

KANSAS FARMER

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IS IT PROFITABLE TO FEED WHEAT?

The local markets in the feeding sections of Kansas present unusual relative prices of corn and wheat. The old corn has been fed out pretty close to the bottom of the crib; the new crop has yet several weeks' growing to do; the season's wheat-crop is made and harvested, and is facing an estimated great crop from the entire American field. The result is low prices for wheat and high prices for corn.

In times past, similar relative prices have made it profitable to feed wheat. The question of when wheat becomes a more profitable feed than corn depends not only upon the relative prices, but upon the relative contents of digestible nutritive ingredients, and upon the ability of the animals to appropriate them. Whole wheat may be eaten fairly well by hogs; horses will chew it pretty well if fed heavily enough, so that they will eat it slowly; but cattle are apt to swallow a great deal of it whole and to derive little benefit from it. For most animals, wheat should be crushed; if crushed and fed with chaffed hay or other light feed, the nutrients are fairly well appropriated.

In a computation made by the editor of THE KANSAS FARMER a few years ago, an attempt was made to determine the relative values in money of the several feeding-stuffs. At that time, corn was worth about 28 cents a bushel or 50 cents per hundred pounds. The computation gave a value of 57.5 cents per hundred or 34.5 cents per bushel for wheat. If corn is now worth 50 cents per bushel or 89.3 cents per hundred, the computation gives for wheat a feeding value of 102.7 cents per hundred pounds or 61.6 cents per bushel.

These figures will be found appropriately correct. They will enable farmers to determine readily whether it will pay to sell wheat and buy corn to carry the stock over until the corn matures or whether it will be better to feed the wheat.

The computation applied to several values per bushel for corn give corresponding feeding values per bushel for wheat as follows:

COMPARATIVE FEEDING VALUES PER BUSHEL OF WHEAT AND CORN.	
28-cent corn =	34.5-cent wheat.
29-cent corn =	35.7-cent wheat.
30-cent corn =	36.9-cent wheat.
31-cent corn =	38.1-cent wheat.
32-cent corn =	39.4-cent wheat.
33-cent corn =	40.6-cent wheat.
34-cent corn =	41.8-cent wheat.
35-cent corn =	43.0-cent wheat.
36-cent corn =	44.3-cent wheat.
37-cent corn =	45.5-cent wheat.
38-cent corn =	46.7-cent wheat.
39-cent corn =	48.0-cent wheat.
40-cent corn =	49.2-cent wheat.
41-cent corn =	50.4-cent wheat.
42-cent corn =	51.7-cent wheat.
43-cent corn =	52.9-cent wheat.
44-cent corn =	54.1-cent wheat.
45-cent corn =	55.3-cent wheat.
46-cent corn =	56.6-cent wheat.
47-cent corn =	57.8-cent wheat.
48-cent corn =	59.0-cent wheat.
49-cent corn =	60.3-cent wheat.
50-cent corn =	61.5-cent wheat.

These comparative prices are based on the relative values of the several nutritive constituents under average conditions. In arriving at these comparisons, digestible protein was rated at more than ten times the price of carbohydrates. As feeds are ordinarily bought and sold, this relation is probably about correct. The feeder must have protein because his animals can not live without it. The discovery of a cheap and abundant supply of protein would, of course, bring down the price and would make a difference in the relative values of feeding-stuffs. In computing the feeding values of corn and wheat, the protein of the corn is estimated to contribute 52.6 per cent of the value, while the protein of the

wheat, being in larger proportion to the other nutrients, is estimated to contribute 60 per cent of the value. Or, in the case of 50-cent corn, the protein contributes 26.3 cents of the value, while in the case of the wheat at the above-computed corresponding price of 61.5 cents per bushel, the protein contributes 36.9 cents of the value.

Now the alfalfa-farmer has a cheap and abundant source of protein. With prime alfalfa hay at \$10 per ton, the amount of protein for which the feeder of 61.5-cent wheat pays 36.9 cents would be furnished in the alfalfa at 20.6 cents. Even this estimate of the price of the protein is based on the assumption that in the alfalfa it is worth over ten times as much, pound for pound, as the carbohydrates.

Without going further into details of the subject, it may be said in a general way that the alfalfa-grower, who would grow rich if he could realize \$5 per ton for his alfalfa on the farm, can not afford to place so large a spread between the feeding values of corn and wheat as is shown by the above table. There may be considerable uncertainty as to what this spread in values actually is for the alfalfa-grower. If the ease of production of protein in alfalfa bring this nutrient within reach of the feeder at the same price with carbohydrates, while the established relative values of carbohydrates and fats are recognized, the computation will show that when corn is 50 cents per bushel, wheat may be fed at 52.56 cents with equal advantage.

This last computation is useful only to the feeder of alfalfa. Where this or some other source of cheap protein is not available, the table in this article may be taken as approximately correct.

COST AND VALUE.

"It's paying too much for money."

This was the remark of a young man while driving the writer around a farm which formed part of the estate of his father, recently deceased. The remark was part of a discussion of the conditions of success. The writer had said that success and ultimate fortune were almost sure to the young man who, understanding up-to-date farming, would take a piece of this land, stock it with good dairy-cows; some good horses, hogs, chickens, and bees; attend as strictly to business as the successful man in any avocation must; practice such frugality as would result in saving something each year; attend church and in other ways assist in keeping the community at the front; read THE KANSAS FARMER and the bulletins of the experiment station; in short, be an energetic, studious, intelligent farmer, adding to his possessions or loaning his surplus as good judgment should dictate.

"Yes, but it's paying too much for money," was the reply.

Russell Sage has just died leaving a fortune estimated at \$70,000,000 to \$100,000,000. Russell Sage was more enslaved to his business than would hard—the conditions of success on the farm. Russell Sage was not only entions which the young man thought too hard. Russell Sage was not only enslaved to his work, but if reports be true, he was too penurious to buy enough to eat. He was not quite as bad in this respect as a man who died a few years ago in Topeka leaving many thousands to produce discord among his brothers and sisters. This owner of many houses slept in meaner quarters than he could rent to his poorest tenants. He took some of his meals at restaurants, and it was said that he would order a bowl of soup for din-

ner, eat half of it, and direct that the remainder be saved for his supper. Doubtless, both Russell Sage and the Topeka man paid too much for money.

Some young men on farms working in the hot sun, caring for stock in the rain and storm, with solled hands and clothing and bronzed features look longingly to what appear to be easy places in the city. Know, young man, that the easy places are not on the road to affluence. That road may well be called "hard scramble." There are people who are able and willing to travel it. Those who can and will stand its conditions are few. The great majority of those employed in town work for wages, and assume no responsibility beyond doing what they must to secure the wage. This wage affords a living that would seem sumptuous to the Oriental, and would be counted luxurious to the European laborer. By frugality, some accumulate savings and presently pass out from the classification of wage-earners. But to the majority the self-denial and diligence necessary to the accumulation of capital constitute a case of "paying too much for money;" they complain of the oppression of capital; they are self-indulgent and in debt.

In the city of Topeka there are several thousand hands employed in the great shops. The railroad and other offices employ many hundreds more. All goes fairly well until, through some cause over which the sufferers have no control, there comes such reversal of industry that, obedient to the law of self-preservation, the employers find it necessary to lay off thousands of workers. Then the person who had thought frugality and diligence too much to pay for money is in straightened circumstances. Then, if he have any relatives who have been willing to pay the price, these relatives hear the heart-rending story of delicate women and helpless little ones who are hungry because the father can find no work.

The conditions of success are not more exacting on the farm than in the shop, office, or store. Everywhere prosperity costs a price. It is offered freely to those able and willing to pay the price and is likely to elude those who are satisfied only with "soft snaps."

The price does not include penuriousness. Indeed, the best success is that of the man who has made most of himself and has kept possession of a liberal share of what the rest of mankind has paid him for the product of the efforts which promoted his development. In such case the cost and value are fairly balanced.

Commenting on Professor Popenoe's discussion of the elm-tree borer in last week's KANSAS FARMER, Mr. Charles Merriam stated that he had found no difficulty in destroying these borers and that the trees were entirely uninjured. He used gasoline, forcing it into the burrows of the borers with a small syringe. The writer's experience is in entire harmony with that of Mr. Merriam. A common spring-bottom oil-can was used. One squirt of gasoline kills all borers in a hole.

Reports given out by the Spokane, Wash., land office show that at the end of the fiscal year, June 30, there were 2,069,790 acres of untaken and unreserved land in the Spokane district, and of this 23,575 acres are in Spokane County. The area of land appropriated in the district aggregates 5,305,569 acres, as follows: Adams County, 733,214 acres; Ferry County, 1,111,125 acres; Stevens County, 441,570 acres; Okanagon County, 2,570 acres; Spokane County, 1,111,125 acres; Whitman

County, 649,477 acres; Lincoln County, 1,266,789. Farmers in Spokane County will hold wheat sales this season, Spokane probably being headquarters. It is estimated the county will yield between 4,500,000 and 5,000,000 bushels of wheat this year, and the saving of a fraction of a cent on each bushel will mean considerable to the growers.

Recipe For Government Whitewash.

Take a half bushel of unslaked lime, slake it with boiling water, cover during the process to keep in steam, strain the liquid through a fine sieve or strainer, and add to it a peck of salt previously dissolved in warm water. Three pounds of ground rice, boiled to a thin paste and stirred in while hot, half a pound of Spanish whiting, and one pound of clean glue, previously dissolved by soaking in cold water, and then hang it over a slow fire in a small pot hung in a larger one filled with water. Add five gallons of hot water to the mixture, stir well, and let stand a few days covered from dirt. It should be applied hot, for which purpose it can be kept in a kettle or portable furnace. The east end of the President's house, at Washington, is embellished by this brilliant whitewash. It is used by the Government to whitewash lighthouses.

A pint of this wash mixture, if properly applied, will cover one square yard and will be almost as serviceable as paint for wood, brick, or stone, and is much cheaper than the cheapest paint.

Coloring matter may be added as desired. For cream color, add yellow ochre; pearl or lead, add lampblack or ivory black; fawn, add proportionately four pounds of amber to one pound of Indian red and one pound of common lampblack; common stone color, add proportionately four pounds raw amber to two pounds lampblack.

To Farmers' Institute Officers.

EDITOR KANSAS FARMER.—The annual report of the Institute Department of the Kansas State Agricultural College is now ready for distribution. Copies have been mailed to all county and local presidents and secretaries and to all members whose names have been sent to me. The report will be mailed to any Kansas farmer who will write for it.

All who want institutes in August or September or up to October 15 should write me at once. All dates from October 15 to December 21 will be assigned exclusively to counties or localities that have "Boys' Corn Contests," and are being arranged now. Several August and September dates are still open, and only two institutes have so far been assigned dates in the first half of October.

J. H. MILLER,
Supt. Farmers' Institute.
Kansas State Agricultural College,
Manhattan, Kansas, July 28, 1906.

Government Hog Cholera Remedy.

The following is the Government Hog Cholera remedy:

- Pulverize and mix thoroughly:
 - 1 part wood charcoal.
 - 1 part sulfur.
 - 2 parts sodium chloride (salt).
 - 2 parts sodium bicarbonate (soda).
 - 2 parts sodium hyposulfite.
 - 1 part sodium sulfate.
 - 1 part antimony sulfate.
- Dose, 1 tablespoonful for each 200 pounds weight of hog once a day.

A proper curiosity is commendable, but when a man squeezes a hornet, to find out which end of him his stinger is in, he will learn more than he wished to know.

Agriculture

Rules for the Inspection of Kansas Grain.

Under the provision of an act to establish grades by the Grain-Inspection Commission, appointed by the Governor of Kansas, under the act of 1903, the Commission, consisting of ex-Governor G. W. Glick, J. M. Cory, and J. F. White, has established the following grades for grain in the State of Kansas, to be in effect on and after the first day of August, 1906:

RULE 1.

Wheat which has been subjected to "scouring," or to some process equivalent thereto, or contains an objectionable amount of rye, shall not be graded higher than No. 3.

KANSAS HARD WINTER WHEAT.

No. 1 Hard.—Shall be pure, hard winter wheat, sound, plump, and well-cleaned, and shall weigh not less than sixty pounds to the bushel.

No. 2 Hard.—Shall be sound, dry, and reasonably clean hard winter wheat, and shall weigh not less than fifty-nine pounds to the bushel.

No. 3 Hard.—Shall be hard winter wheat, sound, and may be some bleached, but not clean or plump enough for No. 2, and shall weigh not less than fifty-six pounds to the bushel.

No. 4 Hard.—Shall be hard winter wheat, tough, or from any cause so badly damaged as to render it unfit for No. 3 Hard.

Rejected Hard.—All very damp, very smutty, or very smutty, trashy, stack-burned, or dirty hard winter wheat.

RED WINTER WHEAT.

No. 1 Red.—To be bright, sound, plump, dry, and well-cleaned red winter wheat, weighing not less than sixty pounds to the measured bushel.

No. 2 Red.—Shall be sound, dry, and reasonably clean red winter wheat, and shall weigh not less than fifty-nine pounds to the bushel.

No. 3 Red.—Shall be red winter wheat, sound, and may be some bleached, but not clean or plump enough for No. 2, and shall weigh not less than fifty-six pounds to the bushel.

No. 4 Red.—To be thin, bleached, or tough red winter wheat, reasonably sound, and unfit to grade No. 3 Red.

Rejected Red.—All very damp, very tough, very smutty, very smutty, trashy, dirty, damaged, stack-burned, or thin wheat, falling below No. 4 Red.

WHITE WINTER WHEAT.

No. 1 White.—To be bright, sound, dry, plump, and well-cleaned pure white winter wheat.

No. 2 White.—To be sound, dry, well-cleaned, pure white winter wheat.

No. 3 White.—To be sound, dry, well-cleaned, pure white winter wheat.

No. 3 White.—To be sound, dry, white winter wheat, reasonably clean.

CALIFORNIA, COLORADO, WASHINGTON, IDAHO, AND UTAH WHEAT.

No. 2.—To be sound, dry, well-cleaned, white wheat, free from smut, grown in Colorado, Utah, Washington, or Idaho.

No. 3.—To be sound, dry, reasonably cleaned, white wheat, grown in Colorado, Utah, California, Washington, or Idaho.

Wheat of above description of lower grades to be classed on its merits as regular No. 4 or Rejected.

SPRING WHEAT.

No. 1.—To be bright, sound, and well-cleaned spring wheat.

No. 2.—To be bright, sound spring wheat, reasonably cleaned, and weigh not less than fifty-seven pounds to the bushel.

No. 3.—To be dry and reasonably sound spring wheat, not equal to No. 2, and weigh not less than fifty-five pounds to the bushel.

No. 4.—To be thin, bleached, or tough spring wheat, reasonably sound, and unfit to grade No. 3 Spring.

WHITE SPRING WHEAT.

No. 1 White.—To be bright, sound, and well-cleaned white spring wheat.

No. 2 White.—To be bright and sound white spring wheat, reasonably cleaned, and weigh not less than fifty-seven pounds to the bushel.

No. 3 White.—To be dry and reasonably sound white spring wheat, not equal to No. 2, and weigh not less than fifty-five pounds to the bushel.

No. 4 White.—To be thin, bleached, or tough white spring wheat, reasonably sound, but unfit to grade No. 3.

Rejected Spring Wheat.—All very

damp, very tough, very smutty, very smutty, trashy, dirty, damaged, stack-burned or thin wheat, falling below No. 4.

MIXED WHEAT.

All mixtures of spring, soft, and hard winter wheat shall be classed as mixed wheat, and graded as follows:

No. 2 Mixed Wheat.—To be sound, dry, and reasonably clean, and not weigh less than fifty-nine pounds to the bushel.

No. 3 Mixed Wheat.—Shall be sound, reasonably clean, and may be some bleached, but not clean or plump enough for No. 2, and shall weigh not less than fifty-six pounds to the bushel.

No. 4 Mixed Wheat.—Shall include mixed winter wheat that from any cause is so badly damaged as to render it unfit for No. 3 mixed.

Rejected Mixed Wheat.—All very damp, very tough, very smutty, very smutty, badly stack-burned, damaged, or thin mixed spring and winter wheat falling below No. 4 Mixed wheat shall be graded as Rejected Mixed wheat.

MACARONI WHEAT.

No. 1 Macaroni Wheat.—Shall be bright, sound, well-cleaned, and be composed of what is known as rice or goose wheat, and weight not less than sixty pounds to the bushel.

No. 2 Macaroni Wheat.—Shall be sound, dry, and reasonably clean rice or goose wheat, and weigh not less than fifty-eight pounds to the bushel.

No. 3 Macaroni Wheat.—Shall be inferior to No. 1, but sound, and be composed of what is known as rice or goose wheat, and may include wheat that is bleached and shrunken, and weight not less than fifty-six pounds to the bushel.

No. 4 Macaroni Wheat.—Shall include all wheat badly bleached or smutty, or for any other cause unfit for No. 3.

Rejected Macaroni.—Rejected Macaroni wheat shall include all wheat that is very smutty, badly bleached, and badly sprouted, or for any cause unfit for No. 3.

RULE 2.

CORN.

No. 1 Yellow.—Shall be pure, yellow corn, sound, dry, and well-cleaned.

No. 2 Yellow.—Shall be three-fourths yellow, sound, dry, and reasonably clean.

No. 3 Yellow.—Shall be three-fourths yellow, reasonably dry and reasonably clean, but not sound enough for No. 2.

No. 4 Yellow.—Shall be three-fourths yellow, and unfit to grade No. 3 Yellow.

Rejected Yellow.—Shall be very badly damaged.

No. 1 White.—Shall be pure, white corn, sound, dry, and well-cleaned.

No. 2 White.—Shall be fifteen-sixteenths white, sound, dry, and reasonably clean.

No. 3 White.—Shall be fifteen-sixteenths white, seasonably dry and reasonably clean, but not sound enough for No. 2 White.

No. 4 White.—Shall be fifteen-sixteenths white, but unfit to grade No. 3 White.

Rejected White Corn.—Shall be very badly damaged.

No. 1 Corn.—Shall be mixed corn, of choice quality, sound, dry, and well-cleaned.

No. 2 Corn.—Shall be mixed corn, sound, dry, and reasonably clean.

No. 3 Corn.—Shall be mixed corn, reasonably dry and reasonably clean, but not sufficiently sound for No. 2.

No. 4 Corn.—Shall include mixed corn that is unfit to grade No. 3.

Rejected Mixed Corn.—Shall be very badly damaged.

KAFIR-CORN.

No. 1 White.—Shall be pure, white Kafir-corn, of choice quality, sound, dry, and well-cleaned.

No. 2 White.—Shall be seven-eighths white Kafir-corn, sound, dry, and reasonably clean.

No. 3 White.—Shall be seven-eighths white Kafir-corn, reasonably dry and reasonably clean, but not sufficiently sound for No. 2.

No. 1 Red.—Shall be pure red Kafir-corn, of choice quality, sound, dry, and well-cleaned.

No. 2 Red.—Shall be seven-eighths red Kafir-corn, sound, dry, and reasonably clean.

No. 3 Red.—Shall be seven-eighths red Kafir-corn, reasonably dry and reasonably clean, but not sufficiently sound for No. 2.

No. 1 Kafir-corn.—Shall be mixed Kafir-corn, of choice quality, sound, dry, and well-cleaned.

No. 2 Kafir-corn.—Shall be mixed Kafir-corn, sound, dry, and reasonably clean.

No. 3 Kafir-corn.—Shall be mixed Kafir-corn, reasonably dry and rea-

sonably clean, but not sufficiently sound for No. 2.

No. 4 Kafir-corn.—Shall include all mixed Kafir-corn, not wet or in a heating condition, that is unfit to grade No. 3.

RULE 3.

OATS.

No. 1 Oats.—Shall be mixed oats, sound, clean, and free from other grain.

No. 2 Oats.—Shall be mixed oats, sweet, reasonably clean, and reasonably free from other grain.

No. 3 Oats.—Shall be mixed oats that are slightly damp, unsound, slightly smutty, dirty, or from any other cause unfit to grade No. 2.

No. 4 Oats.—Shall be mixed oats that are from any other cause unfit to grade No. 2.

No. 1 White Oats.—Shall be pure white, sound, clean, and free from other grain.

No. 2 White Oats.—Shall be seven-eighths white, sound, reasonably clean, and reasonably free from other grain.

Standard Oats.—Shall be seven-eighths white, but not sufficiently sound and clean for No. 2 white, and shall be reasonably free from other grain and weighing not less than 28 pounds to the measured bushel.

No. 3 White Oats.—Shall be seven-eighths white, but not sufficiently sound and clean for No. 2.

No. 4 White Oats.—Shall be seven-eighths white, badly stained, or for any other cause unfit to grade No. 3 White.

No. 1 Red Oats.—Shall be pure red, sound, clean, and free from any other grain.

No. 2 Red Oats.—Shall be seven-eighths red, sound, reasonably clean, and reasonably free from other grain.

No. 3 Red Oats.—Shall be seven-eighths red, but not sufficiently sound and clean for No. 2.

No. 4 Red Oats.—Shall be seven-eighths red, badly stained, or from any other cause unfit to grade No. 3 Red.

No. 2 Color Oats.—Shall be seven-eighths color, and in condition the same as No. 2 White.

No. 3 Color Oats.—Shall be seven-eighths color, and in condition the same as No. 3 White.

No. 4 Color Oats.—Shall be seven-eighths color, that from any other cause is unfit for No. 3.

RULE 4.

RYE.

No. 1.—To be plump, sound, bright, and well cleaned.

No. 2.—To be sound, plump, and reasonably clean.

No. 3.—To be reasonably sound and reasonably clean, unfit for No. 2.

No. 4.—To include all damp, smutty, dirty rye, unfit for No. 3.

RULE 5.

BARLEY.

No. 1.—To be plump, bright, sound, and free from other grain.

No. 2.—To be sound and reasonably clean.

No. 3.—To be reasonably clean and merchantable.

No. 4.—To include all unsound and damaged barley.

Rejected.—Shall include all very badly damaged falling below No. 4.

RULE 6.

SPELT.

No. 1.—To be plump, bright, sound, and free from other grain.

No. 2.—To be sound and reasonably clean.

No. 3.—To be reasonably clean and merchantable.

Rejected.—To include all unsound and damaged spelt.

RULE 7.

NO-GRADE GRAIN.

All grain that is wet or hot, or in heating condition, shall be classed as "No Grade."

RULE 8.

REASONS FOR.

All inspectors shall make their reasons for grading below No. 2 fully known by notation on their books. The weight alone shall not determine the grade.

RULE 9.

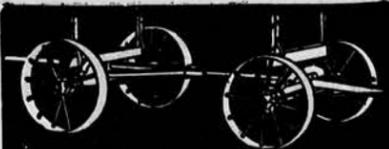
TEST WEIGHT.

Each inspector shall ascertain as near as practicable the weight per measured bushel of every lot of wheat inspected by him and note the same on his report, but he shall not be held responsible for variations in weights that may occur on reinspection, unless negligence or fraud can be shown against him.

RULE 10.

THE WORD "NEW."

The word "new" shall be inserted in



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RULE 11.

CLAIMS.

All claims for damages against the inspectors or weighmaster should be filed in this office before the grain has left the jurisdiction of this department.

RULE 12.

LIVE WEEVIL.

Wheat containing live weevil shall not be graded, but the inspector shall give the variety of wheat and test weight, and note "live weevil."

RULE 13.

"PLUGGED" CARS.

All inspectors inspecting grain shall in no case make the grade of grain above that of the poorest quality found in any lot of grain inspected, where it had evidently been "plugged" or otherwise improperly loaded for the purpose of deception.

RULE 14.

FEEES.

The maximum charges adopted by law for the inspecting, weighing, and sampling of grain are as follows:

The fees for inspecting, weighing, and sampling of grain by the officers of the State Grain-Inspection Department shall be as follows: For inspecting and sampling each car-load, forty cents; for inspecting out of elevators, thirty-five cents per car; for weighing, fifty cents per car; for reinspecting, where the former inspection and grade are sustained, fifty cents per car; and in all cases where extra samples of carlots of grain inspected are demanded, the charge for each sample shall be twenty-five cents.

"Set-back" charges the same as regular.

What Ails His Alfalfa?

EDITOR KANSAS FARMER:—Last July, after taking off two tons of timothy and clover per acre, I plowed up the land and September 5 sowed in alfalfa on as fine a seed-bed as could be desired. I got a good stand and it looked well this spring. The first cutting went one-half a ton to the acre. The second cutting was not four inches high and one-half in bloom, when I ran the mower over it. Now the alfalfa is six inches high and one-third in bloom. What is the matter with it? Is it because it was over timothy sod?

I want to sow ten acres more meadow this fall. This land is fertile and received a good coat of stable manure last winter from the spreader.

Alfalfa-raisers please explain and help a fellow farmer to more light. Jackson County. S. K. LINSKOTT.

Red-Top-Grass.

