oven thermometer which makes baking and roasting easy. All stoves blacked, polished and ready for immediate use when you receive them.

Oven Thermometer

1/2 THE PRICE IS WHAT YOU SAVE WHEN YOU BUY A RANGE, COOK STOVE OR HEATER FROM US



We have all kinds from the smallest laundry stove to the largestrange and the finest base burner. We can supply any need in the stove line at the lowest factory prices. You save all the jobbers, dealers or peddlers profits by buying direct from us.

30 DAYS FREE TRIAL

If you wish, in your own home; an opportunity to judge of the high quality and the low prices. You take no risk. We will pay all the freight charges if you are not satisfied with your purchasee. We have our own big factory making our stoves and every one is

GUARANTEED FOR FIVE YEARS

You do not have to wait: we have all our stoves in Kansas City. We are ready to fill your orders the same day they are received. We guarantee safe delivery. Our big catalog is ready for you. Do not buy before getting our catalog and prices.

Big Catalog Mailed Free —Write Now

Kemper-Paxton Mercantile Co. 915 Hickory St. KANSAS CITY, MISSOURI.

The Southwest Limited to Chicago

The train that took first place in its first year, and has held it ever since.

Leaves Union Station, Kansas City, 5.55 p. m. Gand rand Avenue 6.07 p. m. Arrives Union Station, in the heart of Chicago, at 8.20 the next morning.

"Longer, higher and wider berths."

G. L. COBB, Southwestern Passenger Agent
907 Main Street, KANSAS CITY, MO.

Chicago, Milwaukee & St. Paul Ry.

Dairy Interests

Care of Milk and Butter-Making on the Farm.

H. E. VAN NORMAN, PERDUE EXPERIMENT STATION, IN BULLETIN 96.

SUGGESTIONS ON CARE AND FEED OF THE DAIRY-COW.

Have some oats and peas, sweet corn, sorghum, early-planted field-corn, other forage-crops, or left-over silage, to supplement pastures in dry time.

Keep the cows in a darkened shed or barn in fly-time.

Keep the cows out of the stalk-field in winter. Cut the corn and feed fodder in the stable or yard.

Shelter from raw winds, even on bright days in the winter.

Feed a combination of feeds from the following lists, at least one from each rather than only one or two from either, and that corn, and corn stover or timothy hay:

I.—Corn, corn stover, corn silage, millet hay, oat straw, sorghum hay, timothy hay, wheat straw.

II.—Alfalfa hay, bran, clover hay, cow-pea hay, cottonseed-meal, gluten-meal, linseed-meal, oats, soy-beans.

Since the feeds in paragraph I are rich in fat and heat-producing material, and especially poor in protein, which is absolutely necessary for milk-production, and the feeds in paragraph II are all much richer in protein, a larger yield of milk will be secured when a combination of feeds from the two groups is fed.

Breed the cows to calve in the early fall, and make the most milk and butter at the season when conditions are favorable for making and prices are high, and there is more time to care for the cows, the milk, and butter.

Don't breed to a scrub sire. The best one available in none to good.

Raise the calves by hand and substitute vegetable fat in the form of ground flaxseed jelly, and later corn-meal,, etc., in connection with skim-milk, for the butter-fat in the whole milk.

Know which cow is not earning her feed and dispose of her.

Brush with a brush or wipe with a damp cloth the udder and flank before milking. Twenty to ninety times as much dirt falls in the milk from the unbrushed, unwashed udder as from the washed one.

Milk with dry hands.

Don't allow the milk to stand in the barn.

Don't use a so-called dilution separator; set a can of milk into cold water, but don't mix water and milk. An eighth to a third of the butter-fat is often lost by diluting the milk with water.

Don't mix sweet and sour cream less than 12 hours before churning.

Own and use a dairy thermometer—cost 25 to 50 cents—it will save many times its cost. If it is used and the cream is churned at the right temperature. It may be had from any dairy supply house and very often from the local druggist. It should be all glass. The cheaper ones are not always accurate and should therefore be compared with a reliable one.

Salt by weight or measure—not by guess.

Wash the buttermilk out.

Don't overwork the butter; it injures the texture.

Have a butter-worker; it saves labor and helps quality.

Put butter in rectangular prints, (they are more attractive and pack better.)

Use parchment paper, not wax paper.

Use dairy salt; not table or cheap barrel salt.

Encourage some young member of the family to take charge of the butter-making, and make a business of it. A Hendricks County girl, who learned to make good butter, makes a business of it, has increased her trade from the product of three cows to that of fifteen, and could sell more butter if she had it.

Be prompt and regular with delivery.

There is a reasonable profit in good cows well cared for.

There is a good market for more first-class butter, milk, cream, and cheese than is produced.

Much land needs the manure that can be produced by keeping more good milch-cows upon it.

CARE OF MILK FOR CREAMERY, CHEESE FACTORY, OR SHIPPING.

The Cow.—The first essential for good milk is to prevent the dirt getting into the milk. It takes but a moment to brush the udder and nearby parts just before milking. It is even better to wipe them off with a damp cloth, as the dust will then adhere to the damp hair rather than fall into the pail.

The milk should be removed from the stable as soon as possible, as it absorbs stable odors very quickly.

Strainers.—With the best of care there will be some foreign matter fall into the milk, which a strainer will remove. A fine wire strainer is better than none, but two or three thicknesses of cheese cloth if properly cleaned each time after using, is one of the best strainers available. The strainer cloth should be rinsed in cold water, washed clean in warm water, scalded and hung in the sun if possible.

Strain, and cool by placing the can in cold water and stir a few times within the first hour. Use a thermometer enough to know whether the milk gets too cold or not. If necessary, change the water. It should be down to 50° F. at least, and the nearer 40° the better.

It is getting the milk cold which counts, not putting it in the water. A can of milk will cool faster in water at 45° than in the air at 35°.

Keep tight covers off the cans while cooling, to allow escape of animal gases and heat. There is no objection to light cloth cover to keep out dust and flies. Be sure the air is pure where the milk is exposed.

Do not mix warm milk with cold as it will sour both very soon.

HANDLING SEPARATOR CREAM.

The same care and general plan should be used in handling separator cream, either for shipping or for the creamery. The separating should be done as soon as the milking is finished, as the milk is then usually warm enough to separate most thoroughly.

Cool and stir the cream immediately after separating. Do not mix warm and cold cream. Cool the warm cream first.

Keep the cream in cold water if possible.

Wash the separator thoroughly after every using, scalding with boiling water the last thing.

WASHING MILK UTENSILS.

First rinse with cold or luke warm water; wash thoroughly with water as warm as the hands will stand, using some good alkali washing powder, such as sal soda, gold dust, etc. Rinse thoroughly with boiling water and, if possible, place in the sunshine.

If wiped dry with a clean towel the tin will be brighter, but if made thoroughly hot by the rinsing, it will dry without wiping, will not rust and be cleaner than if wiped with a towel which is damp and as unsanitary as is frequently used. Use a brush, not a cloth, for washing tinware.

CREAM SEPARATION.

Milk is "an emulsion of fats in a watery solution of alkaline salts, casein, and sugar."

The average composition of milk is as follows:

	Per cent.
Water	87.17
Fat	3.69
Casein	3.02
Albumen	.53
Sugar	4.88
Ash	.71
Total	100

"Cream is that portion of the milk into which most of the fat has been gathered."

Fat being lighter than the water or the solids not fat (sugar, casein, etc.) raises to the top when allowed to stand in a vessel, and in so doing carries with it a little of the other solids not fat, and constitutes what we commonly call cream. The heavier portion (i. e. skim-milk) settles to the bottom by reason of the force of gravity.

METHODS OF SECURING CREAM.

Shallow Pans.—The objection to this method is the large loss of butter-fat in the skim-milk, the exposure of the cream to undesirable odors, and the labor of caring for a large number of vessels.

The best results with pans will be secured when the milk is set at rest immediately after milking, in a room where the temperature is 60° or below. A loss of 0.6 to 0.7 per cent of fat in the skim-milk is to be expected, while it often runs much higher.

Cold Deep Setting.—The milk is set in deep, narrow vessels, surrounded by cold water. It may be only a common shot-gun can (about eight inches in diameter and 22 to 24 inches deep) set in water in a barrel sawed off to the right height, and protected from dust and bad odors; or it may be a high-priced cabinet creamer, handsomely painted and trimmed with nickel-plated faucets, knobs, etc. The essential features for best results are narrow, deep cans, set in water at a temperature of 45° F. or below, for at least 12 hours. The cream may be skimmed off the top with a cup, or better, a cone skimmer, or the skim-milk may be drawn off from the bottom by a faucet, stopping so as to leave the cream in the can.

The loss may be only 0.2 to 0.4 per cent under favorable conditions, while warm water and carelessness in removing the cream will cause much larger losses.

The Michigan Experiment Station reports the following per cent of fat left in skim-milk from milk set at various temperatures:

	Temperature degrees F.	Ave. per ct. of fat in the skim-milk.
Mil set in open air at	62	1.40
Milk set in water at	32—36	0.19
Milk set in water at	40	.36
Milk set in water at	50	.84
Milk set in water at	58—60	.84
Milk set in running water at	58—60	.84
Milk set in open air at	62	1.40

These figures emphasize the necessity of having the water cold which surrounds the cans of milk, otherwise the amount of butter-fat in the skim-milk will be very large. The cans of milk should be placed in the water as soon after milking as possible.

Dilution Separators—So called "water separators," are merely deep cans in which the milk is mixed with water; usually as much water as milk, and allowed to stand 2 to 24 hours. They usually have a faucet at the bottom for drawing off the skim-milk and water, and a strip of glass by means of which the cream line may be seen.

There have been many variations and adaptations of the principle of dilution, but all are equally inefficient, and these miscalled "separators" have commonly been sold at exorbitant prices compared with their cost and merit. The loss of butter-fat will be from 0.7 to 1 per cent under favorable conditions, and usually much more, especially if allowed to stand only three or four hours before skimming.

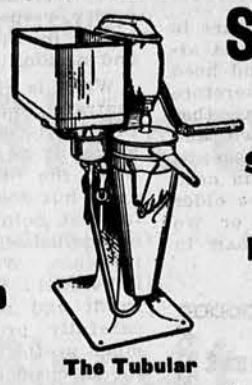
THE HAND-SEPARATOR.

In the commercial world the word "separator" as applied to the dairy business is used to mean a machine with which cream is secured by substituting centrifugal force for the force of gravity.

In the mechanical separator a small steel bowl is made to revolve very rapidly, developing centrifugal force, which is spoken of as the tendency to fly away from the center around which it is moving. Swinging a bucket over one's head fast enough so the water does not come out even though the bucket be upside down, is an illustration in which the centrifugal force, being greater than the force of gravity, the contents stay in the bucket. The old game of crack-the-whip is another illustration. The faster the speed the greater the centrifugal force. In the mechanical separator the bowl revolves so fast that there is sufficient force to bring the heavy portion of the milk, that is the skim-milk, next to the wall of the bowl immediately, forcing the cream toward the center. By a suitable arrangement of outlets the skim-milk is pushed out at one and the cream another as more milk is let into the bowl. The process is a continuous one.

The advantages of the hand-separator are: (1) Practically all of the fat is gathered into the cream, thus reducing the loss in the skim-milk to the minimum. (2) The milk may be separated immediately after milking, so the skim-milk may be fed while it is still warm with the animal heat (which adds considerably to its feeding value as compared with cold skim-milk warmed up). (3) Only the cream, which is about one-sixth of the milk, needs to be cooled. Often a suitable place for the separator may be found at or near the barn, in which case only the cream and the parts of the machine to be washed have to be carried to the

A FARMERS' COMMITTEE SAYS TUBULAR IS WORLD'S BEST CREAM SEPARATOR



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The members of the committee backed up their decision by buying for themselves six No. 6 Sharples Tubular Cream Separators right on the spot—one Tubular for each farmer on the committee.

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are in a class by themselves as the best separators. But many have the mistaken idea, which competitors help to magnify, that they are "expensive" and that something "cheaper" will do in their stead.

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are not only the best, but at the same time by far the cheapest—in proportion to the actual capacity and the actual life of the machine.
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THE DE LAVAL SEPARATOR CO.
Randolph & Canal Sts., CHICAGO — 1213 Filbert Street, PHILADELPHIA — 9 & 11 Drumm St., SAN FRANCISCO
General Offices: 74 CORTLANDT STREET, NEW YORK.
109-113 Youville Square, MONTREAL — 75 & 77 York Street, TORONTO — 14 & 16 Princess Street, WINNIPEG

house, which is a considerable saving of labor over carrying all the milk to the house and the skim-milk back to the barn. (4) The thickness of the cream may be controlled. (5) There is undoubtedly a saving of labor as compared with handling much milk in either pans, crocks, or deep setting. (6) Much of the dirt getting into the milk during milking, which is not dissolved by warm milk, is left in the bowl or thrown into the skim-milk, so under certain conditions the quality of the cream for butter-making is improved. But the separator won't take out the filth that has been dissolved.

The chief objection to the separator is its first cost, which is from $60 to $125 for farm-size machines, depending on the amount of milk they will skim per hour.

