

KANSAS FARMER

For the improvement  of the Farm and Home

Volume 51, Number 23.

TOPEKA, KANSAS, JUNE 7, 1913.

Established 1863. \$1 a Year

WHERE tillage begins, other arts follow.

The farmer is the founder of all civilization, the sustainer of all industry, the carburetor of free institutions. His life is a battle with the elements to grow his crops; with bugs and bacteria to save them; with human parasites to sell them and with ghouls to keep his money.

Worst of all is the crop killer, who learns of a hard freeze at Yukon or an unprecedented drouth in Sahara and scares gold from his fellows; who would declare the law of gravitation unconstitutional or try to separate the shine from the sun to gain his ends, and who may yet cause the foundations of homes for indigent consumers.

With such it is hard to apply the golden rule; charity seems amiss, yet even with him we should bury the hatchet—but leave the handle sticking out. —I. D. G.



"Bury the Hatchet—but Leave the Handle Sticking Out"



A Montgomery Ward & Co. Honeymoon

Henry Hutt, whose beautiful cover designs you have seen on leading publications such as *The Ladies' Home Journal*, *Life*, *The Saturday Evening Post* and other national magazines, was asked to give his idea of the message of Montgomery Ward & Company's new Catalogue. He said "I believe more young couples have been able to start on their honeymoons, relieved of care through the savings made by buying through Montgomery Ward & Co.'s Catalogue than you can ever realize."

So we commissioned Mr. Hutt to convey this message to you because we knew he was right.

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In after years many a contented young couple write us saying how impossible it would have been to spread out their little available cash if they had not been able to buy the furnishings of their new homes so economically through the Ward Catalogue.

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Both old and young are realizing more day by day how much better it is to conserve their dollars by buying in the modern way through Bargaintown's great text book—our new Catalogue of 1000 pages.

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If not, there is a copy waiting for you. And it will be sent without a cent of expense—except the cost of the stamp spent in writing to us.

Simply sign the coupon on this page and send it to us now.

This will be no obligation on your part—except to look through its pages.

Cut out this coupon, sign and send it today to

Montgomery Ward & Co.
Dept. X-15 Chicago Kansas City Ft. Worth, Texas

(We have establishments in each of above centres. Send to point nearest to you.)

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KANSAS FARMER

With which is combined FARMER'S ADVOCATE, established 1877.

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ALBERT T. REID, President. JOHN R. MULVANE, Treasurer. S. H. PITOMER, Secretary.

T. A. BORMAN, Editor in Chief; I. D. GRAHAM, Live Stock Editor.

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OUR GUARANTEE

KANSAS FARMER aims to publish only the advertisements of reliable persons or firms, and we guarantee our subscribers against loss due to fraudulent misrepresentation in any advertisement appearing in this issue, provided, that mention was made of KANSAS FARMER when ordering. We do not, however, undertake to settle minor claims or disputes between a subscriber and advertiser, or be responsible in case of bankruptcy of advertiser after advertisement appears. Claims must be made within thirty days.



WHEELER ASSOCIATE EDITOR.

G. C. Wheeler on June 1 took charge of the KANSAS FARMER live stock department and became one of the editors of this publication, succeeding I. D. Graham, who resigned a month ago.

It is KANSAS FARMER's purpose to provide its readers with a real farm paper—one really helpful to the man who tills the soil and who grows and feeds live stock. For years KANSAS FARMER has been conducted along such lines, and while our ideal has not been reached, we are nevertheless each week getting a little closer to it.

We induced Mr. Wheeler to accept a position with KANSAS FARMER, although we had more than a score of applications from men in all parts of the United States and who have been more or less conspicuously identified with the live stock and agricultural interests of their respective sections. The fact that we have secured the services of Mr. Wheeler should impress the reader with our estimate of his usefulness and ability. Mr.



G. C. WHEELER.

Wheeler's wide acquaintance with breeders and farmers throughout Kansas and his familiarity with live stock and farming conditions in every county of the state fits him well for an important work with and for farmers, breeders and stockmen of this state through this paper.

KANSAS FARMER's editorial policy with reference to live stock feeding, crops, general farming, etc., coincides with the work Mr. Wheeler has for years been doing. Therefore, his work on KANSAS FARMER is not something he will have to learn. It will be a continuance of the work he has been doing and continued on a larger and broader scale than has heretofore been possible. Mr. Wheeler's services are at the command of all the readers of KANSAS FARMER, and we hope that they will make such use of his services as will count most for them.

Mr. Wheeler is a native Kansan, farm born and farm reared, and is a graduate of the Kansas Agricultural College. In 1902 he began work with the college as foreman of live stock and from that position was steadily promoted, having served as instructor and assistant professor in the department of animal husbandry. During his connection with this department he taught animal breeding, feeding and stock judging to hundreds of farm boys—short course and regular students who are now located in every part of the state and are among the progressive and substantial farmers of their communities.

With these duties he was also in charge of experiments of great practical importance, among these being experiments in feeding skim milk to calves, feeding and care of dairy cows—at that time assisting D. H. Otis, head of the department, in preparing the bulletins on this work. These two experiments and the bulletins thereon are recognized

by investigators everywhere as the most important of their kind. Mr. Wheeler also assisted in planning a series of sheep and swine feeding experiments extending over a period of years, and had in charge the details of the experiments.

At about this time Mr. Wheeler began public work, addressing farmers' institutes, stock breeders' meetings, and judging live stock at fairs. So successful was he that in 1909 he was transferred to the newly created extension division and has been associated with that division until his resignation to become one of the editors of KANSAS FARMER. While in extension work Mr. Wheeler spent practically his whole time for two years in the western half of Kansas, preaching the gospel of live stock to the western farmer. As the extension representative of animal husbandry he has discussed live stock and related topics before farmers' institutes in every county in Kansas and on every educational train operated by the Agricultural College.

Kansas has had no more earnest or practical advocate of more and better live stock and better feeding than Mr. Wheeler. He talked the silo when it was not as popular a topic as it is today and when it required a deep-seated conviction of what seemed right to present the subject with force to the feeders of Kansas.

In 1902 Mr. Wheeler had charge of filling the college state silos, then just built, and ever since—metaphorically speaking—has been into silage up to his

neck. The first silage feeding experiments of the college were under his supervision. He is recognized as an authority on silos and silage.