EDITOR KANSAS FARMER:—Regarding the grass which J. F. Stevens, of Shawnee County, finds in his meadow and refers for identification, I will say that it is *Agrostis alba*, commonly known as red-top, marsh-bent-grass or Florin. It is not a grass of high agricultural value, as compared for example with timothy or Kentucky blue-grass, but it has value for low, wet lands, where it is often sown in mixture with Alsike clover. The grass is found more or less all over the United States, and seems to thrive in all but strictly sandy soils, although it does its best on lands that are low and moist. Red-top bears repeated overflows without injury, and is said to endure flooding for two or three weeks without succumbing. In sowing, a bushel to the acre should be used, and with half a bushel of perennial ryegrass (*Lolium perenne*) added. The latter will make a quick stand, and take the ground against the weeds, but will gradually be driven out and replaced by the red-top.

H. F. ROBERTS, Botanist, Kansas Experiment Station, Manhattan, Kans.

Some Good Yields.

Samuel Detwiler, of Brown County, sends to the State Board of Agriculture a very encouraging report as to the harvest and yield of wheat in his vicinity. He says that on account of the unusually dry weather during the month of May and the early part of June many of the best wheat-growers in Northeastern Kansas despaired of raising anywhere near a normal crop, but he also says that they have harvested and are now thrashing the best crop of wheat, as to both yield and quality, that has been raised there in thirty years.

Mr. Detwiler is located at Hiawatha, and he reports yields for ten of his neighbors, all within a radius of

two and a half miles of that city, as follows:

	Acres Harvested.	Av. yield per acre, bus.
W. E. Nixon.....	40	37 1/4
W. W. English.....	60	36
J. M. Howard.....	55	36
Mr. Pufegle.....	60	29 1-3
J. G. Detwiler.....	46	36
Geo. Hiskey.....	37	46 1/4
Geo. Kelly.....	10	48
Wm. Neyfier.....	42	38
Thos. Hepp.....	20	45
Mr. Zimmers.....	50	35

The average yield per acre for the ten fields mentioned is 37 bushels.

Chas. Schrader, about 6 miles north-east of Hiawatha, has 190 acres of wheat, 100 acres of which has been thrashed and which yielded an average of 36 bushels to the acre.

Mr. Detwiler states that he has had reports of still larger yields in other parts of the county, but has not verified them.

Horticulture

Missouri Horticulturists.

The summer meeting of the Missouri State Horticultural Society was up to the high mark of this model society. The following excerpts are from the report of the proceedings as reported for the Fruit-Grower by Mrs. Alma Z. Moore:

"Flowers and Weeds" was a fine paper, just such a one as we always expect from Mrs. G. E. Dugan, of Sedalia, who, after some splendid advice regarding floriculture generally, the care and love needed to bring flowers to their best perfection, characteristics and demands of flowers, gave a good history of the evolution of flowers from weeds. Every known plant once grew wild, and had been perfected into present beauty by careful selection and training.

Secretary Goodman spoke of the value of this paper and the remarkable value of weeds in general. Each year found them more valuable to use for fertilizers, as we do the clovers and cow-peas. In some parts of the State it is almost impossible to keep the orchard soil as clean as it should be without losing much of the fertility of the soil. The past few years he has become a lover of weeds in the orchard to use as a fertilizer. He is sure they are worth many more times what we have hitherto thought. Turning under the crop is wonderfully valuable. Many roots of weeds are covered with nodules, almost as valuable as on the clovers.

"The Usefulness of Birds," by J. R. L. Clarkson, Moberly, was a plea to protect the birds called man's best friends. The State would soon be overrun with bugs and worms were it not for the birds. If we will protect them, they will in turn protect our fields and orchards.

This paper brought out vigorous discussion. Mr. Baxter, Nauvoo, Ill., said he was a lover of birds, yet did not believe we should protect them all any more than we do snakes, etc. Their mission seemed to be to destroy all the fruit, and he feels compelled to protect the crop by killing the birds during the ripening season. Oriole, robin, thrush, and sparrow are the ones that make the most trouble. Have had them destroy whole crops of fruit.

Others had felt that something must be done to protect the fruit-crops, if we wished to gather any for market or family.

Dr. Green had given up the fruit entirely to the birds and went without, an alarming state of affairs for a Missouri man.

Secretary Goodman: Think we are perfectly justified in shooting blue jays and blackbirds at certain times of the year. If will hang them up in the trees after shooting them, will find it a great help in scaring others away. As a general thing we must protect the birds, remembering that throughout rest of the year they do much good. Would protect the song birds and quail at all times. Latter worth as much in the orchard as a pig. The meadow lark is an insect-eating bird and worth a dollar apiece in the orchard.

When planting cherries, if mulberries are put out for the birds, the cherries will be well protected.

Dr. Whitten: The sparrow is omnivorous. It will eat grain and weed-seed. Sometimes a thing is all right if used in its place, but when the bad outdoes the good, something must be done.

The subject of strawberries was thoroughly canvassed. The program had been arranged to afford a complete history on the subject from planting

to marketing. This year some of the growers of Southern Missouri were glad to sell their berries for \$1.10 to \$1.15 per crate, and when 2 cents per box is paid for picking, there is not much profit at these prices.

Paper, "Varieties for Market," by J. C. Ruder, Jefferson Barracks, led the discussion. The Klondyke was given first place, and followed by Sample, both good shippers. Bubach and Gandy for late.

Mr. Dix, Jefferson City, said he had tried many varieties, but only two of them were good enough to keep. Many have serious troubles with rust on foliage. Early Sunrise and Aroma for late are all he now grows.

Dr. Whitten told of instance in his town where a ducky, formerly a day laborer, used his plat of three-fourths of an acre of ground in raising strawberries. Varieties mainly Warfield, Bubach, Clyde, and Gandy. The berries were all sold in home market, and the crop for three years, on the same ground, has brought over \$1,000. Grows matted row, and when plowing is done turns out all the row but one edge. Sows bone-meal for fertilizer, and works the soil in good shape. Grades carefully, only marketing the fine fruit. The rest is made into preserves by his wife, who is working up a good trade in this line.

Mr. Baxter, of Illinois, finds Haverland a money-maker; also Clyde and Splendid; no local market, ships to Minnesota and Wisconsin.

G. T. Tippin: Speaking from experience as a shipper for eight years, would say it is of first importance that you study the niche in the market you desire to fill, then drop in there, choosing one variety when planting for carload shipments. Choose variety adapted to shipping. Opinion that Klondyke good as far north as Arkansas, and is being largely planted in that State; but favors Aroma for Southern Missouri. Would discard Clyde and Bubach entirely for carload shipments. Aroma begins ripening a week before Gandy and runs nearly as long, and is most satisfactory berry we have.

Mr. Bledsoe, Moberly, grows entirely for home market. Crescent for early, Bubach medium, and Gandy for late. Last two will not grow well on uplands. Crescent does well there.

Dr. Green spoke of a berry he brought from California. Has beautiful color and is wonderfully fragrant. Called the Dollar berry there, and is very successful. Plants do well here, but not fruiting much yet.

"Lessons from Failures," by Jacob Faith, Montevallo, was a good paper. Said necessary for grower to read and keep informed. Reports and horticultural papers gave good information; individual experience in all things is much too expensive. If had an enemy and wanted to injure him, would advise him to work all the time and read nothing. Has tested many varieties and gave valuable lessons gained from failures along the line.

Discussion on time of planting found friends on both seasons—spring and summer planting. A majority favored early spring planting for commercial fields, giving good care through season, and harvesting a full crop the following year. Some prefer to work soil thoroughly early part of season, keeping in good condition, and plant in July or August. In districts where a summer drouth is usual, might find the latter practice dangerous. However, summer planting seems to be gaining friends, though a good cultivation of the soil for some months previous seems to be necessary.

Secretary Goodman: There is a great deal of difference in methods of packing and shipping, and this has much to do with arrival of fruit in market. Some packers get fruit into market in good condition always; others seldom do so.

Mr. Tippin: In packing either for carloads or express, the best way is to have printed set of rules covering points of color, size, how to pick and box, etc., remembering the least possible handling is the best. Field foreman should thoroughly understand these rules and enforce them. The three most important stages to note is ripening, care in removing from the vines, and packing first-class fruit, leaving the rest in patch. Have pickers grade as far as possible. As a rule, fruit is allowed to get too ripe for long shipments.

Next came "Varieties and Culture of the Grape," by Jacob Rommel, Chamois. The writer has done much for the vineyard interests of the State, by extensive tests of varieties. To obtain the best results, the writer said it is first necessary to know what does best under our local conditions. Some kinds do well under ordinary culture, while

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others require extra care. High, dry land is best. Too much moisture causes rot and mildew; must practice spraying with Bordeaux mixture and with sulfur in rainy seasons. Bagging will also save in many ways. Orchard oriole most destructive to grapes. Rarely seen till grapes ripen. They fly high in the air like a hawk comes after a chicken. Should kill them. Many blame all the birds for damage done, but this is the one. Bees also blamed, but do not hurt fruit till skin has been punctured by something else. Concord most reliable under general management, and for arbors and on buildings. When subject to rot, spray and bag. Ives Seedling is a strong, healthy grower, not subject to rot. Campbell's Early heads list for early market. Norton's Virginia a favorite with wine men. Makes a fair bunch of medium size. Woodruff Red is excellent, if not allowed to overbear; would place at head of red grape list. Niagara, white, fine, and large; subject to rot; must be sprayed or bagged. Moore's Diamond the same. Elvira healthy and good white wine grape, and good quality.

"Best Market Varieties," by H. W. Thies, of Ferguson, said Moore's Early main black grape for early. The first really good one. Campbell's Early good, large bunch, quality not up to Moore's Early; will overbear if not well pruned. Telegraph good berry, but ripens uneven; must go over them and pick every few days. Ives Seedling a fine cropper. Worden best for market; heavy cropper; complaint often made that it ripens uneven, but not with me. Concord is the old reliable standby. Niagara and Moore's Diamond best two white grapes. Elvira cracks bad in wet weather. For red, Brighton one of the best; large, of good quality, and a good seller. Amber Queen fine quality and sweet, but must be pruned close. Wyoming Red medium in size and good. Delaware fine in quality, but not heavy bearer. Use one-fourth to one-half bushel basket for main crop, and one-fifth for fancy fruit. Go over the vines, pick fancy fruit, then later pick poor fruit and make jelly.

Mr. Baxter, Illinois, has no use for Elvira in his locality. Moore's Early and Ives Seedling makes growers more money. Concord is the old standby and makes more money than any kind. Let Worden and Telegraph alone, unless for home market; prune them close. Norton Virginia good for wine alone; good to eat if well ripened. Wyoming Red good grape and heavy grower. Moore's Diamond earlier than Niagara, but needs close pruning; white grapes do not sell as well as others. Delaware best red. Hicks not good with us, or Eaton either, but McPike is all right. Hicks is inferior to Concord.

"Spraying in the Vineyard," by E. J. Baxter, Nauvoo, Ill. He said in part: Began spraying in 1890, and not failed to raise a good crop since. It is easy enough to save crop in scattered plantings or small vineyards from the rust, but in large plantings must spray. Necessary to use pure ingredients, properly made and applied, and must be put on at the right time to prevent the rot. If properly made, can apply without any doubt of success. If never have sprayed, would prune and drag out vines and rubbish, tie up vines, and spray while dormant, with 4 pounds copper sulfate in 50 gallons of water. Cover vines, trellis, and even the ground with this spray. In this spraying, and this only, make almost dripping wet. If have been spraying, or not had much rot, spray a few days before bloom, and right after bloom falls—when fruit is well set—with Bordeaux. The most important application is the one right after the bloom falls. Follow with spray about ten days apart. Much depends on the weather. Get good pump and nozzle, that will make a fine mist, the finer the better. Use plenty of force to cover all parts of vines, posts, etc., with mist, but be careful not to spray till it runs. Two sprayings is enough to save crop after getting vineyard in good shape, in ordinary seasons. Have tested various ways, and am sure can save fruit. Bagging will save if put on soon as grapes are set.

Mr. Nahm, of Augusta, had been in grape business long. Thought would be compelled to go out of business, until began to spray, and never lost a crop since. Spray needs careful making and straining, so will not clog nozzles. Has sprayed fifteen years and find it absolutely protects the crop.

Dr. Whitten: Have heavy clay soil, bad as any soil can be, but rich enough. Cultivate well, shallow, early in the season, and put in cow-peas first of July

for a cover-crop. Since we began doing this got the best results of any. Tried many mulch-crops, but this best of all. For mildew, spray well just before bloom. For rot after bloom, usually spray a third time, and if very wet weather, five times. We succeed in getting very good grapes of nearly all varieties by spraying, while those left unsprayed rot entirely. Now have about 200 varieties. For general use would name Moore's Early, Worden, Concord for black; Moore's Diamond and Niagara for white; another white grape, the Green Mountain, is very early, sweet, and delicious, and in great demand in our market, where it is known. Red grapes—Wyoming Red is best hardy, with least care.

Subject of cherry-growing brought out vigorous discussion. The stock on which the tree is grafted seems most important. Mazzard stock does not do at all well in this State. Mahaleb stock is generally used, but seems that Early Richmond, the popular cherry, does best on its own stock, while Morello is best on Early Richmond stock or its own. The failure in recent years of the Morello is charged largely to the stock upon which it is grown.

The best varieties are the following, in the order named: Early Richmond, Montmorency, Ostheim, and English Morello.

Secretary Greene, of Iowa State Horticultural Society, was called on and made a good talk on cherry-growing in his State. The shot-hole fungus was doing a good deal of damage in his State, and had killed most of the Morello trees. Prefers Early Richmond on same roots. English Morello the same. Does much better on own roots. Used to think no influence between stock and roots, but now knows there is a good deal. If want to raise English Morello, must spray. This fungus does not do much harm to Early Richmond, as it appears after leaves on this variety are well-developed and seem to resist the disease.

A splendid paper on "Some Profitable Nuts," by C. T. Mallinkrodt, St. Charles, which should stimulate nut-growing throughout the State, not only for home use, but for market. Our native varieties may well be given care and improved by careful selection.

"Ornamental Trees," by M. J. Wragg, of Iowa, was read by the secretary, in the absence of Mr. Wragg.

The next paper was on "Poultry in the Orchard," by Mrs. A. K. Dossey, Moberly. She said the raising of poultry in the orchard was the combination of two industries that harmonize admirably with each other. In the Eastern States this subject receives much more attention and general practice than in our Western States. Poultry are great insect-destroyers; not only will they destroy insects that fly in the air, crawl on the trees, but will scratch the ground to get the ones that burrow in the soil. As these insects are a great enemy to the orchard, and the poultry will so gladly help in their destruction, it is a wonder that so little attention is given to this subject. Not only will they save the grower many dollars that he will have to spend for machines and poisons to use in his solutions, but they are also a help in the way of fertilization, applying it in the cheapest possible way when they are allowed the range of the orchard. Nor is the orchard benefited more than the poultry. It is an ideal place for them, with the comfort of shade and opportunity to scratch to their hearts' content, as the well-filled egg-basket can well testify.

"Combined Poultry and Fruit-Raising," by Charles W. Steiman, Dalton, was most practical and to the point. He said that one of the questions for the fruit-growers was to handle the orchard so it would pay till it reached bearing age. While many plans were followed, the subject of the paper intimated another good one. Much depends on the man, if these two industries are handled together. Each step should be carefully weighed. A good beginning is necessary, and is best to commence in a small way, with thoroughbred fowls and work up. Twenty birds of the right kind will be a good commencement. Any breed of the standard varieties is safe to invest in, if well cared for, and can not go amiss in either eggs or meat. I use a small house that can be easily moved around, and thus can have good pasture and clean ground. February hatching fever often proves fatal. The best time is when biddy wants to set. Then start incubator and set hens at same time. When hatched, put 30 chicks with each hen, and in a 100-chick brooder never put over 30 chickens.

Senator Dunlap, of Illinois, was called on, and spoke of some of the problems that confront the Illinois grower.

From the earlier trials of varieties and soils, they reached cultivation and spraying. Not a question now if best to spray, but the best time, materials, etc. Now studying the problem of dust spraying. Illinois, he thought, had gone over and given it up, but came to Missouri to learn what we knew about it. Problem now is to market and hopes great things from the Apple-Growers' Congress, and with help of society, hope to successfully solve problem. On subject of pruning, prefers to thin out heads of young trees by cutting off surplus limbs close to center, or leading branch, and those left not to be shortened in at all. Begin the head about 2 1/2 feet from ground and do not allow all the limbs to come out together, but space a few inches along center leader.

"Growing the Best Nursery Trees," by T. R. Peyton, Boonville, said that the most vital point was proper soil. Then follows cultivation, choosing of healthy stock, both for scion and root, etc. A good and practical paper.

"Pruning Apple-Trees," by G. N. Ratliff, of Moberly, followed, giving method of pruning off all bruised roots. Trim tops and head 2 1/2 feet high, best method to resist winds, sunscald, and ease in gathering the crop. Balances head by cutting side limbs back to 6 inches, and balance around tree. If all limbs come out on one side, cut all off and start over. Remove forks and cut out all crosses. Cut the leader about 8 inches above upper side limbs. Cut side limbs each year to balance the head. Most convenient time to prune is in March; best time in June.

Professor Scott, from the Department at Washington, was present, and the president called on him for a speech. He said he was making tests in Arkansas along the line of fungous diseases. With the help of a chart, illustrating experiments carried on in Virginia last season, he gave a fine and clearly demonstrated talk on best results reached. This work was entirely for prevention of bitter rot. Spraying just before blooming, just after, and again in ten days had very little effect on the bitter rot.

Various tests were made and fully shown, and the conclusion reached was that the best time to begin was about June 15, in that locality, or six weeks after petals fall in any locality. Give four or five applications at intervals of two weeks. The spray must be well made and work thoroughly, as is the case when spraying for any cause. This will practically save the fruit from this disease. Plots left unsprayed were all taken with the rot, while those sprayed as given above saved 93.3 per cent of the fruit. Advises the power-sprayer in commercial orchards. Would spray from top down.

"Hogs a Help in the Orchard," by S. Y. Thornton, Blackwater. From raising and selling hogs to get land for planting an orchard, to present time, when raised in the orchard, hogs had proven a very material help. When trees were small, planted corn between the rows and pumpkins in the rows; both a very good hog-feed. The pumpkin-vines completely covered the ground in the space given them, and kept the soil moist and mellow. When trees were three years old, sowed rye, let hogs run on it in winter, and turned rye under in May, planting pumpkins and corn again. Never failed to raise a crop of corn, pumpkins, and hogs. When orchard was six years old, sowed to clover and cut for hay if desired. Orchard an ideal place to raise hogs, with shade to lie in and clover to eat. Orchard thirteen to fifteen years old borne regular crops, except 1904. Hogs always add to income when have a crop of apples, and are not to be despised when there are no apples at all.

W. H. H. Stephens, Bunceton, gave a short talk on various kinds of stock in orchard. Hogs and sheep both pastured in orchard, but sheep are removed at night, and when apples bear the branches down within reach of the sheep they are taken out altogether. Can't see any harm they have done, and they keep down weeds and sprouts.

Colonel Evans: No longer a question if it pays to put hogs in the orchard. It does. Now, what is best to put there for them to eat? Have tried clover, orchard-grass, rape, and many things; like cow-peas best of all. Let hogs run on clover early in season, then turn on cow-peas. When these are gone, feed corn ten days, and they are ready for market. Three or four hundred hogs on a hundred acres of orchard will pay well.

"Dust Spraying," by W. D. Maxwell, St. Joseph, was a most complete paper upon that subject. Mr. Maxwell prefers the dust to liquid, having used both. He showed that the use of dust for spraying was gaining ground.

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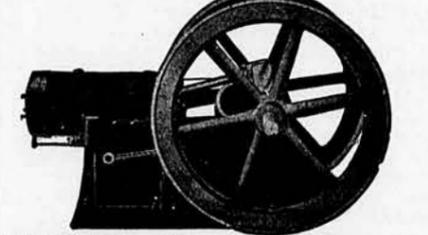
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Some of the dissatisfaction of the dust method arises from difficulty of properly preparing materials without chemical change, but this matter is now well understood and the one greatest objection to dust spraying removed.

Discussion followed, showing that dust is very much cheaper, applied with but a fraction of the labor required by liquid, and can be used on hilly or wet ground, when absolutely impossible to use liquid. Many still prefer the liquid and have tried both. It still remains a matter of individual preference. There have been many discouraging things connected with both methods, but sometimes good results are being made by this work of which we can hardly estimate.

President Dutcher is a friend of the dust method, and would use it exclusively where orchards are not already old and badly diseased. In case they were, would prefer to give a spraying of liquid while tree is dormant as a starter, and at this time the dust spray is useless. After this period Mr. Dutcher would use dust.

"Peach-Growing on Missouri Hills," by L. V. Dix, Jefferson City, covered the subject thoroughly from soils, choice of varieties, culture, and location. Prefers high elevation, level as possible. Useless to plant on old, worn-out clay soil. Would not plant to one variety, but those kinds covering whole season. Good cultivation very necessary to grow this crop. Keeps it up late in the season. By doing this the leaves do not drop so early and buds are not nearly so apt to start out during a warm spell in late fall or winter.

"Varieties and Methods With Peaches," by Alfred Nahm, Augusta, who would consider the market to be reached in choosing varieties. Some of our best kinds only good for home market. He gave a list of most desirable kinds for the whole season, which will appear in full report. Stops cultivation August 1. Give plenty of space between trees for sunlight. A tree properly pruned will never break down.

Colonel Evans: Only one way to properly thin peaches. That is by hand. Space fruit 4 to 6 inches apart.

Secretary Goodman used some branches of peach-trees, with the green fruit to demonstrate proper method of thinning. Tenth to fifteenth of June proper time for work; just when pit is hardening. Properly thinned, will get as many bushels of peaches and much better ones than to leave all on the tree. Don't cost one-fourth as much to thin as it does to pick the fruit later. Pays to thin apples the same.

"Planting and Early Care," by K. B. Wilkinson, Mexico, was another valuable paper for the peach-grower. In his method of planting, the writer laid special stress on the error of too deep planting. Plows ground deep, but only digs holes deep enough to set roots in. If set in spring, prune at once. If fall set, wait till spring to prune tops. Cultivate early and thoroughly; stop cultivation when you lay by your corn. Let weeds or anything else grow for a cover-crop. Worst problem is labor. Would advise against planting more than sure can care for.

Secretary Goodman: Leave a long leader or center limb. Let branches come where they please the first year. Want to get all the leaf surface you can to make strong roots. Later can shape tree as desired. It's worth more to get a good growth the first year than any other year in the life of the tree.

Dr. Whitten stated in answer to a question that the blight so often found on apple-trees this season is same as the better-known pear-blight. Apple-trees not as susceptible as pears. Never had so many inquiries come to the station about this trouble as this spring. The disease does not live over winter in the apple to any great extent. If any nearby pear-trees are badly blighted, would see that blight is removed, or whole tree cut and burned.

F. W. Faurot: Know of one block of Jonathans in south part of State where disease has held over three years and quite bad again this year. Another orchard with a block of Ingrams between other varieties, and the blight cleaned up Ingrams and did not injure others. Weather conditions such that others were not affected.

Professor Scott said that Professor Waite, the pear-blight expert, had tested spraying for this disease both when in bloom and out, and could not control by this means. Spraying with the lime, sulfur, and salt solution seemed to seal up and hold back trouble for awhile, but did not prevent.

When writing advertisers please mention this paper.

THE INTERNATIONAL SUNDAY-SCHOOL LESSON.

(Copyright, Davis W. Clark.)

Third Quarter. Lesson xiv. Luke xiv: 15-24. August 5, 1906.

False Excuses.

The prescribed ablutions are attended to, the festive cloak from the host's own wardrobe is thrown around each guest, and at length the banquet-hall is reached. There, on the tessellated floor, rest the silken-upholstered couches, on which the guests recline, their relative positions indicating the degree of favor in which they are held by the host. Even the tablecloth is richly parti-colored, and on it rest sumptuous dishes of chased gold and silver and iridescent glass. Obsequious servants glide in and out. A dodo of admiring spectators hems in the scene. From above, the great lamp, with golden bowl, suspended by a silver cord, sheds mellow light upon the goodly scene. The air is laden with sweet odors, and pulses with rhythmic strains.

Jesus has already conversed pointedly upon that self-oblivious humility which never fails of exaltation, and that disinterested generosity which seeks no recompense because it exercises itself toward those who are powerless to make a return in kind. There is a lull in conversation. A guest exclaims, "Blessed he that shall eat bread in the kingdom of God!"

It is a bait to lure the Master on to further discourse, and particularly to disclose His ideal of the Messianic kingdom. The remark intimates the prevailing Hebrew notion—the restoration of Solomonian power and splendor. Happy shall he be who is bidden to the House of the Forest of Lebanon when it shall grace again the height of Zion, that goodly palace of ivory and cedar. Thrice happy he who is bidden to banquet there on kingly dainties. All are alert to hear what response the young Teacher will make.

He does not keep them long in suspense. He accepts the challenge. But, as ever, He dwells upon the practical rather than the speculative phase of the subject. It is the personal attitude of the individual toward the Messianic kingdom, rather than the accidents of that kingdom. The Messianic banquet is now spread. Many are invited, the Jew first. Will the Host be honored or insulted, the invitation accepted or declined?

The universal voice of the Hebrew nation will be, "From such a banquet, good Lord, deliver us!" The individual will say, "I pray Thee have me excused." And in both instances the answer is made because the kingdom comes not in anticipated and desired form.