In buying, it is well not to get a very small machine, as it takes too long to run the milk through; if later two or three more cows are added, the time required for turning the small separator is considerable, while the difference in first cost of the larger machine will soon be made up by saving in time required to skim each day's milk with the larger size.

Some desirable features of a separator are:

1. Clean skimming under a wide range of conditions, such as warm and cold milk and thick or thin cream. The skim-milk from a good separator properly run should not contain to exceed 0.05 of 1 per cent of fat, and under ordinarily favorable conditions should show even less than that in the double-neck test-bottle.

2. Ease of washing; all parts should be so arranged as to be easily gotten at for washing, few corners and tubes.

3. Easy running; all machines of the same manufacture are not equally easy running.

4. Durable construction, few parts, well made; we have in our dairy department several makes of separators which do satisfactory work. Each has its admirers among the many students who have used them all, while no one has a monopoly of all the good points.

OPERATION OF SEPARATOR.

The thoroughness with which the separator does its work depends very much on the speed of the bowl, the temperature of the milk, and the flow of milk into the bowl.

Speed.—The handle should be turned steadily, care being taken to keep a constant even pressure upon it, all the way around, not pushing down hard and pulling up hard, while for a moment when the crank is down and again at the top there is no pressure upon it. Turn at the speed the directions call for, or if it is found by testing the skim-milk, that it is not skimming clean, an increased speed of from three to five turns per minute will usually help matters. The importance of keeping up the speed is shown by the following two experiments:

In the first the power was removed from a machine running at full speed and full capacity, separating 600 pounds of milk per hour, and the skim-milk caught in small lots and tested separately. The following is the record of the test of the first seven quarts of skim-milk coming from the machine after the power was removed:

	Per cent fat in skim-milk.
First	0.03
Second	.03
Third	.045
Fourth	.05
Fifth	.10
Sixth	.12
Seventh	.16

In the second case a hand-separator was turned at different rates of speed, 42 turns of the crank being recommended by the manufacturers. The following are the results:

	Per cent fat in skim-milk.
45 turns per minute	0.02
42 turns per minute	.04
39 turns per minute	.047
36 turns per minute	.05

Temperature of Milk.—When milk is separated at milking time, unless allowed to stand for some time, it will be at the best temperature for separation and it should be separated then if possible. Cold milk should be warmed up to 80° or 90°. While a can of milk may be set on or near the stove to warm it up, it is better to place it in warm water. When the milk is cold the cream is thicker, and if too cold may clog the separator. If necessary to skim cold milk, it will often help matters to adjust the cream-screw so as to increase the proportion of cream. As there is usually a large loss in skimming milk too cold, it should be avoided.

Flow of Milk.—On most hand-separtors the flow is fixed by the manufacturers and needs no attention except to see that the faucet does not jar partially shut and that the supply of milk is kept up to the last.

Care.—The separator does not need much oil at a time, but every bearing requiring oil should have some each time the machine is used. Occasionally the bearings should be liberally oiled with kerosene; this will cut any gum and dirt and help much to keep the machine in an easy running condition.

The relative loss of butter-fat in the skim-milk from the different methods of securing the cream is as follows:

	Per cent.
Dilution method	0.7 to 1.
Shallow pans	.5 to .7
Deep setting	.2 to .5
Centrifugal separator	.03 to .05

There will be at least 3,00 pound of skim-milk from a good cow in one year. With the above per cents as a safe basis, one may easily figure the amount of butter-fat being lost by the methods he is using. The above figures are for ordinarily good conditions. The losses will be greater when the operator is careless. And on many farms they are greater.

The Michigan Experiment Station secured skim-milk from a number of farms and found it contained as high as 1.5 per cent of fat. With average whole milk only testing about 4 per cent that proportion of loss is very great.

(To be continued.)

A Solution to the Milk-Supply Problem.

J. M. PARR, TOPEKA.

"Are there no honest milkmen?" This is quoted from a speech made at a dairymen's meeting at Kansas City, November 12. The speaker said in part that there are no honest dairymen; that they can not afford to be honest and compete with companies in town. They just have to water their stock—I mean their stock in trade.

We know that an honest man in business has no chance against the rogue. If a milkman waters his milk, he can sell it cheaper. In this way he gets the trade and the honest man goes hungry. One dishonest competitor sets the pace and the rest must follow his lead or go out of business. People want things cheap. They don't consider quality, and many of them don't know it when they see it. They will buy of a man who will give the most milk for a dollar. In all cities conditions are the same. The milk is doctored with drugs to keep it sweet, and many children die on account of the poisonous drugs used.

This has been going on for many years, and yet the people can't solve so simple a problem as provided pure milk for themselves. If they would put their city officers to doing something useful; if they would put them to running a municipal dairy and furnishing the milk at cost of labor and other outlay, the milk could be bought from the city and the money be accounted for as tax money. There would be no interest for any one employed to serve. There would be no need to adulterate the milk or increase its price above the cost. This would give the public pure milk and would save two-thirds of the cost of delivery, for the city would deliver milk at every house on a street that wanted milk from the same wagon and not have a dozen wagons traveling the same street, leaving a pint here and a quart in the next block and then going to another street. Milk would be delivered under the same regulations as the letter-carrier carries the mail. A dairy owned by the city will never supply poor, dirty, poisoned, adulterated milk. Even the dairymen acknowledge it. You and I would do just the same as they do under those existing conditions.

Does What Other Stoves Fail to Do

In almost every house there is a room that the heat from the other stoves or furnace fails to reach. It may be a room on the "weather" side, or one having no heat connection. It may be a cold hallway. No matter in what part of the house—whether room or hallway—it can soon be made snug and cozy with a

PERFECTION Oil Heater
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Unlike ordinary oil heaters the **Perfection** gives satisfaction always. First and foremost it is absolutely safe—you cannot turn the wick too high or too low. Gives intense heat without smoke or smell because equipped with smokeless device. Can be easily carried from room to room. As easy to operate as a lamp. Ornamental as well as useful. Made in two finishes—nickel and japan. Brass oil fount beautifully embossed. Holds 4 quarts of oil and burns 9 hours. There's real satisfaction in a Perfection Oil Heater. Every heater warranted. If not at your dealer's write our nearest agency for descriptive circular.

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BARRED ROCK COCKERELS—Bradley strain. Few exhibition. Also breeding cockerels and pullets. Write for prices. Mrs. W. A. Scheier, Argonia, Kans.

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BARRED PLYMOUTH ROCK EGGS—From free range stock, no other fowls kept on the farm. Price $1 for 15; $5 for 100. Mrs. C. F. Brown, Box 61, Manchester, Oklahoma.

B. P. ROCKS AND BUFF ORPINGTONS—Eight grand matings. Send for price list on eggs and Collie pups. W. B. Williams, Stella, Neb.

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FOR SALE—Barred Plymouth Rock cockerels at $1 and $1.50 each. Address A. C. Merritt, Hill Crest Fruit and Poultry Farm, North Central Ave., Topeka, Kans. Ind. phone 4351.

SPECIAL SALE ON BARRED PLYMOUTH ROCKS.

I will sell 60 yearling hens to make room, at $1.00 each. These hens are barred to the skin. All my last season's pen breeders, the kind that produce exhibition cockerels. Right here is a chance to get some No. 1 stock at a low price. Let me mate up a trio or a pen that will start you right. I will also sell 10 cocks including the 2d and 5th prize cockerels at the Kansas State show of 1906. Description, price and photographs of any winners sent free. I will also sell cockerels until December 1 at $1.50 each, sired by my first prize males. Write for prices on exhibition stock. Satisfaction guaranteed or money refunded. A. H. Miller, Bern, Kans.

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W. P. Rocks hold the record for egg-laying over every other variety of fowls; eight pullets averaging 289 eggs each in one year. I have bred them exclusively for twelve years and have them scoring 94 to 96½, and as good as can be found anywhere. Eggs only $2 per 15; $5 per 45, and I prepay expressage to any express office in the United States. Yards at residence adjoining Washburn College. Address
THOMAS OWEN, Sta. B, Topeka, Kans.

LEGHORNS.

FOR SALE—A limited number of S. C. White Leghorn cockerels; pure bred birds bred for laying and size. Price $1, if sold at once. Mrs. T. R. Wolfe, Route 2, Conway Springs, Kans.

FOR SALE—Single Comb White Leghorn cockerels. Wyckoff laying strain. Price, 75 cents and $1. Henry Martin, Newton, Kans.

ROSE COMB BROWN LEGHORNS — Alger strain, best winter layers. A few cockerels at $1 each; return at my expense if not satisfactory. Frank L. Dunable, Clay Center, Kans.

FOR SALE—At Claremont Ranch, Englewood, Kans., some fine single comb Brown Leghorn cockerels at $1 each. Mrs. C. D Perry, Englewood, Kans.

THOROUGHBRED Rose Comb Brown Leghorn cockerels, $1 each; three for $2.50. Samuel Mannen, Lincoln, Kans.

ROSE COMB BROWN LEGHORNS EGGS, 15 for $1, 50 for $2.50, 100 for $4. Mrs. John Holzhey, Bendena, Kans.

STANDARD-BRED SINGLE-COMB BUFF LEGHORNS—Headed by first prize pen Chicago show 1903 and took six first prizes and first pen at Newton 1904. Eggs $3 for 15. S. Perkins, 801 East First street, Newton, Kans.

SINGLE-COMB WHITE LEGHORN cockerels, $1 each; two or more 80 cents each. Fine white pure, thoroughbred birds. Also a few Barred Plymouth Rock, barred to the skin—fine, pure and vigorous; hens, cocks and pullets, $1 each; two or more, 80 cents each. All of our customers are very well pleased. We will make reductions on large lots. Meadow Poultry Farm, Centerville, Illinois.

EGGS FOR SALE—S. C. W. Leghorns, W. Wyandottes, $1 per 15. W. H. turkeys, $1.50 per 9. Emden geese, 20 each. W. African guineas, $1 per 17. All guaranteed pure-bred. A. F. Hutley, Route 2, Maple Hill, Kans.

FOR SALE—Exhibition S. C. Black Minorca cockerels, $2. I guarantee them. Address George Kern, 817 Osage Street, Levenworth, Kans.

Buff Leghorns Pure-bred S.C. cockerels $1 each, 6 for $5. J. A. Reed R. 3, Wakefield Ks

Examine any fowl bought of us at the express office. If not satisfied return and get your money, less express charges one way. Our fowls are strictly tops. Buff Black and White Langshans, five varieties of Leghorns, and many other breeds to select from. Get busy or your choice will be gone. Write
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BLACK LANGSHAN cockerels and pullets from prize winner, $1 each, if taken at once. Mrs. Geo. W. King, Solomon, Kans., Route 1, box 4.

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which will please you at prices that will satisfy you. Bred from stock from such breeders as Mrs. M. A. Smith, Ben S. Myers, Ashe, Hettich, King, etc. Write for prices and descriptions.

MRS. E. S. MYERS,
Box 174. Chanute, Kans.

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Poultry Pointers.

Thanksgiving is over and the urgent call for turkey has been appeased; but Christmas is not far away, and if you have any turkeys left it behooves you to fatten them up in the few weeks intervening between this time and Christmas. It will pay you to give them extra care and attention and supply them with the most fattening food you can get, for each addition of a pound that you can add to their weight will net you about twenty cents. There will also be a good demand for ducks and geese, for more of these birds are eaten when cold weather comes. Feed them all they will eat, for you will surely be repaid twenty fold for all the food you give them.

Talking of ducks and geese, is it not a wonder that more farmers do not raise them? There are hundreds of farmers in the country who are blessed with streams and rivers running through or near their lands or places of habitation, who could as well as not raise large flocks of these salable and profitable birds without much outlay. The Pekin, the Aylesbury, the Rouen, or the Indian Runner duck is a splendid breed for the farmer, market poulterer, or cottager. They mature early in their lives, are remarkably productive, fatten quickly, and dead or alive are vastly superior to the common duck. Breeding for profit is the grand object to be obtained in breeding aquatic fowls. Most every poultryman knows this, but after all, we see carelessness and mismanagement getting the better of judgment and common sense when one attempts to raise common ducks nowadays, although other and better kinds can be had by a little outlay on the start. We do not mean to say that there is no profit in the common ducks, for we know there is, but not nearly so much as in the pure-breds. Unless ducks have suitable quarters and receive regular attention, it is a good deal of trouble to look after them. The half-starved duck disposes of a good deal of food at a single feed. But the duck that is fed and well cared for, matures so early and furnishes so rare a repast, that the owners of a country home, if they have cultivated tastes, can hardly afford to do without a duck yard. The Pekin duck is a superior duck. Their pure white plumage, so desirable to look at, their flesh-colored bills, orange legs, graceful forms, heavy weight, fine flavor, and prolific laying make them a first-class fowl for market or home use. Indian Runner ducks have lately been coming to the front, being considered extra good layers, though not so large a fowl as the Pekin. It is said that both of these breeds will do well without a pond or stream of water, though all ducks we think will do better on streams or ponds than where there are none. They are great foragers and where there is plenty of grass will thrive well on very little grain.