Mr. Wheeler has been to the front at all times, vigorously working for more and better live stock and better feeding and in furthering the interests of the various organizations for live stock improvement. At every opportunity he has urged the organization of co-operative and communitive interest in live stock improvement, and has supplied KANSAS FARMER and other publications with articles on these and many other subjects.

Mr. Wheeler was identified with the poultry work at the Kansas Experiment Station when that work was in its infancy. At two different times by his personal efforts he saved the poultry work from being discontinued. He personally ran incubators in the cellar of his own house in order to keep the work alive and until such time as its importance would be recognized by those in authority.

Since September, 1912, Mr. Wheeler has addressed 62 farmers' institutes, many of them holding two-day sessions. He has talked to no less than 10,000 people at this series of institutes and has traveled about 6,000 miles. This, however, has not been more than an average year's work during his connection with the extension division.

Mr. Wheeler organized and kept alive the Sheep Breeders' Association of Kansas and is secretary of that association. He has also been active in the work of

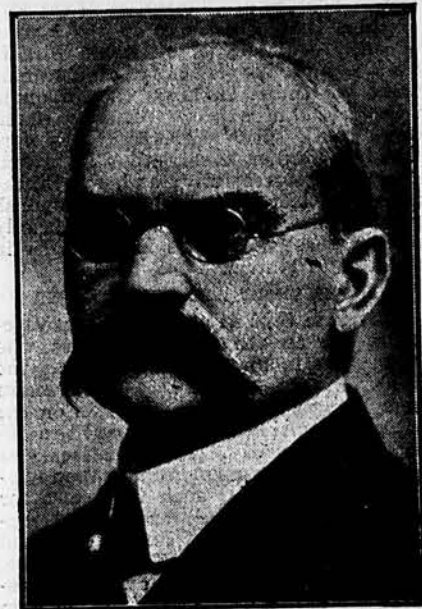
the Kansas Improved Live Stock Breeders' Association.

The above is sufficient to show Mr. Wheeler's connection with the interests of Kansas during the past ten years, and if there is anything of a conspicuous character which has taken place in the state for the best interests of live stock and general farming, Mr. Wheeler has been prominently identified with that move.

GRAHAM MAKES CHANGE.

After thirteen years of continuous service on KANSAS FARMER staff, I lay down my pencil to take up other duties as secretary of the International Cattle Company. This change in duty was induced by a desire for out-of-door employment of the most congenial sort and by the great opportunities and the absolute need which served to create the cattle company.

It is a satisfaction to know that I leave KANSAS FARMER a bigger, better and stronger journal than I found it,



I. D. GRAHAM.

and it is a pleasure to state that I still retain an interest in the "Old Reliable" and shall continue to contribute to its columns.—I. D. GRAHAM.

The above few lines tell the story of Mr. Graham's change of work. He has the best wishes of every member of the KANSAS FARMER Company, of every employee, and, we are sure, of every reader.

During his thirteen years of service with KANSAS FARMER he has filled every position on the paper excepting in the mechanical department. Through KANSAS FARMER he has labored hard and long for the upbuilding of the live stock and agricultural interests of Kansas and in so doing has done much for the success of thousands of individual farmers as well as for the remarkable progress of KANSAS FARMER. His pencil will not be idle—he will contribute sufficiently to the columns of this publication to make his influence still felt through these columns.

Mr. Graham felt the need of relief from indoor work and accepted the tender of the position he now holds. The new job does not greatly change his line of work. His present duties are still for live stock improvement, and he will now be able to accomplish really tangible results. To urge the breeding or purchase of improved live stock is one thing—to grow, buy and sell that stock is another. His work along the latter line will render a service not heretofore undertaken in this section.

A man is known by his work. What people say about a man counts for naught if his work fails to measure up to the standard. KANSAS FARMER readers know the work of "I. D. G." and no words of ours can add to his reputation or worth. By his change KANSAS FARMER loses a competent, hard-working and untiring servant. We wish him God speed.

Do You Want Men? Do You Want Work?

KANSAS FARMER'S harvest hand clearing house is working like a charm. Hundreds of farmers needing help are placing their needs with us. Hundreds of hands have filled out the coupons and these men will be referred to farmers near them. Under this plan Kansas men looking for harvest work are sure to be served.

Foreign newspaper reports that wheat in many sections will prove a failure are, in our judgment, exaggerated. The three hot days of last week damaged wheat some—that is, the yield in many fields will be reduced—but the wheat will be out and men will be needed to do it. The wheat seeded under the best conditions is making a remarkable showing compared with wheat sown in fields poorly prepared.

A trip made by the editor of KANSAS FARMER into the wheat fields of the central part of the state, last week during the few hot days, revealed nothing of a serious nature, either from hot weather, dry weather, or chinch bugs. However, some damage in some fields has resulted from each. We do have reports from the far western fields which are to the effect that a considerable portion of the acreage has been badly hurt. We are certain that Kansas will not produce the record-breaking crop anticipated by the early reports, but at this writing—Monday morning of this week—the indications are for a normally good crop, and it is certain that much help will be needed in the wheat-growing sections.

The KANSAS FARMER coupons are again printed below. You are invited to avail yourself of such service as we can render.

Farmers who want harvest hands will please cut out this blank and mail it at once to KANSAS FARMER, T. A. Borman, Editor, Topeka, Kansas.

When will your harvest begin?.....
How many men do you want?..... Do you want shockers,
pitchers, stackers, extra teams?.....
What have been the prevailing harvest wages per day?.....
Will you need any men after harvest and at what kind of work?.....

Name.....
Address..... R. F. D..... State.....
Telegraph Office..... Telephone Address.....

If you want to work in the harvest fields, fill this out and mail to KANSAS FARMER, T. A. Borman, Editor, Topeka, Kansas.

Name..... Age.....
Occupation..... Have you ever worked
in the harvest fields or at outside day labor?.....
Can you go to any county?..... Do you want work after
harvest, and what kind?.....

If you have a team or harvesting outfit and want to give additional information, write on separate sheet. We will endeavor to put every man who applies into direct communication with the farmer nearest him we know what wants harvest hands.

KANSAS FARMER will act as a clearing house for farmers who want harvest hands and for harvest hands who want work. No charge whatsoever will be made to anyone, under any circumstances, for the service, unless you want information by telegraph or telephone, in which case you will pay the charges.

Fill out one of these blanks and mail at once to
KANSAS FARMER, T. A. Borman, Editor, Topeka, Kansas.