The strength of the parable is in its very improbability. The preposterous inadequacy of the excuses shows at a glance the disinclination to accept the invitation. It is a conscious, deliberate insult to the King of heaven.

From the recalcitrant Jew to whom is committed the oracles of God, and whose advantage is great every way, the heralds of the King of heaven are directed to turn to those whom the Jew considers the filth and offscouring of the world; who, as far as religious privilege is concerned, are poor, maimed, halt, and blind; at whom heaven's favorite casts the epithet of "dog," and whom he esteems ordained to destruction.

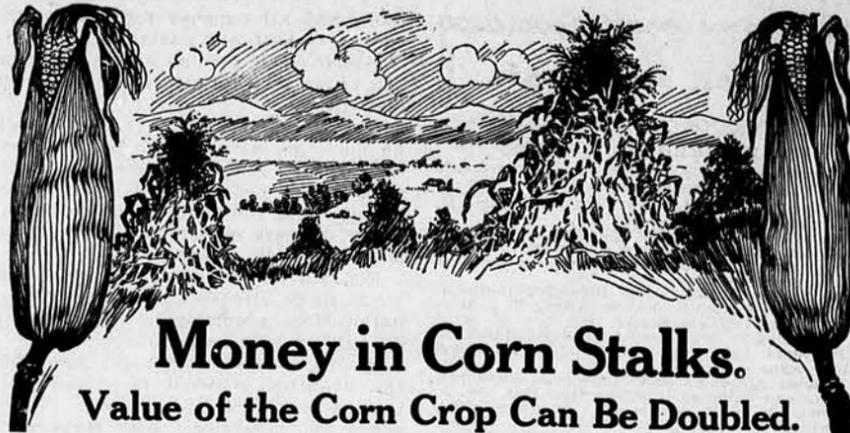
Blessed is he who is not offended at the form in which the Messianic banquet is given! Happy is he who sacrifices all his preconceived notions, and overcomes his racial prejudices! He shall eat bread in the kingdom of God.

Analysis and Key.

1. Jesus a Guest at Pharisees' Banquet. The scene pictured. The table-talk.
2. Exclamation of a Guest. A bait for further discourse. Especially to disclose His ideal of the Messianic kingdom.
3. Jesus accepts challenge. Practical, not speculative. Personal attitude toward kingdom. More important than mere accidents of the same.
4. Not the National Ideal. Individual also prays to be excused.
5. Improbability: Strength of Parable. Preposterous inadequacy of excuses. Shows unwillingness to accept.

Denver, Colorado Springs, Pueblo and Return, \$17.50 Santa Fe.

Tickets on sale daily, good returning as late as October 31, liberal stop-over privileges allowed. Fast Colorado Flyer from Topeka 10.35 p. m., arrives Colorado early next morning. Rock ballast track and Harvey eating houses. T. L. King, C. P. & T. A., Topeka, Kans.



Money in Corn Stalks. Value of the Corn Crop Can Be Doubled.

When your corn is ready to be harvested, if you have an average crop, the fodder will represent about as much value as the ears.

This is a conservative statement, based on the actual feeding value of corn when cut at the right time and properly husked and shredded.

It is now pretty generally known that when corn reaches maturity, about 60% of its feeding value is in the ears, while the remaining 40% is in the leaves, husks and stalks.

Our Government Experiment Stations have proved this by chemical analysis, and have been teaching it to the farmers for a long time.

Have you benefited by their teaching and by the practical experience of thousands of dairymen who have adopted the double profit method of handling the corn crop?

The double profit method is this—just when the ears begin to glaze, the field should be gone over as rapidly as possible with a good corn harvester and binder or harvester and shocker—the right machine will do the work quickly.

In this way you can harvest the whole crop while both the fodder and ears have the most feeding value.

After the corn has been cut, you can run it through the husker and shredder at your convenience—this work is usually done in the fall and winter months.

A good crop of corn yields about two tons of stover per acre. Our Experiment Stations and other practical feeders find that stover is nearly equal to good timothy hay, so it doesn't matter whether there is a market for your stover or not. You can sell your hay and feed your stover.

McCormick, Deering, Milwaukee, Champion and Osborne Corn Binders; Deering, McCormick and Plano Huskers and Shredders.

In each of these machines you have all the advantages made possible by the unequalled manufacturing facilities of the International Harvester Company.

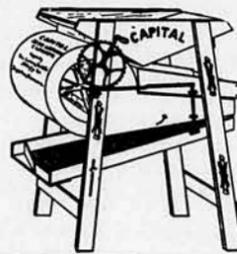
The International Harvester Company owns its own timber lands and saw mills, its own iron and coal mines, its own coke plants and rolling mills, from which it produces a large percentage of all raw materials used, selecting in every instance only the best material and working it out in the best way in the above great manufacturing plants. These are advantages which no buyer can afford to overlook.

The International lines are represented by different dealers in your town. Call on them for catalogues and investigate these machines.

International Harvester Company of America, Chicago, Ill. (INCORPORATED)

\$15 "CAPITAL" Seed and Grain Cleaner \$15

Cheap in Price. Perfect in Workmanship. Invaluable to every farmer.



Does its work accurately. Handles all grains. Is fully guaranteed.

In short the best mill on the market for the money. Write us to-day and we will show you why. Tell us what kind of grain you raise.

The Lewis-Tuttle Mfg. Co., 305 C. Kansas Avenue, Topeka, Kansas

ALFALFA SEED FOR FALL SEEDING

Strictly Kansas grown seed. Highest award at St. Louis Exposition. Write for prices. MCBETH & KINNISON, GARDEN CITY, KANSAS

CATALPA AND OSAGE FOR POSTS

Every farmer should grow his own post timber. Get the true catalpa speciosa. We have it. We also offer fruit trees, shade trees, small fruits, grape vines, flowering shrubs, etc. Tell us what you want. We will make the price right. PETERS & SKINNER, No. Topeka, Kans.

WINTER SEED HOUSE

62 BUSHELS PER ACRE That's the yield of Ratekin's new Imported "Malakoff" Winter Wheat. This wheat was imported by us from Russia, near the Black Sea, five years ago. It is as hardy as rye. Many Experimental Stations pronounce it the largest yielder, surest croper and best quality of milling wheat grown. Seed wheat circular with full description of winter wheat, rye, timothy, clover and other grass seeds mailed free, with sample of "Malakoff" to all who want to make a change of seed. Write to-day. Address RATEKIN'S SEED HOUSE, SHENENDOAH, IOWA.

Stock Interests

PURE-BRED STOCK SALES.
Dates claimed only for sales which are advertised or are to be advertised in this paper.

August 15, 1906—Maple Hill Shorthorn Sale. H. C. Duncan, Osborne, Mo.
 September 20, 1906—Duroc-Jerseys at Hutchinson State Fair, N. B. Sawyer, Cherryvale, Kans.
 September 26, 1906—Peck, Putman and Lamb Bros. Tecumseh, Neb.
 September 28, 1906—Valley Brook Shorthorns, J. J. Mason, Overbrook, Kansas, owner, T. J. Worrell, Liberty, Mo., Manager.
 September 28, 29, 27, 1906—Hope Agricultural and Live Stock Fair & Sale. H. K. Little, Secretary, Hope, Kans.
 October 2, 3 and 4, 1906—Shorthorns, Herefords, Angus and Galloways. During State Fair. W. E. Huribut, Manager, Sedalia, Mo. Entries solicited.
 October 2, 3 and 4, 1906—Berkshires, Poland-Chinas, Duroc-Jerseys and Chester-Whites. During State Fair. W. E. Huribut, Manager, Sedalia, Mo. Entries solicited.
 October 2-3-4-5, 1906—Glascow Live Stock Association sale of pure-bred stock, Glasco, Kans.
 October 10, 1906—H. L. Faulkner, Jamesport, Mo.
 October 11, 1906—American Galloway Breeders' Association Combination Sale, Kansas City, Mo.
 October 17, 1906—W. J. Honeyman, Madison, Kans.
 October 17, 1906—Poland-Chinas, W. A. Pruitt, Asherville, Kans.
 October 18, 1906—East Lynn Herefords, Will H. Rhodes, Tampa, Kans.
 October 18, 1906—Choice Duroc-Jerseys. C. A. Wright, Rosendale, Mo.
 October 18, 1906—Poland-Chinas, W. A. Davidson, Simpson, Kans.
 October 20, 1906—W. R. Dowling, Norcatar, Kans. Poland-Chinas.
 October 22-24, 1906—E. A. Eagle & Sons, Agrícola, Kans.
 October 24, 1906—Poland-Chinas, Frank A. Dawley Waldo, Kans.
 October 25, 1906—D. W. Dingman, Clay Center, Kans. Poland-Chinas.
 October 25, 1906—Poland-Chinas. T. J. Triggs, Dawson, Neb.
 October 26, 1906—Poland-Chinas. O. W. Stalder, Salem, Neb.
 October 27, 1906—Poland-Chinas. Chas. A. Lewis, Beatrice, Neb.
 October 28, 1906—Jno. W. Jones & Son, Concordia, Duroc-Jerseys.
 October 30, 1906—Leon Calhoun's sale of Poland-Chinas at Atchison, Kans.
 October 31, 1906—Poland-Chinas. O. B. Smith, Cuba, Kans.
 November 1, 1906—Poland-Chinas. Carl Jensen & Sons, Belleville, Kans.
 November 1, 1906—Frank Zimmerman, Centerville, Kans.
 November 1 and 2, 1906—Herefords and Shorthorns, Kansas City, Mo., W. C. McAvock, Mgr., Springfield, Ill.
 November 6, 7, 8, 1906—Sale of all beef breeds, Kansas City Sale Pavilion, R. A. Ford, Lawson, Mo., Manager.
 November 8, 1906—T. P. Sheehy, Hume, Mo.
 November 13, 1906—Howard Reed, Frankfort, Kans.
 November 14, 1906—Poland-Chinas. F. R. Barrett, Cadmus, Neb.
 November 16, 1906—G. M. Heberd, Peck, Kans.
 November 20-23, 1906—Blue Ribbon sale of all beef breeds, D. R. Mills, Mgr., Des Moines, Iowa.
 November 27, 1906—L. C. Caldwell, Moran, Kans.
 December 4, 1906—Poland-Chinas, Lemon Ford, Minneapolis, Kans.
 December 6, 1906—American Galloway Breeders' Association Combination Sale, Chicago, Ill.
 December 11-12, 1906—James A. Funkhouser and Charles W. Armour, sale pavilion, Kansas City.
 Jan. 17, 18 and 19, 1907—Shorthorns, Aberdeen-Angus and Herefords, South Omaha, Neb., W. C. McAvock, Mgr., Springfield, Ill.
 Improved Stock Breeders' Association of the West 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. 13, 14, 15, 1906, at Wichita, Kans., J. C. Larrimer, Derby, Kans., Manager; Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.
 February 19, 1907—Jno. W. Jones & Son, Concordia, Duroc-Jerseys.
 February 23, 1907—Wichita, Kansas, Poland-China bred sow sale, J. C. Larrimer, Derby, Kansas, Mgr.
 April 3, 4 and 5, 1907—Herefords, Aberdeen-Angus and shorthorns, Kansas City, Mo., W. C. McAvock, Mgr., Springfield, Ill.
 May 1, 2 and 3, 1907—Aberdeen-Angus, Shorthorns and Herefords, South Omaha, Neb., W. C. McAvock, Mgr., Springfield, Ill.

The Wool Situation.

EDITOR KANSAS FARMER:—No slump in prices, as some manufacturers and dealers expected, materialized at the London auction wool sale, which opened on July 10. The decline of 5 to 7½ per cent on merinos was mostly due to the poor selection offered; cross-breeds, or wool of medium character, held their own.

No evil effect will be noticed here on account of the easier position of the London market, for even admitting the decline reported to have taken place at the auctions, there are no wools there that can be brought into this country to compete in price with similar grades of the domestic clip.

In consequence thereof, there is unquestionably a better tone already to the situation here, and manufacturers are showing increased interest.

From reliable information, we know that manufacturers are very lightly supplied with desirable wools, and most of them are running their mills at full time and capacity. Therefore, it is our firm belief that before long we will receive very large orders.

We offer our best facilities to consignors for receiving their shipments of wool, which will be either offered for sale on arrival or held for future advance, as the owners may direct.

We will endeavor to use our best judgment to realize full value, and all for one cent per pound commission. We beg to submit our terms:

First—A liberal case advance on receipt of your shipment of wool or when you ship sight draft with bill of lading attached.

Second—On all money advanced we charge 6 per cent interest per annum.

Third—We charge only one cent per pound commission for selling your wool, which includes storage, insur-

ance, and all expense for six months, except freight and cartage.

Fourth—We furnish sacks and sewing twine free for use to all who consign to us.

It is very essential that wool should be made as attractive as possible, and we would again impress upon our friends the necessity of using wool twine, tying the fleeces shorn side out. Manufacturers object very seriously to sisal or binding-twine.

For further information write and we shall be pleased to answer all communications promptly by letter or telegraph, as may be desired.

Wool-growers should let us know the quantity of wool they will have this season, full particulars of the grade and condition. Also state nearest shipping-point and railroad.

Prices quoted herewith are based on a very conservative market for July, 1906:

TUBWASHED.

Choice medium, 40c to 42c; average, 37c to 39c; coarse, 33c to 35c; burry, dingy, etc., 25c to 28c.

UNWASHED.

From All Bright Wool Sections.—Fine delaine, 26c to 28c; fine clothing, 23c to 25c; fine med. or ¼ blood, 28c to 30c; med. or ¼ and ½ blood, 30c to 32c; low combing, 26c to 28c; braid, 25c to 27c.

Georgia, Alabama, Tennessee, and Southern Wools.—Fine med. or ¼ blood, 28c to 30c; med. or ¼ and ½ blood, 30c to 32c; coarse and low, 25c to 27c.

Valley Oregon.—Fine med. or ¼ blood, 28c to 30c; med. or ¼ and ½ blood, 30c to 32c; common and braid, 26c to 28c.

Semi-Bright Wools from North and Northwestern Iowa, Minnesota, and Similar Sections.—Fine heavy, 20c to 22c; fine light, 22c to 24c; fine med. or ¼ blood, 24c to 26c; med. or ¼ and ½ blood, 27c to 29c; coarse and broad, 24c to 26c.

Dakotas, Kansas, and Nebraska.—Fine, 22c to 24c; fine med. or ¼ blood, 23c to 25c; med. or ¼ and ½ blood, 26c to 28c; coarse, 23c to 25c.

Montana.—Fine, 22c to 24c; fine med. or ¼ blood, 24c to 26c; med. or ¼ and ½ blood, 27c to 29c; coarse, 24c to 26c.

Wyoming and Utah.—Fine, 22c to 24c; fine med. or ¼ blood, 24c to 26c; med. or ¼ and ½ blood, 26c to 28c; coarse, 23c to 25c.

Colorado, Nevada, Arizona, and Washington.—Fine heavy, 18c to 20c; fine light, 21c to 23c; fine med. or ¼ blood, 23c to 25c; med. or ¼ and ½ blood, 25c to 27c; coarse, 22c to 24c.

Idaho and Oregon.—Fine, 21c to 23c; fine med. or ¼ blood, 23c to 25c; med. or ¼ and ½ blood, 26c to 28c; coarse, 22c to 24c.

New Mexico and Southern Colorado.—Fine merino, 21c to 22c; fine med. or ¼ blood, 22c to 24c; med. or ¼ and ½ blood, 25c to 27c; coarse and carpet, 18c to 20c.

Texas and Oklahoma.—Fine merino, 21c to 23c; fine med. or ¼ blood, 24c to 25c; med. or ¼ and ½ blood, 26c to 28c.

Defective wools, such as burry, chafy, cotted, and black, are subject to discount from 3c to 5c per pound. Fine heavy bucks, one-third less than fine wool quotations.

ANGORA GOAT HAIR.

Silky and good staple No. 1, 28c to 30c; average lots, No. 2, 23c to 25c; poor and faulty, No. 3, 15c to 17c.

SHEEP PELTS.

Domestic pelts, from 50c to \$2 each; domestic G. S. shearlings, per piece, 25c to 50c; Montana dry pelts, butchers' full woolled, per lb., 19c to 20c; Montana dry pelts, Murrains, per lb., 18c to 19c; Wyoming, Utah dry pelts, butchers' full woolled, per lb., 19c to 20c; Wyoming, Utah dry pelts, Murrains, per lb., 18c to 19c; Colorado and New Mexico, butchers' full woolled, per lb., 20c to 21c; Colorado and New Mexico, fair run, per lb., 19c to 20c; dry flint shearlings, per piece, 20c to 25c.

SILBERMAN BROTHERS,
122-124-126-128 Michigan Street, Chicago, Ill.

Breeding Morgan Horses.

BULLETIN U. S. DEPARTMENT OF AGRICULTURE.

Early in the last century New England in general and Vermont in particular were famous for their Morgan horses. These horses were small, but well-built, compact, and very good roadsters, with powers of endurance little short of remarkable. From Vermont they were distributed over the entire United States and over a considerable portion of Canada, the blood entering into the light harness stock of both countries and having an effect of great value.

The principal effect was the endurance and stamina which it gave. With few exceptions it did not produce extreme speed. For this reason the passion for speed in the light horse, at all costs, caused Morgan breeders to neglect conformation and quality, and even that stamina for continuous travel for long distances for which the Morgan was noted. The small size of the Morgans was also a fault when market requirements were considered. The result was that Morgan mares were mated with Standard-bred stallions of other strains to get speed and increased size, and the Morgan type was very largely bred out. These Standard-bred horses were not of the Morgan type, and in many cases they were not desirable individuals for breeding purposes. Even in Vermont the effects of these crosses are found on every hand. In the southern part of the State it is hard to find horses showing the Morgan type, but farther north they are more common.

Believing that the Morgan characteristics were too valuable to the horse-breeding industry to be lost, the Bureau of Animal Industry of the Department of Agriculture has established a stud in cooperation with the Vermont Experiment Station to revive interest in the Morgan breed. The type selected is that of the old Morgan, with size and quality. With increased size the Morgan horse will answer the requirements of the market for light horses and will be a profitable horse for farmers to raise.

Nine mares and two fillies were bought in June. They are uniform in type, with full-made bodies, fine heads and necks, full hind quarters, good legs and feet, and abundant quality. Seven mares and the two fillies were purchased in Vermont and two mares in Kentucky. Those bought in Vermont are by such sires as General Gates, Bob Morgan, Young Ethan Allen (a full brother in blood of Daniel Lambert), Denning Allen, Rocky Mountain, and Gillig. The Kentucky mares are by Harrison Chief, out of Morgan mares, and are in foal to the saddle stallion, Highland Denmark, a horse of splendid conformation and quality and an excellent stock getter. Some of the Vermont mares were in foal at the time of purchase. Those not in foal will be bred to the Morgan stallions, General Gates, Frank Allen, and Rex. A stallion will not be purchased at present, as sufficient funds are not available. The introduction of Harrison Chief and other saddle blood was thought desirable on account of the great effect that the blood has had on the quality of the harness horses for which Kentucky is famous.

These mares were bought by a board composed of Prof. C. F. Curtiss, director of the Iowa Experiment Station; Mr. Cassius Peck, of the Vermont Experiment Station, and Mr. George M. Rommel, Animal Husbandman of the Bureau of Animal Industry. In addition to the characteristics mentioned above, the board insisted on pure trotting action and discriminated sharply against pacing or any tendency to mix in gaits. Pacing strains in the pedigrees were also avoided as far as possible.

The mares are temporarily on a farm rented by the Vermont Experiment Station near Burlington and will be moved to the college farm as soon as it is fitted up. A barn has been remodeled and is very well adapted to the purpose for which it is to be used. Selection of type will be rigidly practiced and undesirable animals culled out from time to time. Mr. W. F. Hammond has been appointed to conduct the work at the experiment station. Mr. Hammond has had a lifelong experience in horse-breeding in Vermont, and is descended from the Hammonds who developed the Vermont merino sheep.

Great Stallions Needed Now.

While it is true that many inferior stallions of both the draft and coach breeds have been imported into this country, the fact remains that very many good ones and not a few great ones have likewise been brought across the ocean. America horse-breeding has now been settled on a sure and safe foundation. Demand far exceeds supply. Dealers and consumers can not find the drafters to fill the orders placed with them. Handsome high-acting carriage or coach horses are equally scarce, if not more so. With the general prosperity of the country and the amount of work that has been planned ahead for these coming years, it is perfectly safe to predict that prices will not go lower than they are now. The draft horse is a creature of advanced civilization. The greater

Horse Owners! Use
GOMBAULT'S
Caustic Balsam



A Safe, Speedy, and Positive Cure
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes 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.



Sanitary Hog Troughs
Will not rust or rot out and will last a life time. Every breeder should use them. Prices furnished on application.
Blue Valley Mfg. Company
Manhattan, Kansas

Lump Jaw
The old reliable absolute cure for Lump Jaw is
BARTLETT'S LUMP JAW CURE
It has stood the test and has cured thousands of cases. Don't fool with untried remedies. No matter how bad or how long standing Bartlett's Lump Jaw Cure will do the work. A positive and thorough cure easily accomplished. Latest scientific treatment. Unexpensive and harmless.
NO CURE NO PAY.
My method fully explained on receipt of a postal. Write to-day.
CHAS. E. BARTLETT, Chemist,
COLUMBUS, KANS.

Fli-Kil
is a safe, sure, efficient non-offensive remedy for
Keeping Flies Off Cows, Horses, Mules and all Live Stock.
Indispensable in dairy and stable. Saves annoyance and irritation. Cows rest easy, digest and secrete their food better and produce more milk and butter. It makes milking easy and safe; protects teams. Will not gum the hair. Easily and cheaply applied with sprayer. Buy now; use before the animals run down. At dealers. Quart 40c; ½ gal. 60c; gal. \$1. Trial gallon direct, express paid, \$1.25. Don't take a substitute. Illustrated book free. Address,
Moore Chem. & Mfg. Co.,
Dr. H. J. Whittier, Pres't.,
1801 Converse Street, Kansas City, Mo.

Bog Spavin
Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.
Fleming's Spavin Cure (Liquid)
is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Orb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be limited. Easy to use, only a little required, and your money back if it ever fails.
Fleming's Vest-Pocket Veterinary Adviser
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.
FLEMING BROS., Chemists,
219 Union Stock Yards, Chicago, Ill.

THE HAPPY HOG AT
DIPPING TIME
Is happy because he is being FREED from lice that torture and torment. August, September, October, are best months to dip hogs to kill lice. DIPOLINE, the best Hog Dip, works quickly and thoroughly. It KILLS BOG LICE, destroys all disease germs, prevents BOG CHOLERA, saves loss, keeps your hogs healthy and growing. Every hog-raiser needs it. DIPOLINE is easy to use; the cheapest hog insurance you can buy. Write for booklet and enough dip to make a gallon, FREE.
MARSHALL OIL CO.,
Box 13, Marshalltown, Iowa.





U.M.C.
METALLIC CARTRIDGES

Take U. M. C. Cartridges for Buck Fever

They'll give you confidence and steady your nerves. Always accurate, sure fire and hard hitting.

U. M. C. cartridges are guaranteed, also standard arms when U. M. C. cartridges are used as specified on labels.

THE UNION METALLIC CARTRIDGE COMPANY
BRIDGEPORT, CONN.
Agency: 313 Broadway, New York

the advancement of a nation, the greater its need for the thew and sinew of the heavy horse.

American farmer-breeders have in the main a fair stock of mares from which to produce the future generations of draft horses. There is little temptation now to sell the good mares off the farm. Mortgages have been lifted. The horse is the most remunerative animal produced by the American farmer. Granting this, it is largely to the selection of the stallion that the breeder must look for his insurance of success. Importers should recognize this condition. We need the best. We need great stallions. We need all the prize-winners in the countries in which they are bred—the greatest of their years, the champions—such stallions, for instance as McLaughlin Bros. import from France. These horses, when placed at the disposal of the breeders of pure-bred and grade drafters, will surely augment the general excellence of our commercial drafters.

Importers should recognize that the interest of the breeders are their interests, that their interests are the interests of the breeders, that the one can not fall and the other succeed—both must stand or fall together. The evidence of the show-ring when great world's shows are involved may safely be accepted as a guide to selection. Victory at such shows proves that the horse meets the demands of the day and the breeder must always keep in touch with the market. It is by study of awards in the show-ring that the finger may best be kept on the pulse of the demand and of the trend of public opinion. The breeder who follows along the lines he finds marked out in this way can hardly fail to succeed.

The Maple Hill Shorthorn Sale.

Mr. H. C. Duncan, Osborn, Mo., will sell a draft from the famous Maple Hill Shorthorn herd. The sale will be held at the farm and all trains will stop at Maple Hill Station, which is on the farm.