Experiments in feeding and in computing the value of eggs, show that if no estimate is made for labor, one dozen eggs can be produced at about six cents for food, or about half a cent per egg. This is where everything must be bought for them at a fair market price. Where hens have free range of the farm and can pick up most of their living for nothing, of course the cost is much less. If all the food allowed to hens was converted into eggs, the profit on a dozen eggs would be very large, even when prices are low, but much depends on whether the hens convert the food into eggs, or into flesh for the support of their bodies. It is a demonstrated fact, however, that when a dozen eggs are marketed they carry from the farm but little of the nutritious elements of the soil in proportion to their value in market, and on that account they are more profitable than anything else that can be produced on the farm.

An Interesting Test.

Breeders of pure-bred poultry often make a mistake in inducing their hens to lay all through the winter, and then when spring comes and the breeding season is at hand the hens quit laying and the breeders have no eggs for hatching purposes. We remember a few winters ago a neighboring breeder of pure-bred poultry asked us how many eggs we were getting. We answered that we were not getting many; that we did not feed our fowls to get eggs in winter, for we wanted the bulk of our eggs in early spring to sell for hatching purposes at $2.00 per sitting. "Oh," said he, "I am getting lots of eggs now and getting good prices for them, and I will have lots of eggs in the spring also." But that same spring he came to us and wanted to know what to feed his hens for eggs as they had quit laying and calls were coming in for eggs for hatching. He could not supply the demand and had to return money that had been sent for such eggs. We told him of the mistake he had made; that his hens were layed out and would not start again till they had a good rest. The controlling effect of feed upon egg-production is well shown by an experiment at the North Dakota Experiment Station. Two pens of fowls were placed under exactly the same condition in every respect except the feed. One pen was fed for eggs. The fowls in the other pen, being only for breeders, were fed to check the eggs in order that they might lay more in the spring.

The method of feeding for these results was as follows: The pen of layers were given a good deal of lean meat and scraps from the table and plenty of wheat. Those not intended to produce eggs in the winter were fed on wheat screenings of poor quality with some corn. During December the pen of layers contained nineteen pullets. The first laid sixty-three eggs, the other none at all. In January the first laid one hundred and twenty-five eggs, the other seven eggs. In February the first laid one hundred and nine eggs, the second twelve. In March the first laid one hundred and sixty-eight, the second forty-three. During the last part of March the experimenters began to get the breeding pen in good shape for layers, the eggs being wanted. The hens in the breeding pen had become too fat, so their ration was reduced and meat given them. From this time on the sixteen pullets in the breeding-pen laid more eggs than the nineteen in the first pen, by reason of their winter's rest. During April the first pen laid one hundred and twenty-nine eggs, the second pen one hundred and eighty-nine. During May the first pen laid one hundred and forty-two eggs, the second pen three hundred and eighty-one, and for the rest of the season the breeding-pen laid more than those laid during the winter. The average for both pens was a little more than one hundred and fifty eggs to each hen through the year. The average price of the eggs the season through was eighteen cents per dozen, while the average price of those which did not come until April or after was eleven and one-half cents per dozen. Hence, although the spring layers almost caught up with the winter layers, the net returns were very much smaller. The experiment teaches many practicable points. One is, that to produce eggs for market at a profit hens must lay in winter, but if the eggs are to be sold for breeding at fancy prices, it will be the best policy not to encourage the winter laying. Another important point which is not emphasized enough is the remarkable effect of meat in stimulating winter laying. Very often when hens are well cared for in a general way, but do not lay, all that is needed is to reduce the grain feed considerably and feed lean meat two or three times a week, also some fresh ground bone. Some breeders, especially those who raise Asiatics, want eggs very early in the season, in January and February; others who breed the Americans may not need the bulk of their eggs till March and April. The breeders of the Mediterranean class again may not need the eggs for hatching till April and May. All these can be guided by their several wants and get eggs when they need them most, by following the suggestions printed herein.

Wild Chickens—Hens Stopped Laying.

My chickens have nearly gone back on me. I have mixed breeds, principally Brown Leghorns and Plymouth Rocks. A good many of them roost in the trees and are so wild I can do nothing with them.

I feed them Kafir-corn seed and they get plenty of corn and fresh water. They also have access to green alfalfa-fields. However, they have nearly stopped laying and my experience is

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that if they stop at this time of year it is hard to start them before spring.

Mitchell County. J. K. CAUGHEY.

It is not advisable to mix Brown Leghorns with Plymouth Rocks for the reason that the latter are a more recent breed than the Leghorns, and hence in crossing the quality of the birds is apt to revert.

I should always aim to breed pure-bred fowls, especially in the Leghorn type. The larger meat breeds are more susceptible to crossing with good results.

Your ration is one-sided and we should advise you to feed in connection with Kafir-corn or Indian corn some meat-meal, or dried casein, which is even better. If none of these are accessible, feed some linseed-meal and wheat mixed in a mash and allow them to run on green alfalfa and you will find that you will have good results.

O. ERF.

Poultry Notes.

N. J. SHEPHERD, ELDON, MO.

The proper age to begin to feed fowls for fattening in good shape is just as soon as they have reached their maturity. Before that they will not fatten so well.

In raising poultry for market, the profit lies in hatching early, pushing the chickens forward as rapidly as possible, and marketing them early, taking care, of course, to have them fat and plump.

No single breed of fowls will answer all requirements. If the object is to secure eggs without regard to the sale of fowls, a non-sitting breed is best. If broilers and fowls are the objects, the market breeds should be selected. During the winter especially, fowls are healthier when they have to scratch for their food. When feeding grain, throw it among an inch or two of straw, hay or leaves—anything so that they will have to scratch for it.

Turkeys, to bring good prices in market, should be shut up for a week or two and be given everything they can possibly eat. Corn-meal and sweet potatoes mixed together, cooked, for their breakfast makes fat rapidly and givves the meat a fine flavor.

The market fowl must be bred with special reference to market qualities. It must have an abundance of meat upon the choicest parts, and can only be brought to a perfect condition by feeding during the early part of its growth with care and system.

Ducks are great farm scavengers, eating much that can not otherwise be utilized. Vegetable trimmings, potato parings, bread scraps, etc., if mixed together, and especially if boiled until soft, make a dish ducks highly relish and will give better results than too much grain.

When hens have been laying for quite a while, the eggs at the close of the prolific period will not produce as strong chickens as those which were laid at the begining of this period. It is claimed that the layer begins to diminish in vigor by this continued effort and the eggs are not sufficiently endowed with vitality.

Wheat fed to laying hens and cracked wheat fed to young chickens, has always given good results, though it should be remembered that it should not be fed in the same quantities as corn. The tendency of wheat is to produce a healthy growth, feed the muscular tissues, and aid materially in causing the hens to lay often and rich eggs.

The Apiary

Wintering Bees.

EDITOR KANSAS FARMER:—It is already late to begin to think about wintering bees, but late beats never by a little, and many have not yet prepared their bees for wintering. True in our great State (Kansas), bees usually take care of themselves, but by a little care and expense our great loss (75 per cent of all our bees) in 1905-06 could have been avoided, as the winter was very favorable for those that had sufficient stores. Our already too few bees have been greatly increased in 1906.

While bees may winter without any care from their owner, a little care will pay as well with bees as with cattle and horses, and your next year's crop of honey will be greatly increased by a little time and trouble in preparing them for their long winter's rest. Colonies that winter poorly, like stock that is poor in the spring, require much of the next season to get in condition to be of any profit to their owner, if indeed they yield any profit at all.

No country excels Kansas in the quality of honey produced, and we need have no fears as to the honey being fit on which to winter our bees, provided they have a sufficient amount. Twenty to thirty pounds will usually be sufficient to winter a colony.

I do not think that I can tell the experienced apiarist anything that will add to his knowledge, but there are many who would care for their bees if they only knew how little trouble it is to do so. As I have been successful for several years with my bees, I thought you might wish me to give through your columns the method I pursue, although it is not new nor my own.

All colonies should have a good, healthy queen and be in movable frame hives. If your bees are not thus fixed now, it is too late to change them this fall. See that each colony has at least twenty pounds of honey. You can guess as to the amount very closely by lifting the hive. If this amount of honey is not available, give granulated sugar dissolved in an equal amount of water. I place on the hive an empty super and in it an ordinary bake pan, in which has been placed several corn-cobs. Over these corn-cobs I pour the dissolved sugar into the pan. The bees will carry the sirup down in a few nights. Then I lay on top of the brood-frames some corn-cobs over which I place burlap. I set the empty super on this, then fill the super two-thirds full with dry sawdust, leaves, or any other materials that will keep out cold and absorb moisture. Then place on the lid, being sure that it does not touch the packing nor fit air-tight, as it will condense some moisture and dampen the packing material if it does. Notice that the entrance is not large enough to admit mice, as they are very destructive to the chilled, helpless bees. The entrance should be about three-sixteenths of an inch in width for wintering and should extend across the middle and not at one side.

Shade the hive to prevent the direct rays of the sun from striking it, especially on the front. If the sun is allowed to shine on the front, many bees will fly out when it is too cold for them to get back. Bees will leave the hive sometimes even when the ground is covered with snow. A loss of a few bees at this time means a loss of many in the early part of the season, when fruit-bloom honey is coming in.

Lyon County. NEMUEL BROWN.

Beekeeping in Kansas.

EDITOR KANSAS FARMER:—Kansas, as a country in which to keep bees successfully and profitably, has been held in doubt by a majority of our people until recently. Within the last few years quite a number of persons have kept bees with such a degree of success that the experimental period has been passed. In all parts of the State where the growing of alfalfa, fruit, and heartsease succeed, bees may be kept with as much certainty as in almost any other State of the Union. Quite a number of beekeepers are members of both our National and State Beekeepers' Associations, but I regret to state that the membership of either of these associations in Kansas is not as large as the interests of this industry demand.

Foul brood, which is prevalent in almost every section of the country, has appeared in Kansas. If it is not promptly checked and stamped out, it will seriously damage the bee industry in Kansas. At the request of a number of beekeepers, the Legislature passed a law during the last session of that body, which has for its object the protection of bees and the check of foul brood. In many of our counties where twenty-five or more owners of bees reside, it can be made quite effectual. But as twenty-five beekeepers are required to sign a petition to the county commissioners to appoint a bee-inspector, whose duty it is to adopt such measures as will effectually stamp out the disease, the law can not be put into operation in all counties where a less number than twenty-five reside. We have quite a number of counties that have less than twenty-five bee-owners. It is the duty of all concerned to ask our Legislature to amend the law during the coming session so as not to require more than three beekeepers to present a petition to the county commissioners in order to secure the appointment of a bee-inspector.

In view of the foregoing facts, I will, as president of the Kansas State Beekeepers' Association, recommend to all concerned that the next annual meeting of the Kansas State Beekeepers' Association be held in Topeka during the annual meeting of the State Horticultural Society. At that time there will most likely be reduced rates on all railroads of the State, and as the meeting of the Horticultural Society will very probably be published in THE KANSAS FARMER, the editor will no doubt publish the date of the State beekeepers' meeting also. Please permit me to urge all interested in the success of the beekeeping industry to arrange to be at the next annual meeting. G. BOHRER.

Rice County.

Bigger Corn Yields.

The advance in corn-breeding and general increase during the last ten years has been really wonderful. Yet statistics of average yields over the great corn belt show that there is still plenty of room for development and advance work. Every experiment station, every personal experimenter, and every corn-raising farmer is putting forth his best efforts, with the single object in view of increasing the yield of his corn-crop. The most approved methods of breeding seed-corn, caring for it, and testing it at the proper time for germination are practised, and it must be acknowledged that up to this point the work has been done without a single flaw.

It seemed for a time that corn-growers had gone as far as they could. The progress of the work, getting a larger yield from our fields, now depends upon just one thing, that is, getting a better and more uniform stand. For, with tested seed, if the kernels can be deposited regularly, one is reasonably sure of having nearly every hill occupied. The loss from imperfect stands every year is something alarming. It is a waste for which there is really no plausible excuse. In Indiana, recent investigations show that the stand of the last crop of corn was less than 75 per cent. In Iowa, it has been estimated by careful observers, that the farmers of that State lost last year over 5,000,000 bushels of corn, resulting from imperfect stand. In Illinois, and, in fact, in all of the great corn-growing States, the situation is just as bad.

The whole problem now resolves itself down to some practical method of sorting the seed-kernels, so that a uniform number is deposited in practically every hill. Recognizing the urgent necessity of some machine which would do this accurately, inventive genius has been at work for the past two or three years, with varying degrees of success. It remained however, for the Monarch Self-Feeder Company, of Cedar Falls, Iowa, to bring out a machine which has proved, by critical test, to do this work accurately. In numerous recent tests this machine sorted seed-corn so perfectly and evenly that when the seed was used in an edge-drop planter, the drop was 99 per cent perfect —three grainsin each hill. These tests were conducted at the Iowa State Fair, before thousands of interested corn-growers. Just think what it means if you can get 99 per cent of a perfect stand of three stalks in a hill. The machine made by the above company for sorting seed-corn is called "More Corn." The writer recently inspected every point in its contruction. He put the machine through the severest tests in sorting thick grains, thin grains, and stubby grains, and in all of these tests entirely satisfactory work was done. It is a machine which will add millions of dollars to the wealth of corn-growers in the Western States, and it is something that every corn-grower, who expects to put in 40 acres, or more of corn next year, should investigate at once. Here is the best advice that we can give to our corn-growing friends: For your next corn-crop use the best land you have. Plant only the very best seed, which should be tested just before planting for germination, and don't plant it if it shows less than 97 per cent, good and strong, and then use a "More Corn" sorter to sort your seed, so that you can depend upon getting a uniform number of kernels in every hill.