VEGETABLE CANNING

By Frances L. Brown, Extension Service Kansas State Agricultural College

WE will soon be in the midst of the small fruit season. We enjoy the fruit in its fresh state; we utilize it in many ways so that we may have much and yet not grow tired of it, and even while we enjoy it we are interested in the amount of each kind that is being put up for winter use, jams, preserves and jellies, and jars and jars of just plain canned stuffs. The majority of people like fruit in its fresh state better than canned, but they greatly prefer the canned fruit to none at all. So everybody cans fruit of some sort or other.

WHY NOT CAN VEGETABLES?

Now the question arises—why not can vegetables for exactly the same reasons? Everybody likes green vegetables in the fresh state, yet vegetables in this condition cannot be had during the greater part of the year any more than can fresh fruit. In fact, we use more vegetables during the season than we do fruit—from preference—for the green vegetables, in season, with a little meat, furnish the major portion of all our meals, while the fruit is used more often as a dessert or as only a small part of the meal. We buy our fruit by the bushel, sometimes paying a high price for it because we like the home-canned product so much better than that the market affords. Very likely if we bought vegetables in the same way for canning purposes, we would find that they were as superior to the commercial article as is the home-canned fruit. However, there are difficulties in the way of this; first, a scarcity on the market of such vegetables as we would wish to can; second, the difficulty of obtaining these vegetables in large enough quantities while in a proper canning condition; third, the difficulty heretofore found in keeping them,—that is, in canning them successfully; and, fourth, the time and labor required to accomplish good results. Let us consider briefly each of these difficulties in the order in which it is stated.

SEASON SHORT AND MUCH WASTE.

It is true that not enough green vegetables are on the market. Those who have them in abundance cannot at the height of the season of each receive enough to pay them to put them on the market, resulting in large quantities being wasted yearly. In some localities not enough are grown to more than supply the demand for such vegetables for immediate use. There are several reasons for this shortage; an impoverished condition of the soil, lack of moisture, wind or hail sometimes prevent successful growth. We can control the two first named conditions by resorting to artificial means, and even over the latter we may have temporary control by raising windbreaks. While these measures mean a cash outlay it will be money well spent, for all food specialists agree that roughage is just as necessary for the human animal as for the dumb brute, and everyone who attempts to keep a horse or cow knows that it will be necessary to provide hay

for its winter consumption when green pasturage is no longer obtainable. Hay or roughage or fodder is preserved grass or grain, just as canned vegetables are preserved vegetables, and all our green vegetables stand outlined in food as roughage.

It is not yet too late to put out certain seeds for a late summer crop to use or can, and everyone who has a little patch of suitable ground not otherwise in use, should do this. Those who do not have ground should be making inquiry of farmers to locate those who have an abundance of vegetables so that these

ning them, and in some cases long soaking does make them fit for such use, but withered with age they will at best be tough and fibrous. Others who have only a small excess at a time, instead of canning that immediately, keep it on hand until more can be accumulated and thus lose in value what they would gain by amount.

Fruit is more easily canned than are vegetables. Methods that are easily successful with fruit often fail completely with vegetables. The purpose of all preservation is twofold—to kill all organisms in or about any substance, and

they are more difficult to preserve by heat. This is not so difficult, however, as one may imagine.

CANNING PROCESS NOT DIFFICULT.

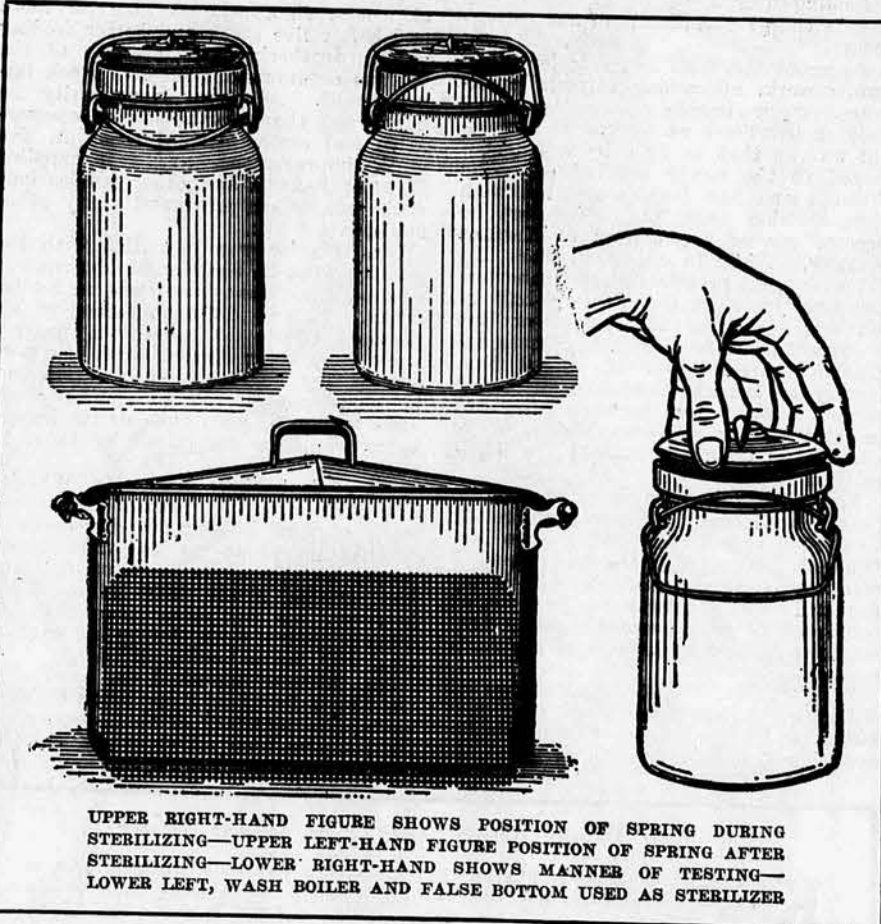
The process which insures success sounds worse than it really is. Glass jars should be used. Any of the lightning type will prove most satisfactory, but the Mason jars will do. Always use new rubbers of the best quality. Have good vegetables—the best of their kind obtainable. Wash them clean and prepare them as for immediate use. Clean and sterilize the jars and tops; fill the jars with the vegetables, and fill up with boiled water; add one teaspoonful salt to each quart, if desired. Place rubbers and tops on the jars lightly, and then proceed to sterilize the jars and contents by the fractional or intermittent method, by which they are boiled for a certain length of time each day for three days, rather than for a longer period one day. The length of time that the vegetables in the jars must boil will depend upon the size of the jars. These directions are given for quart jars.