This sale will be an event in the Shorthorn history of the year. Mr. Duncan has selected 50 of the choice animals of his herd to go in this sale and that means there will be just 50 mighty good animals sold. In the long experience of the writer there has never been a sale of Shorthorn cattle in the West that offered such a very high-class lot of young bulls as are included in this sale catalogue. There are only 10 of these young bulls in this sale but every one of them is a herd-header. Among them may be noted Scottish Victor 244264 by Duncan's great herd bull, Headlight 134219 and out of Victoria of Glenwood 14th. This pure Cruickshank bull was a prize-winner at the American Royal where he won 4th prize in a class of 22. He weighed 1,400 pounds at 16 months, and is a better bull to-day than when he showed at the Royal. There are few better bulls in the United States. Another of these remarkably fine bulls is Golden Headlight 245891 by Headlight and out of 8th Linwood Golden Drop, who is the mother of Gallant Knight, the famous herd-bull at the head of the T. K. Tomson & Sons' herd at Dover, Kans. The Linwood Golden Drops are considered by many good judges to be the most superb family of Shorthorn cattle of their time in the United States and Golden Headlight is a worthy representative. These are only mentioned as samples of what will be included in the sale.

At the head of this great herd of Shorthorns stands some of the best bulls of the country. Headlight 134219 by Grand Victor 4th 122694 out of Star Light (bred by Colonel Harris) by Galahad 103259 (bred by Colonel Harris), and is one of the famous Cruickshank Secrets.

Magnet 188058 by Pure Gold 156722 is a splendid Orange Blossom who has been in service in Maple Hill Herd for some time, and who has sired a number of the best things in the sale. Eight dams in his pedigree were bred by Cruickshank. He weighs about 2,200 in good condition and is now near 5 years old. Because of there being so many of his helpers in Maple Hill

Herd, this bull will be included in the sale and is listed as No. 1 in the catalogue.

Maple Hill farm is only about two hours from Kansas City on the Quincy, Omaha, and Kansas City Railway, which has its depot at the foot of Wyandotte Street in Kansas City. The train leaves at 8 o'clock a. m. and will not return until after the sale. Parties from St. Joseph, Mo., can take the Burlington at 9.15 a. m. for Osborn. Passengers on the Santa Fe will change at Plattsburg and those on the Rock Island will be met at Perrin with carriages the evening before and the morning of the sale.

This sale will be an event that should not be missed. For catalogues write to H. C. Duncan, Osborn, Mo., or drop in at this office where we have a few left.

Reed's Herd-Headers—Size and Quality.

One of the West's first-class propositions in richly bred Poland-Chinas is the Spring Farm Herd of Howard Reed, of Frankfort, Kans. The farm is located four miles south of this pretty little city, in Marshall County, the center of the corn and alfalfa belt of the great West.

Mr. Reed is no novice in the business. He has been actively engaged in it most of the time for the last twenty years (he dropped out for a few years to engage in the mercantile business), having been one of the pioneer breeders and show men of Illinois. Coupled with his love for the business and past experience, he has spared neither time nor money in gathering about him one of the best herds in the West, numbering at the present time about 200 head; he has been a good buyer at the leading sales, topping a number of them and always buying the good ones. When he finds one of "Spring Farm Quality," plenty of size with lots of finish, and with the breeding, he never stops nodding his head at the auctioneer until the animal is knocked down to him.

His crop of spring pigs, numbering one hundred head, show the result of his careful judgment in selecting his sows and mating them. It is very doubtful if there are as many even, growthy-finished pigs in any other bunch in the entire West or we might say East. This is one reason why Spring Farm boars are so much sought after. When you buy one of them, you can depend on the same general characteristics being transmitted to your own herd. Mr. Reed's prices are always reasonable, and he ships everything out with a guarantee. If not just as represented return it and get your money back. His mail-order trade is growing very fast, having extended during the past year into every State in the West and several of the Southern States.

A litter out of Fritzie Perfection 321044, sired by Reed's O. K. 91691, a son of the Champion boar at Missouri State Fair in 1901 and also a prize-winner in his pig form, is very promising. Mr. Reed also has a fall boar bred the same way that he expects to show at the fall fairs. It will keep some one humping to head him off. There is also a fall gilt from this same litter that is a good prospect.

The litter of Miss Spring, his great line-bred Tecumseh sow, is among the shining marks. Amy Perfection 84524, bred by F. M. Lall, Marshall, Mo., with her litter of six sired by Elight Perfection, is another mother that has every reason to be proud of her offspring. She was next to the top at Paynter's winter sale, and five of her gilts in the same sale sold for nearly \$400, and several of her boars from the same litter are at the head of the best herds in the State.

There are many others of as good promise, which we will mention at some future time. Mr. Reed offers you for sale 100 spring pigs, about 40 fall pigs, a number of tried sows, and one tried boar. His prices are right, he will treat you right, and his stuff is right.

You are always welcome to visit the herd. Write him your wants, mentioning THE KANSAS FARMER.

Gossip About Stock.

Crimson Wonder 23355 was a notable Duroc-Jersey sire with an enviable record and a number of his offspring are just as good as the sire. Mrs. and Mrs. Henry Shrader, of Wauneta, Kans., have a son of his, Crimson Wonder Jr. 38755, which they regard as equal to the sire in every respect. They have quite a number of pigs by him for the season's sale; also a number by Kerr's Champion 34469, another notable sire having a great record as a breeder with an excellent conformation in all essential points for a sire. The litters sired by him number from nine to fourteen. The Shraders invite inspection and correspondence from fanciers of Duroc-Jersey hogs.

We are in receipt of a letter from W. E. Skinner, general manager of the International Live Stock Exposition, saying that the preliminary classification for the 1906 exposition is being printed and will be ready for distribution in a few days. There are quite a number of changes over last year made in the sheep and swine classes. The prize list will be mailed on application to any one mentioning THE KANSAS FARMER.

Without Failure—Greatest Known.

Arnold, N. D., February 8, 1906.
Dr. B. J. Kendall Co., Enosburg Falls, Vt.
Dear Sirs:—I have used your Spavin Cure and Blister in a number of cases without failure. It is the greatest spavin Cure I know of. You may use this as a testimonial if you like.
Respectfully,
JACK WUMDELL.

We are in receipt of the 1906 catalogue of the Omaha Commercial College. It is quite out of the ordinary in its character and construction. Besides college information and views, it contains a number of beautiful half-tone engravings of Omaha street scenes and a fine bird's-eye view of the city. This attractive little book should prove interesting to both young and old people.



Swift's
Digester
Tankage

—for Newly Weaned Pigs

The digestive organs of newly weaned pigs are so delicate that coarse, bulky, irritating meals cannot be fed with safety. Swift's Digester Tankage, appetizing, concentrated and nutritious is indispensable.



It Keeps Them Growing

Tankage-fed pigs keep right on growing. They are not troubled by Thumps, Ricketts or Rheumatism. They look well, grow well and PAY well. We give facts and figures in our booklet, "Protein for Profit."

Swift & Company, U. S. A.

Animal Food Department, Desk 8
Union Stock Yards CHICAGO

Duncan's Midsummer Sale
OF
SHORTHORN CATTLE

At Maple Hill Farm, Near
Osborn, Mo., Wednesday, August 15
Sale Starts at 12:30 p. m.

Ten bulls, seven Cruickshank; forty females, 15 Cruickshank. Among the bulls is my herd bull Magnet 188058 (an Orange Blossom), Golden Headlight 245876, and Scottish Victor 244264, three as good bulls as have gone through any sale this year. The remaining Scotch bulls are very promising. The Cruickshank females consist of Victoria of Glenwood 14th and cow calf. Maple Victoria out of Imp. Sittyton Victoria 2d, Ury of Maple Hill, Maple Hill Violet 16th, Maple Violet China Rose and bull calf (a Violet), Orange Blossom of Wildwood 5th, Maple Hill Orange Blossom, Gloster of Maple Hill and c. b. (a Duchess of Gloster). The balance are from seven-eighths to fifteen-sixteenths Cruickshank and from families that have been bred on the farm for thirty years.

I am selling as good cattle as I am retaining. Catalogue gives complete information regarding the offering. I will be pleased to mail to any one. Write, mentioning THE KANSAS FARMER.

Q. O. & K. C. Railroad, Station, Maple Hill, on farm.

H. C. Duncan, Osborn, Mo.

BELLOWS, HARRIMAN and WHITE, Auctioneers.



Order Today---Apple Shipping Boxes
Just what you need to get the top market price. 1 bu. size, nicely lettered. Made by California Pine Box Lumber Co. For prices address at once,
WHITEKER BROS., Topeka, Kansas
WHOLESALE FRUIT DEALERS.

Home Departments

CONDUCTED BY RUTH COWGILL.

How Do You Know?

How do you know—
There's a boy in the house?
By the cap that is hanging downstairs
in the hall;
By the gun and the pistol, the bat and
the ball;
The Indian war dance, the toy cannon's
roar,
That are heard now and then through
the nursery door;
By the engines and drums and the
tool-chest and nails;
The steam-cars and tracks and the
boats with trim sails;
By the volumes of Cooper which from
cover to cover
Have been read and reread by an In-
dian lover.

"But you must take care, if you value
your head,
When you go to the nursery," declares
Uncle Fred.
"When I open the door, there's a scram-
ble and shout;
I'm attacked by a brigand, and I'll
never doubt
Who clutches me fast, as a cat does a
mouse—
Well, these are good signs there's a
boy in the house!"

How do you know—
There's a girl in the house?
By the beautiful doll with the movable
eyes—
A French doll that sleeps, and that
talks, walks, and cries,
By the toyhouse and trunk and the
stove and the chairs;
By the needle and thread, in the nur-
sery upstairs;
By the doll hats and furbelows made
every day
For Annie and Sallie and Bessie and
May;
By the soft little laugh and the sweet
little song,
Which never to grown folks or boys
could belong.

"And if you run up to the nursery
floor,
And go to the room and then open the
door,"
Aunt Dorothy says, "well, when I take
a peep,
And see a wee mother a-rocking to
sleep
Her own little dolly, as still as a
mouse—
Why then I am sure there's a girl in
the house."
—St. Nicholas.

Lady Baltimore.

I have just read one of the late nov-
els, Lady Baltimore (Macmillan), and
want to tell you a little about it. It
was written by Owen Wister, who
wrote the "Virginian," which was re-
ceived with such favor a few years
ago and is still in favor. There is no
similarity between the two books—
you can not say, read the one and you
know what is coming next in the oth-
er, as is often the case and objection.
It is an interesting book to read, not
only because of the story, but because
of the interest you feel in the study
of the characters. The author does not
describe his characters in so many
words, but as in life, they play their
part before your eyes, and you become
acquainted with them as with friends.
"Lady Baltimore" is not the name of
some famous woman, as one might be
led to believe, but is the name of a
cake sold at a ladies' exchange, and
John Mayrant, the hero of the story,
makes his first appearance as the pur-
chaser of it for his wedding, which
never takes place. He does marry,
however, but marries the lady behind
the counter in the exchange, who made
the "Lady Baltimore." She is a sweet,
simple, but dignified and proud girl of
the Southern type. She for whom he is
buying the cake is a beautiful woman
whose aspirations are for social pos-
sition and wealth. She smokes cigar-
ettes and sips wine and things strong-
er, and is willing to sacrifice womanly
virtues and true love for these things.

John Mayrant is a young man of
rare characteristics—possessing that
high Southern type of courtesy and a
keen sense of personal honor, and
lacking all show of pretension and su-
periority of manner. He is never in
too big a hurry to be courteous, even
to the old colored servant, and consid-
ers it one of his first duties to be
agreeable. His fiancée postpones the
wedding from time to time, in order
to find out the value of some phosphate
mines which have been left him by an
uncle, meanwhile holding on to a
wealthy New Yorker whom she de-
spises, but finally marries. Long be-
fore the value of the mines is ascer-
tained, John discovers her true char-
acter, but persistently keeps the en-
gagement from a sense of honor. The
time comes, however, when his eyes
are opened to the truth of the matter,
and that it would be more honorable
and just to her to tell her that he does not

love her than to make her a "wife
chained down to perpetual disregard."

There is much food for thought all
through the book. The writer is not
by any means a narrow thinker. He
treats the race question with fairness
to the negro, the North, and the South.
He says of the negro, "We need not
expect a Confucius from the negro nor
yet a Chesterfield, but I am an enemy
also of that blind and base hate
against him, which conducts nowhere
save to the declivizing of white and
black alike. Who brought him here?
Did he invite himself? Then let us
make the best of it and teach him,
lead him, compel him to live self-re-
specting, not as statesman, poet, or
financier, but by the honorable toll of
his hand and the sweat of his brow.
Because 'the door of hope' was once
opened too suddenly for him is no rea-
son for slamming it now forever in his
face." He portrays the "yellow rich,"
as he calls those who have nothing
else to show and who hold a place in
society on that score alone, in their
true light. He makes you see that the
absence or presence of wealth should
be a matter of indifference as to one's
standing in society.

In speaking of the commercial spir-
it that is growing with such rapid-
ity in our country, he makes one of
his characters say: "The freedom-lov-
ing American, the embattled farmer,
is not yet extinct in the far recesses.
But the great cities grow like a creep-
ing paralysis over freedom, and the
man from the country is walking into
them all the time, because the poor,
restless fellow believes wealth awaits
him on their pavements. And when
he doesn't go to them, they come to
him. The Wall Street bucket-shop
goes fishing in the woods with wires
a thousand miles long; and so we ex-
change the solid trail-blazing enter-
prise of Volume One for Volume Two's
electric unrest. In Volume One our
wagon was hitched to the star of lib-
erty. Capital and labor have cut the
traces. The labor union forbids the
working man to labor as his own virile
energy and skill prompt him. If he
disobeys, he is expelled and called a
'scab.' Don't let us call ourselves the
land of the free while such things go
on. We're all thinking a deal too
much about our pockets nowadays.
Eternal vigilance can not watch lib-
erty and the ticker at the same time."
While the book scores many social
evils, it deals too leniently with the
drink and gambling habits; but never-
theless it is a wholesome story, and is
well worth the time spent in read-
ing it.

Thyme for Ants.

EDITOR, KANSAS FARMER:—I see in
your paper inquiries for something to
rid one's self of ants in house or cel-
lar. I enclose a little plant that we
call thyme or wild sage. You can put
a few stalks of this in the cupboard
or room and the ants will leave, or if
some is put under the bee-hives, no
ant will bother the bees. Sometimes
the plant is hard to get. If you salt
bees, the moths will not bother them.
Mrs. O. M. RICE.

Shawnee County.

This wild sage or thyme may be cul-
tivated in the garden. The seed may
be bought at the seed-store for a tri-
fle. The habit of long ago of growing
herbs in the garden for medicinal and
domestic uses was a good one.—Ed.

Corn.

How to Keep Corn Green.—Pick the
corn when full and tender, husk, silk,
and cook until milk is set, or about
eight minutes. Take out of water to
cool, cut off cob, clean a jar (earthen)
as large as you want (I used a 5-gal-
lon one the past year). Put a layer of
salt half an inch thick on bottom of
jar, then a layer of corn two inches
thick, and so on until the jar is full,
finishing with a layer of salt. Tie a
cloth over the jar, put the lid on, set
away for winter use in a cool place.
When you want to use it, take out the
amount you want for a meal, put in a
pan or basin, pour cold water over it,
stir to dissolve the salt, pour through
a colander. Put some cold water on it,
set on back of stove to get warm, then
drain. Put on more water, and when
fresh enough put in your cooking ves-
sel with a spoonful of sugar, a little

pepper, butter size of an egg, and a lit-
tle milk. Set on stove until it starts
to boil and serve hot. This is a per-
fect way to keep corn.

Corn Omelet.—Take one can of sweet
corn; chop fine with harsh knife; then
take one egg (beaten), add pepper and
salt to taste; half cup of sweet milk;
one tablespoonful of flour; fry in a
skillet, in butter. This makes a nice
dish. It is similar to fried oysters.

Corn Fritters.—Take one dozen ears
of young corn, cut the grains down
the center, and scrape all the corn off
the cob. Stir in gradually two table-
spoonfuls of flour, three eggs beaten
light, salt and pepper to taste. Mix
all well together. Allow one table-
spoonful to each fritter. Fry in boil-
ing lard, and send to table hot. This
is also a breakfast dish and may be
prepared the night before.

Corn Soup.—To each quart of young
corn cut from the cob, allow three
pints of water. Put the corn and wa-
ter on to boil and as soon as the grains
are tender have ready two ounces of
good butter mixed with one table-
spoonful of flour. Stir the butter and flour
into the corn and water and let it boil
ten or fifteen minutes longer. Just
before the soup is taken out of the
pot beat up an egg and stir into it.
Salt and pepper to taste.

None Too Young to Toll.

When women's wrappers are paid for
at the rate of forty-nine cents a doz-
en, and silk waists at eight cents each,
it is easy to understand why even the
help of tiny children must be called
upon to earn a pittance for the mak-
ers. If the children can do no more
than thread needles or pull out bast-
ings, their assistance is precious; if
they are intelligent enough to sew on
buttons, or make buttonholes, their
help is more precious still. As soon as
baby fingers can move intelligently,
they play an increasingly important
part in the labor of the household.

It seems incredible, I know, to talk
of an infant three years old working,
and some may regard the statement
that such little ones do work as a sen-
sational exaggeration. But it is lit-
erally true, as is proved by the testi-
mony of witnesses of unimpeachable
character. A baby three years old can
straighten out tobacco leaves or stick
the stamens of artificial flowers through
the petals. A child of four can put
the covers on paper boxes, or even
help to paste them. A child from four
to six years of age can pull out bast-
ings and sew on buttons. A child of
eight can make artificial flowers al-
most as well as an adult, and can make
paper bags just as well and almost as
quickly. Many a girl from eight to
twelve years old can finish boys' "knee-
pants" as well as her mother. In our
greatest and richest city, babies who
should be in the kindergartens have
been compelled to work in such occu-
pations as I have described, and others
of a like nature.—John Spargo, in Wo-
man's Home Companion for July.

Misplaced Matches.

Had I the versifier's gift, I would
sing the song of the burnt-match
plague. Burnt matches thrown about,
or left on window-sills, mantels, or
anywhere but in suitable receptacles,
are untidy and show unpardonable neg-
ligence on the part of those who leave
them. Nice housewives permit noth-
ing of the kind in their domains. One
of the first of the furnishings in every
part of a house should be match-safes
and receivers for burnt matches.
These not only promote tidiness, but,
if used by everybody, they prevent
alarm of fire or a conflagration.

Probably the majority of fires are
caused by people who throw matches
down, heedless of the disorder caused
by their lying about and the risk, al-
ways possible, of their not being ex-
tinguished.—Mary E. Carter, in House
and Home.

The Early Morning Cold Bath.

The early morning cold bath is ben-
eficial only to those persons who pos-
sess sufficient vital energy and ner-
vous force to insure a good reaction
with no subsequent languor or lassit-
ude.

If one feels greatly refreshed after
one's morning bath, but two or three
hours afterwards feels tired or lan-
guid, there is sufficient evidence that
the practice is injurious, and should
be discontinued.

Those who have an ample supply of
blood and flesh, who possess a lym-
phatic or sluggish temperament and
whose nervous force is not depleted,
may indulge in their morning bath to
advantage.

Those inclined to be thin, whose
hands and feet upon slight provocation

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log. State course desired.
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Cause, Smothered by Dan-
dellions

The dandelion pest has had its day. For one do-
lar you can get an instrument that can be used by
women and children as well as men that will pull
dandelions and other noxious weeds at the rate of
one thousand an hour, and leave not a drop of dirt
nor a visible tear in the sod. No stooping nor bend-
ing and is a pleasure not a task to operate it; de-
livers automatically the weeds pulled, and your
hands are not soiled, nor your back tired, no grunt-
ing nor humping around to do your work. Pulls
any dandelion or weed when tap root does not ex-
ceed 16 inches in length. Send one dollar and we
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of dominoes.

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When writing advertisers please
mention this paper.

become cold and clammy, who digest their food rather slowly, and assimilate it with difficulty, who are nervous and are burdened mentally, all such individuals should avoid bathing during the early morning hours.

To all such persons a bath during the middle of the day or before retiring at night will prove of much greater advantage.

The bath should be followed by rest of body and brain till equable conditions of circulation are reestablished.

Then there is another class of persons—those who are weak in nervous power, but who have such excitable peripheral nerves that after a cool bath perfect reaction takes place at once, losing more, however, in after effects than gaining in the first place from the bath.

This class of individuals should not bathe too frequently, and when they do bathe, should use tepid water; for these, before retiring is probably the best time to choose for the bath.

List of a Wife's Duties.

When a woman marries she undertakes certain duties and should fill them to the very best of her abilities.

Marriage was never intended to be one-sided, though this fact seems oftentimes to be overlooked; but it takes two to make a contract.

On her part she should try and spend her husband's funds to the very best advantage—never to get into debt.

To see that the home is always clean and well ordered.

To make the servants do their duty to the man who pays them.

To bring up the children properly.

To keep them well fed, well clothed, and above all healthy in body and mind.

Never to allow any waste in the housekeeping department.

To see that all food is of good quality, well cooked, and set before the family in the most appetizing form possible.

Always to be clothed becomingly and according to her station.

In fact, to be the real head of the home, with wisdom far above rubies.

Caring for all, advising and directing all.

Not to forget the poor dumb beasts, but to see that they also have their meat and drink and shelter. That the children do not misuse them.

Never to permit any neglect, cruelty, waste, or excess of any kind.

To think more of things than people and to avoid gossip and criticism of her acquaintances.—Chicago Inter-Ocean.

Recipe for Cucumber Pickles.

EDITOR HOME DEPARTMENT:—Will you please publish a recipe for the commercial cucumber pickle, such as we buy at stores? AN INQUIRER.

Riley County.

I give a pickle recipe below, but do not know that it is the one requested. Will some of THE KANSAS FARMER readers kindly furnish the one asked for in the inquiry?

The following recipe has been tested for many years and found very acceptable. It is the best thing of its kind: One gallon vinegar, three pints fine salt, one-half pound alum, three gallons water. This makes enough for one-half barrel cucumbers. They need no soaking; just rinse and put in vinegar as wanted for use.

While intended for cucumbers, it will keep dandelions (clean as if you were to cook), string beans, shelled beans, corn (leave a few husks on each ear, just enough to cover the kernels), cauliflower, beets, beet greens, green tomatoes, and seed cucumbers that I was not ready to pickle. The above list I have tested, and I intend to try green peas in the pods this year. Wash in soda water if you want to use cream or milk in the seasoning to correct the vinegar taste of the pickle. Use a floating cover and a weight to keep all under pickle. CORA MORSE.

Royalton, Vt.

Drag the Roads.

When the smiles of spring appear,
Drag the roads,
When the summer time is here,
Drag the roads,
When the corn is in the ear,
In the winter cold and drear,
Every season in the year,
Drag the roads.
—Reading (Kans.) Record.

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The Young Folks

In Grandfather's Time.

Father tolled on the hide,
(Oh, it was such hard work!)
And had he been one of us,
Perhaps he'd have shirked!
Then when 'twas quite ready,
A strange little man
Came into the home
And examined the tan.
Then he laid out his tools,
And his lasts (oh, so queer!)
But this always happened,
At least once a year.

Soon he set to his task
And he cobbled away,
With peg, awl, and hammer—
Taking more than a day!
At last they were ready—
Of course, you've guessed whose?
Why, John Nathan Perrygreen's
Pair of new shoes!
They were paid for in foodstuffs;
In change, not a dime—
All little boys' shoes—yes;
In great-grandfather's time!
—Adelbert F. Caldwell, in Brooklyn Eagle.

Fleetfoot; the Autobiography of a Pony.
MARION SEWELL.

CHAPTER XXV.—DON Q. ERRS, BUT IS FORGIVEN.

In regard to Don Q.'s early history, we are still in the dark. One thing only is certain, he never knew what kindness was until he received it from Mr. Dearcot, and later from the rest of the family. While he is the humble slave and tireless playmate of us all, the great axis upon which revolves the accumulated devotion of years is Marcella's father who finds it rather a difficult matter to be dignified and at the same time the master of Don Q.

Perhaps I have not mentioned the fact that Mr. Dearcot is a prominent judge at present, and has to tell people how very wicked they are to break the laws, and how long they must stay in jail because they did not appreciate the free, fresh air enough to be good and contented.

These are hard words for Mr. Dearcot to speak, for he is a kind-hearted man, but he is just, also, and in consequence is feared by those who delight in wrong-doing. Don Q. does not belong to this latter class; he simply knows no law nor heeds none save that of gratitude and love for his master, to whom poor Don was the innocent cause of a great embarrassment the other day.

The city was crowded with people who came to attend the court where Mr. Dearcot sat as judge, and it appeared from many conversations which I overheard that temptations were plentiful of late to cause so much trouble for the ones whose business it is to straighten the tangles out.

Mr. Dearcot remarked before leaving home that he could not return until far in the evening, having such a troublesome day's work ahead of him.

At this, Don Q.'s eyes grew solemn

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and wistful, as if he were taxing himself for not in some way relieving his master.

One of the cases in the court that day was against a man who had killed quail out of season, and as that was a grave offense Mr. Dearcot, explaining how ignorance of the law excuses no one, imposed a fine and cautioned the bewildered sinner not to be guilty of a second violation of the kind.

Judge Dearcot is very popular, and his friends gathered round him when court adjourned; nearly a hundred were present when Don Q. pushed his way through the crowd to his master and proudly placed a warm quail in the unsuspecting, outstretched palm. You may imagine the result for I can not describe it. I must say, though, that Mr. Dearcot is often reminded of the occurrence, and probably will not hear the last of it for many a day.