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For Sale, choice Irrigated Lands, all planted with alfalfa, $35 an acre, on installments, Kern County, California, the finest agricultural country in the state. For particulars write. California Buyers Union, Inc., 916 Broadway, Oakland Cal.

FOR SALE—Farms—Bargains; 500 farms, stock ranches. Kansas or Missouri. Before you buy, sell or exchange, write for my free lists. F. H. Humphrey, Fort Scott, Ks.

Terrence & Son, Emporia, Kansas
High-Class bottom farm, 178 acres, one-half mile from city limits. $10,000 worth good improvements, 80 acres alfalfa, cuts 4 crops of 1½ tons per acre; balance corn and wheat, price, $100 per acre. Other farms of all kinds, from $20 up.

Jewell County | **Morris & Woolsey**
Randall, - - Kansas
Quarter section of good land at $40 per acre; it is a bargain. Write for full particulars.

A CORN AND ALFALFA FARM.

FOR SALE — One of the richest improved farms on Prairie Dog Creek. Soil is black loam that yields big crops every year. This year an average of 60 bushels of corn, about thirty acres in pasture and timber, 15 acres in alfalfa, balance corn land. Good house and barn and other farm buildings. On account of change of business the owner desires to sell soon. Address
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The Rogue River Valley, Ore.

offers good climate, good health, good schools. Our specialties, Spitzenbergs and Newton apples, all varieties of pears, alfalfa and timber lands. Best fruit section in west and prices have not been boomed. The growers of fancy fruits have made wonderful records recently. No cyclones, no earthquakes. Write Rogue River Land Co., Medford, Ore Only once to live. Why not good climate.

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Prices $25 to $50 per acre. Corn, wheat, alfalfa, timothy, clover and blue grass. Will pay ten per cent on investment. 160 acres five miles from county seat. 5-room house, fair repair, stable; lies fine, no rough land; price $40 per acre. Owner will take rental property to amount of $2,000 on exchange; must be worth the money. Write. I have all kinds of bargains. Eighty miles from Kansas City.
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Almena, - - Kansas

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Do you want to buy a stock of goods?
Do you want to buy western land?
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Do you want to trade for anything?
Do you want to get our list?
Do you want to sell your farm?
Do you want to sell your property?
Write today.
The Dunlap Land Co., Abilene, Kan.

ALFALFA RANCH

480 acre ranch in Scott Co., Kansas; six miles from Healey, about 100 acres creek bottom land, 2 miles running water, stone house, barn and cattle sheds, good timber. An excellent alfalfa and stock ranch. Price, $4,000. Apply to
Albert E. King, McPherson, Kans.

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GET A HOME IN KANSAS---SOME CHEAP ONES

80 acres, good improvements, all cultivated, $2200. 160 acres, 60 acres bottom, 5-room house, new barn, 4 acres timber, 40 acres wheat, $5000. 330 acres, fair buildings, large orchard, some timber, 65 acres alfalfa, nearly all level bottom land, $40 per acre. 480 acres, 125 acres of alfalfa and blue grass, nice house, large bank barn, orchard and nice shade trees, price $15,000; part trade considered.

Write for lists to Minneapolis, Florence or Salina, Kans.

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DICKINSON COUNTY, KANSAS FARMS FOR SALE

160 acres nice improved bottom farm, corn, wheat and alfalfa farms, price $45 per acre. 320 acres bottom land, price $50 per acre. 160 acre farm mostly bottom land, price $35 per acre. 320 acre farm, price only $25 per acre. If you want a farm, write what kind you want. I have several farms for sale, owned by non-resident people, also farms owned by estates that are for sale cheap.
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in Trego County, Kansas for $10 an acre. This is a snap and will not last. Be quick!
STEVENS & RUBY, Stockton, Kans.

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We have them for sale; fine, black land, which grows Corn, Wheat, Clover and Bluegrass on every acre, and located in Cass county, Mo., 35 to 40 miles south of Kansas City. Send for list or come to se us.
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A Splendid Section Farm.

No. 1099 is a fine farm of 640 acres; well improved; with good house of 7 rooms; good barn and granary; 300 acres in wheat, all goes; 340 acres fenced; 2 good wells and windmills. Close to good market and in one of the best farming communities in Pawnee county. Price $28.00 per acre. Come and see us and we will be pleased to show you this fine bargain.

Frizell & Ely
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"BARGAINS IN LAND"

320 acres well improved farm adjoining small town, all good soil, corn, wheat, and alfalfa land; 20 acres now in alfalfa; farm under fence, good pasture and meadow, fine water, good orchard; 8-room house, cattle barn, 32 by 100, horse barn, 16 by 25, granary and implement house 22 by 130, calf barn 16 by 24, several other buildings; price $12,000; terms, one-half cash, balance on time.

200 acres farm, bottom land, mostly under cultivation; 6 miles from Lindsborg; good buildings; $10,000.

240 acre well improved farm, 4 miles from good market; $8,500.

160 acre farm on Smoky Hill River, 1 mile from Lindsborg; $11,000.

160 acre farm, one-half bottom, one-half upland, buildings, fences; $5,500.

160 acre farm, 5 miles from Lindsborg; $3,800.

160 acre farm, 7 miles from Lindsborg; $2,800.

80 acres farm, 3½ miles from Lindsborg, $3,300.

160 acres good land in Meade County; $1,000.

160 acres all level land, in Logan County, will be sold cheap.

Other bargains to offer, write for list and prices.
JOSEPH A. BRANDT, Lindsborg, Kans.

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Are Synonymous in Southern Alberta, Canada.

A MAGNIFICENT TRACT OF LAND has just been brought under water in that DELIGHTFUL DISTRICT, and is to be sold at once, and upon EASY TERMS. If you are interested, and wish to be furnished with full particulars, drop a card to the

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Choice McPherson County Farms
and smooth level wheat land along the Rock Island line in Southern Kansas. Prices right. Roy T Glass, Canton, Kans.

A SNAP.

160 acres 14 miles from Wichita; 80 acres in cultivation, 60 acres in pasture, 20 acres meadow; all fenced and cross-fenced; small hog pasture; 2 good wells, windmill and pump, which afford excellent water and plenty of it; 10 acres very fine orchard; corn crib, granary, barn with haymow, implement shed, cattle shed; good 6-room house, good cellar, cave; outbuildings; the yard is beautifully set to Bermuda grass; buildings are all well painted and in good repair, being nearly new; 4½ miles from good town with 2 railroads. This is a bargain at $32.50 per acre, and possession can be had immediately, if desired. The Nelson Real Estate & Immigration Co., 137 N. Main St., Wichita, Kans.

LOOK AT THIS AND THINK

Where is Dickinson County? It is in Central Kansas. Look at its wealth, prosperity, best of people, fine climate, and the finest dirt out of doors. Come and look at our crops and judge for yourself. We have 1600 acres of land, all fenced, abundance of water, 2 miles from town; this will make a fine stock farm and is dirt cheap. We have two sections of fine smooth grass land, cheap as dirt. We have 80 acres improved land for $3600. Try us for anything you want. HULL BROS., Hope, Kans.

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Opposite Union Depot. Everything first class Cafe in connection. Cars for the Stock Yards, the up town business and residence parts of the city and for Kansas City, Kansas, pass the door. Solid comfort at moderate prices. A trial will please you.

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WALNUT GROVE FARM

...FOR SALE...

Upon the advice of several specialists I am going to New Mexico for my health. On this account I must dispose of all my Kansas property, including the famous Walnut Grove farm, the most complete and profitable stock farm in Kansas. This includes 130 acres of the best land in Kansas, two miles from Emporia. Over 200 good O. I. C. hogs. All our Barred Plymouth Rocks, 36 Collies, 44 head of cows, 8 head of horses, the best farm house in the State. Also one small farm house, 2 large barns, 2 large cattle-sheds, one 300-foot hen house, one 250-foot broiler house, 20 brooder houses, capacity of plant, 4,000. The best hog house in the West, double-deck cement floors; many small hog houses. This is not an experiment, but a successful stock farm. Price, $20,000 cash.
H. D. NUTTING, Emporia, Kans.

The Grange

"For the good of our Order our Country and Mankind."

Conducted by Geo. Black, Olathe, Secretary Kansas State Grange, to whom all correspondence for this department should be addressed.
News from Kansas Granges is especially solicited.

NATIONAL GRANGE.

Master.....N. J. Bachelder, Concord, N. H.
Lecturer.....Geo. W. G. Gaunt, Mullica Hill, N. J.
Secretary....C. M. Freeman, Tippecanoe City, Ohio

KANSAS STATE GRANGE.

Master.....E. W. Westgate, Manhattan
Overseer..... A. P. Reardon, McLouth
Lecturer.....Ole Hibner, Olathe
Stewart.....R. C. Post, Spring Hill
Assistant Stewart.....Frank Wizwell, Ochiltree
Chaplain.....Mrs. M. J. Ramage, Arkansas City
Treasurer.....Wm. Henry, Olathe
Secretary.....George Black, Olathe
Gatekeeper.....J. H. Smith, Lone Elm
Ceres.....Mrs. M. L. Allison, Lyndon
Pomona.....Mrs. S. M. Phinney, McLouth
Flora..... .....Mrs. S. J. Lovett, Larned
L. A. S.....Mrs. Lola Radcliffe, Overbrook

EXECUTIVE COMMITTE.

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E. W. Westgate,.....Manhattan
George Black, Secretary,..... .. ..Olathe
Henry Rhoades.....Gardner
J. C. Lovett..... Bucyrus

STATE ORGANIZER.

W. B. Obryhim.....Overbroo

Kansas State Grange.

The thirty-fifth annual meeting of the Kansas State Grange will be held at Garnett, Kans., December 11, 12, 13. The Patrons of Anderson County are putting forth every effort to make the visit of the Patrons of Kansas to Garnett a pleasant one, and we have every reason to believe that we will have a pleasant and profitable meeting. To make the statement more certain, we would suggest that the officers of the State Grange have their reports fully prepared before their arrival at the meeting, and that the delegates have everything which they desire to place before the State Grange fully matured and ready for presentation

There will be a three days' meeting of three sessions a day, and it will help very materially to have everything ready to place in the hands of the committees as soon as appointed.

The State Grange did not make an application to the Western Passenger Association for a reduction of railway fare this year. We have tried it for three years in succession, and it has been granted to us on the certificate plan, but it has proven very unsatisfactory. We would suggest to all officers and delegates, in fact to all who attend the State Grange meeting, to purchase round-trip tickets and by this means they will save about 10 per cent from the regular fare.

Garnett is centrally located in a number of well organized grange counties, and it is hoped there will be a large attendance of visiting Patrons.

GEO. BLACK,
Secretary Kansas State Grange.

Fortieth Annual Meeting of the National Grange.

The fortieth annual meeting of the National Grange, Order of Patrons of Husbandry, was held in Denver, Colo., from November 14 to 24 inclusive. A large amount of business was transacted, too much in fact for the limited time at command.

The following, in part, is the address of Hon. J. N. Bachelder, master of the National Grange, delivered before the delegates in the Chamber of Commerce:

"Considering the great importance of inaugurating a policy of National improvement for our highways at the earliest possible date, I recommend that the Grange, in addition to reaffirming its position in support of this measure, conduct a special campaign to secure the prompt passage of a satisfactory bill. And, furthermore, as much valuable time has been lost through the failure of Congress to act, I also recommend that a new Grange bill be prepared and submitted to Congress, increasing the total appropriation called for to $50,000,000, to be divided into five annual appropriations of $10,000,000 each, to be expended in cooperation with States for the improvement of main highways.

"Congress has given to the United States a denatured alcohol law equal to that of the German law, which is the broadest and most liberal of any other nation. Thus, this law which the Grange was so instrumental in securing the enactment of places our country, at least so far as the law itself is concerned, in the leading position among the alcohol-using nations.

"I am informed that many new distilleries are being planned in the West as well as the East, to make alcohol from corn, potatoes, beet-sugar waste, etc. Development along these lines should be encouraged until every section of the country has its industrial distillery.

ADVOCATES THE PARCELS POST.

"The evidence submitted to Congress during the past year has been amply sufficient to convince every member of that body that the farmers of the entire country are a unit in their desire for the early establishment of a parcels post. Notwithstanding these facts, the opposition has been sufficient to deter Congress from taking any action, and I regret to say that I have no hope of seeing the early establishment of a parcels post unless a vigorous campaign, in which all those in favor of it are united in a combined effort, is waged to secure it. I recommend to your consideration the advisability of the Grange taking the initiative in inaugurating such a movement.

"The active opposition to the establishment of a parcels post is almost wholly confined to the express companies and some of the rural merchants. The opposition of the rural merchants is founded on ignorance of the subject, and will disappear as the true economic drift of a parcels post is realized by them. Consider the childish character of the merchant's argument, for, stripped of all sophistry, it is, in effect, a demand that the farmer shall pay him a bounty in order that he may continue to conduct business by antiquated methods.