METHODS OF STERILIZATION.

Be sure that there is something in the bottom of the boiler to prevent the jars from resting directly on it. A piece of board perforated with auger holes or a piece of heavy wire screening will answer the purpose, while if neither of these can be provided, clean prairie hay or clean old rags serve very well. Place the jars in the boiler, allowing plenty of room. Pour in enough cold water to come up several inches on the sides of the jars; it is not necessary to have it up to the neck of the jar, since it is the steam that does the work, and only enough water need be used to form sufficient steam and not allow the boiler to become dry. For fruit jars the water in the boiler should be kept boiling for one hour each day of the three. When the hour is up, remove the boiler lid and as soon as possible fasten the lid down tightly on each jar. The jars may then be removed from the boiler or allowed to cool in it, but if it is desired to remove the jars at once, care should be taken that a draft does not strike them while hot.

On the second and third day be sure that the jar lid is loosened when putting the jars on to boil. After the third cooking, the jars should be closely watched for signs of spoiling. If the jars are of the lightning type, remove the spring and lift the jar by its lid. If no gas has been formed, the lid will come off. Occasionally there are germs that this test would not discover. To be sure none such are at work, open a can a few days after each lot is put up, and if it is spoiled, boil it all over once more and thereafter increase each boiling one-half hour.

Full directions for canning vegetables are given in detail in Farmers' Bulletin 359, by J. F. Breazeale. This bulletin may be had free by writing to the Department of Agriculture, Washington, D. C., or to the Department of Extension Service, Kansas State Agricultural College, Manhattan, Kansas.



UPPER RIGHT-HAND FIGURE SHOWS POSITION OF SPRING DURING STERILIZING—UPPER LEFT-HAND FIGURE POSITION OF SPRING AFTER STERILIZING—LOWER RIGHT-HAND SHOWS MANNER OF TESTING—LOWER LEFT, WASH BOILER AND FALSE BOTTOM USED AS STERILIZER

may be obtained for canning and not allowed to waste.

CAN ONLY IN GOOD CONDITION.

When canning vegetables only those should be used that are in prime condition. It is a mistake to think that one can put up vegetables that are unfit for immediate use and find them satisfactory, yet this is what many people do. They wait until the peas are a little too ripe before they discover that they will have more than they can use in their fresh state. Yet the young peas are most delicious when canned. Others think that beans that are withered so that they are not so desirable for quick consumption, can yet be utilized by can-

to preclude the entrance of any others. The organisms in fruit are more easily destroyed because of the composition of fruit and also owing somewhat to the character of the germs themselves. Certain germs have the power of withdrawing into what is called the spore form, under conditions adverse to their best growth. In this spore form they can stand much higher or lower temperatures than in the growing form, but as soon as this extreme temperature moderates, if other conditions are favorable, they take the growing form and work and multiply very rapidly. Vegetables furnish a more perfectly balanced ration for such germs than does fruit, so that

Fighting Insect Pests

FOLLOWING a rather open winter, it is probable that insects may prove troublesome in the home garden and in truck patches. The following is a list of standard formulas as recommended by various agricultural experiment stations:

Kerosene Emulsion.—Kerosene, 2 gallons; rain water, 1 gallon; soap, $\frac{1}{2}$ pound. Boil the soap in water until dissolved. While the mixture is boiling hot, turn it into the kerosene for about five minutes and until it is of a smooth, creamy nature. Before using, dilute with nine times its measure of water. Three gallons of emulsion will make 30 gallons of wash.

Soap Wash.—Concentrated potash lye, 3 $\frac{1}{2}$ pounds; water, 7 $\frac{1}{2}$ gallons; fish oil, 1 gallon. Dilute the lye in water; boil. To the boiling solution add the fish oil. Continue to boil for two hours and then allow to cool.

Carbolic Acid Emulsion.—Carbolic acid, 1 pint; hard soap, 1 pound; water, 1 gallon. Dissolve the soap in the boiling water and while boiling add the acid and continue to boil for a few minutes, stirring thoroughly. Put the emulsion away in a tightly closed vessel

and label, "Stock Solution of Carbolic Acid—Poison." Before using, dilute one part of the stock solution with fifty parts of water.

Carbolized Plaster.—Carbolic acid, 1 pint; air slaked lime, road dust, or some other diluting medium, 50 pounds. Sprinkle or dust on the plant in the dry state.

Tobacco Spray.—Hard soap, 1 pound; water, 8 to 10 gallons; strong tobacco extract, 1 gallon. Dissolve the soap in boiling water, add the decoction, and then make up 8 to 10 gallons.

White Hellebore.—This powder may be obtained at any drug store. May be used dry or with water. Where water is used, one ounce to two gallons of warm water is the proper proportion.

Pyrethrum or Insect Powder.—This powder is also called Dalmatian insect powder and Persian insect powder. To be effective the powder must be fresh. Where used in the liquid form, use one ounce to three gallons of water. In the dry form use one ounce to five ounces of cheap flour. Mix thoroughly, allowing it to stand over night in a closed tin box, then dust on the plants through a cheese cloth.

Poisoned Bran Mash.—Mix one-half pound of paris green in 50 pounds of bran. The poison should be added to the dry bran little by little and stirred all the time until the mass is tinged with the green color. Then add water, sweeten with sugar or molasses until the mixture is sufficiently moistened to crumble nicely through the fingers.

Paris Green and Bordeaux Mixture.—Four pounds of fresh lime, four pounds of bluestone, and four ounces of paris green. Thoroughly mix in 40 gallons of water. The bluestone (copper sulphate) should be dissolved by suspending it in a wooden vessel containing four or five gallons of water, and the lime slaked in another vessel. If lumpy, the lime should be strained through coarse sacking. Pour the bluestone solution into a barrel and half fill with water. Dilute the slaked lime to a half barrel and mix the two together. The paris green should be made into a paste with warm water poured into the barrel and stirred thoroughly. The mixture is then ready for use. The addition of the lime prevents the poison from scorching the foliage.