Don Q. did not realize that he was in disgrace until he arrived home, when his master roughly dragged him to the woodshed for a two-months' stay, as he averred. But it was scarcely two minutes until the bird-dog's pitiful cries brought him relief.

"Come out, Don Q.," smiled Mr. Dearcot, swinging the door open wide. "We'll have to take an appeal on those two cases concerning quail. Will we not, old chap?"

The joy of Don Q. was beyond all control; frantically he licked at Mr. Dearcot's face, and the man of law was nearly laid prostrate by the force of the massive paws.

CHAPTER XXVI.—CONCLUSION.

One of the first of my young friends to graduate was Lyall, who emerged from the Northwestern College of Agriculture prepared to take charge of

his father's broad acres, and skillfully indeed has he done this, for no better-managed farm is there in the whole State than that over which our Lyall presides.

Marcella and Daisy finished their education at an institution with a high-sounding name, and when I saw Marcella in her white dress and carrying flowers and medals in her hands, I made up my mind that my little mistress was now a person of the great outer world, and the narrow home circle was too common a place for such as she; but to my everlasting pleasure I was wrong, for Marcella settled serenely at home, taking her mama's duties on her young shoulders and sending that proud lady off for a much-needed rest, from which she returned refreshed and quite youthful looking.

Daisy did not linger long at the family residence, but betook herself to a school where painting is taught, because, as of old, she had "reasons," and in this instance her reasons were very solid ones, for the lovely and energetic girl is a real artist, a fact which was proven a short time ago when she was awarded first premium on a much-talked-of picture called "The Little Prodigal," and only yesterday the news came to us that a painting of Lyall's gallant roan team, with the name, "Two of a Kind," was receiving considerable attention at a certain famous house of art.

Doris is a sweet songstress of whom we are very proud, although her wonderful voice so contributes to her popularity that we do not see a great deal of her at home. At first I was well pleased with this arrangement, for she always allowed me to take her to the places where she was to sing, but when Archibald Lamb came along steering that ugly, red machine which he called an automobile, Doris suddenly turned thoughtful and said that I ought to have a rest. Then, as if to add insult to injury, she remarked that she was not so humorously inclined as to drive an ancient pony while having a splendid flying machine to ride in, forgetting in her enthusiasm that she and I are about the same age.

Outside of this automobile weakness, Doris is a jewel and no mistake, but between ourselves I don't think Archibald Lamb will ever amount to anything. He has in the first place the misfortune to be exceedingly rich, and of course there is no necessity for exertion. Possessing every educational advantage, he thinks little of adopting a profession, his only ambition being to kill time and dwell upon the doings of "our set." But for all his spoiled ways, Archie is a good sort of a chap, and is still Lyall's chum.

Mr. Dearcot drives me quite often, saying by way of apology that he is getting to be an old man now and excitement does not go well with him. His friends are ready with the assurance that there are yet few signs of age, and tell him also that he is desirous of compliments. At the time of his becoming a judge, his law-office was left vacant, and when asked by a gentleman who was riding with us whom the next occupant would be, Mr. Dearcot answered, "That French fellow. You remember he made an eloquent speech last fall, which gave him a prominent place among the rising young lawyers."

"Oh, your future son-in-law! exclaimed our passenger, his mind suddenly illuminated.

"Well, well," said Mr. Dearcot, and he laughed.

This conversation troubled me; in truth I was so wrought up that I forgot to eat my oats upon my return home. Even in the middle of the night something seemed to whisper in my ear, "That French fellow." Could it be my old trainer, Monsieur Blatlieu? He was the only Frenchman I could think of, but the eloquent speech puzzled me, for while having many virtues, Monsieur Blatlieu was not eloquent. Anyway, it mattered little to me how fine a speech he could make; I was not anxious for a sight of him, as I had already selected a new relation for Mr. Dearcot, who would be a credit to that estimable gentleman. Moreover, the lucky person to whom I am referring trusted me with a secret, and I felt in duty bound to watch his interests faithfully. This I have done for two long weeks without growing weary, since Monsieur Blatlieu has not yet arrived. It is my opinion that he never will, as it is evening now, and Howard is coming back to-morrow—coming back to stay.

A Jewell County woman was photographed last week for the first time in sixty years. She "sat" for a daguerrotype in 1846.

The Little Ones

Somebody Did It.

Hunting, hunting, high and low!
Where do the caps and "tammies," go?
Ned's—he hung it, he knows he did.
Right on a nail and it went and hid!
Rob's—"Well, mother, I'm almost sure
I hung it"—"Right on the parlor floor?"
"Where is my 'Tam'?" cries Margery;
And the household echoes, "Where can it be?"

"Somebody does it! Yes, they do!
And not a person to lay things to!"
Ned will sputter and Rob complain,
And Margery weeps till it looks like rain;
And the family puts its glasses on
And hunts and hunts till the day is gone;
Somebody! wicked old Somebody!
No end of trouble you make for me.

Hunting, hunting, here and there!
Rob's was under the Morris chair;
Ned's, by a strange coincidence,
Was on a nail—of the garden fence;
And Margery's little pink Tam-o'-shanter
I chanced to spy in a morning saunter
Out through the barn, where 'tis wont
to hide
When they've been having a hay-mow
slide!"
—Anna Burnham Bryant.

My Lost Glove.

FERN ALEXANDER.

It was a warm, bright day last autumn when mama and I decided that we would go nut-hunting. So we went out, hitched up, and got in the buggy to go. I did not forget to take my gloves along, for I thought perhaps my hands might get cold if I did not have them.

It was a pleasant drive, and the first sound that greeted our ears when we arrived was the drumming of the woodchucks. There were lots of squirrels running and jumping from tree to tree, gathering nuts for their winter store too.

We tied our horse to a tree, and got out and commenced gathering nuts. But the squirrels were so cute and lively that I would stop frequently and watch them. They seemed to be trying to run a race with me to see which one of us could gather the most nuts, and I believe that they surely did, for they were so quick and in such a hurry.

But I found that I was getting too warm with my gloves on, so I took them off and laid them down on the ground by a large cottonwood-tree.

There was one squirrel that I noticed above all, for it seemed to want to make friends with me. I think that its home was in the upmost branches of the large cottonwood, for it always took its nuts up there.

Mama and I gathered a few more nuts before it became twilight. Then we got in the buggy and almost drove off before I thought of my gloves. So I jumped out and ran to the large cottonwood to get them. But I could only find one; and as it was growing quite late, I was obliged to take one glove and leave the other. I was very sorry because they were the only ones I had, and I was afraid that if I went to school without them, my hands would get cold. But it was warm weather until mama went to town and then she bought me another pair.

The following winter papa had to go to the woods to chop wood and he chopped down the large cottonwood. What do you guess papa found in the top of this tree? He found a squirrel's nest and in it was my lost glove! The squirrel had carried it up there to make it a bed. It had my glove lined with grass and leaves, and the thumb was lined with cotton from the cottonwood-tree and little bird feathers, as the pillow was for her little squirrels to put their tiny heads on and the rest was intended to be their cradle.

A SNAP FOR FARMER BOYS AND GIRLS.

Beginning on December 27 and lasting until January 5 next, there will be held at the Kansas State Agricultural College, at Manhattan, a series of the most important meetings ever held in the State. It may be called a nine-days' institute. This institute will include, in its various sessions, the boys' corn contest, stock and stock-judging, corn and corn-judging, and then the annual meetings of the Kansas Corn-Breeders' Association, the Kansas State Dairy Association, the Kansas Good Roads' Association, the Kansas Poland-China Breeders' Association, the Kansas Berkshire Breeders' Association, the Draft-horse breeders, and the Aberdeen-Angus breeders.

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 - Women's Club, Logan, Phillips County (1902)
 - Domestic Science Club, Osage, Osage County (1888)
 - Ladies' Social Society No. 1, Minneapolis, Ottawa County (1888)
 - Chalitto Club, Highland Park, Shawnee County (1902)
 - Cultus Club, Phillipsburg, Phillips County (1902)
 - Literateur Club, Ford, Ford County (1902)
 - Saban Club, Mission Center, Shawnee County Route 2 (1899)
 - Star Valley Women's Club, Iola, Allen County (1902)
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Habits.

ROSA B. ISH, READ BEFORE THE MUTUAL IMPROVEMENT CLUB, OF VERMILLION.

The things we do often are, as a rule, most easily done. Habit is defined as, doing certain things without conscious exercise of the will. In habit the will is passive. It is the voluntary or will element in human action that gives it its moral quality. Effective moral training includes the discipline of the will to act habitually. Habit may become so strong as to resist every effort of the will. It may interfere with an intelligent activity. Habits are formed because the mind tends to act again more readily in a manner which is similar to any in which it has acted before.

Character is a bundle of habits. Habit makes irksome tasks easy and the performance of duty a pleasure. The principle of habit extends to all acts of the will. Impulse, desire, inclination become habitual and are called disposition.

Child life without the formation of habits is impossible; habits of religion, of obedience, of self-guidance. The formation of habits is no small part of education. The growth of habit is slow. One division makes the next decision easier. To form the habit of enduring unpleasant things is an education in itself. Shirking of everything unpleasant may become habitual.

There are habits of thought, of emotion; habits of speech and of action.

The loss of memory is largely due to habit of thought.

The habit of mixing what is imagined or conjectured with what actually occurred weakens the memory.

Some loose habits of thinking may be corrected in part by rigid practice in forming habits of close observation. The habit of attention strengthens the memory.

In acquiring an education, the habits of thought acquired are of greater value than the knowledge gained; these include the habit of reasoning, the habit of inquiring, the habit of knowing,

and the habit of looking at the world on a larger scale.

Habit sometimes gives direction to our dreams.

The habit or power of the soul may be increased by its repeated exercise. It is a law that every act of the soul leaves as a necessary result an increased power to act in like manner, and a tendency to act again.

Morose thoughts become in time permanent.

A cheerfulness assumed may become habitual, established in the character.

Express anger and you give way more easily again. Your habit of self-control is weakened.

Habits of speech are caught rather than taught.

The habit of accuracy in speech may be cultivated by telling the news. Relate the last fight with the Moros to your nearest friend. You may in return be informed that you have contradicted yourself three times. Incidentally, this will strengthen your habit of good nature.

Habitual postures and movements of the body express permanent feelings. The dear little turn-up wrinkles in the corners of your mouth and eyes, my friend, reveal that you are always smiling at me.

An artist will exercise the rules of his art until it becomes habitual. Performed unconsciously, his mind is left open to inspiration.

The fingers that ripple over the keys may become so trained by habit that the mind is almost entirely engrossed in reading and listening to the music.

Habits are pervasive. They are unconsciously imitated. When timid Mrs. Green and forceful Mrs. Brown talk over the fence very much, each absorbs something that is good for her well being. It will find expression in habit.

To form habit, certain things must be uniformly done under the same recurring conditions.

An equally clear way of expressing the idea may be—to form a habit, begin a thing and stick to it.

The Domestic Science Club of Berryton.

Our club was organized about the middle of February and meets every two weeks at the homes of the members. On the day of organization, we had about fifteen members, and now the number has reached twenty-seven, from eighteen to twenty being our average attendance.

We haven't as yet taken any particular course of study, each meeting being different, ranging from chickens and flowers to poets and politics.

I give here some of our programs that have been given and are to be given:

Longfellow Program—Biography of Longfellow. Wives and children. Songs—"The Bridge" and "A Rainy Day." Roll-call was answered to with short quotations and poems from his writings.

At another meeting, the roll-call was responded to by names of foods and their adulterations, milk, extracts, jellies, ice-cream, sirups, meats, and the roll of honor of pure foods was mentioned. Paper—"Flies, Their Uses and Dangers."

Our last meeting was held at a church, as the home of the member was small. The front of the church was curtained off and had been decorated and furnished as a large parlor. Here the program was, conundrums in answer to roll-call. Talk—"Some Recreations for the Housewife," which was afterwards discussed. Select reading.

Our next program might be called political or patriotic: Roll-call—Current events. Paper or talk—"What Congress Has Done for Us This Session." Paper—"Our President." Talk—"Roosevelt's Family." Talk—"What Foreigners Think of Roosevelt." Music—Patriotic song.

It may be seen that we vary our programs, and each one has been instructive.

The last Thursday in June we were very pleasantly entertained by the Chalitto Club, of Highland Park.

Our members are all working women, mostly on farms, so our programs are not lengthy in order that we may go and get home early.

L. MABEL WATERS, Secretary.

When the good man seems to be conquered, the powers of evil have still to rue their short-lived triumph, and to say as Pyrrhus said when he defeated the Romans: "Three such victories would utterly ruin me."—Arch-deacon Farrar.

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Conducted by George Black, Olathe, Secretary Kansas State Grange, to whom all correspondence for this department should be addressed.

NATIONAL GRANGE. Master.....N. J. Bachelder, Concord, N. H. Lecturer.....Geo. W. F. 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 Steward.....B. C. Post, Spring Hill Assistant Steward.....Frank Wiswell, Ochiltree Chaplain.....Mrs. M. J. Ramage, Arkansas City Treasurer.....Wm. Henry, Olathe Secretary.....George Black, Olathe

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Some Good Words for Kansas.

EDITOR KANSAS FARMER:—At this place I have completed a two-weeks' series of meetings among the granges and farmers of your great State, in company with my long-time friend and brother patron, A. P. Reardon, overseer of the Kansas State Grange, and I feel that I can not turn my footsteps eastward without expressing my appreciation of the good arrangements planned by the executive committee of the State Grange, and the kind attention of patrons all along the line.

also here, with \$50,000 capital and \$50,000 surplus, and always paying an annual dividend besides of 10 to 12 per cent, are object lessons which should be studied and put into practice by farmers all over Kansas. Kansas farmers are looking to the Grange. Not a single Grange locality was visited but what is taking in new members. One grange has 308 members. Seven new granges have been organized this year. Kansas has farms enough and good farmers enough, to have 100,000 members of the Grange within her borders. The good old Grange has been tried and tested for forty years. It does yield a good crop when its fields are tilled. Don't waste time and effort in getting up new organizations and experimenting on new lines; hold fast to that which is good and to the grand order which is brightening a million homes to-day, which is educating and uplifting the farmer and his family in all things. The organization which has given us laws for a "square deal" with the railroads, a Department of Agriculture, rural free delivery, and a long list of other good things will go onward and upward to still brighter and better things.

MORTIMER WHITEHEAD, Past Lecturer National Grange.

Field Day at Madison.

We had a splendid picnic here July 24 under the auspices of Madison Grange No. 985, of Greenwood County, with representatives from sister granges. The worthy overseer, A. P. Reardon, of Kansas State Grange, and Mortimer Whitehead, from New Jersey, past lecturer of National Grange, were the Grange speakers of the day.

W. H. HOFFMAN.

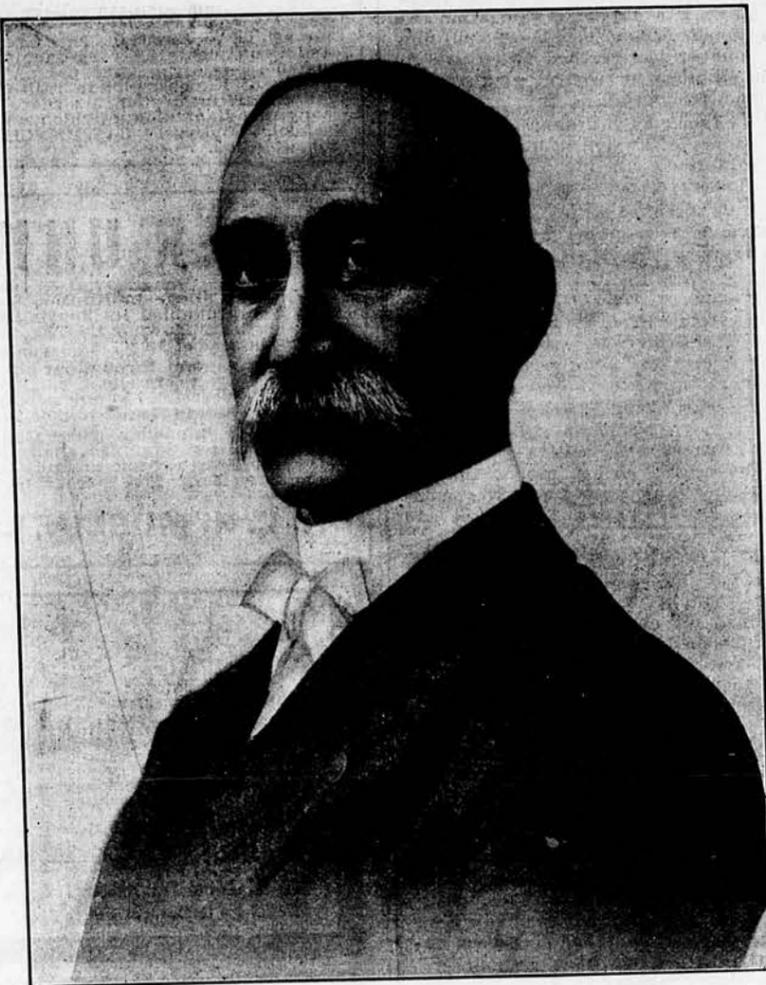
Farming an Intellectual Vocation.

Up to the middle of the century just closed, agriculture was a handicraft in which methods and implements had changed but little since the first farmer tilled the soil. Men are now living who sowed their grain as did the first sower; who reaped it with such a sickle as Ruth gleaned after in the fields of Boaz, and who thrashed it on such a thrashing-floor as was his.

Low Rates to Summer Resorts. Santa Fe logo. Never before have there been such low rates to so many of the desirable resorts as there are this year. The following list contains rates only to a few of the more important of these. If you want rates to other points, give me their names and I'll quote lowest rates to those or the nearest place.

revolutionized the methods of seeding and harvesting, and enabled the farmer to substitute sinews of steel for those of his body. With the help of such machinery he was enabled to till a larger acreage, and the rapid increase of population and extension of facilities for transportation produced such a demand for his produce as to urge him to the utmost possible production.

awaiting the plow, and it has seemed cheaper to buy new lands than to attempt to maintain the fertility of the old; but we have reached the limit in this direction, and farmers are realizing that future extension of production is to be accomplished only through increase of yield, and that increase of yield can only be attained through a better understanding of the nature of the soil and of the phenomena of growth and reproduction.



Mortimer Whitehead.

Brother Whitehead was a charter member of Pioneer Grange No. 1, in New Jersey. As a Grange editor and worker for the order for thirty-five years, he has been in every State in the Union and in Canada on Grange duty. He first introduced the subject of rural free delivery in the National Grange in 1891, and urged the Grange to take it up.

This realization is now rapidly filling the halls of our colleges of agriculture, but the generation which is now engaged in the active management of the farm has missed the opportunity for the help which the college might have furnished. After all, however, helpful as a college training is, it does not make the man nor the scholar. History is full of the lives of men who have attained the highest success in intellectual pursuits with little or no assistance from the college.

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sible to him who wills, even under the conditions of the farm, to gradually store the mind with knowledge which may be of incalculable value. To fix in mind a single fact each day would, in a few years, completely change the mental attitude toward the natural phenomena around us; the one indispensable point is that there be a fixed and unalterable determination to conquer at least one such fact each day.

Three suggestions I would offer to the student at home: the first is, do not attempt too much, one thing at a time is enough; the second is, have a book always within easy reach of the spot where you stop to rest after a day's work is done, and the third is, do not wait until the day's work is done, but steal a few minutes—even though it be taken from sleep—to read a few sentences in the morning while the mind is clear and free from fatigue, to be pondered over through the day.

CHAS. E. THORNE,
Director Ohio Experiment Station.

Miscellany

Can You Answer These Questions?

Where did alfalfa come from? What soil is best suited to alfalfa? What are the advantages of growing it? How is it best harvested, cured, and fed? What kind of grain should be fed with alfalfa? How does it enrich the soil? How should alfalfa be sown? What is the best method of selecting seed-corn? How should it be stored? How can you improve the stand and increase the production of corn per acre? What is the best method of testing seed-corn? What is a germination box? How is corn best prepared for the planter? What is necessary to get rid of the barren stalks? What are the best methods of cultivating corn? How can the wheat yield per acre be increased? What constitutes a good seed-bed? Should clover be plowed under for wheat? Is corn-stubble a good place for sowing wheat? How should wheat be sown in order to produce the best results? How should wheat be fertilized? Why does your soil run down? What are the leading elements of fertility? How can you secure them and keep them in the soil? How much fertility does each crop take from the soil? What is the actual value of farm manure? How should it be applied to produce best results? Will grain-crops make good hay? What is the best method of seeding for hay? Is the modern gasoline-engine a good power for the farm? What is the best size gasoline-engine to buy? What is a four-cycle engine? What does it cost to operate a gasoline-engine? Is ensilage the best and cheapest feed for dairy-cows? What is summer solling? What are the correct proportions of lean- and fat-producing materials in a dairy ration? How much milk and how much butter should a good cow produce? What kind of separator should the cow-owner buy? What is skim-milk worth as food for stock? How much wheat should an acre produce? Is wheat good in the farm-crop rotation? Does any crop leave a poison in the soil? Can the wheat yield be increased by seed-selection and breeding?

Every one of these questions and a thousand others of interest and value to every farmer are answered in "Farm Science." It is a splendid volume of 128 pages, profusely and beautifully illustrated and containing eight chapters specially prepared by the highest authorities on the several subjects. "Alfalfa Culture in America," by Jos. E. Wing, expert agriculturist, of Mechanicsburg, Ohio. "Modern Corn-Culture," by Prof. P. G. Holden, Iowa Agricultural College, Ames, Iowa. "Best Methods in Seeding," by Waldo F. Brown, farm specialist, of Oxford, Ohio. "Increased Fertility," by Prof. Cyril G. Hopkins, Illinois College of Agriculture, Urbana, Ill. "Profitable Hay-Making," by Prof. Thomas Shaw, late of Minnesota Experiment Station, St. Anthony Park, Minn. "Power on the Farm," by Prof. Fred B. Crane, Illinois College of Agriculture, Urbana, Ill. "Up-To-Date Dairying," by Prof. Clinton D. Smith, director of Michigan Experiment Station, Agricultural College, Mich. And "Small Grain Growing," by Willet Hayes, Assistant Secretary of Agriculture, United States, Washington, D. C. Every author is a master in his line, and every subject is treated exhaustively in all its ramifications. The whole composes the most valuable and authoritative work ever issued along these lines. The copy before us has so impressed its worth upon

What the BUCKEYE MAN Tells You

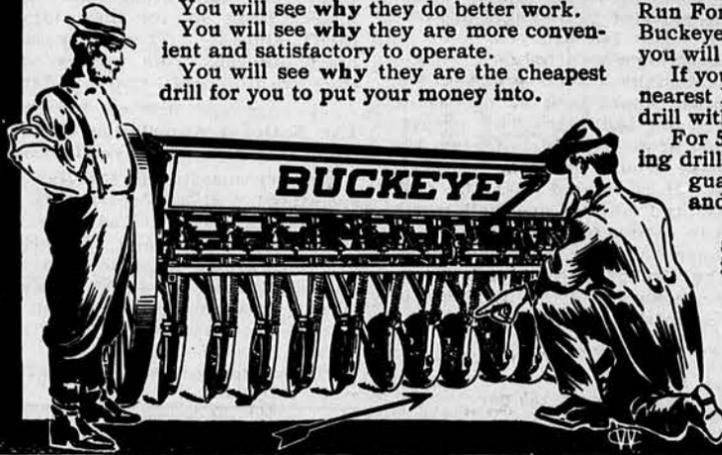
about Buckeye Disc Drills he is prepared to back up by the actual construction and qualification of the machine itself.

In short he can "show you" the real practical reasons why Buckeye Drills are the kind you should buy.

He can show you why they are the greatest drills made today.

He can point to the features in Buckeye Drills that account for their superiority, and if you will take the trouble to compare these points you cannot help but conclude they are the best drills from every standpoint.

You will see why they last longer.
You will see why they do better work.
You will see why they are more convenient and satisfactory to operate.
You will see why they are the cheapest drill for you to put your money into.



For instance just compare the Buckeye square steel tubing frame to others. Note it is made without riveted joints or malleable iron corner pieces and you will realize why it lasts so much longer.

Examine carefully the Cone Gear for driving and feeding. Here's a feature well worth a trip to the Buckeye dealer's store for personal inspection.

Ask him to show why it is the most accurate in feed and the easiest to change the quantity; how it does away with interchangeable gears—how it saves so much in repairs and time.

Then notice the Disc Seeding Device—another Buckeye strong feature; the Hard Oiler which forms an absolutely dust-proof bearing; also the Double Run Force Feed, in fact there is not a point about a Buckeye Drill that will not impress you favorably if you will investigate it.

If you will write us we'll send you the name of the nearest Buckeye dealer where you can see this famous drill with your own eyes.

For 50 years—half a century—we have been making drills that have made the name "Buckeye" a guarantee of drill satisfaction, both in service and wear.

Don't buy a drill until you have inspected a Buckeye. Write for our latest Drill Book—it will interest you.