"In order, therefore, to insure the early establishment of a parcels post I believe it will be necessary to include other measures of postal reform in our demands, and I recommend as measures that should be advocated by the Grange in connection with the parcels post: First, correct the abuses of the franking privilege; second, withdraw free postage from all departments of the Government and provide in lieu thereof that the postal service of each department be met by special appropriations to be included in the general Congressional appropriation; third, provide for the readjustment of railroad mail contracts; fourth, make it obligatory on the Postmaster General to include in his annual reports detailed information showing the actual cost of each department and the revenue derived from each. I am convinced that a Grange postal reform bill or bills will receive consideration.

"It has been announced by the advocates of the ship subsidy measure that they propose renewing their efforts at the coming session of Congress, and that they had been carrying on their propaganda to such an extent among the individual members of Congress that they are confident of success.

"This will make make it necessary for members of the Grange to again cooperate on behalf of the taxpayers of the country against this attempt to devote public funds to private ends, and it is only necessary that we should make it plain to the Representatives in Congress from our Representative districts that we are unalterably opposed to this subsidy scheme in order to insure its permanent defeat.

GRANGE MUTUAL LIFE INSURANCE.

"The present seems the opportune moment for the extension of a popular life insurance movement throughout the United States. So far as old line companies are concerned, the people have become convinced that there is extravagance and often mismanagement, but they have not lost their confidence in the complete solvency of legal reserve companies. Instead, they are more convinced than ever that the legal reserve means sound life insurance, and they have good reasons to be, in view of the fact that none of

A Full Dollar's Worth of

MAN MEDICINE

Free for Six Cents

Here's a proposition, men, that makes it easy ENOUGH for any weak man to try MAN MEDICINE.

Dig up six cents—right now—secure this whole dollar's worth by return mail—and get well at home—quietly.

MAN MEDICINE, boys, is THE STUFF for the weak, weary man. It is the result of years of experience and study of men's weaknesses. It is scientific and it is harmless, but its quick action in man-building work is a wonder.

MAN MEDICINE puts the "nerve" into a man; it takes the flinching out of his eyes and straightens his backbone. It will make you self-assertive, self-confident, able, powerful and vehement with the manly confidence that bubbles up in the strong-nerved body. Be that kind of a man—you can.

Send us six cents today; we will send you a dollar—in MAN MEDICINE—worth a "dollar a drop" some people say. Don't delay—there's nothing on the green footstool that will do the work for you like Man Medicine. It costs you six cents to try—the cost of the postage on package—to get a full-sized dollar package of MAN MEDICINE sent free to your home in plain, unmarked wrapper. Interstate Remedy Co., 1468 Luck Bldg., Detroit, Mich.

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Homeseekers' rates to points in Arizona, Colorado, New Mexico, Texas, Indian Territory and Oklahoma, on the 1st and 3d Tuesdays of each month.

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We take pleasure in announcing that it will be composed of entirely new equipment throughout—the latest designs from Pullman shops, including many new features.

Mission style dining cars, stateroom and drawing-room sleeping cars, and new unique buffet-observation cars—also finished in Mission style.

Daily from Chicago, St. Louis and Kansas City to Los Angeles, Santa Barbara and San Francisco.

A Quality train for the "Quality."
Won't YOU plan to try it this season?

A. M. FULLER, G. P. A.
Topeka, Kansas.

Rock Island

Farmer's Account Book
and
Five Year Diary of Events

An Indispensable Book

Providing for a record of exact information about every item of transaction or event on the farm for five years. It is divided into two divisions, Diary in one and Accounts in the other. In the Diary there is space for five years. Here it shows you the occupation of the day; here are any special incidents that you wish to remember the date of.

The Account part is indexed (read indexes) handy arrangement we think.

Hired help. This is for your labor account; shows the name of the one hired, time worked, wages paid, how paid, etc.

Expense; shows all the outlay for such items as Groceries, Labor, Clothing, etc. You can tell when you paid your Insurance, Taxes, how much they were; in fact, this department will show to a penny what it costs you to run the farm and also what you get for every cent of it.

Live-stock account has a double ruling, sales and purchases for each kind of stock being side by side, and as this is to be for five years it makes an interesting comparison. Then over here you have a history of each deal that you make.

Grain and fruit are ruled and printed in the same way, also space for sales on butter and milk or cream, eggs or poultry, in fact there is space for everything raised on a farm and all you have to do is to make the figures. It certainly is an easy matter to have your affairs in shape if you have a system like this.

The inventory sheets are short but businesslike, you fill in under the proper headings the value of the different kinds of stock, grain, tools, buggies, wagons, etc., and the total is of course, the amount of your resources; then under this other heading you gil in anything you happen to owe on these things, and the difference is your actual worth. This is left in the book and the next year you do the same thing and the difference is your profit for the year.

Bound in Leather and Cloth, or heavy board cover, and delivered to your express office, including a year's subscription to THE KANSAS FARMER and THE HELPFUL HEN.

Leather and Cloth $2.50.

The Account Book alone without the Five Year Diary of Events, in Heavy Board, $1.50.

The Kansas Farmer Co.
Topeka, - - Kansas

the companies was ruined by the drastic investigations to which they have been subjected.

"The idea of uniting old line soundness and fraternal economy is one, therefore, which is sure to make rapid headway in the next few years and, indeed, the time is now at hand when it ought to make the most rapid headway. By all means, sound, reliable, full legal reserve life insurance, furnished by a society controlled by its own members, operating on the fraternal system, with its officers directly responsible to its members, is the foundation to build upon."

THE OVERSEER'S REPORT.

The report of Overseer T. S. Atkeson, of the National Grange, is as follows:

"Once more the National Grange has assembled in annual session to legislate upon matters of importance to the oldest, strongest, and most effective organization that ever sought to unite rural people in a common brotherhood in all the world's history. We are assembled not only to legislate for this great humanitarian fraternity, but to study, to investigate, and to deliberate upon far-reaching economic questions which not only affect the welfare, happiness, and prosperity of the farmers as a class, but tend to the promotion of 'the welfare of our country and of mankind.'

"At 40 years of age the Grange stands as firmly upon its principles of right, justice, and equity as the eternal hills that cast their evening shadows across this beautiful city of the plain.

"The Grange has seen other farmers' organizations come and go, while it, like

"'The brave old oak,
Who stands in his pride alone;
And still flourishes he, a hale green tree,
When a hundred years are gone."

RESTLESSNESS AMONG FARMERS.

"From our outlook as overseer of this National Grange we see now, as we have seen at other periods in the past, a restlessness on the part of many of our rural people and a disposition to follow undisciplined leadership in their efforts to correct some of the evils that beset agriculture and farm conditions. Laying hold upon a single idea, they seek to magnify it into an economic system of universal salvation.

"Early in its history the Grange declared that 'we propose meeting together, talking together, buying together, selling together, and in general acting together for our mutual protection and advancement as occasion may require.' These sound economic propositions and broader principles of education and cooperation, as laid down in our 'Declaration of Purposes,' have stood the test of time, and, founded upon them, the Grange has withstood the assaults of opposing forces for forty years.

"First one and then another of the fundamental propositions laid down by the Grange have been exploited as a 'cure-all' for all the ills that assail the tillers of the soil. Just now the good old Grange doctrine of selling together seems to be attracting special attention, and I am sure every Patron will rejoice at the accomplishment of this wholesome doctrine, whatever the means used to bring it about. The Grange is a builder, and would rather place one brick in the temple of genuine helpfulness than to destroy a castle of errors. From the farmer's standpoint, it is a safer doctrine to oppose all monopolies than it is to seek to create one.

PROUD OF THE GRANGE.

"We are proud of the Grange, of its principles, of the record it has made, and of its deliberative conservatism. But, my brethren, some one has said, 'A conservative is a wallflower specimen of humanity, too cowardly to be in the firing line;' and, again, it has been said, 'There is altogether too much restfulness in respectability,' both of which statements possess some elements of truth.

"The Grange should remember its respectability, but keep wide awake at all times, and it should be guided by the safe conservatism of sound thinking; but eminent respectability and sound thinking alone will not do if we are 'too cowardly to be in the firing line.' The Grange will cease to be what it was designed to be whenever it ceases to be a progressive and aggressive leader in everything that makes for the betterment of country life and rural conditions.

"We are living in strenuous times, and many new sociological and economic problems are crowding upon us and demanding solution and settlement at the hands of this generation of American people. As the representative of more than one-third of our population, this National Grange must decide how much responsibility it will take in the settlement of these questions aright.

"With the law ignoring the rich on one side of us and the government-destroying anarchists on the other, it is manifest that perpetuity of American liberty depends largely upon the sober thinking, loyalty, and patriotism of our rural people, for whom and to whom the Grange speaks in its effort to create a wholesome public sentiment. The responsibility upon this body of farmers is greater than many good people seem to appreciate. With that responsibility resting upon us as farmers and as citizens, nothing should be done lightly and carelessly, but with seriousness and mature deliberation.

"In conclusion I desire to congratulate the Grange upon its present prosperity and its splendid achievements in the past. And I would inspire it, if possible, to greater and grander efforts in the future. May it grow stronger and more effective in its uplifting influence upon humanity with each passing year."

RESOLUTIONS.

The roll call of States for introduction of business brought up the following resolutions:

By E. W. Westgate, of Kansas—On election of members in subordinate granges. Referred to committee on constitution and by-laws.

The following resolution was introduced by George B. Horton, of Michigan:

"Resolved, That a special committee of five be appointed, with Aaron Jones, of Indiana, chairman, and of which the master of the National Grange shall be a member, to investigate and report at the next annual meeting of the National Grange some feasible plan of life insurance on a National or State basis, and which plan shall be exclusively for benefit of Grange members and independent of any other ritualistic bodies or organizations."

The motion was adopted.

By S. T. Buxton, of Oregon—Resolution on postal regulation, which was as follows:

"Whereas, The citizens of the United States have come to regard the postal service as one of the important branches and of the Government; and

"Whereas, It is the ambition of a true citizen to see this service advanced to a more perfect system not excelled by that of any other nation; and

"Whereas, The deficit of the Postoffice Department for the year ending June 30, 1906, amounted to practically $15,000,000, thereby creating a condition that will retard advancement and improvement in our postal service, and

"Whereas, We believe this enormous deficit is caused, in a great measure, by the payment of exorbitant prices to the railroads for the carrying of mails, by the payment of extravagant prices for the use of stamping machines, time-recording clocks, and many other supplies used in every branch of the postal service, and by the flagrant abuse of the franking privilege; therefore be it

WILL SEARCH FOR DRAINS.

"Resolved, That the National Grange be requested to select a committee of three members of the order, giving them full power to employ all necessary assistance, such as lawyers, stenographers, and expert accountants; said committee to proceed to Washington, D. C., and make a thorough investigation of public records and all other available sources of reliable information in all branches of the Postal Department, and if, in their judgment, any unnecessary financial drains are discovered, the National Grange shall at once convey the facts to the President of the United States and to the National Congress and demand a public investigation."

Resolution referred to committee on resolutions without discussion.

SECRETARY'S REPORT.

Secretary C. M. Freeman presented his report as follows:

Granges organized—California, 3; Colorado, 2; Connecticut, 3; Illinois, 2; Indiana, 2, Iowa, 3; Idaho, 1; Kansas, 5; Kentucky, 5; Maine, 16; Maryland, 11; Massachusetts, 11; Michigan, 29; Minnesota, 7; New Hampshire, 1; New Jersey, 9; New York, 31; Ohio, 14; Oregon, 7; Pennsylvania, 38; Vermont, 15; Washington, 28; West Virginia, 1; Wisconsin, 5; total, 249.

Granges reorganized—Delaware, 2; Illinois, 1; Kansas, 11; Maine, 6; Massachusetts, 1; Michigan, 4; New Jersey, 3; New York, 2; Ohio, 4; Oregon, 2; Pennsylvania, 17; West Virginia, 11; Washington, 2; total, 66.

There were issued during the year:

DISPERSION SALE

Hillcrest Stock Farm, Tecumseh, Neb., Dec. 19, 1906

33 Polled Durhams and Shorthorn Cattle. 74 Berkshire Hogs. 20 Jersey Heifers and Cows.

Our offering of Polled Durhams and Shorthorns consists of two choice Shorthorn cows by Velasco 117603, one by Waterloo Clipper, a 3-year-old heifer by the Duke of Brookside 2d, and a lot of choice Polled heifers. Also one herd bull, Scottish Hero 2d 229964. He is one of the grandest sires in Nebraska, and most of the cows and heifers in this sale are bred to him. Our offering of Jersey cattle is an exceptionally strong one, and our 74 head of Berkshire hogs are the large-boned kind, and excellent individuals. Twenty head will be choice spring boars, and the rest will be spring gilts and aged stuff. Thirty sows will be bred to our famous old boar, Sunnyside King 7th, who also goes in this sale.

This is strictly a closing-out sale and nothing will be reserved. Remember the dates and arrange to attend or send bids to C. E. Shaffer of The Kansas Farmer, in our care. Catalogues now ready.