Arsenate of Lead.—Arsenate of soda, 10 ounces; acetate of lead, 24 ounces;

water, 150 to 200 gallons. The arsenate of soda and the acetate of lead (sugar of lead) should be dissolved separately and then poured into a tank containing the required amount of water. A white precipitate of lead arsenate is immediately formed, and when thoroughly stirred is ready for spraying. Its finely divided condition keeps it in suspension for hours and thus simplifies the work of spraying.

COMMON GARDEN INSECTS.

Cut Worms.—Cut worms do most damage to plants soon after they are set out in the spring. They also get in their work in June and July, there being several kinds of cut worms. The best way to get rid of the worms is to sprinkle poison bran mash over the ground about sundown. In setting out tomato plants, a piece of paper wrapped about each plant so as to extend slightly beneath the soil and an inch or two above will make the plants safe from cut worms.

Melon Aphids.—A soap and tobacco wash is recommended. Fumigation with carbon bisulphid has also been tried successfully; an air-tight bucket or other

(Continued on page 9.)

NEW IDEA IN CATTLE

International Cattle Company Organized to Supply Necessity



CATTLE BARNS, SALE PAVILION AND SILOS OF THE INTERNATIONAL CATTLE COMPANY, TOPEKA.—TWO LARGE BARNS 66 FEET WIDE AND TWO STORIES HIGH, FLANKED BY CATTLE STABLES EXTENDING 364 FEET IN TOTAL LENGTH.—OFFICE ON RIGHT, SALE PAVILION ON LEFT.—DRAWN BY ALBERT T. REID, PRESIDENT KANSAS FARMER COMPANY.

NO possible changes in the tariff, no portent of war, no conceivable event that could be brought about by any effort of man is so important to the American people as the conservation of her soil fertility.

It is easily possible that this nation should continue to exist and in a fairly prosperous condition if the tariff were radically changed or even abolished. It is possible that America should continue as a nation after a war, and it is doubtful if any man-made effort could radically change existing conditions.

But without a fertile soil from which to draw its food supplies no nation can long exist. Starvation is never far away in any community or nation. If all traffic were suddenly stopped our great cities would suffer seriously in one day, and, if disaster occurred, farming communities would be in distress in one season.

No nation can long perpetuate itself or maintain a degree of prosperity which does not make ample provisions for the maintenance of its soil fertility, and this can only be accomplished through live stock. Commercial fertilizers will help

a weak and worn soil, but they are only stimulants which put a temporary vitality in place of a natural vigor. Rotation of crops will help, but this is only a palliative and not a permanent cure. The growing of legumes serves to restore certain lost elements, and is an aid, but the complete and easy and natural solution of all soil problems lies in the feeding of the soil through the feeding of live stock.

That the soil is becoming depleted over large areas is undisputed. That the immense annual crop yields of this country are due to increased floor space and not to better methods is undeniable and that these problems are complicated by the changed conditions of cattle scarcity, the high price of land and imperfect facilities for handling pure-bred cattle, is one of the vitally important facts confronting the American people today.

Everywhere the interest in cattle raising is growing, and to the student of conditions the interest is intense. Americans are meat eaters, and the brain and brawn which conquered the wilderness and made of this the greatest nation in history had fiber built and their strength

developed through a diet of meat. Meat is necessary as a most important food element for our people, while the soil fertility upon which the future of the nation must depend is vital and is possible only through live stock farming.

Most farmers realize these conditions and they realize the need for action. They know that former conditions under cheap land and cheap cattle can never come again. They know that cheap meat is only a memory, but that money is to be made under present conditions and the situation relieved by the growing of high-class cattle only upon their high-priced land.

For the purpose of meeting the present conditions, which have never before existed in all history, the International Cattle Company was organized and chartered under the laws of Kansas. With headquarters at Topeka this company will operate in supplying the demand for pure-bred cattle to the international as well as the national trade. It will assemble pure breeding cattle in considerable numbers, and be ready to supply demands from the ranches and ranges of the West as well as from the farmers

and breeders of the corn belt states. It will act as a clearing house for the breeders of all breeds of cattle; it will hold public sales of its own cattle or for those breeders who do not have home facilities, and will be in shape to bring the buyer, who exists somewhere, into contact with the breeder, who exists somewhere else.

The extensive twin barns with cattle stables extending on either hand, and with silos, office building and sale pavilion which this company proposes to erect at Topeka are shown in the accompanying engraving. The two barns will be 66 feet wide each and the cattle stables will extend to a total length of 364 feet.

To encourage the breeding of pure-bred cattle by demonstrating that the business is profitable as well as necessary; to supply a market for the breeder's surplus live stock at any season of the year, and to supply farmers and breeders as well as ranch and range men with high-quality breeding cattle in any part of the country, are among the objects sought by the International Cattle Company.

Farming at Hays Station

DURING each of the past two weeks KANSAS FARMER has been printing valuable data from the annual report of the Hays Experiment Station. This has shown better than anything else yet published what is going on at Hays and has been printed especially for the benefit of a large number of our readers in the western third of the state. These articles have been full of helpful ideas and which we closely associated with successful farming in the west. The third section from the Hays report follows:

FOUR CROPS OF ALFALFA.

The Station grew 220 acres of alfalfa on creek bottom land in 1912. Four cuttings were made. The second cutting, undoubtedly, was the best, as early summer rains were timely. The last cutting was light, but of good quality. The cured hay was put into a stack, but hay sheds are suggested as being a better way to keep it for another season. Seeding alfalfa in rows on upland for seed production has been unsuccessful. Weeds and grasshoppers were the cause of failure to get a stand.

Nothing decidedly favorable can be reported about the general corn crop of 1912. Climatic conditions were much better than in 1911, but the rain, needed at a critical time of the growth, did not come, and this resulted in shortening the yield.

THE SPRING GRAINS.

Wheat, barley, and oats have not proven very profitable crops at the station. It is possible to seed these grains

only when the soil is well supplied with moisture at seeding time.

The station received many calls for seed corn for western planting, farmers on the western border of the state believing that varieties for general planting can be obtained there. In the last two seasons it has been impossible to supply the demand, because of low yields.

EQUIPPING DAIRY FARM.

A dairy farm is being equipped at the station and will be in operation in the near future. Two silos were erected in the fall of 1911 on a quarter section set aside for this purpose. They were filled that year with kafir and cane. The two silos have not been roofed. They are the re-enforced cement plaster type and have withstood the wear of the elements satisfactorily. The building of these silos, and the lesson in feeding silage in the hard winter of 1911-12, proved valuable instruction to many farmers in Ellis County.