P. P. MAST & COMPANY
Dept. H2, Springfield, Ohio

N. B.—If you are interested in a Combined Grain and Fertilizer Drill ask to see the Buckeye—it has the only feed that can't corrode. It's made of glass—that's why.

us that we urge every farmer reader of our paper to procure a copy at once. A book of such value can not be secured at any price. However, any reader of this paper will receive a copy by enclosing 3 two-cent stamps and addressing "Farm Science," International Harvester Company of America, Chicago, Ill.

Kindly say to them that you saw this article in THE KANSAS FARMER.

A Talk on Seeding.

The question of seeding is one of great importance. Getting seed into the ground in the most favorable manner is a matter that every farmer recognizes as having a great deal to do with the result at the harvest. On the sowing depends the growing quite materially, and, of course, this brings us to the question of the kind of drill that will do the best work in your locality. We are pleased to announce that in another column you will find an advertisement on this question from one of the oldest and most popular drill manufacturing companies in the United States. Nearly every farmer has heard of the famous Buckeye Drills manufactured by P. P. Mast & Company, Springfield, Ohio. Their heart-to-heart talk on the drill question in their advertisement in this issue is certainly worthy of your reading, and we are satisfied if you will follow their advice and "ask the Buckeye man" about the points which they mention, you will realize the great advantage Buckeye drills have over anything of the kind on the market. If there is no Buckeye dealer in your vicinity, just write to this company for their catalogue, which fully explains and shows the detail of these famous drills.

When you stop to consider the fact that the makers of Buckeye Drills have been "at it for over fifty years," it stands to reason that they are qualified to make drills which not only do better work, but do it easier—both on the team and on the driver—and besides this they have learned how to make them so that they will practically last a lifetime.

The economy in buying farm machinery is not always in the price paid for it at first, but in the kind of service it gives and the length of time it lasts. Here is where the Buckeye drills prove they are the cheapest in the end.

This company manufactures a full line of disk drills, hoe drills, and cultivators. They also make a combined grain-drill and fertilizer that is a marvel. It has the only non-corrosive fertilizer feeding device that works satisfactorily, and the fact that the fertilizer feeding mechanism is made of glass accounts for its being the only fertilizer drill that does not and can not corrode from the acids in commercial fertilizers.

Don't fail to read their advertisement—it means money to the buyer of grain-drills. It means that you will get posted on what a good drill should be, and we know that if you buy a Buckeye you will never regret it.

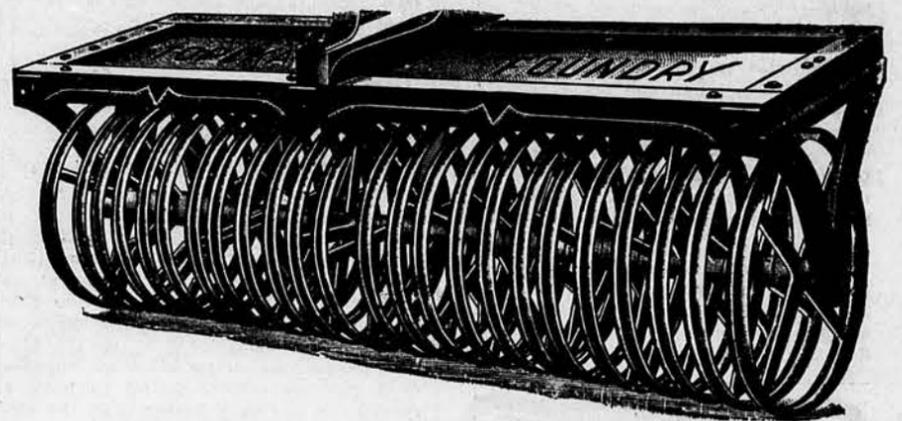
In addressing them for their catalogue, state that you saw their advertisement in this paper.

Winter Seed-Wheat.

In another place in this issue will be found the seed-wheat and grass-seed advertisement of Ratekin Seed House, of Shenandoah, Iowa, who have made the growing and importation of winter seed-wheats a specialty for a number of years. Five years ago they imported the now famous Malakoff wheat from Russia, which has made the enormous record of 62 bushels per acre. They say this new variety of wheat is as hardy as winter rye and has matured good crops as far north as the Dakotas, and as far south as Texas; that it has been tested at a number of experiment stations, including the State Experiment Station at Manhattan for two

"PACK YOUR WHEAT"

Equal to One Inch of Rain



Brings Moisture to the Surface and Gives the Wheat an Early Start.

Write For Prices

Topeka Foundry

TOPEKA, KANSAS

Get All Your Wool Is Worth.

Wool Growers! Buyers in the country are trying to obtain your wool at a low price to make up for last year's losses. If you want the highest market price instead of the lowest

Ship Your Wool To Us

We will get full value for you at once, and do it for one cent a pound commission. Reference any bank anywhere. Write us today.

Silberman Brothers, 122, 124, 126, 128 Michigan St., Chicago, Ill.

years past in succession, and at all stations where tried it has stood at the head of all the best varieties. To those contemplating a change of seed-wheat the coming season, we would recommend them to write for their seed-wheat circular in which you will find

full and more complete descriptions, as well as prices of winter seed-wheat, rye, barley, and all kinds of grass and other seasonable seeds. The address is Ratekin's Seed House, Shenandoah, Iowa, and the catalogue is free for the asking.

Dairy Interests

Story of Rose and Queen.

CIRCULAR NO. 103, BY WILBUR J. FRASER, CHIEF IN DAIRY HUSBANDRY, ILLINOIS EXPERIMENT STATION.

Rose is a bovine matron of rare attainments. She has been growing old now for several years, but has manifested no intention of retiring from the activity of a remarkable career. She has shown what character and achievement can be put into the routine of a quiet life. With a comely form and physical vigor, she has combined a high intelligence and a very amiable temper. While she has developed to the utmost a secretive disposition, this very thing has brought her into prominence. She has risen from the common herd and her fame has gone out from Urbana to the uttermost parts of the State, and beyond. Like most great men she had a good mother and she has improved upon this inheritance right well.

A TEN-YEARS' RECORD.

The peculiar, perhaps unparalleled, record of this cow is that for ten years she has produced an average of 384 pounds butter-fat or 448 pounds butter per year. This is 1.23 pounds butter for each and every day of the 365—yes, of the 3,650 days. Her largest record for one year was the enormous yield of 580.6 pounds butter-fat—677.3 pounds, or more than one-third of a ton of butter. This was worth, at 22 cents per pound, \$149.

In the same herd is another cow bearing the unearned title of Queen, and she has another record—a six-years' record of 152 pounds butter-fat, or 177 pounds butter per year. While this is almost a fourth better than the average cow in the United States, yet Rose produced two and a half times as much butter-fat as Queen for that long period. And in an exact comparison for one year, Rose made more than three times as much butter-fat as Queen from exactly the same feed, both in kinds and amount, and with the same care.

HISTORY OF ROSE.

Rose was purchased by the Experiment Station when she was 4 years old and she is now past sixteen. She was picked up among the cows offered for sale at \$50. Her record here given is for ten years in succession, including the times when she was dry, and she has been doing practically as well since.

Her longest milking period in this time was one year and eleven months, completed when she was fourteen and a half years old; her shortest, one year and ten days, and the average, one year five and a third months. In this time

she produced seven calves, four of them being heifers.

ONE INCOME \$96; THE OTHER \$38.

At 25 cents per pound for butter-fat—or 22 cents per pound for butter—the annual income from Rose is \$96, and that from Queen \$38. The income from Rose is \$58 more than that from Queen. But this does not represent the difference between these cows to a man in the practical dairy business.

ONE ROSE EQUALS HOW MANY QUEENS?

If the market price of feed is such that it costs \$35 per year to keep a cow—and Queen's keep costs all of that—Queen would return an annual profit of \$3 and Rose a profit of \$1, or as much as twenty Queens. If the price of feed were \$37 per year, Queen's profit would be \$1, and that of Rose \$59, or as much as fifty-nine cows like Queen.

But if these cows should be better fed or the price of feed should advance so that it costs \$40 per year—not an unusual cost for a well-fed dairy-cow—Rose would make a clear profit of \$56, while Queen would lack \$2 of paying her board and lodging. The greater the number of such cows as Queen, the farther they would be from equalling one Rose. It is figured that the calf, skim-milk, and manure are well worth the labor in caring for the cow.

This means that Queen is entirely out of the list of cows worth keeping; there is absolutely no business in keeping her a single day.

ROSE'S RECORD FOR TEN YEARS.

Butter-fat, 3,840 lbs. @ 25c....	\$960.00
Skim-milk, 73,526 lbs. @ 15c per 100 lbs.	110.29
Seven calves (4 heifers) at least	50.00
Total income.	\$1,120.29
Cost of keep @ \$40 per year....	400.00
	\$720.29

A GREAT LIFE WORK.

This is a pretty good record for one cow, considering that there are at least three years besides these ten—and it remains to be seen how many more—yet to be added to her life achievement. The total clear profit from this cow is already beyond \$1,000.

In the ten years Rose produced more than thirty-six tons of milk. Hauling a ton a day, it would take a man and two-horse team a month and a fifth to haul this milk.

SEVERAL LIKE ROSE.

One can not go out and be sure of buying such a cow as Rose. If the seller knew he were parting with this kind of an animal at 4 years of age, the price should be about \$300 or \$400. But here and there her ten-year record is equalled, and even excelled, for a less number of years. In the same herd at the university is another cow that has produced 405 pounds butter-fat on the average for three years. She was bought from one of the dairy-herds of the Elgin region for \$85. In 18 Illinois herds, numbering 333 cows, three—or 1 per cent—were found to have a record for one year better than the average record of Rose. But in the same general class of excellent producers with Rose were found thirty in this 333—or 10 per cent that produced 300 pounds or more butter-fat in one year, and the average production of the thirty was 342 pounds, meaning an income of \$85.50. Cows of this kind can be bought at a reasonable price, and better and easier still they can be raised from the heifer calves of high-producing mothers.

THE ONLY COW WORTH KEEPING.

A cow must give two and a half gallons of 4-per-cent milk per day for nine months a year to be worth keeping. This means a total of 225 pounds of butter-fat, an income of about \$56 per year, and a profit of \$15 or more above the market value of feed. And yet there are a multitude of cows in Illinois dairy-herds below this standard. Of the 333 cows in 18 herds carefully tested by this station, 226, or over two-thirds, fell below this standard, and the 226 averaged 164 pounds butter-fat for the year—only 12 pounds above Queen. In three of these herds, numbering 47 cows, not a single animal came up to this standard.

A QUEEN WITH A LARGE FOLLOWING.

But this Queen is of more interest to the farmer than may at first appear. She holds sway in a large realm. Some of her subjects are to be found on almost every dairy-farm, but often they remain in easy disguise, forming a sort of secret society. And strange to say, their concealment is unwittingly provided by the owner himself—by his guessing at their production instead of weighing and testing the milk. But they are every one dead-beats and will never pay for their board. Their pass-

word is graft and their grip that of the sheriff. The more of them the farmer keeps the poorer he is. There is only one way to find out their record—to weigh and test the milk.

74 AVERAGE ONLY 126 POUNDS BUTTER-FAT.

Among the 333 cows of the 18 Illinois herds referred to above, were found seventy-four—or 22 per cent—that were as poor as Queen or poorer, in production of butter-fat. More than every fifth cow of the 333 failed to earn her keep. The average production of these seventy-four was only 126 pounds butter-fat—far below that of Queen.

Quite unsuspected these Queens have everywhere honeycombed dairy-society, but they have no rightful standing in the stalls of bread-winners, and should be unmasked by the scales and test and sent to the only destination to which they have an honest ticket—without stop-over or return—the butcher's block. Look out for these idle, spend-thrift Queens. They may not look much different from worthy cows, but they are different—vastly different.

The National Association of Dairy Instructors and Investigators.

The organization of the National Association of Dairy Instructors and Investigators was effected at a meeting called July 17, 18, and 19, 1906, at the graduate school of agriculture, University of Illinois. Prof. W. J. Fraser, of Illinois, was elected chairman, and C. B. Lane, Assistant Chief Dairy Division, Washington, D. C., secretary.

Those who took a prominent part in

A MATTER OF FACT

1879-1906

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did. You can't afford to lose the price of one or more cows each year—there's no reason why you should. Get a Tubular and get more and better cream out of the milk—save time and labor and have warm sweet skimmed milk for the calves. Don't buy some cheap rattle-trap thing called a separator; that won't do any good. You need a real skimmer that does perfect work, skims clean, thick or thin, hot or cold; runs easy; simple in construction; easily understood. That's the Tubular and there is but one Tubular, the Sharpley Tubular. Don't you want our little book "Business Dairymen," and our Catalog A.165 both free? A postal will bring them.

The Sharpley Separator Co. West Chester, Pa. Toronto, Can. Chicago, Ill.



WHICH?

Which way do you skim your milk? It is hard sometimes to realize just how great the loss of cream is with crocks and pans. Some people may not believe that a



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skims enough closer than the old way to increase their butter yield one-fourth or more. But it does and there's a plain reason for it. When you set milk the cream and skim milk are separated from one another by the force of gravity, but when you skim milk with a U. S. Separator centrifugal force, which is thousands of times stronger than gravity, does the separating. It squeezes out the last drop of cream. Cream is money—you can't afford to waste it. If you keep three or more cows, it will pay you to buy a U. S. Separator.

Look into this. Write today for a copy of our handsome, new separator catalogue. Ask for number 91. It is finely illustrated and tells all about the U. S. Address

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

Prompt deliveries of U. S. Separators from warehouses at Auburn, Me., Buffalo, N. Y., Toledo, O., Chicago, Ill., LaCrosse, Wis., Minneapolis, Minn., Sioux City, Ia., Kansas City, Mo., Omaha, Neb., San Francisco, Cal., Portland Ore., Sherbrooke and Montreal, Que., Hamilton, Ont., Winnipeg, Man. and Calgary, Alta.

Address all letters to Bellows Falls, Vt.

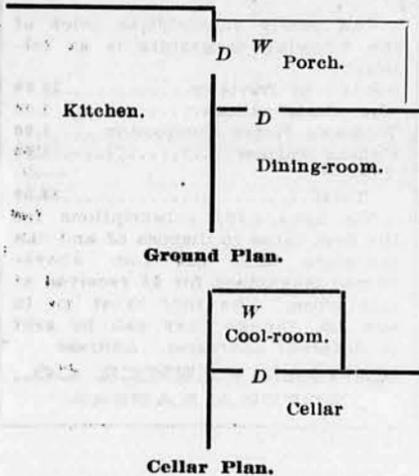
the programs were: O. F. Hunzicker, Purdue University; C. B. Lane, Dairy Division, U. S. Department of Agriculture; J. M. Trueman, University of Illinois; W. J. Fraser, University of Illinois; A. C. True, dean of the Graduate School of Agriculture; Eugene Davenport, dean and director, University of Illinois; E. H. Webster, Chief of Dairy Division, U. S. Department of Agriculture; H. H. Dean, Ontario Agricultural College; J. W. Decker, Ohio State University; C. F. Doane, U. S. Dairy Division; B. E. Carmichael, Ohio Experiment Station; H. E. Van Norman, Pennsylvania State College; Chas. Thom, U. S. Dairy Division at Storrs, Conn.; E. S. Guthrie, Ohio State University; and H. A. Hopper, University of Illinois.

The following officers were elected: President, Prof. R. A. Pearson, Cornell University, Ithaca, N. Y.; vice-president, Prof. Oscar Erf, Kansas Agricultural College, Manhattan, Kans.; secretary-treasurer, C. B. Lane, Assistant Chief Dairy Division, U. S. Department of Agriculture.

Committees were appointed to make a careful study of the following problems, looking to more uniform and efficient work in these respective lines: Score-cards for the registration of dairies; official testing of dairy-cows; our relation to the National dairy show; courses of instruction; experimental work—production and manufacture; membership.

An Inexpensive Warm Weather Luxury.

EDITOR KANSAS FARMER:—During this warm weather, we are enjoying our cool room so much that I feel it to be a duty to explain how it is made. I will claim no credit for it, as it was an accidental discovery and not an invention. Wishing to locate a well where it would be convenient to kitchen and dining-room, it was located at W in cut. To make easy access to pump-cylinder, a door was made in the cellar wall at D. To provide against freezing in winter, a very small



hole was made in the pump pipe, just above the cylinder. Thus, the pipe is drained down as far as the cylinder each time the pump is used. The water trickling down the pipe makes a pool two feet across and four inches deep. This water soaks away about as fast as it comes in. We soon found this was the coolest place on the farm, and enlarged the room so as to provide space for milk, butter, and perishable eatables. We find this a great luxury, and equal to or better than a refrigerator with ice, taking much less care, not to mention the expense of the latter. We have tried both. The roof of this cool room is a porch shaded by trees. Lest some suspect imperfect sanitation, on account of the water in the pool sinking away, will say that we get abundant water twelve feet below the surface of the ground. The drive-point is driven forty-eight feet through alternate layers of clay and water-bearing gravel, and the seepage is carried away by the upper strata of water which flows underground parallel to and a part of the Arkansas River. Most any one can have a well adjacent to their cellar with this cool room attachment, and when once used, you will never think of doing without it.

C. W. PECKHAM.

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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 animal, 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, Kans., or to Dr. C. L. Barnes, Veterinary Department, Kansas State Agricultural College, Manhattan, Kans.

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."

Mule With Lumps on Shoulder.—I have a mule with lumps on the points of his shoulder. Have tried padding the collar to keep it off of the lumps, but they do not disappear. What course do you suggest would be wisest to follow?
S. R. C.

Grainfield, Kans.
Answer.—I believe that the lumps you mention had better be removed surgically and then heal the wound with a dry dusting powder.

Poll Evil and Fistulous Withers.—As a reader of THE KANSAS FARMER I take the liberty of asking you to please send me the treatment for poll evil.
Lawrence, Kans. C. R.

I have a mare 6 years old now suckling a colt, that has fistulous withers. She took the disease the fore part of last winter. I got her healed up by April 1, and turned her out on grass, but it came back worse than ever, running on one side, although both sides are affected. Have applied bluestone to kill it, and used hydrogen peroxide to clean it out. I wish you would send me a bulletin on poll evil and fistulous withers.
Mayetta, Kans. S. McC.

Will you please send me your mode of treatment or bulletin on poll evil and fistulous withers?
Cawker City, Kans. M. C. D.

Answer.—We are sending the press bulletins on poll evil and fistulous withers requested in the above letters.

Rupture.—I have a colt that is 6 weeks old and is ruptured. The intestines are down in the scrotum, making a bunch as large as two hen's eggs. Please send me instructions at once as to the best treatment.
Kingman, Kans. W. L. R.

Answer.—I would advise you to have your colt operated upon by a competent veterinarian, as I am sure that would be the most successful way of treating your animal.

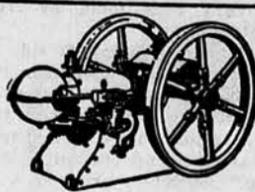
Paralysis of Hogs.—Within the past year a large number of reports have come to this office from different parts of the State of what appeared to be a paralysis of the back and legs of hogs. The young pigs are the ones most generally affected. The cause has been found to be from overfeeding young, growing pigs on an exclusive diet of corn and water. Fat is put on the pigs too rapidly, with the result that the weak bones of a growing pig can not support the rapidly put on flesh. The first symptoms noticed are that the pigs refuse their feed and walk rather stiffly, continuing to grow worse until they can hardly raise themselves upon their front legs. The pigs die of starvation, as they can not drag themselves to the trough.

Treatment.—To prevent young pigs getting sick, a very small amount of corn should be fed them while nursing their mothers. Then gradually increase the amount of corn. When weaned, feed ground feed of bran, shorts, corn, and a little bone-meal mixed with sufficient milk to make a thin slop.

After young pigs are paralyzed, it is best to take all corn away from them and see that they are placed at a trough of milk in which has been stirred bran and the following tonic, which is recommended by the Bureau of Animal Industry as a preventive against hog-cholera and swine-plague, and which is also a very good tonic for hogs:

- Wood charcoal. 1
- Sulfur. 1
- Sodium chloride. 2
- Sodium bicarbonate. 2
- Sodium hyposulfite. 2
- Sodium sulfate. 1
- Antimony sulfide (black antimony). 1

These ingredients should be completely pulverized and thoroughly mixed. The dose of this mixture is a large tablespoonful for each 200 pounds weight of hog to be treated, and it should be given only once a day. When hogs are affected with these diseases, they should not be fed on corn alone, but they should have at least once a day a soft feed, made by mixing bran and middlings, or middlings and cornmeal, or ground oats and corn, or crushed wheat with hot water, and then stir-



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\$60 to Portland, Tacoma, Seattle, Vancouver, Victoria, Everett, Bellingham or New Westminster and return, via choice of direct routes.

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ring into this the proper quantity of the medicine. Hogs are fond of this mixture; it increases their appetite, and when they once taste of food with which it has been mixed they will eat it though nothing else would tempt them.

Animals that are very sick and that will not come to the feed should be drenched with the medicine shaken up with water. Great care should be exercised in drenching hogs or they will be suffocated. Do not turn the hog on its back to drench it, but pull the cheek away from the teeth so as to form a pouch, into which the medicine may be slowly poured. It will flow from the cheek into the mouth, and when the hog finds out what it is, it will stop squealing and swallow. In our experiments, hogs which were so sick that they would eat nothing have commenced to eat very soon after getting a dose of the remedy, and have steadily improved until they appear perfectly well.

This medicine may also be used as a preventive of these diseases, and for this purpose should be put in the feed of the whole herd. Care should, of course, be taken to see that each animal receives its proper share. In cases where it has been given a fair trial, it has apparently cured most of the animals which were sick and has stopped the progress of the disease in the herds. It also appears to be an excellent appetizer and stimulant of the processes of digestion and assimilation, and when given to unthrifty hogs, it increases the appetite, causes them to take on flesh and assume a thrifty appearance.

Worms in Hogs.—Hogs affected with worms in the intestines run down in condition, become very thin and lank, back is arched, eyes dull, refuse feed, walk stiffly, and appear lifeless. The worms may be very numerous, in bad cases completely filling the intestines. The pigs die if not treated. To secure the best results, hogs should receive individual treatment. Twenty-four hours before administering treatment very little feed should be given them. Then give the following medicine as a drench, to each one-hundred-pound hog; larger or smaller hogs should receive a dose in proportion:

Oil of turpentine, 4 drams; liquor ferri dialyatus, ½ dram; raw linseed-oil, 6 ounces.

If necessary, repeat the dose in four days. After worms have been removed, give the tonic, recommended above, to put the pigs in condition.

Tumors on Pigs After Castration.—Bunches form on the cords of pigs after castration as result of infection from dirty instruments of hands, etc., during the operation; or from leaving the cord too long, thus increasing the liability of its becoming infected. These tumors continue to grow, and in the worst cases attain the size of a man's head.

Treatment.—Cut down on the tumor the same as in a single case of castration. Separate the skin from the tumor and then follow up the cord with the hands. Cut the cord off as high as possible. The wound may be healed by the use of any of the common disinfectants. A teaspoonful of carbolic acid in a quart of water may be used once daily until the pigs are healed. Pigs should be kept in a clean pen after the operation.

Bloating in Cattle.—Bloating in cattle is the combination of paralysis on the large stomach, known as the rumen, and the accumulation of gas from fermentation of its contents.

Causes.—Bloating commences, as a rule, by paralysis of the rumen in the weak, run-down animal, which is suddenly put on rich and appetizing food. It is found in the animals that get into the corn-crib, a stock of potatoes, growing corn, or animals that are turned on green food in the early spring. Frozen turnips, potatoes, or any green food eaten will oftentimes start bloating from the paralyzing action to the rumen. Bloating oftentimes occurs through fear and cold, also from obstruction of the esophagus or gullet by choking. Tympany or bloating may start from the ingestion of green food that is easily fermented, such as clover, particularly the white and red varieties, alfalfa, cow-peas, and others, especially leafy plants. All these are more dangerous when wet with dew or dry after a light shower. It may be due partly to chilling of the stomach but mainly because the ferments have been stirred into greater activity by the presence of moisture. Frozen articles act in the same way, from the fact that when thawed out they undergo rapid fermentation. Inflammation of the rumen, which has been noted as a cause of the disease, may be started

from hot or very cold food, by irritant drugs, poisons, etc.

Symptoms.—The whole or left side of the abdomen being occupied by the rumen or paunch, its being filled with gas causes a uniform swelling on the left side; it is much more prominent between the last rib and the outer angle of the hip, and when pressed with the hand or tapped gives a drum-like sound. It may be easily pressed inward by the finger, but immediately returns to its former bulging form the moment the pressure of the finger is withdrawn. A distended stomach from overloading is generally lower down and is dull and flat when tapped with the hand, and yields like a mass of dough when pressed and retains the impression of the finger for a short time. The animal generally has difficult breathing, ceases to ruminate, the nostrils are dilated, the nose extended, the face anxious, the eyes blood-shot, and the back arched. Sometimes a quantity of gas will escape from the mouth. Pregnant cows are very liable to abort. Death may result from nervous shock, suffocation, or from absorption of the gases. In other cases the animal may live for several hours before death takes place.