Webber, Apperson & Co.,

AUCTIONEER: Col. T. C. Callahan. **TECUMSEH, NEB.**

Third Annual Combination Sale OF HEREFORDS

To be held in the Sale Barn

Hope, Kansas, Friday and Saturday, Dec. 14, 15

FORENOON SALE OF HOGS.

W. H. Rhodes, 10 Berkshires, 5 boars and 5 sows;; E. U. Jacobs, 6 Duroc-Jersey boars; J. B. Shields, 3 Poland-China sows and 3 boars. The swine offering will be sold before noon.

HEREFORD OFFERING.

Beginning at 1 o'clock p. m., Herefords will be contributed as follows: Albert Dillon, 7 bulls and 3 heifers; J. W. Tollman, 3 bulls and 2 heifers; A. L. Evers, 2 cows, 2 heifers, and 1 bull; W. H. Rhodes, 2 bulls and 3 heifers; J. B. Shields, 6 bulls and 3 heifers.

A. L. Evers' Dispersion Sale

On Saturday, December 15, A. L. Evers will sell at his farm, three miles west of Hope, as follows: In the forenoon he will sell hogs, grade cattle, and farm machinery. In the afternoon he will sell his entire herd of fifty Herefords, mostly cows and heifers.

The two days' sales are under the auspices of the Dickinson and Marion County Hereford Association, which believes it is making a very attractive offering that will please buyers who want good stock. The offering comprises first-class breeding, the foundation stock having come from the best herds in the United States. Most of the Herefords are by such sires as Keep On 40th, Imp. Duke of Clarence, Klondike, Beau Donald 19th, Saxon, and Greenville. There will be bulls in this sale good enough to head any herd. Also cows and heifers, attractive animals for foundation stock. The association especially invites young men to come and buy and join in making Dickinson and Marion Counties the banner Hereford and fine stock counties of the West.

Free lunch at sale both days. Also free transportation to Mr. Ever's dispersion sale. Cattle will be delivered Missouri Pacific, Rock Island, and Santa Fe Railroads. For catalogue write to

J. B. SHIELDS, Lost Spring, Kans.

Auctioneers: Cols. R. E. Edmonson, Kansas City; J. H. Koch, Herington, W. C. Curphey, Abilene.

Dispensations, 249; original charters, 249; duplicate charters, 64; seventh degree certificates, 1,117; sixth degree certificates, 3,531.

The receipts of the secretary's office during the year were as follows:

Sixth degree fees—California, $14.50; Colorado, $20; Connecticut, $68.50; Illinois, $6; Indiana, $28.50; Kansas, $20.50; Kentucky, $20.50; Maine, $150; Massachusetts, $146.50; Michigan, $84.50; Missouri, $8; New Hampshire, $157; New Jersey, $270.50; New York, $290.50; Oregon, $41.50; Pennsylvania, $371; Rhode Island, $12; South Carolina, $4; Vermont, $40.50; West Virginia, $11. Total, $1,765.50.

Seventh degree fees—$1,117.

Charter fees—$3,750.

Sales of stock—$3,365.01.

Dues—$3.80.

Total—$10,001.31.

Deposited in the fiscal agency—$10,001.31.

The following are the office expenses during the year:

Freight, $26.40; express, $299.20; stamps, $399.89; printing, $15; miscellaneous, $93.54. Total, $834.01.

Received from the treasurer, $834.01.

TREASURER'S REPORT.

The report of the national treasurer, Mrs. E. S. McDowell, was very flattering. It is as follows:

There was a balance in the fiscal agency, Oct. 1, 1905, of.	$26,617.93
There has been deposited during the year by C. M. Freeman, secretary, as receipts secretary's office....	10,001.31
Deposited by the Farmer's Loan and Trust Co., interest on account.....	764.74
Deposited by E. S. McDowell, treasurer, interest on notes.	3,359.26
Deposited by E. S. McDowell, treas., payments on notes..	6,941.25
Deposited by E. S. McDowell, treasurer, interest on bonds	200.00
Deposited by N. J. Bachelder, receipts lecturer's office....	24.00
Deposited by treasurers of State granges, for dues....	14,478.97
Total.	$62,387.46

Contra.

There has been drawn during the fiscal year, by order of the National Grange, for mileage and per diem, thirty-ninth session, drafts aggregating.	$5,349.72
By order of the National Grange, pension to O. H. Kelley.	1,100.00
By order of the executive committee, upon requisition	35,041.44
There remains a balance with the Farmers' Loan and Trust Co., Oct. 1, 1906.....	20,896.30
Total.	$62,387.46

The total resources of the National Grange, October 1, 1906, are as follows:

Balance with Farmers' Loan and Trust Co.	$20,896.30
Deposits in savings banks, with accrued interest.....	13,877.33
Railway and other bonds, with accrued interest.....	20,233.31
Loans on real estate, with accrued interest.	39,437.50
Unexpended deputy fee fund.	227.50
Total.	$94,671.94

Cancerol Cures Cancer.

Dr. L. T. Leach, of Indianapolis, Ind., reports the discovery of Cancerol, which readily cures all forms of cancer and tumor. It has cured many very bad cases without pain or disfigurement. His new books with full report sent free to the afflicted.

Kansas City Grain Market.

Wheat.—The sales were as follows: No. 1 hard, 1 car 69c; No. 2 hard, 7 cars 69½c, 6 cars 69¼c, 33 cars yellow 69c, 1 car 68¾c; No. 3 hard, 1 car Turkey 71½c, 1 car Turkey 71c, 2 cars 70¾c, 3 cars 70c, 4 cars 69c, 4 cars 68½c, 4 cars 68¼c, 5 cars 68c, 15 cars 67½c; No. 4 hard, 2 cars dark 67½c, 4 cars dark 67c, 1 car 66¾c, 2 cars 66½c, 6 cars 66c, 1 car 65½c, 21 cars 65c, 3 cars 64½c, 21 cars 64c, 1 car 63½c, 2 cars poor 63c; Rejected hard, 1 card 63c, 1 car 62½c, 8 cars 62c, 1 car 61½c, 9 cars 61c, 4 cars 60c; No grade hard, nominally 60@63½c, 1 car 61c.

Screenings, 2 cars 64c.

No. 2 mixed, 1 car 68¾c; No. 4 mixed, 1 car 65c; rejected mixed, 1 car durum 62½c.

No. 2 red, 2 cars 72¼c; No. 3 red, 1 car bulkhead 69c, 2 cars 68c, 2 cars 67½c; No. 4 red, 1 car 64c; No grade red, 1 car live weevil 66c, 1 car live weevil 63½c.

No. 2 durum, 1 car 65c, 1 car mixed 65c; No. 3 durum 1 car 65c.

Corn.—The following were the sales:

No. 2 mixed, 1 car 38c; No. 3 mixed, 4 cars 37½c, 11 cars 37¼c, 1 car bulkhead 37¼c; No. 4 mixed, 1 cars 37c, 6 cars 36½c; No grade mixed, 1 car 34¼c.

No. 2 yellow, nominally 38¼@38½c; No. 3 yellow, 4 cars 38c, 3 cars 37¾c; No. 4 yellow, 1 car 37c.

No. 2 white, 1 car 39¼c, 2 cars 39c; No. 3 white, 2 cars 38c, 8 cars 37¾c; No. 4 white, 4 cars 36½c.

Oats.—The following were the receipts: No. 2 mixed, nominally 32¾c; No. 3 mixed, nominally 32¼@32½c; No. 4 mixed, nominally 31@32c.

No. 2 white, 6 cars 33c; No. 3 white, 2 cars 32¾c, 1 car 32½c, 6 cars color 32½c; No. 4 white, 1 car 32¼c.

Rye.—No. 2 nominally 64@65c; No. 3, nominally 62@63c.

Barley.—No. 3, 1 car 43½c.

Flour.—Dull but unchanged. The quotations: Hard winter patents, $3.50@3.65; straights, $3.30@3.40; clears, $2.75@3; soft patents, $3.65@3.95; straights, $2.75@3; clears, $2.75@2.80.

Cornmeal.—Dull but unchanged. Quoted at 86@88c per cwt., sacked.

Corn-Chop.—Steady but dull. Quoted at 75@77c per cwt., sacked.

Bran.—In good demand and steady. Quoted: Mixed feed, 94@95c per cwt.; straight bran, 93@94c; shorts, 94@98c per cwt.

Flaxseed.—Receipts none; same time last year, none. Higher, at $1.08 per bushel, in carlots, upon the basis of pure.

Cottonseed-Meal.—At all points in Kansas and Missouri, taking Kansas City rates, $27.25 per ton in carlots.

Castor Beans.—In carlots, $1.35 per bushel.

Ground Oil Cake.—Steady, Carlots, $28; 2,000-pound lots, $29; 1,000-pound lots, $15; 100-pound lots, $1.60.

Seed.—Timothy, $3@4 per cwt.; red clover, $8@11 per cwt.; alfalfa, $8@11.50 per cwt.; cane, 70@80c per cwt.; Kafir-corn, 70@75c per cwt.; millet, German, 80@95c per cwt.; common, 75@90c per cwt.

South St. Joseph Live-Stock Market.

South St. Joseph, Mo., Dec. 3, 1906.

Less than a normal run of cattle arrived for the opening market of the week, but with an enormous number bunched in Chicago the trade at that point slumped badly and the condition was reflected back on the river markets. There were hardly enough steers here to give buyers a pretext for forcing prices lower and they bought the few offered at about prices prevailing late last week. There were no good steers here, the best being some 1,200- to 1,300-pound averages that sold at $5.25@5.30 with the bulk of steers being of the grades that sell below $5 and ranged largely between $4.25@4.75. The market for cow stuff was rather heavily supplied in proportion to the steers, and buyers forced prices off fully 10c on all grades. Sales ranged largely between $2.65@3.50 for fat cows and heifers. The stocker market had very little fresh stuff offered and prices were about steady.

The market prophets all had hopes up at the close of last week that this week would see a big influx of hogs, especially at Chicago where the International show is now going on, but the opening day of the week brought out around 25,000 short of expectations at the five leading markets. This point had less than 3,000 and buyers following up their tactics of the last few days put prices up fully 5c over the close of last week, and at this advanced prices at this point are the highest on the list, hogs selling about 5c higher on an average than in Kansas City, and in fact a shade higher than at Chicago to-day for the bulk. The bulk of hogs here sold at $6.17½@6.25 with tops at $6.27½.

There was a big supply of sheep in sight at the leading markets to-day, and with a thousand at this point, the market ruled weak on sheep and yearlings and mostly a dime lower on lambs. The quality of offerings was not very attractive, there being no strictly finished stuff offered. A little bunch of native lambs sold at $7.35, but the bulk of offerings went at $7.15. Only fair yearlings sold at $5.75 and there were no ewes or wethers of consequence offered. The market looked all right for fully finished stuff, but does not offer much encouragement for short-fed stuff. WARRICK.

Kansas City Live-Stock Market.

Kansas City, Mo., December 3, 1906.

Taken all around the cattle market was not as satisfactory last week as it has been heretofore. The holiday Thursday interfered somewhat, affectong stockers and feeder demand most of all. Fed beef steers improved late in the week, and by the close had regained the loss of Monday. Stockers and feeders sold lower all week, closing 15@25c below Monday's prices. Cows have had a downward tendency for nearly two weeks, mainly because the quality is not as good as before the heavy frosts. Killers claim they are not killing out as well as formerly, and the 15@30c decline in two weeks probably will not more than cover the loss in quality. The run to-day is 15,000 head, beef steers steady, tops $6, stockers and feeders strong and some higher in cases, cows and heifers weak to 10c lower again. Choice fed steers are not coming at all freely. There are not many sales above $6. Short fed steers are sellers at $4.25@5.50, cows $2.50@4, heifers $3@5, bulls $2.15@3.85, veals up to $6.50, heavy calves $3@4.25, stockers $3@4.25, feeders $3.50@4.50, bulk of the branded stockers and feeders at $3.35@3.90. Large numbers of Coloradoes were received last week and a big supply in either loading or en route for this week's market. Choice to prime Christmas cattle would probably sell at $6.50@7.25, and even a premium above this might be paid.

The hog market is changing constantly, but without any decided tendency, either up or down. To-day's market is 5@10c higher, greatest advance being on the medium to common kinds, that sold draggy last week. Run is 7,000 to-day. Top is $6.25, bulk of sales at $6.10@6.20, light weights, including pigs from $5.80@6.20. The supply for November was 19 per cent short of November last year, and as prospects favor a continued shortage for awhile, the market will likely remain in good shade.

Sheep and lamb receipts are moderate, and confined mainly to medium-grade fed stuff. A consignment of pretty good fed stuff from Colorado arrived Friday, embracing lambs at $7.35@7.40, yearlings $6.50, ewes $5.25, which was a fair representation of the strength of the market that day. Prices are strong to 10c higher to-day, run 6,000, fair to good fed native lambs at $6.75@7.40, wethers up to $5.75. Not much feeding stuff is available. J. A. RICKART.

"The Whole Family Group."

The Delineator one year; McClure's Magazine one year; The World's Work one year, The Kansas Farmer one year; total value, $5. OUR PRICE, $3.50. The Kansas Farmer Co., Topeka, Kans.