The forest plantations of previous years' plantings received the usual season's cultivation and pruning. They show growth and are assuming the proportions of trained forests. Later plantings in the public park show remarkable progress, and now are excellent examples of well-cared-for trees. The park is attracting increased attention.

COST OF GROWING POTATOES.

Potatoes were produced at the cost of 15 cents a bushel. The yield was 111 bushels an acre. An extensive

vegetable garden was maintained, from which the table at the employees' boarding house was supplied, and some surplus marketed in Hays. The three-acre plot of potatoes handled under intensive cultivation rules received, also, the average showers. A small plot on the same land in 1911 gave only 26 bushels an acre, at the cost for production of 46 cents a bushel. The difference of cost in producing these potatoes in 1911 and 1912 is accounted for by the drouth and abnormal visitations of insects in 1911. Seed and cultivation of both plantings were about the same.

The distribution of seed is a feature of the work at the western Kansas station. Many hundred bushels of wheat, kafir, sorghum, oats, barley, and corn have been provided for farmers in Kansas, Oklahoma, Colorado and Nebraska.

For spring distribution the station will have two varieties of kafir seed, three of cane, two of oats, two of barley, three of corn, and limited quantities of special grain under experiment for trial on other places. This seed is all pure, or nearly pure.

HOG FEEDING EXPERIMENTS.

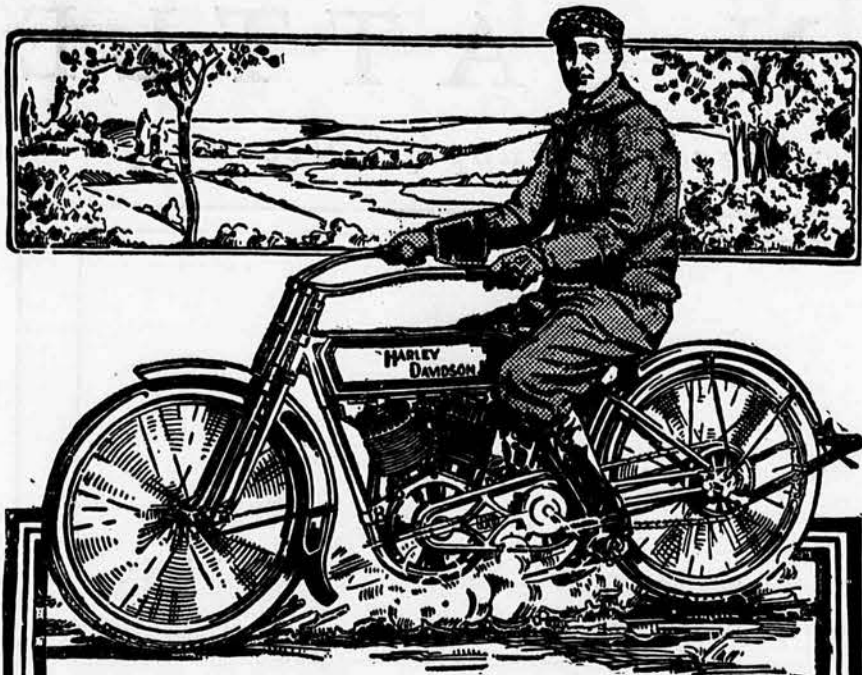
An experiment in feeding hogs was conducted last year. Shoats on alfalfa pasture, that were fed a ration of corn, shorts and tankage, were compared with a similar number receiving the same feed, with the exception of the tankage. The lot that received tankage made the heavier gains, and the animals were much in better condition when the experiment was finished. Duroc Jersey

is the only breed engaged in at this station. This spring farrow from 25 sows was 310 pigs, 20 sows littering for the first time, and in the fall 18 old sows farrowed 106 pigs. Cholera visited the drove ranging on alfalfa pasture accessible to the creek, in August, and before the disease was checked by vaccination, 63 head, of all ages, had died. All the others not then severely sick were immunized by an assistant from the veterinary department of the college. Throughout the fall and winter all the hogs have prospered.

2050 ACRES CULTIVATED.

The division of animal husbandry has had no definite organization the last two years. Only the most imperative attention necessary to pasturing, yarding, feeding, or increasing the stock has been given. No regular assistant has been foreman of the work and the three persons at the station have not been able to give necessary attention to the details for the best operations. This defect has been remedied so that valuable data with respect to feeding, especially for beef breeds, will soon be forthcoming.

At present the station has 2050 acres under cultivation. The station has twenty buildings, mostly frame, and none costing more than any prosperous farmer could afford to have. The station has 60 horses and mules. The land is valued at \$206,600; improvements of every kind, \$57,557; live stock, \$18,375; equipment, \$12,408; farm products on hand or in the field, \$13,982.



Why the Motorcycle Keeps Boys on the Farm

DON'T expect your boy to be happy on the farm if the summer season brings only work. When the day's work is over don't tell him the horses are too tired for road work, because it is this tiring to the farm, this inability to join his chums in their pastimes or to seek his own pleasures that often makes farm life distasteful to him. Get him a

HARLEY-DAVIDSON

It will let down the bars and take him where he wishes in a fraction of the time he would use by team. It will open up a thousand and one pleasures heretofore denied him. You will find he will return at bed time, happy, contented and satisfied with his lot in life. But when you buy him a motorcycle, be sure that you obtain one that is economical, reliable and durable. Buy him a Harley-Davidson, because

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The Harley-Davidson holds the world's official record for economy.

It is the Most Reliable

The Harley-Davidson is the only machine which has ever been awarded a diamond medal and a thousand plus five score in an endurance contest. The plus five was for its super-excellent performance. These awards were made by the National Federation of American Motorcyclists.

It is the Most Durable

The first Harley-Davidson made, over eleven years ago, has covered now over one hundred thousand miles and is still giving satisfaction and today retains even its original bearings.

Seven departments of the U. S. Government use a total of nearly 4000 of these machines.

Over 3900 R. F. D. Carriers daily cover their routes on a Harley-Davidson, a fitting tribute to the reliability of this machine.

Call on our nearest dealer for demonstration or write for catalog.

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MENTION KANSAS FARMER WHEN YOU WRITE.

THE FARM



Kansas Farmer Indispensable.