Treatment.—Various ways have been invented for treating bloating. Walking the animal around with a stick in its mouth oftentimes will give relief; in warm weather the turning of cold water on the body with a hose will usually give immediate relief, the cold starting contraction in the paralyzed paunch, causing the gas to be moved on. Internally, two ounces of turpentine to a dose, given in eggs, milk, or oil, is beneficial in stopping the formation of gas. Other agents which may be used in preventing further gas formation are hydrochloric acid, one and one-half drams largely diluted in water, creolin four drams to a quart of water, salt half a pound dissolved in two quarts of water; in the most urgent cases, the puncture of the paunch is necessary, as a moment's delay may mean the death of the animal. A large trocar and cannula should be cleaned and with the point of the trocar placed at the angle formed by the last rib, the angle of the hip and lateral bones of the loins, the instrument is driven into the flank to the shoulder, then the trocar is withdrawn, and the gas from the stomach allowed to escape. It is sometimes beneficial to place a funnel in the cannula and insert a gallon or more of a 5-per-cent solution of one of the coal-tar products to stop further fermentation. If the animal continues to have spells of bloating, it may be necessary to give a pound and a half of Epsom salts in two quarts of water as a drench, and get rid of the material that has been causing the bloating.

Actinomycosis (Lumpy Jaw).—Actinomycosis, commonly known as lumpy jaw or wooden tongue, is caused by a fungous known as actinomycosis. There are, however, many accessory causes which predisposes an animal to an attack, such as raw gums, dentition, the young, dry food, fibrous material eaten in winter time scratching in the mucous membrane of the mouth, thrush of the mouth, and carious teeth. Actinomycosis seems to be more prevalent on low, damp, rich soils, where the actinomyces have a favorable field for growth. This fungous has been supposed to grow especially on the cereals, particularly barley, the beards of which favor its entrance into wounds of the skin and mucous membranes; but here in the Western country, where barley is not a common crop, the actinomyces are probably found on other vegetation. The disease has been transmitted by inoculation by taking fragments of the material and inserting it into the peritoneum of calves, in which a large number of tumors develop in the course of a few months. In speaking of the causes, it has been found that in many districts the disease has increased greatly since the introduction of barb-wire fences and the resulting skin wounds which are then easily infected. The actinomyces are found as yellowish or granular bodies quite visible to the naked eye in the pus of the sores and in the granulation tissues of the tumors. When examined under the microscope, the granules show a beautiful concentric arrangement of club-shaped cells, the thick ends forming a border, the inner ends terminating in narrow filaments, thus giving the cluster the appearance of a daisy.

Causes of the Disease.—Animals eating the fungous on food may become infected in the mouth, the fungous penetrating the mucous membrane of the mouth, passing into the gums, and then into the bone, particularly of the lower jaw where it begins the formation of a tumor-like growth, assuming enormous dimensions. The growth is hon-

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eycombed, the pockets being filled with pus composed of broken-down tissues and the granules containing the actinomyces. The disease may affect other parts besides the jaw; the tongue may become the seat of the trouble, becoming exceedingly stiff, causing difficulty in swallowing. Nodules may be found in the palate, the mucous membrane of the nose, pharynx, liver, fourth stomach, spleen, peritoneum, lungs, and pleura. In these various locations it may form small nodules which might be mistaken for tuberculosis, but upon opening them instead of the nodules being gritty from the accumulation of lime salts in the tubercle, it will be more yellowing and containing the actinomyces tufts.

Treatment consists in removing the localized tumor by the knife, following this treatment by disinfection with corrosive sublimate, one to one thousand, and injecting into the pockets, if any remain, tincture of iodine daily. In cases that are not easily operated upon, the injection into the diseased mass of potassium iodide in the strength of one to one hundred often gives good results. Potassium iodide may be given internally, a dram daily in a half pint of water as a drench, for ten days, withholding the medicine for about a week and beginning again. This treatment has been successful. Potassium iodide as given internally is extremely beneficial in reaching the diseased part that can not be operated upon.

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The Poultry Yard

Conducted by Thomas Owen.

Poultry Notes.

If the poultry can be given the run of the orchard from now on through the summer, they will be able to destroy large numbers of insect pests that prey on the trees and fruit, and at the same time do themselves a lot of good by the exercise they will get in hunting animal food.

Some people start in the poultry business with large expectations from the beginning. It is not a wise thing to expect phenomenal returns from poultry the first year, or the second, if the person engaging in the business has done so with little experience. But keep at it and look after the little things and it will pay all right in the end.

It is desirable that a poultry-house be kept clean at all times, but in hot weather it is a prime necessity. Lack of cleanliness at this season creates a foul atmosphere, the inevitable result of which will be disease. Vermin, too, are certain to be plentiful in a filthy house. It is much easier to keep a poultry-house clean than to cure the diseased fowls after they once get sick.

Chicks are often killed with kindness. They are too often pampered, fed too often, given too little exercise, and not compelled to scratch enough for their food. They should be kept a little hungry, always, unless just before going to roost. They may then have a good full meal to carry them through the night hours, but always on dry foods, never moistened foods.

The heat of summer has the same effect upon poultry as it has on other feathered and furred creatures, viz., lowers their vitality and makes them susceptible to disease. Provide plenty of shade, fresh water, and suitable food. Look to it that lice are an unknown quantity, and let cleanliness pervade the poultry-yards, houses, and utensils; else cholera will come and decimate the flock.

If your chicks disappear, watch the cat, watch your neighbor's cat, watch all cats and keep them off the premises, if you have to shoot a few of them. Our own experience is that cats do lots of mischief in the poultry-yards that is blamed on rats. Rats are bad enough, but a cat with an appetite for chickens will do more damage in a week than rats will in a year. They are so mighty sly about it that it is almost impossible to find them out, but it is a good idea to suspect a cat of eating chickens on general principles anyhow and so be on the safe side.

Ordinarily, hens do not lay many eggs after they are 3 years old. Consequently they are unprofitable to keep. Common sense, therefore, dictates that they be killed or marketed. But there are exceptions to all rules. Occasionally, a breeder may have a number of old hens that he knows to be prolific layers and wishes to perpetuate the strain. It is all right to keep such for a year or two longer, but the rule is to get rid of all old hens and surplus roosters and not let them eat their heads off during fall and winter.

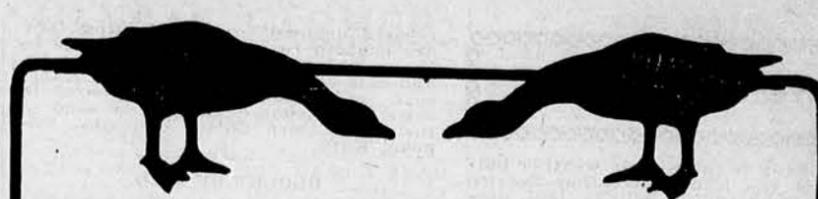
Room for growing chicks is an absolute necessity. The early chicks are getting into sufficient size and shape for the breeder, who understands his flock, to be able to distinguish between those really good and those really bad. There are deformities of feet, legs, breast, back, and combs; there are those which show off color, or such color as would render them unfit for exhibition or breeders; and there are those inferior in size, stunted, veritable scrubs, unfit for any purpose, and no better plan can be pursued than to market all such, and thus make room for the strong, healthy stock to expand more and more.

Gapes.

The scientist has a good deal to learn yet about the gape-worm, but a few practical facts seem to be established.

In some way the trouble comes from the ground. It may be contracted from feeding on fish-worms taken from infected ground. I think it may appear without the worms. It seems to be sufficient for the chicks to search and dig in the bare earth. At any rate, I have been quite successful in raising chicks in gape-infected quarters when the hen was confined to a covered run on a heavy sod and moved often enough to prevent her digging down to the soil.

This disease seems to be limited to certain sections and soils. Through-



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THE KANSAS FARMER CO.
Topeka, Kansas

out the middle section of this country it amounts at times to a scourge on heavy, clayey, or low-lying soils, though it seems to give little trouble on sandy soil. I know of one farm with sandy soil and sand and gravel subsoil where chickens have been raised in the same location every year for probably thirty years and without any serious trouble at any time and never except in extremely wet seasons. Here on Ventura Farm gapes may be counted on if the chicks are raised two years in succession on the same spot, sometimes even in very dry seasons. In New England gapes is an almost unknown disease.

I do not consider gape "cures" practical. Doctoring gapy chickens is a very slow and expensive pastime, and they generally die from the treatment if they escape the worm. The horse-hair method kills as many as it cures and is very slow. Camphor administered in lumps the size of a small pea will cure some. Turpentine never helped my chicks; Venetian red and asafetida have little if any value; and the various "old wives" remedies are useless. If treatment of any sort is attempted, it is important to remember that dry, warm locations, preferably pens with board floors, are almost imperative.

In prevention we have very little more encouragement. In favorable seasons (as this one has been in this neighborhood), chicks may be raised almost anywhere. In wet seasons there is absolutely no practical methods except to keep the chicks where the ground is not contaminated. It is not a serious matter to move the coops to a new location every year and generally not very inconvenient, if you once make up your mind that it has to be done. Chickens can be raised in absolute freedom from gapes in any locality, if the same spot is not used two years in succession. One of my friends starts his chickens in a large, empty hay-mow. This or a barn floor is almost an ideal place for starting young chicks. If not too late hatched, they are large enough to be out of danger usually by the time the mows are needed at harvest.

There is no practical way of treating infected ground so far as I know. Frequent moving and cleaning of coops and covering bare spots with slaked lime will do much to keep the premises from infection, but the common recommendation to use lime and floored coops as a means of curing the trouble after it has once made an appearance can only come from those whose experience has been very limited. I doubt if there is anything that can be applied successfully to infected soils, but lime certainly will not answer—neither one application nor many.

I have one small house with yards 5 by 16, used for a brooding-house for several years, until it was not possible to raise chicks in it at any season, which I used last summer in experimenting with various methods of cur-

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SAVE YOUR CHICKS.
Use the Itumar Mite and Lice Killer, a mite and lice destroyer. Guaranteed to kill mites and lice if properly used. If not satisfied return bottle and label and money will be refunded.
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ing and preventing gapes. After satisfying myself that the popular cures already mentioned were delusions, I tried the preventives. The house was thoroughly cleaned and heavily sprayed with kerosene emulsion. The outside yards were heavily limed and then yard No. 1 was covered two or three inches deep with ashes and sawdust; No. 2 was soaked with kerosene emulsion; and No. 3 with brine. Gapes appeared in three weeks in No. 1, a day or two later in No. 2, and in about four days more in No. 3. Since it is supposed to take three weeks for the worm to develop after infection, it is plain that these treatments accomplished so little that the chicks were probably infected the first day they were turned into the yards. Yard No. 2 was limed once or twice previous to this experiment, and at least once the previous year.

The difficulty with soil treatments is that they defeat their purpose by killing vegetation, if heavily applied, and leave the ground bare without being able to penetrate deep enough to kill all traces of the infection. I would rather attempt to raise chicks on a heavy sod without treatment than on bare ground, no matter how treated. If the same location must be used year after year, the cheapest and most effective method is to cover it with sand, gravel, or coal ashes so deep the hens or chicks can not dig through to the earth, and then keep them confined to this place till danger from gapes is past.—Homer W. Jackson, Guernsey County, Ohio, National Stockman and Farmer.

Weather Bulletin.

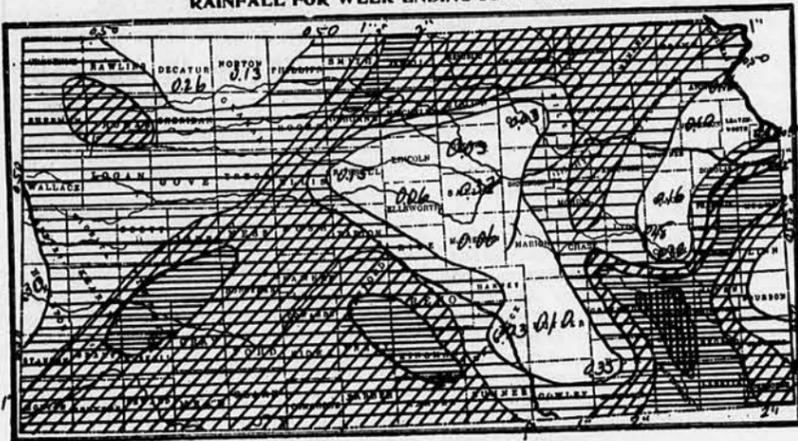
Following is the weekly weather bulletin for the Kansas Weather Service for the week ending July 31, 1906, prepared by T. B. Jennings, station director:

Table with columns: Maximum, Minimum, Mean, Departure from normal, Total, Departure from normal. Rows include Western Division (Cimarron, Colby, Coolidge, Dodge City, Dresden, Farnsworth, Garden City, Norton, Scott, Wakeeney, Division), Middle Division (Anthony, Chapman, Clay Center, Concordia, Eldorado, Ellinwood, Ellsworth, Hanover, Harrison, Hays, Hutchins, Jewell, Lebanon, Macksville, McPherson, Minneapolis, Newt, Norw, Republic, Rome, Russell, Salina, Wichita, Division), and Eastern Division (Atchison, Baker, Burlington, Columbus, Emporia, Eureka, Fall River, Fort Scott, Frankfort, Garnett, Grenola, Horton, Independence, Iola, Kansas City, Lebo, Manhattan, Olathe, Osage City, Oswego, Ottawa, Pittsburg, Pleasanton, Sedan, Topeka, Valley Falls, Yates Center, Division, State).

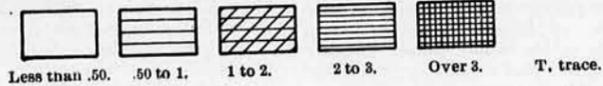
GENERAL CONDITIONS.

The temperature has continued below the normal, being the fourth week in succession with deficient temperature. The highest temperature was 98° at Norton on the 27th and the lowest was 52° at Harrison on the 23d. Although the precipitation during the past

RAINFALL FOR WEEK ENDING JULY 28, 1906.



SCALE IN INCHES:



week was decidedly less than that of the preceding week, yet it was much above normal. The rainfall was below normal in Phillips, Norton, and Decatur Counties in the northwest, in Russell, Lincoln, Ottawa, Clay, Saline, Ellsworth, McPherson, Sedgwick, and Butler in the central, and in Coffey, Osage, Shawnee, Jefferson, Atchison, Leavenworth, Wyandotte, Linn, and Bourbon, in the eastern portion of the State. Over the rest of the State the precipitation was ample. With the exception of Clay, Ottawa, Lincoln, Ellsworth, and Saline Counties the precipitation was heavy during the week in those counties where it was light the preceding week. The conditions were beneficial.

Those of our readers who are interested in stoves and ranges, and desire something first-class by mail, should write for the Tolman System, Catalogue G, to the Judson A. Tolman Company, makers of steel ranges, 7711 Woodlawn Avenue, Chicago. This enterprising concern has had some very striking advertisements in THE KANSAS FARMER, and they are certainly deserving of a liberal patronage by reason of the quality and attractive price of their line of stoves and ranges. The Catalogue G tells a graphic story in detail that will interest every intending purchaser.

We call attention again to the advertisement of the Green Corn Cutter Company, Topeka, Kans. It will be noticed that the price has been reduced to \$10. Owing to the fact of the in-

creased demand for their cutter, they are enabled to make this low price to the purchaser. The machine runs easy, and cuts and gathers corn, cane, Kafir-corn, or anything which is planted in rows. Ask your dealer for or send to the Green Corn Cutter Company, Topeka, Kans.

BLOCKS OF TWO.

The regular subscription price of THE KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year, every old subscriber is authorized to send his own renewal for one year, and one new subscription for one year, and one dollar to pay for both, in like manner two new subscribers will be entered, both for one year, for one dollar. Address, The Kansas Farmer Company, Topeka, Kans.

A Lady Crack-Shot.

Many people who have seen the remarkable shooting of Annie Oakley, who for so many years was one of the features of Buffalo Bill's Wild West Show, will be glad to learn that she is once more appearing before the public in company with her husband, F. E. Butler, who managed her shooting performances when Buffalo Bill was giving exhibitions in every State in the Union and in fourteen foreign countries.

Annie Oakley is now traveling in Maine and the Adirondacks and will later appear in the Northwest where she will perform her old feats and many new ones, shooting all kinds of guns and thus demonstrating that U. M. C. cartridges shoot well in any firearm for which they are adapted.

She is also shooting an auto-loading shot-gun which is a new type, having the remarkable feature of loading itself.

The American people can now see Annie Oakley without paying any admission fee, as her entire expenses are being borne by The Union Metallic Cartridge Co., of Bridgeport, Conn.

A Tool Cabinet for the Home.

The reason ordinary home tools become nicked and battered sooner than shop tools of equal quality is because they are not properly kept.

The best tools will be ruined in a short time if they are thrown in with others. Each tool should have a place of its own so that it will not come in contact with another.

Keen Kutter Tool Cabinets have been designed, containing just the tools that are needed in every home, each in a place of its own, carefully separated from every other tool.

The cabinet itself is made of natural oak, beautifully finished and polished, and the tools are the very best that are made.

The Keen Kutter Tool Cabinet is the only one made which contains a set of trade-marked and guaranteed tools, the

only one that can be bought without risk. If anything goes wrong with any tool, it will either be replaced or money refunded.

Keen Kutter Tool Cabinets and Tool Boxes come in different sizes and contain various assortments of tools, ranging in price from \$7.50 to \$100.

These cabinets contain in different numbers and varieties, saws, brace, bits, chisels, drills, gimlets, brad awls, scratch awls, planes, hammers, hatchet, files, pliers, drawing-knife, screw-drivers, wrenches, nail-set, reamer, rules, squares, tape measure, level, and many accessories, such as vise, clamps, oil-stone, etc.

Besides the racks for tools, there is ample drawer room, so that not only the tools but the entire working outfit may be kept together.

The Keen Kutter Tool Cabinet Booklet will be sent free to any one by the Simmons Hardware Company, St. Louis and New York, U. S. A.

Grain in Kansas City.

Receipts of wheat in Kansas City yesterday were 985 cars; Saturday's inspections were 541 cars. Prices were 1/2c @ 1c lower. The sales were: Hard wheat—No. 1 hard wheat, 2 cars 70c; 5 cars 69 1/2c; 5 cars 69 1/4c; 1 car 69c; No. 2 hard, 5 cars 71c; 4 cars 70 1/2c; 25 cars 70c; 5 cars 69 3/4c; 36 cars 69 1/2c; 2 cars 69 1/4c; 25 cars 69c; No. 3 hard, 1 car 70c; 1 car 69 1/4c; 3 cars 69c; 41 cars 68 3/4c; 22 cars 68 1/2c; rejected hard,

Simpson - Eddystone Shepherd Plaids. Dainty checks that make bright, beautiful Spring and Summer dresses. The standard of quality. Permanent, fadeless color. Ask your dealer for Simpson-Eddystone Shepherd Plaids. Three generations of Simpsons have made Simpson Prints. The Eddystone Mfg Co (Sole Makers) Philadelphia.

This Fence Post Costs the [Farmer Nothing]. Because it more than pays for itself. It won't rot or burn or decay; it saves the cost of several wooden posts in a short time, and yet it costs the farmer but little more than one wooden post. Then too, it gives absolutely free fire insurance for his stock, for lightning can't run along fences on this post. Every post is grounded by four large cables that go clear to the damp soil—just like lightning rods. Every wire in the fence is connected directly to ground by the cables and staples. Wallace Farmer, April 20, says: "It should always be borne in mind that the object of wiring a building or a fence is not so much to carry off the stroke as to prevent the cumulation of electricity." No lightning strikes a fence on these posts. It saves the cost of insurance. A saving in lasting qualities and in insurance makes it more than pay for itself so that it really costs the farmer nothing. And the farmers know. ELECTRICAL CONCRETE FENCE POSTS do this—so they are ready to buy them. To supply this demand for these fence posts makes a fine Opportunity for Enterprising Men to Make Money. There is a good profit in concrete work—posts, blocks and tile—and it does not take a lot of capital to equip a plant. We have the best outfits at the lowest prices, and we are anxious to get into communication with men who are looking for a chance to go into a good business. We want to hear from hustlers and men who will push the business—we have a special offer to make them. Send at once for our big new catalogue, which tells all about our posts, blocks and tile, and shows just why they are best—why they can be made cheaply—why the business will pay you. Write today. ELECTRICAL CEMENT POST CO., 108 Washington St., Lake City, Iowa.

Make More Money Off Your Hogs. Price, \$10. Including Farm Right to make all kinds in any number. Freight prepaid on all orders for a limited time. That's what you want to do, and that's what you can do if you use Wright's Stock Feeder. Any man who has a sow and litter of pigs can't afford to be without one of these feeders. It saves feed, and always keeps it in good condition; makes big, strong, thrifty pigs; develops the whole bunch evenly, and will pay for itself in one season. Used for sows, shelled corn, oats, barley, ground feed, etc. WRIGHT'S STOCK FEEDER is now being ordered by up-to-date hog raisers everywhere. Hundreds using them. They all say they would not think of raising hogs the old way. My catalog tells all about the hog, sheep and poultry feeder. Send for it. Hog and Sheep Feeder. Mention Kansas Farmer. C. A. WRIGHT, Rosendale - Missouri.

G. A. R. Encampment at Minneapolis. Excursion rates August 11 to 14, inclusive. Only \$10.80 round trip from Topeka. A chance to see the progressive Twin Cities and their beautiful environs. Go via the Rock Island—a pleasant route, satisfactory service, quick time. I would like to arrange for your accommodations. A. M. FULLER, C. P. A. TOPEKA, KANSAS. Rock Island System.

1 car 69c, 1 car 68c, 1 car 66c, 6 cars 67 1/2c; no grade hard, 1 car 67c, 1 car 65c, 1 car 64c. Soft wheat—No. 2 red, 13 cars 70 1/2c, 1 car 70c; No. 3 red, 1 car 70c, 2 cars 69c; No. 4 red, 2 cars 68 1/2c, 3 cars 68c; 3 cars 67 1/2c, 1 car 67c; rejected red, 1 car 67c. Mixed wheat—No. 3 mixed, 2 cars 69c, 5 cars 68 1/2c; No. 4 mixed, 1 car 68 1/2c. Receipts of corn were 86 cars; Saturday's inspections were 31 cars. Prices were irregular, ranging from 1/2c @ 1/4c higher, following the changes in futures. The sales were: No. 2 white,

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Time tried. Stands every test. Spavin, Ringbone, Curb, Splint, Lameness, Swellings—all readily yield to the great horse remedy.

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Morris Plains, N. J., June 14, 05.

Dr. B. J. Kendall Co.,
Dear Sirs:—Please send me your Horse Book. Kendall's Spavin Cure is the best I ever used; have used it for three years and always keep it on hand. Respectfully, W. E. Teets.

\$1 a bottle. Six bottles for \$5. Greatest known liniment for family use. All druggists sell it. Accept no substitute. Our great book, "A Treatise on the Horse," free from druggists or
Dr. B. J. Kendall Co., Enosburg Falls, Vt.

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Our Best \$1 Fountain Pen and the Kansas Farmer one year, both prepaid. **\$1.50**

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Our best \$3 Fountain Pen and the Kansas Farmer one year, both prepaid. **\$3.00**

Fitted with solid gold pens, will last 15 years. All pens guaranteed. Our stock is the largest west of Chicago. We refer you to any bank in Topeka or the Kansas Farmer

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Is used by being vaporized in the hen house while the fowls are at rest. The VAPOR does the work 100 fowls treated as easily as one. Just set your Vaporizer going and it does the rest. A revelation in louse-fighting methods. The only sure and perfect cure for roup. If your druggist don't have it, send us \$1 with your druggist's name for full outfit to any address, express prepaid.

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50 SONGS 25c
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This is our Star Collection and comprises the best loved songs ever written. You will be delighted. Latest Sheet Music at less than half usual prices. Send your quarter today—NOW

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Write J. Adams & Sons., 822 W. Water St., Milwaukee, Wis

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One of the remarkable things about Eastern Arkansas and Northern Louisiana is the fact that cleared land rents for \$5 per acre cash, and can be bought for \$7.50 to \$15 per acre. It costs from \$6 to \$10 an acre to clear it. Other improvements necessary are slight and inexpensive.

The soil is rich alluvial, or made. It produces a bale of cotton per acre, worth \$45 to \$60. This accounts for its high rental value. Other crops, such as corn, small grains, grasses, vegetables and fruits thrive as well.

Alfalfa yields 4 to 6 cuttings, a ton to a cutting, and brings \$10 to \$16 per ton.

In other sections of these States, and in Texas as well, the rolling or hilly land is especially adapted to stock-raising and fruit-growing. Land is very cheap, \$5 to \$10 per acre; improved farms \$10, \$15, to \$25 per acre.

The new White River country offers many opportunities for settlers. High, rolling, fine water—it is naturally adapted to stock- and fruit-raising. Can be bought as low as \$3 per acre.

See this great country for yourself and pick out a location. Descriptive literature, with maps, free on request.

The Missouri Pacific-Iron Mountain System Lines sell reduced rate round-trip tickets on first and third Tuesdays of each month to points in the West and Southwest, good return 21 days, with stop-overs. For descriptive literature, maps, time tables, etc., write to

H. C. Townsend, G. P. & T. A.,
St. Louis, Mo.

When writing advertisers please mention this paper.