KANSAS FARMER.

Established in 1863.

Published every Thursday by the Kansas Farmer Co., Topeka, - - Kansas

SUBSCRIPTION PRICE: $1.00 A YEAR

Entered at the Topeka, Kansas, postoffice as second-class matter.

ADVERTISING RATES.

Display advertising, 20 cents per line, agate (fourteen lines to the inch). Continuous orders, run of the paper, $1.82 per inch per week.

Special reading notices, 30 cents per line.

Special rates for breeders of pure-bred stock.

Special Want Column advertisements, 10 cents per line of seven words per week. Cash with the order.

Electros must have metal base.

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

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

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

Change of copy for regular advertisment should reach this office not later than Saturday previous to publication.

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

Address all communications to

KANSAS FARMER CO.,
625 Jackson St., Topeka, Kans.

Special Want Column

"Wanted," "For Sale," "For Exchange," and small want 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. No order accepted for less than $1.00.

CATTLE.

WANTED—A car load of high-grade Shorthorns heifers coming twos. Write giving weights and price to Hennessy Bros., Blaine, Kans.

FOR SALE-5 registered Holstein heifers and bulls. 6 registered Jersey cows and heifers and bull, 10 grade Jersey-Holstein heifers. Burton & Burton, Topeka, Kans.

FOR SALE—Bull calves from prize-winning Holstein cows. Good ones and cheap to early buyers. Hughes & Jones, Route 2, Topeka, Kans.

SPECIAL SALE—4 extra good Angus bulls, aged 16 to 20 months, at low prices for quick sale. These are low blocky bulls, good herd headers. Also heifers bred or open. Write for prices. R. H. Clay & Son, Pleasant Hill, Mo.

WANTED TO BUY—One bull, and four to six cows of heavy milking breed. Write to Thomas W. Houston, Leavenworth, Kans.

SPECIAL SALE—5 straight Cruickshank Shorthorn bulls for sale at bargain prices for quality. H. W. McAfee, Topeka, Kans.

REGISTERED GUERNSEY BULLS—Ready for service. Also pure-bred Scotch Collie puppies. Dr. J. W. Perkins, 422 Altman Bldg., Kansas City, Mo.

ABERDEEN-ANGUS CATTLE and Percheron horses. Stock for sale. Garret Hurst, breeder, Peck, Sedgwick County, Kansas.

SWINE.

FOR SALE—Duroc-Jerseys. Good color, fine blood, low prices. Burton & Burton, Topeka, Kans

FOR SALE or exchange for Poland-China sows or gilts, Shorthorn bull calves one yearling and a two year old. These bulls are registered and mostly reds. Write or call on W. R. Dowling, Norcatur, Decatur Co., Kans.

FOR SALE—Duroc-Jersey boars sired by Packer Boy a son of the Great Packer Mac, winner of first prize at Kansas State Fair 1905. White & Tomson, Route 8, Topeka, Kans. Phone Ind. 4692.

FOR SALE—Thoroughbred Duroc-Jersey pigs, boars large enough for service. Prices right. I. W Poulton, Medora, Kans.

SHEEP.

FOR SALE—Oxford Down sheep of high quality one ram 2 years old, a few ram lambs, a few ewe lambs, a few bred ewes, at reasonable prices; all stock registered. Perry Goodell, Hutchinson, Kans.

FOR SALE—Two pure-bred Cotswold ram lambs. Address W. Guy McCandless, Cottonwood Falls, Kans.

PUBLICATION NOTICE.

In the District Court of Shawnee County, Kans.

George Wind, Plaintiff, vs. Victoria Gonvil Smith, Mrs. Rufus Maxon, C. J. Richards, Geo. W. Ludington, R. B. Conwell, Enoch Chase, and Joseph Middaugh, Defendants.

If the above named defendants are alive they will take notice that they have been sued in said court by said plaintiff in the above entitled action. And if they are dead their heirs, devisees, administrators, executors, and trustees will take notice that they have been sued in said court in said action by said plaintiff to quiet his title to the following described land in Shawnee County, Kansas, towit:

Beginning 29 13-100 chains south of the northwest corner of Reserve No. Six (6) of the Kaw Half Breed Indian Lands; thence East to Tick Creek; thence Southeast along the center of Tick Creek to the center of Indian Creek; thence Westerly up Indian Creek to the west line of said Reserve and thence north 8 77-100 chains to the place of beginning. And Lot One (1) in Hillyer's subdivision of a part of said Reserve. As against them and to bar them from ever setting up any claim or title to said land and they are further notified that they must answer the petition filed by plaintiff in said action on or before the 19th day of January, 1907, or the said petition will be taken as true and judgment will be rendered against them accordingly.

[Seal] M. T. CAMPBELL, Attorney for Plaintiff.

Attest: I. S. CURTIS, Clerk.

REAL ESTATE.

FOR SALE—Texas lands in Palmer and Bailey Counties, located three miles from Texico. Land is level, soil a dark loam from 2 to 6 feet deep, 2 to 20 ft. to water. Land will grow alfalfa, corn, wheat, oats, and bargain at the price, $10 to $15 per acre; $5 per acre down, balance long time, easy terms, excursions first and third Tuesdays of each month.

160 acre farm, 7 roomed house, large barn, fine general improvements all black alfalfa land, 10 miles from Wichita, $50 per acre. This is a fine home.

80 acre farm, improved 50 acre bottom land, 12 miles from Wichita. $40 per acre Call on or write Osborn and Barnard, 229 East Douglass Ave., Wichita, Kans.

FOR SALE—350 acre stock farm in Lyon County. Handy to station. J. C. Hume, owner, route 3, Council Grove, Kans.

BEST BARGAIN IN KANSAS.

1240 acre ranch in Central Western Kansas, well improved; 200 acres fine bottom, living water. Terms to suit buyer, only $10 per acre. Write for other bargain. Arkansas Valley fruit lands a specialty. Western Realty Co., Hutchinson, Kans.

LYON COUNTY FARMS

240 acres, 8 miles from Olpe, 13 from Emporia, 1½ miles to school, 90 acres in cultivation, 20 meadow, balance pasture, black limestone soil, bearing orchard, all kinds of fruit, splendid water, 7 room house, small barn, 22 acres alfalfa. Price, $5,000.
HURLEY & JENNINGS, Emporia, Kans.

FOR SALE—1400 acre ranch in Eastern Barber County. 150 acres in cultivation, 1100 acres can be cultivated, balance partly rough, good pasture land. 400 acres bottom, 4-room house, barn, good well, running water. This ranch is worth $20 per acre. For a limited time $16.50. Your chance I. B. CASE & CO., Wichita, Kans.

Wheat, Corn and Alfalfa Land

in Reno County; also unimproved Western lands. Write me.
J. M. Green, Room 3, over 24 N. Main, Hutchinson, Kans.

HORSES AND MULES.

FOR SALE—2 Kentucky Gaited Saddle yearlings. Both registered stallions. Burton & Burton, Topeka, Kans.

TWO JACKS FOR SALE—3 and 4 years old. Missouri bred. Address S. C. Hedrick, Tecumseh, Kans.

HORSES—For Sale six Imported Stallions, two Belgians and four Percherons, three to six years old, weight from 1,700 to 2,000 pounds, each stallion guaranteed. Address LeeRoy Judd, Dawson, Nebr.

FOR SALE OR EXCHANGE for clear land, seven head of Standard bred race horses, mares, geldings, stallions, several cows, Shorthorn bull, also a good homestead 160 in Kansas, Wallace County. Will sell furniture and fixtures and give a lease for a term of years on the best Hotel in Nebraska. Miller Hotel Co., Wymore, Neb.

FOR SALE—At reasonable prices, Black Imported Percheron stallions. E. N. Woodbury, Cawker City, Kans.

FOR SALE—One black team, 6 and 7 years old, weight 2600 pounds. Mr. and Mrs. Henry Schrader, Wauneta, Kans.

POULTRY.

FOR SALE—A choice lot of B. P. Rock cockerels at $1 each. D. N. Hill, Lyons, Kans.

SCOTCH COLLIES.

COLLIES—More of those richly bred pups, ready to ship; sired by a grandson of Ormskirk Galopin. From $4 to $7. A. P. Chacey, North Topeka, Kans.

MISCELLANEOUS.

FOR SALE OR TRADE—Choice alfalfa farms, Clydesdale Horses, Shorthorn and Jersey Cattle, Poland-China, Duroc-Jersey and O. I. C. Hogs. 40 varieties of poultry and pet stock. Pure seeds and nursery stocks. Full particulars in catalogue. 10c brings it. Merchandise wanted; what have you to trade. A. Madsen & Sons, Atwood, Kans.

WANTED TO SELL—Old established weekly newspaper and job office in one of the best Southern Kansas gas towns; cheap at $1500. Address E. E. W. care Kansas Farmer.

WANTED—Ladies to work on piece work, $3 per dozen. All material furnished. No canvassing; steady work. Stamped envelope. Best Mfg. Co., Champlain Bldg., Chicago, Ill.

ECHOES FROM THE GRANGE—Fifty new gems for literary progams. Useful and appropriate Christmas gift for grangers, teachers or club women. Handsomely bound. Cloth, $1; Paper 50 cents; postpaid. Mrs. I. A. Gilman, Meredith, N. H.

6,000 FERRETS—Some yearlings, especially trained for rats. Book and circular free. Levi Farnsworth, New London, Ohio.

HONEY—8 cents per pound. Write A. S. Parson, 514 S. Main St., Rocky Ford, Colo.

WANTED—Non-union moulders. Call or write Topeka Foundry, 318 Jackson St., Topeka, Kans.

WANTED—A good second-hand grain separator. Dr. Barker, Chanute, Kans.

Stray List

Week Ending November 22.

Greenwood County—W. H. Bonnett, Clerk.

Heifers—Taken up by J. E. Davis in Otter Creek tp., October 27, 1906, one red and white spotted heifer, upper cut in left ear; also one red heifer, with white face, valued at $15 each.

Week Ending December 6.

Cloud County—E. J. Alexander, County Clerk

HORSE—Taken up by Joe Thoman in Aurora tp., November 13, 1906, one chestnut sorrel horse, 5 feet high, "26" on left shoulder, white star in forehead, foretop shingled, wire cut on left fore foot.

"Mysteries of Mexico"

A study of the Lost Bullion Spanish Mine, formerly worked by the Spaniard with slave labor. This interesting booklet contains much valuable information for the investors; also tells the story of the conquest of Mexico, and romances of lost mines. Beautifully illustrated and bound in handsome crash cover. Free. Write today.

C. L. BLACKMAN & CO.,
823 Temple Court. Denver, Colo.

LEARN VETERINARY DENTISTRY and make **$2000** a year. We teach you at home in three months of your spare time by illustrated lectures and grant diploma with degree. Particulars free. The Detroit Veterinary Dental College, Detroit, Mich.

DUROC-JERSEYS

Woodlawn

We have just 10 head of spring boars left for sale and we are going to make very LOW prices for the next 30 days to close them out. They are sired by Fancy Chief 24923, the great show boar FANCY TOPNOTCHER 49339, first in class at Kansas State Fair and by PRINCE WONDER 42455. They have the size and are sure to suit you.

JNO. W. JONES & SON, Concordia, Kansas

Nemaha Valley Herd Durocs and Polled Durhams

70 good strong pigs by such boars as Valley Chief 15211, Kant-Be-Beat, Wont Be Beat Again, Lewiston Top Notcher and others. If you need a boar write me. I also offer my herd bull GLOSTER CHIEF 4th, got by Gloster Chief 2d, for sale. This is a deep red fellow with plenty of size and finish. Young stock for sale at all time. Bred sow sale February 6, 1907. **WM. BRANDOW, Humboldt, Neb.**

D. M. TROTT Abilene, Kans., famous Duroc Jerseys and Poland-Chinas.

COUNTY SEAT HERD DUROC-JERSEY SWINE
Geo. Briggs & Son, Clay Center, Neb.
Young stock for sale.

DUROC-JERSEYS—Large-boned and long-bodied kind. Spring pigs either sex. Prices reasonable.
E. S. COWEE, Route 2, Scranton, Kans.

SUNFLOWER HERD OF DUROC-JERSEYS—Fall and spring pigs for sale, of both sexes, sired by Klondyke Prince, an 800 pound hog. Samuel Boston, Prop., Smith Center, Kans.

Gold Standard Herd. 75 head of pedigreed Duroc-Jersey spring pigs for sale cheap. Chas. Dorr, Route 6, Osage City, Ks. Mention this paper.

10 Duroc-Jersey Boars for Sale
The best of breeding. Fine and large pigs farrowed in March and early April. I can please you. Write me now. **Geo. F. Dorsch, Cook, Neb.**

Pigs Shipped on Approval.
200 head of Durocs, all ages, representing the blood of Combination, Valley Chief, and a son of Kant-Be-Beat.
T. L. LIVINGSTON, Burchard, Neb.