Our subscriber, F. M. Fleming, Cherokee County, writes: "KANSAS FARMER is indispensable at our place. We could not get along without it. Yes, we have chinch bugs but we will have wheat anyhow. If this cold weather continues much longer the bugs will be greatly reduced and they will not do much damage."

Cowpeas and Corn.

Our subscribers and advertisers, Laude & Sons, Woodson, write that they have just finished planting 28 acres of corn and cowpeas. They planted thick with a double-hopper planter, planting peas and corn in the same row at the same time, and planting the seed in equal quantities. The Laudes have been growing cowpeas for years and think them great feed.

Likes Dairy Department.

James Eastman, Haswell, Colo., writes: "I like your paper fine, especially the dairy department as dairying is my hobby. I am laid up with a broken leg and my cows are in charge of hired help and they are not doing as well for me as they should. I hope in another year to be able to send in a dairy herd report that will show farmers what they can do with a bunch of good milch cows in eastern Colorado."

Moss in Stock Tank.

Subscriber T. M. L., Pottawatomie County, asks how he can prevent the formation of moss in his stock watering tank.

We have always used lime for this purpose and it has proven satisfactory. Not long since, in talk with a KANSAS FARMER subscriber, he stated that his way of keeping his stock tank free from moss was by keeping in it a few small fish.

Corn and Sorghum.

Our subscriber, J. K. F., Scott County, reports these conditions in his county: "We are carrying over lots of old feed. Grass is fine. Cattle are scarce. The wheat acreage sown was light and the acreage harvested will be much less. Corn and sorghum planting well advanced and ground in fine condition. There will be more corn and white sorghum planted this year than ever before. These will be the main crops, with the odds in favor of the latter. Several new irrigating plants are being installed but the cost is still out of reach of most farmers."

Destroying Canker Worm.

Subscriber D. D., Clay County, asks for canker worm spray.

Two pounds of arsenate of lead to 50 gallons of water has been found sufficient, but quicker action has been secured where three pounds instead of two has been used. The addition of 1½ gallons of commercial lime sulphur or its equivalent of home-made solution added to each 50 gallons will greatly aid in the control of the fungus. This spray should be used just as soon as the green shows.

In March 29 issue of KANSAS FARMER this subject was fully discussed by Prof. Albert Dickens, Kansas Agricultural College.

Planting Cowpeas in Corn Ground.

"I have a piece of cornstalk ground which I had thought of planting to cowpeas. How can I prepare this ground for peas?"

A seed bed for cowpeas will require about the same preparation as would the same ground for surface planted corn. We recommend the thorough disking of the field and deep plowing. If the field is handled in this way it should by June 5 to 10 be in good condition for drilling the peas. The seed bed should be warm, mellow and deep and the above methods of preparation should be favorable and with good growing conditions should yield a good crop.

Beans Will Beat Broom Corn.

O. C. A., Seward County, is advocating the planting of Mexico beans, as a safe and sure crop in southwestern Kansas and the Panhandle country.

"It would pay big if every farmer would plant ten acres of these beans,

in our country," he remarked. "There is a ready market for them and they bring a good price; are way ahead of broom corn as a money maker, and I am satisfied they will do well here."

"If properly planted and cared for they will stand a wonderful lot of dry weather and make a fine yield. They should not be planted before the first of June, should be cultivated, hoed once and kept clean of all weeds. If the farmers will put out a few acres of these beans and take proper care of them they will find them a great drouth resister and will be well paid for all their trouble."

"The ground is prepared just as you would prepare it for sorghum, milo maize or any similar crop and is laid off in rows from two and a half to three feet apart. You can take a two-row corn planter and equip it with regular bean planting plates. They are cultivated much the same as you would cultivate any other crop, the principal item being to keep them clean. The yield is ordinarily from 10 to 15 bushels per acre, after the beans have been threshed. The planting should be done as soon as there is no further danger of the vines being cut down by a late frost."

Alsike Clover Hardy.

Subscriber R. H. T., Douglas County, writes: "What value has Alsike clover? We find this clover growing in spots in our meadow and pasture land. Our farm is rich, heavy, black bottom land, some of which is inclined to be wet."

Alsike clover is more hardy and better adapted to wet or poorly drained land than is common red clover. Alsike is less coarse, more reclining in its habit of growth and more leafy than common clover. Because of these characteristics it is preferred to the common red or mammoth clover for pasture.

Alsike is a smaller growing specie than common red clover but on certain soils it will make more hay. It is not so hungry for lime as the common clover. It makes a good seed crop and the seed is so small that one may sow less than half the amount that one would sow of red clover. The preparation of the field and the method and time of seeding are the same as in the case of red clover.

Wing, in his book, "Meadows and Pastures," says that Alsike clover has come into disrepute in certain sections because horses and mules pastured on it excessively have been troubled by eruptions of the skin. The cause of this malady is obscure and so far as observed no cases have originated in pastures having grasses mixed with Alsike. He says he has not heard of animals being affected by eating the hay.

Gas Engine For Kerosene.

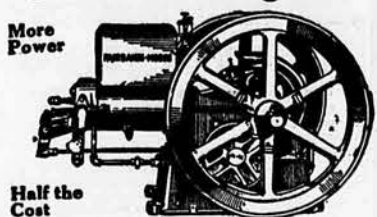
Subscriber B. A. S., Labette County, writes: "In E. H. Witte's article on gas engine operation in KANSAS FARMER of January 18, he speaks of shortening the connecting rod of the engine to use kerosene. Is the object to delay the opening of the exhaust?"

We submitted this question to Mr. Witte, who replies as follows: "The necessity for shortening the connecting rod of a gasoline engine for the burning of kerosene has nothing to do with the opening of the exhaust valve. The exhaust valve opening is timed with reference to the time of explosion, and has nothing to do with compression before the explosion. Shortening the connecting rod reduces the degree of compression only. It is a good deal like ramming powder in a shotgun. Kerosene must not be rammed as tightly as gasoline."

"In the average internal combustion engine, the pressure at maximum compression for burning gasoline, is between 80 pounds and 90 pounds to the square inch. When burning kerosene, the compression should be reduced to between 55 and 60 pounds to the square inch. It is unlikely that the engine your subscriber has will burn kerosene successfully without a kerosene burning attachment."

"The matter might be explained more clearly to him if we knew just what kind of an engine he has, what the horse power is, and what work he has it doing."