1 car 51 1/2c, 15 cars 51c, 4 cars 50 1/2c; No. 3 white, 1 car 50 1/2c, 1 car 50 1/4c; No. 4 white, 1 car 49c; No. 2 mixed, 1 car 50 1/4c, 3 cars 50c, 13 cars 49 1/2c, 12 cars 49 1/4c; No. 3 mixed, 6 cars 49 1/2c, 8 cars 49 1/4c; No. 4 mixed, 1 car 49 1/2c; No. 2 yellow, 2 cars 50 1/2c; No. 3 yellow, 6 cars 50c.

Receipts of oats were 16 cars; Saturday's inspections were 12 cars. Prices were unchanged to 1/2c lower. The sales were: No. 2 white, 1 car 36 1/2c, 1 car 35 1/2c, 1 car color 35c; No. 3 white, 2 cars 35c, 2 cars 34c, 2 cars 33c; No. 2 mixed, 1 car 33c, 2 cars 32 1/2c, 1 car 32 1/4c, 1 car 32c; No. 4 mixed, 2 cars 31c.

Barley was quoted 38@41c; rye, 56@58c; Kahr-corn, \$1.10@1.17 per cwt.; bran, 56@63c per cwt.; shorts, 52@56c per cwt.; corn-chop, 96@98c per cwt.

Kansas City Live-Stock Market.
Kansas City, Mo., July 30, 1906.

Last week's cattle supply footed up 57,000 head, including 9,500 calves, the first week to exceed fifty thousand cattle this season. Prices declined 15@30c during the week on steers, cows 5@15c lower, veals 50s off, stockers and feeders selling very mean, especially the medium and common grades. Run today is 11,000 head, which is several thousand less than last Monday, and the supply of 3,000 quarantines to-day is only half as great as last Monday. Other points are heavily supplied to-day, however, and the market here is steady on good steers, and stockers and feeders, other cattle weak to 10c lower, except calves which are a shade stronger. Yearlings sold at \$5.80 to-day, and 13 loads of fed Westerns brought \$5.80, which figure is the top price to-day. The top last week was \$6.20, and the same cattle would sell nearly as high to-day, being very choice. Heifers and yearlings mixed sold at \$5.80 recently, and prime heifers straight at \$5.50. It is the grades just below the top that have suffered most, half-fed steers at \$4.15@5.40, grass steers \$3.90@4.15, good heifers \$3.75@4.75, grass cows \$2.50@3.50, canners draggy, at \$1.50@2.25, bulls \$2.25@3.75. The stocker and feeder trade has been a disappointment so far this season, both in the small receipts of that class of cattle, and in the demand for them. Good 1,050- to 1,200-pound feeders are about the only ones much wanted, at \$4@4.60, while common to fair stock cattle sell at \$2@3, fair to good stockers and feeders at \$3@3.85. Late rains have made pastures good, and have almost assured the corn crop, yet buyers are holding off. Trade in this line is firmer to-day, however, but a good many bargains were secured last week.

Hogs made a small net loss last week. After daily fluctuations both ways, packers have to-day advanced the selling price of fresh pork to butchers, as if they anticipated an advance in the live cost, and expected moderate receipts of hogs. The market is 5@10c lower to-day, under the influence of an excessive supply at Chicago, top here \$6.55, bulk of sales \$6.40@6.50. Run was liberal last week, at 49,000, supply 7,000 to-day. Weight below 200 pounds bring the top, average weight of all the hogs sold here in July this year was 204 pounds.

Mutton prices grew a little stronger late last week, as the big decline recently cut down the supply nearly half last week, total run 17,000 head, receipts 5,000 to-day, market steady. Spring lambs bring \$7@7.50, yearlings \$5@5.75, wethers \$4.75@5.25, ewes \$4@5, stock and feeding sheep in good demand at \$4.25@5, a few choice breeding ewes considerably above these prices, no goats last week. Receipts are likely to be heavy in August and September, and small improvement in prices can be expected.

J. A. RICKART.

South St. Joseph Live-Stock Market.
South St. Joseph, Mo., July 30, 1906.

Too many cattle arrived to-day for the good of the market. Conditions at the close of trade last week suggested lighter receipts for the opening of this week but instead of this there was an increase all around. In the St. Joe yards, the arrivals of 2,300 were nearly half quarantines, but the limited proportion of native steers did not in the least help the market. Bids from the start were 10@15c lower than the close last week and all business of the day was done on this basis with the close very slow and some cattle unsold. The best steers here sold at \$5.40 and they were the classes that a week ago were selling freely around \$5.60. The bulk of steers in the good fat dressed beef class regardless of weight sold at \$4.80@5.25, and were fully 25@40c lower than a week ago. Common to fair grass native steers were hardly salable at any price, killers preferring the light-weight fat Southwesterns and Southern to the green natives. All classes of cow stuff sold slowly and weak to a shade lower. Quarantine steers met with more favor than any grade of natives and sold close to steady with a fairly early clearance being made. A good class of steers selling at \$3.80 which was around the same prices made for the same cattle last week. The stocker and feeder trade is in a demoralized condition and for the present owners should shut off shipments of this class of stuff.

The hog market is still on a slumping basis and was hit the hardest lick to-day of any day since the decline began; probably due largely to the fact that Chicago had 52,000 and a break of 10@15c on that market. The trade here on a light run ruled rather slow, with prices averaging 10c lower than Saturday. It would seem that this slump would curtail prices as the policy of the country has apparently been to shut off shipments at severe breaks, but dry weather and high price of corn in many Northern and Eastern sections of the country are evidently forcing holders to cut loose. Prices here to-day ruled at \$6.35@6.40 for the bulk, with tops \$6.52 1/2; quality was not as good as on closing days of last week.

The only sheep arriving to-day were a bunch of 1,300 Oregon wethers that sold at \$4.75@4.80. The market was in comparatively good condition and prices are holding steady with a fair outlook for the balance of the week.

WARRICK.

KANSAS FARMER.

Established in 1868.

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 advertisement 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.,
116 West Sixth Ave., - 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.

FOR SALE—Some good young Shorthorn bulls just a year old by the 2500 pound Marshall Abbotts-burn sired 185805. Cheap, breeding and individual merit considered. D. Ballantyne & Son, Herington, Kans.

FOR SALE—Registered Holstein-Friesian bull and nine females; also 40 head of choice cows and heifers, a few of them fresh now and the balance will calve fresh in the fall. M. S. Babcock, Nortonville, Kans.

FOR SALE—The pure Cruickshank bull, Violet Prince No. 145647. Has been at the head of our herd as long as we could use him. An extra animal. H. W. McAfee, Topeka, Kans. 2 miles west of Kansas Ave. on Sixth street road.

FOR SALE—Registered Jersey cattle. Two yearling bulls. Sires—A son of Jesse Lewis, 32 lbs. buter 7 days, and "Financial Count" (imported); granddam held Island butter record 3 years. Sire's dam holds public milk record of 68 pounds daily, and his dam and Island winner in class for two years. Her four dams 22 to 24-quart cows, and all winners. Sayda Polo Jersey Farm, Parsons, Kansas.

REGISTERED GUERNSEY BULLS—Ready for service. Also pure-bred Scotch Collie puppies. Dr. J. W. Perkins, 422 Altman Bldg., Kansas City, Mo.

GALLOWAY BULLS—4 head, 16 to 18 months old, suitable for service. All registered. Address C. A. Kline, R. F. D., Tecumseh, Kans.

ABERDEEN-ANGUS CATTLE and Percheron horses. Stock for sale. Garret Hurst, breeder, Peck, Sedgwick County, Kans.

A BUTTER-BRED Holstein bull calf—The best purchase for grade dairy herd. See report Santa Fe Dairy Educational Special. Start right in your breeding. Sixty-five head to choose from. Geo. C. Mosher, Hillcrest Farm, Greenwood, Neb.

PEDIGREED SEORTHORN BULL 3 years old; sire Magenta, who cost \$1,000 at 8 months. Cheap. S. J. Rents, Leavenworth, Kans.

SEEDS AND PLANTS.

FOR PRICES OF ALFALFA AND GRASS SEEDS for fall sowing, ask The Barteldes Seed Company, at Lawrence, Kans.

KHARKOV SEED WHEAT—The new variety from Russia. Matures early and perfectly hardy; yielded this year 35 to 40 bushels per acre. Price, sacked, f. o. b. Lawrence, \$1.25 per bushel. Prices for larger quantities and samples on application. Have also Fultz, Harvest Queen, Harvest King, and Pearl's r. rollifc, soft, smooth varieties, at \$1.10 per bushel, sacked, f. o. b. Lawrence; seed rye at 75c per bushel, sacked, f. o. b. Lawrence. Kansas Seed House, Lawrence, Kans.

FOR PRICES OF ALFALFA AND GRASS SEEDS for fall sowing, ask The Barteldes Seed Company at Lawrence, Kans.

ONE DOLLAR will buy enough of McCauley's white seed corn to plant seven acres if you send to A. J. Nicholson, Manhattan, Kans.

HELP WANTED.

WANTED—Scotch farmer understanding practical farming in semi-arid climate and the care and finishing of live stock. Wages \$60 a month, house and board. Wife expected to cook for farm hands. Answer H. S. Boice, Channing, Texas.

FARM and ranch hands furnished free. Western Employ Agency, 704 Kansas Ave., Topeka, Kans.

MOSQUITOS WON'T STAY

In houses where MITSU INCENSE is burned, sweet scented and beautiful. Used throughout Japan. To introduce, full package for 10 cents. Send to-day. Mitsu Incense Co., Kansas City, Mo

PLAINVIEW Poland Chinas

Are bred for usefulness. Pigs now for sale, sired by Dawleys great herd boars, E. L. Second and Grand Perfection, also some fine fellows sired by Guy Hadley 24 39089 a grandson of the great Guy's Price. I am pricing them right.

James Holmes
Densmore, - - - Kansas

Mention this paper when writing our advertisers.

REAL ESTATE.

I HAVE 40 acres near Santa Fe, N. M., 15 acres in matured apple orchard, 5 acres alfalfa, 20 acres pasture, fine water, splendid house, apple cellar, etc. Famous place complete. Big returns. Owner regained his health here and returns to his business. Climate perfect. \$1,000 cash payment takes it; \$1,000 in one year; \$3,200 in 6 years. Will pay for itself in a short time. W. H. Wise, Santa Fe, N. M.

FOR TRADE—A \$12,000 Stock General Merchandise for a well improved farm, good land, prefer location in Eastern Kansas, west or north Missouri or Iowa land. Will pay no commission to agent, trade direct with owner. Address H. H. Stewart, General Merchant, Rich Hill, Mo. Farm must be clear of encumbrance.

WRITE FOR LIST—Improved 80, \$2000, improved 80 of bottom, \$3200; 160 fair improvements, \$3500; 152 acres, 120 bottom, improving cost \$4000, \$7000; 520 acres, fair improvements, \$6000. All kinds and sizes. Try us. Write to Minneapolis, Florence or Salina, Kansas, for list. Garrison & Studebaker.

AN IRRIGATED Fruit Ranch in New Mexico, near Santa Fe, the capital. \$500 cash payment will take the place, \$500 in one year, \$1,550 in 7 years; 17 acres. It's a fine proposition. Plenty water. W. H. Wise, Santa Fe, N. M.

HORSES AND MULES.

FOR SALE—Have three first-class, large, black, 5-year-old Jackson hand. Your choice cheap for cash; or will trade for good Percheron stallion, will give or take difference. L. Cox, Concordia, Kans.

FOR SALE—34 head of good branded horses, stock about 1/2 brood mares with ten or a dozen foals at side, 1/2 young geldings unbroken. John O'Loughlin, Lakin, Kearney County, Kans.

FOR SALE—At reasonable prices, Black Impor ted Percheron stallions. E. N. Woodbury, Pawker City, Kans.

FOR SALE—One black team, 6 and 7 years old, weight 2,600 pounds. Mr. & Mrs. Henry Schrader, Wauneta, Kans.

LOST OR STRAYED—Brown mare, weight 1,100 pounds, white spot in forehead, barb wire cut on side, somewhat awaybacked. Suitable reward for return. J. W. Gillard, 536 Highland Ave., Topeka, Kans

AGENTS WANTED.

Wanted—Gentleman or lady with good reference, to travel by rail or with a rig, for a firm of \$250,000 capital. Salary \$1,072 per year and expenses; salary paid weekly and expenses advanced. Address with stamp, Jos. A. Alexander, Topeka, Kans.

SWINE.

FOR SALE—20 good strong spring and yearling Berkshire boars that are just what the farmers want. Prices right. Address E. W. Meville, Eudora, Kansas.

MISCELLANEOUS.

WANTED—100,000 subscribers for The American Farm Library, the great 96-page magazine of information for progressive farmers and stockmen. Comprehensive, authentic, down-to-date. Each number a copyrighted, handsomely illustrated, completely indexed reference volume. Send 25 cents (the price of a single copy), for trial year's subscription. The American Farm Library, Dept. D, Edgar, Neb.

HONEY—New crop. Write A. S. Parson, 403 S. 7th St., Rocky Ford, Colo.

ORDER A FERRET and get rid of your rats. Cope Bros, Topeka, Kans.

6,000 FERRETS—Some yearlings, especially trained for rats. Book and circular free. Levi Farnsworth, New London, Ohio.

7,500 SHARES of Uncle Sam Oil Stock for sale at a bargain. Address R. F., care of Kansas Farmer, Topeka, Kans.

WANTED—Non-union molders. Call or write Topeka Foundry, 313 Jackson, Topeka, Kans.

DOGS AND BIRDS—For sale dogs, hogs, pigeons ferrets, Belgium-hares, all kinds; 5c 40-page illustrated catalogue. C. G. Lloyd, Sayre, Pa.

WANTED—A good second-hand grain separator. Dr. Barker, Chanute, Kansas.

WANTED—At once sound young men for firemen and brakemen on railways; high wages; promotion; experience unnecessary; instructions by mail at your home; hundreds of good positions now open. Write National Railway Training Association, 620 Paxton Block, Omaha, Neb.

EARN FROM \$87.50 to as high as \$155.50 per month. Wanted—400 young men and sound men of good habits to become brakemen and firemen. Big demand in Wyoming, Nebraska, Kansas, Colorado, and Missouri. Instructions sent by mail; stamp for reply. Northern Railway Correspondence School, Room 202 Skyes Block, Minneapolis, Minn.

SCOTCH COLLIE PUPS.

FOR SALE—Scotch Collie pups, from trained stock. Prices reasonable. Wm. Killough, Ottawa, Ks

SCOTCH COLLIE PUPS

Finest pedigreed stock in this country. Price, males, \$25; females, \$15.

JOHN C. HARMON, Topeka, Kansas

Stray List

Week Ending July 26.

Bourbon County—Chas E. Holsteln, Clerk
MARE—Taken up by Wm. Alcorn in Scott tp., (P. O. Ft. Scott, Kans.), one bay mare, 15 hands high, 12 to 15 years old, wire cut on breast and badly cut on left hind leg; valued at \$50.

Meade County—D. P. Wysong, Clerk.
MARE—Taken up by J. R. Gillick in Mertella tp. July 21, 1906, one black 4 year-old mare, weight 1,000 pounds, star in forehead, white hind feet; valued at \$50.

For the Week Ending August 2.

Jackson County—N. P. McConnell, Clerk.
HEIFER—Taken up by E. Boan in Grant tp., July 23, 1906, one 1-year-old red white-faced heifer, split in left ear.

Comanche County—Jay T. Botts, Clerk.
CATTLE—Taken up by Archie Kellogg in Coldwater tp., October 18, 1905, one 4-year-old red cow, weight about 900 pounds; also one red and white calf by side of said cow about 12 months old; valued at \$28.

Linn County—J. M. Wortman, Clerk.
STEER—Taken up by C. E. Lock, in Blue Mound tp., (P. O. Blue Mound, Kansas.) July 7, 1906, one red 2-year old, white faced steer; valued at \$17.

Read our Blocks of Two Offer.

Kansas Fairs in 1906.

Following is a list of fairs to be held in Kansas in 1906, their dates, locations, and secretaries, as reported to the State Board of Agriculture and compiled by Secretary F. D. Coburn:

Allen County Agricultural Society—Frank E. Smith, secretary, Iola; September 25-28.

Barton County Fair Association—W. P. Feder, secretary, Great Bend; August 28-31.

Brown County—The Hiawatha Fair Association—Elliott Irvin, secretary; Hiawatha.

Butler County Fair Association—W. F. Benson, secretary, Eldorado; October 1-5.

Chautauqua County—Hewins Park and Fair Association—W. M. Jones, secretary, Cedar Vale; September 11-13.

Clay County Fair Association—Walter Puckey, secretary, Clay Center; September 4-7.

Clay County—Wakefield Agricultural Society—Eugene Elkins, secretary, Wakefield; first week in October.

Cloud County Fair Association—F. W. Daugherty, secretary, Concordia; September 25-28.

Coffey County Agricultural Association—S. D. Weaver, secretary, Burlington; September 18-1.

Cowley County—Eastern Cowley County Fair—J. M. Henderson, secretary, Burden; September 26-28.

Cowley County Agricultural and Live-Stock Association—W. J. Wilson, secretary, Winfield; October 9-12.

Dickinson County Fair Association: H. C. Wann, secretary, Abilene; October 2-5.

Elk County Agricultural Fair Association—E. M. Place, secretary, Grenola; September 19-21.

Finney County Agricultural Society—A. H. Warner, secretary, Garden City.

Franklin County Agricultural Society—Carey M. Porter, secretary, Ottawa; September 4-8.

Greenwood County Fair Association—C. H. Weiser, secretary, Eureka; August 14-17.

Harper County—Anthony Fair Association—L. G. Jennings, secretary, Anthony; August 7-10.

Harvey County Agricultural Society—J. T. Axtell, secretary, Newton; September 25-29.

Jefferson County Fair Association—G. A. Patterson, secretary, Oskaloosa; September 4-8.

Jewell County Agricultural Fair Association—Henry R. Honey, secretary, Mankato; September 18-21.

Linn County Fair Association—O. E. Haley, secretary, Mound City; September 11-14.

Marshall County Fair Association—R. W. Hemphill, secretary, Marysville; September 11-14.

McPherson County Agricultural Fair Association—E. S. Guymon, secretary, McPherson; September 4-9.

Miami County Agricultural and Mechanical Fair Association—W. H. Bradbury, secretary, Paola; August 22-25.

Mitchell County Agricultural Association—J. E. Tice, secretary, Beloit; last week in September.

Montgomery County—Coffeyville Fair and Park Association—R. Y. Kennedy, secretary, Coffeyville; August 7-10.

Nemaha County Fair Association—V. B. Fisher, secretary, Seneca; August 29-31.

Neosho County—Chanute Fair and Improvement Association—A. E. Timpane, secretary, Chanute; August 28-31.

Ness County Agricultural Association—R. D. McKinley, secretary, Ness City; September 5-7.

Ness County—Utica Fair and Agricultural Association—R. C. Webster, Jr., secretary, Utica; August 30-September 1.

Norton County Agricultural Association—M. F. Garrity, secretary, Norton; August 28-31.

Osage County Fair Association—M. Carnaveaux, secretary, Burlingame; September 18-21.

Reno County—Central Kansas Fair Association—A. L. Sponsler, secretary, Hutchinson; September 17-23.

Republic County Agricultural Association—W. R. Wells, secretary, Belleville; September 11-14.

Rice County Agricultural and Live-Stock Association—F. L. Goodson, secretary, Sterling; August 1-3.

Riley County Agricultural Society—W. B. Craig, secretary, Riley; August 28-31.

Rooks County Fair Association—E. L. Williams, secretary, Stockton; September 18-21.

Shawnee County—Kansas Exposition Company—R. T. Kreipe, secretary, Topeka; September 10-15.

Sheridan County Agricultural Association: L. G. Taylor, secretary, Hoxie; September 11-14.

Smith County Fair Association—M. A. Diamond, secretary, Smith Center; August 21-24.

Stafford County Fair Association—P. O. Gray, secretary, St. John; August 22-24.

Sumner County—Mulvane Agricultural Association—Robt. P. Seyfer, secretary, Mulvane.

Wilson County—Fredonia Agricultural Association—V. L. Polson, secretary, Fredonia; August 21-24.

Leading Western Fairs and Live-Stock Shows for 1906.

August 24-31, Iowa State Fair, Des Moines.

August 30-September 7, Michigan State Fair, Detroit.

August 31-September 7, Nebraska State Fair, Lincoln.

September 3-7, Ohio State Fair, Columbus.

September 3-8, Minnesota State Fair, Hamline.

September 10-14, Colorado State Fair, Pueblo.

September 10-14, South Dakota State Fair, Huron.

September 10-14, West Michigan Fair, Grand Rapids.

September 10-14, Wisconsin State Fair, Milwaukee.

September 10-15, Interstate Fair, Sioux City, Iowa.

September 10-16, Kansas State Exposition, Topeka.

September 17-21, Kansas State Fair, Hutchinson.

September 17-22, Kentucky State Fair, Louisville.

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Along the line of the Missouri, Kansas & Texas R'y in Indian Territory, Oklahoma, and Texas are vast areas of unimproved land—land not now yielding the crops of which it is capable. The same thing, in a different way, is true of the towns. Few lines of business are adequately represented. There are openings of all sorts for you. If you're in any way interested in the Southwest, I'd like to send you a copy of my free paper, "The Coming Country."

August 7th and 21st.

you can make a trip Southwest exceptionally cheap. Round-trip tickets, good thirty—30—days, will be sold by all lines in connection with the M. K. & T. R'y at not more than one fare plus \$2; in many cases—from Chicago to San Antonio, e. g., the rate is \$25, from St. Paul, \$27.50, from St. Louis and Kansas City, \$20—the rates are considerably lower. The tickets permit of stop-overs in both directions, via M. K. & T. R'y.

If your nearest railroad agent can not give you the rates, write me for particulars.



“SOUTHWEST”

First published in The Kansas Farmer July 19, 1906. Sheriff's Sale.

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

William Prothrow, Plaintiff vs. Eugene F. Campbell, Mrs. Eugene F. Campbell, his wife, William Andrew Campbell, Mrs. William Andrew Campbell, his wife, John Campbell, Mrs. John Campbell, his wife, Albertus Campbell, Mrs. Albertus Campbell, his wife, Ida McGinniss, J. J. McGinniss, her husband, Josie Walker, A. E. Walker, her husband, Cora Henderson, — Henderson, her husband, Josie Davis, — Davis, her husband, and Margaret Campbell, a minor under fourteen years of age, defendants. Case No. 23403.

By virtue of an order of sale issued to me, out of said District Court, in the above-entitled action, I will, on Wednesday, the 22d day of August, 1906, at 10 o'clock a. m., of said day, at the east front door of the court house in the city of Topeka, in the County of Shawnee, in the State of Kansas, offer at public sale, and sell to the highest and best bidder, for cash in hand, all the following described real estate, to wit: lots numbered seven hundred and thirteen (713) and seven hundred and fifteen (715) on Buchanan Street in block eighteen (18) in Martin and Dennis addition to the City of Topeka, lying and situate in the County of Shawnee, in the State of Kansas. Said real estate has been appraised at \$544.00 and must be sold for not less than two-thirds of said appraised valuation.

The above described real estate under a judgment of partition in the above action is directed by said order of sale to be sold, and will be sold to satisfy said order of sale.

A. T. LUCAS,
Sheriff of Shawnee County, Kansas.
By J. A. Ostrand, Deputy.

Whitcomb & Hamilton, Attorneys.

September 24-29, Interstate Live Stock and Horse Show, St. Joseph, Mo.

September 28-October 5, Illinois State Fair, Springfield.

September 29-October 5, Missouri State Fair, Sedalia.

October 6-13, American Royal Live-Stock Show, Kansas City.

October 20-November 4, Texas State Fair, Dallas.

December 1-8, International Live-Stock Exposition, Chicago.

MEN WHO THINK

will tell you that you must carry some kind of Life Insurance. They do, and have nothing on their mind to worry about. But do you, that is the question you must ask yourself. Suppose you give this matter serious thought, now. Are you prepared should anything happen suddenly? Could your family take care of themselves as you are doing it now. Think this over, then write me a line and I will tell you how little it will cost you at your age.

G. E. NYE, Godard Bldg., Topeka, Kans.

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Save Money on Oil

We Sell Premium Machine Oil at Less Than Half the Price You Now Pay.

Our Premium Machine Oil is sold at \$3.50 per barrel. Thousands are using it and find it all right.

Every barrel guaranteed, and you be the judge. Other oils cost 35c to 40c per gal.; ours costs \$3.50 per barrel. Freight rate is 32c per barrel all points within 100 miles of Benedict, Kans. For each additional 25 miles add 3c.

After receiving and using 5 gal., if not satisfactory, return the balance, with bill of lading, and I will refund full price paid for said oil.

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Very low rates all summer via the Rock Island to the Lake Resorts of Northern Michigan, Wisconsin, Minnesota.

It's cool and delightful along the shores of the "Fresh Water Seas"—and it doesn't take long to get there, if you go Rock Island Way.

Spend a few weeks this season on the lakes and enjoy the finest kind of midsummer outing.

Let me tell you about the excursion rates and arrangements.

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Topeka, Kansas.