Ireland's Durocs Herd headed by Young Model 33111, a son of Higgins 2251. Pigs for sale from such sows as Antelope 97668, a granddaughter of Ohio Chief. Fancy Xenia 47490 and Lela H. 87036. **Z. Ireland, Chester, Neb.**

Registered Duroc-Jersey Swine
Up-to-date breeding, choice individuals. Farrowed from February 27 up to October 1. Either sex, pairs or trios, not a-kin, at $12.50, $15, $20 and $25 per head, for 60 days only. **G. E. NEWTON, Whiting, Kans.,** (Successor to Newton Bros.)

Orchard Hill Herd of Duroc-Jerseys
Fall and spring males, and the gilts bred and to be bred, for sale. Blood lines: Top Notcher, Ohio Chief, Improver 2d and the Wonder family.
R. F. NORTON & SON, Clay Center, Kans.

Duroc-Jerseys
Big, blocky, handsome boars of March and April farrow. Write
Buchanan Stock Farm, Sedalia, Mo.

OUR SPRING PIGS are now ready, sired by Crimson Wonder Jr. 38755, Kerr's Champion 34469. Trios not akin at $35. September bred gilts, bred to Crimson Wonder, at $18 to $20 each, registered. Mr. and Mrs. Henry Schrader, Wauneta, Kans.

Egypt Valley Durocs.
Herd headed by Egypt Lad 34023. Stock always for sale. Choice fall boars and gilts, reasonable. Also six fine gilts, bred to Lora's Lad, to farrow in April; will also sell some tried sows. Write for prices and particulars. H. W. STEINMEYER, Volland, Kans.

STAADT'S DUROCS
FOR SALE—Oriole 49173 by the great Orion 5293, dam Maude's Choice 98178 by Young John 22575, guaranteed a sure breeder and all right. Also good spring boars of the choicest breeding and individuality at reasonable prices. J. F. Staadt, Ottawa, Kas.

Peerless Stock Farm
DUROC-JERSEY HOGS
Correspondence solicited. Inspection invited.
R. G. Sollenbarger, Prop., Woodston, Kans.

Fairview Herds Durocs and Red Polled
My herd bull, Expansion, for sale. No swine for sale now. Spring sale, February 13, 1907.
J. B. Davis, Fairview, Brown County, Kans.

Eureka Manor Herd Duroc-Jerseys
Choice breeding stock for all. For the breeder, the stockman and the farmer. Prices the lowest, quality and breeding the best. Herd headed by EUREKA TIP-TOP 43641, sired by the great World's Fair grand champion, Tip-Top Notcher 20729; and PERICLESE 27247, by Josephus 19125, the Kansas State Fair grand champion. Write your wants or call and inspect my herd. Address
J. F. ENSOR, Olathe, Kans.

Oak Grove Herd of Durocs
Herd headed by Choice Goods H. 36471 by Hunt's Model, and Corrector's Model 34381. Forty fine spring pigs for sale from such sons as Labaugh's Choice 46682, Oak Grove Queen 12004 and Miss May 112006, a granddaughter of Improver II. If you want good ones write me.
SHERMAN REEDY, Hanover, Kans.

WILSONS' DUROCS
I have for sale a few gilts and boars sired by Ohio Chief. I also have a number of fine boars carrying the leading blood of the Duroc breed. Can please you in something good.
R. L. Wilson, Chester, Nebraska.

DUROC-JERSEYS

Home of The Famous Fancy Herd Registered DUROC-JERSEY SWINE

RIVERSIDE HERD DUROC-JERSEYS
Hogs for sale. Yearling sows and gilts and young boars: Address Crow Bros., 200 East Osborn St., Hutchinson, Kans.

PIONEER HERD OF DUROC-JERSEY SWINE
Herd headed by Red Chief, 1st prize winner at Hutchinson, assisted by Chief Grand by Ohio Chief. Sows of equal merit. 15 large growthy males and 25 sows, some bred. To these males I breed big boned, quick feeding females. Describe what you want and write for prices.
N. B. SAWYER, Cherryvale, Kans.

Lone Star Durocs
We will have over 50 fine boars for sale this fall, representing the best blood lines in the country. Orders booked after July 1, and shipments will be made to responsible parties on approval.
J. L. WILLIAMS, Bellaire, - - Kansas

Ward Brothers
Republic, Kans.
Spring Durocs for sale sired by Model H 37967, the best son of the great Higgins Model; also Shakespeare 3d, and other noted sires; also some fall boars that will be a credit to any herd. Write for prices.

O-Ta-Top-Farm Durocs
Herd composed of best blood in the west. Headed by O-Ta-Top Notcher, out of Tip-Top Notcher who sold for $5,000. Spring pigs for sale price $15 to $25.
John W. Taylor, Edwardsville, Kansas

Vick's DUROCS are bred for usefulness. Two yearling herd headers for sale, sired by Improver II, dams Kansas Belle, by Morton's Prince 16797, two yearlings sired by Meddoc, dams Prairie Queen 106772, also spring pigs by Vick's Improver 47385, Red Top 32241, Fancy Chief 24923 and other noted sires. Correspondence invited. Visitors coming to Junction City and phoning me will be called for.
W. L. Vick, Junction City Kansas

COUNTY LINE HERD OF DUROCS.
Herd headed by Smith Wonder 46985. A fine lot of boars and gilts for sale, carrying the blood of Kansas Wonder 20753, Jumbo Jr. 28015, Orion 5293, 2d Climax 23361, Joe 29271, Oom Paul 2d 17679 and Second Surprise 20269. Phone from Silver Lake.
O. N. Wilson, Silver Lake, Kans.

Duroc's from the Highland Herd carry the blood of the leading strains of the country. 31 head of fine spring males sired by Ohio Major 36357, Red Raven 47607. This stuff is the cream of my herd and I am pricing it right. **Grant Chapin, Greene, Kans.**

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ELM GLEN FARM POLAND-CHINAS.
Size, breed, character and fashionable breeding. Stock all ages for sale.
WM. KNOX, South Haven, Kans.

CEDAR GROVE HERD
Of pure-bred POLAND-CHINA HOGS.
We will have some bargains this season to offer the public. **J. A. Hebrew, Stockton, Kans.**
Mention Kansas Farmer when you write.

A. J. Hinckley, Milo, Kan.
Breeder of fashionable Poland-Chinas
Will have some fine boars for sale this fall. Write for breeding and prices. Mention Kansas Farmer when you write.

Dawley's Poland Chinas are a distinct type of their own. Herd headers for sale sired by E. L. 2d, Spellbinder, Grand Chief, Sunflower Perfection, On and On, Keep on, Nonpareil and other noted sires. Prices moderate and satisfaction guaranteed.
Frank Dawley, Waldo, - - Kansas

POLAND-CHINAS

UNGLES' HOGGETTE
The great preventive and cure for HOG CHOLERA. Indorsed by more good breeders than any other remedy. We also put out a Dip at $1 per gallon, in 5 and 10 gallon cans. Freight prepaid. Guaranteed as good as any Dip on the market or money refunded. Address
UNGLES HOGGETT CO. Lincoln, - Nebraska

Stalder's Poland-Chinas
I have pigs for sale from the leading strains of the country. Prices reasonable. Write for full particulars. **G. W. Stalders, Salem, Neb.**

A. and P. SCHMITZ. ALMA, KANS.
Breeders of Poland-China Hogs.
We have for sale at reasonable prices 10 gilts bred to Challenger 38349; also a boar pig by Compromise 88203. Write us for prices and full description.

East Creek Poland-Chinas
Stylish Perfection 40313, sweepstakes boar at Nebraska State Fair, 1906, at head of herd. Bred sow sale February 13, 1906. H. B. Walters, Wayne, Kan.

The Useful Type of Poland-Chinas
Herd headed by Model King 34830, by Mischief Maker. Growthy spring pigs for sale.
E. D. Morris, Bern, Kansas

John Black, Barnard, Kas
MY POLAND-CHINAS
are the big prolific kind that the farmer likes to raise. Will have some fine boars for sale this fall. Write for prices. Mention the Kansas Farmer.

Elerbeck's POLAND-CHINAS are from the leading strains of the heavy type. Good boars and gilts for sale. Write for information.
J. T. ELERBECK, Beatrice, Neb.

Square Deal Stock Farm
Wm. D. Calder, Prop., Bancroft, Kans.
We have for sale pigs by Square Deal 36749, he by Highland Chief Jr., others by Calder's Chief 40896, grandson of Kansas Chief 28250.

Cedar Lawn Stock Farm
My herd is headed by the Great MAJOR M. 31527, by Blaine Tecumseh 29338. We breed the big fellows with plenty of finish. Our sows are all heavy boned animals and producers of large litters. If you want to breed the large type, write us for prices on boars and gilts.
J. R. Triggs, Dawson, Neb.

Yukon Polands
Spring pigs for sale sired by the great boar Perfect Tecumseh 27989 S. and out of sows of equal breeding. Also a few choice ones by a son of Meddler. Write me for full particulars.
J. B. Myers Canton, Kansas

. . Axline's . .
POLAND - CHINAS
Best Breeding and Individuality.
E. E. AXLINE, Oak Grove, Missouri.

JOHN BOLLIN,
Route 5, Leavenworth, Kans.
Breeds and Sells Popular . . . **Poland-Chinas**
The State and World's Fair winning boars Nemo L's Dude and The Picket in service. Bred sows and serviceable boars for sale.

Maple Valley Stock Farm
The grand breeder Mo. Chip 2d is at the head of my Poland-China herd. My foundation stock is the best that money can buy and I guarantee my stock. Have a few more sows and gilts bred for spring farrow at reasonable prices. Correspondence solicited and visitors always welcome.
C. P. BROWN, Route 2, Whiting, Kans.

Popular Poland-Chinas
Chief Perfection 2d and other fashionable blood lines. The Champion American Royal 1906 is our type, this sire is a half brother to a number we offer. Some excellent spring boars and gilts ready for buyers.
P. L. WARE & SON Paola, Kansas

ON AND ON BOARS
Several choice boars for sale. One spring boar by On and On 61733, dam by Chief Perfection 2d 42559. One fall yearling grandson of Mo.'s Black Perfection. Dam 50 per cent Chief Perfection 2d, and others extra good. Also a few young Galloway bulls and several young Holstein bulls.
H. N. HOLDEMAN, MEADE, KANS.

Belleville Herd of Heavy-Boned Poland-Chinas
Headed by Grand Chief 34410, one of the good sons of Chief Tecumseh 3d. I have 100 spring pigs from this old fellow, the mothers are from Expansion-Mogul and other boars of such renown. Correspondence and inspection invited. Annual boar sale November 15.
W. H. Bullen, Belleville, Kansas

POLAND-CHINAS

Kansas Herd of Poland-Chinas has bred gilts and W. K. C. Leghorn cockerels. F. P. Maguire, Hutchinson, Kans.

Buy a Money-Making Poland-China Pig
Nine sons of Tip Top Moneymaker 52501, grandsons of Tip Top Notcher, the great World's Fair champion, for sale at from $15 to $25 each. R. C. Williamson, Edwardsville, Kans.

Decatur County Herd of Poland Chinas
Fall boars all sold; am now booking orders for March and April pigs; sixty head to select from also a choice lot of bred sows at farmer's prices. A square deal guaranteed. Write me your wants.
R. H. WEIR, Route 3, Oberlin, Kans.

Oak Grove POLAND-CHINAS...
Nemo L's Dude, prize-winner and sire of winners, and Sir Darkness out of Darkness and by Chief Perfection 2d in service. A few boars for sale. . . . . .
GUS AARON, Route 5 - Leavenworth, Kans.

C. F. Hutchinson, Bellaire, Kansas
Thirty Years a Breeder of
Poland-China Swine
We raise the big fellows that farrow large litters. The kind that fills the pork barrel. Write us for list of our winnings at Nebraska and Kansas State Fairs. Our herd boar Bright Look weighs 1,000 pounds in show condition. Stock for sale. If you want the big kind write us.

Shady Lane Stock Farm.
The home of the western champion, Peerless Perfection 2d 38664. Poland-Chinas of fashionable breeding and individual merit for sale. Book orders now for sows bred to Peerless Perfection. There will not be enough to suppy the demand and first in get them.
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Write or call on H. C. DAWSON'S SONS Endicott, Jefferson Co., Nebraska.

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Polled Durhams
FOR SALE
Nice, good bulls ranging from a few days to 14 months sired by Kansas Boy, 2585. Write or come and see my stock.
D. C. VanNice, RICHLAND, KANSAS

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Every pain in the breast, difficult breathing, palpitation, fluttering or dizzy spell means that your heart is straining itself in its effort to keep in motion. This is dangerous.

Some sudden strain from over-exertion or excitement will completely exhaust the nerves, or rupture the walls or arteries of the heart, and it will stop.

Relieve this terrible strain at once with Dr. Miles' Heart Cure. It invigorates and strengthens the heart nerves and muscles, stimulates the heart action, and relieves the pain and misery.

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"I suffered terribly with heart disease. I have been treated by different physicians for my trouble without results. I went to a physician in Memphis, who claimed that I had dropsy of the heart. He put the X-ray on me, and in connection with his medicine he came near making a finish of me. Some time before this a Mr. Young, of St. Louis, was in our town. He saw my condition, and recommended Dr. Miles' Heart Cure to me. I gave it little attention until my return from Memphis, when I concluded to try it, and am pleased to say three bottles cured me.
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