Jack of All Trades Kerosene Engines



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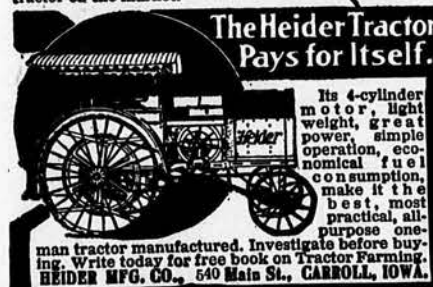
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Its 4-cylinder motor, light weight, great power, simple operation, economical fuel consumption, make it the best, most practical, all-purpose one-man tractor manufactured. Investigate before buying. Write today for free book on Tractor Farming. HEIDER MFG. CO., 540 Main St., CARROLL, IOWA.

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Now protect more valuable property than any other rods made, because they are scientifically perfect. Made and sold under \$75,000 bond. For Shinn rods, the kind that are put up by experts and work inspected by our state inspectors. If he has none don't accept any substitute but write for full particulars about guarantee and for catalog. W. C. SHINN 109 16th St., LINCOLN, NEBRASKA

The Pit Silo Again.

Our subscriber, E. W., Norton County, writes: "There is no reason why, if properly made, a pit silo should not in every respect be as serviceable and durable as a stave silo unless it be in one particular—that of getting the feed out—and a little mechanical skill will in a large measure overcome this objection. As to durability, I know of several cisterns plastered on dirt walls with cement, that have already lasted the life of a stave silo, and you can probably recall some also.

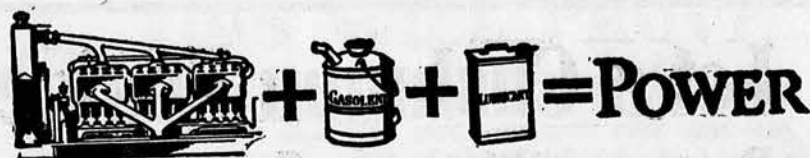
"You say a silo should be high, deep and narrow. A pit silo should be round, deep and narrow, and that is the way I made mine. Mine are 7 feet in diameter and 25 feet deep. I put a good stiff collar of cement around the top and plastered the walls and bottom. The walls are smooth as any cement or stave silo you ever saw. Some of the advantages of a pit silo are: First, cheapness of construction; ours cost 50 cents per ton storage capacity. Second, small cost of machinery necessary to fill—a silage cutter without a blower costing but little money. Also when the blower is not operated, the power required to operate the cutter is materially reduced. Third, evenness of temperature; in the pit silo the temperature is the same, day by day, winter and summer, and there is no frozen silage in winter nor dried silage in summer. This is a big point.

"I know that a pit silo does not make much of a show, but it is not necessary to spend \$600 or \$700 making one and getting machinery to fill it with before you can have the benefits of the silo. I was led to make a pit silo because no stave silo that I knew of was made less than 10 feet in diameter, and this was too large for my conditions."

After looking up our answer as printed in the April 26 issue of KANSAS FARMER, to an inquiry regarding the pit silo, we are inclined to the belief that we did not give the pit silo as much consideration as it deserves. However, at the time of writing the answer, we were thinking more particularly of the rectangular pit silo which is dug into the hillside and regarding which the inquiry was made, than of the round and cistern-like silo dug into the level ground and proportioned in its dimensions identical with the silo built above ground.

The rectangular silo dug into the hillside and temporarily walled up at one end is, as we stated, a makeshift. However, as such, it serves a good purpose. The round, deep silo dug into the ground, plastered on the sides with cement and surrounded at the top with a collar which prevents caving, answers every purpose of the silo built above ground except in the matter of convenience in emptying when feeding. It goes without saying, of course, that the character of the ground is an important factor in the economical construction of the silo when dug into the ground. If the digging must be done through rock or through a gravity soil which will not permit of a perpendicular wall by virtue of its caving, then the pit silo is expensive to dig or expensive to wall to prevent caving. Therefore, the conditions under which the pit silo can be constructed satisfactorily are limited. However, we do know that over a considerable area of the western one-third of the state the round and deep pit silo can be built without encountering the above objections. The same conditions prevail in the building of cisterns. However, a cistern is rarely as deep as a silo should be, and cistern construction after this plan is much more general in its application to good service for a much larger territory than is the pit silo similarly constructed.

Be it understood that KANSAS FARMER is in favor of the silo—a silo of any kind. We know that a considerable number of Western Kansas farmers can construct and avail themselves of the use of pit silos who could not—except under the stress of unusual and extenuating circumstances—avail themselves of other types. It is certain that the pit silo will result in showing the value and economy of the silo and the superiority of silage as compared with dry feed, and will ultimately result in an increased cattle population and a larger profit therefrom than has heretofore been known—a condition to be sought and accomplished. Just so soon as the farmers of Western Kansas are thoroughly convinced that the silo is a good thing, the very conditions which have brought about such conviction will increase their permanent prosperity and make it possible for them to follow their desires in the construction of any type of silo they may choose. More live stock and any kind of a silo will start the West on the up grade.



The power of your automobile is simply the sum of your motor efficiency plus your fuel efficiency plus the efficiency of your lubricant.

Today most automobile motors are well designed. You are offered little choice in gasoline. But lubricating oils differ widely both in quality and in "body."

Despite this, automobile owners often select their lubricating oil with an indifference that is little short of reckless.

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- (6) The greatest second-hand value.

We have undertaken this serious problem with the thoroughness that has established our standing in the general lubricating field.

Each year we make a careful motor analysis of each of the season's models. Based on these analyses and on practical experience, we specify, in a lubricating chart (printed in part on the right), the grade of Gargoyle Mobiloil that is most efficient for each make of car.

If you are not interested in correct "body," there still remains the best of reasons for using Gargoyle Mobiloils.

In sheer lubricating quality they stand alone.

But you will make a serious mistake if you do not note down, from the chart, the grade whose "body" is best suited to your motor.

A booklet, containing our complete lubricating chart and points on lubrication, will be mailed on request.

For the lubrication of water-cooled gas and oil engines and tractors use Gargoyle Mobiloil A in summer and Gargoyle Mobiloil Arctic in winter. For all air-cooled gas and oil engines, use Gargoyle Mobiloil B.



The various grades, refined and filtered to remove free acids, are: Gargoyle Mobiloil, "A," Gargoyle Mobiloil "B," Gargoyle Mobiloil "D," Gargoyle Mobiloil "E," Gargoyle Mobiloil "Arctic."

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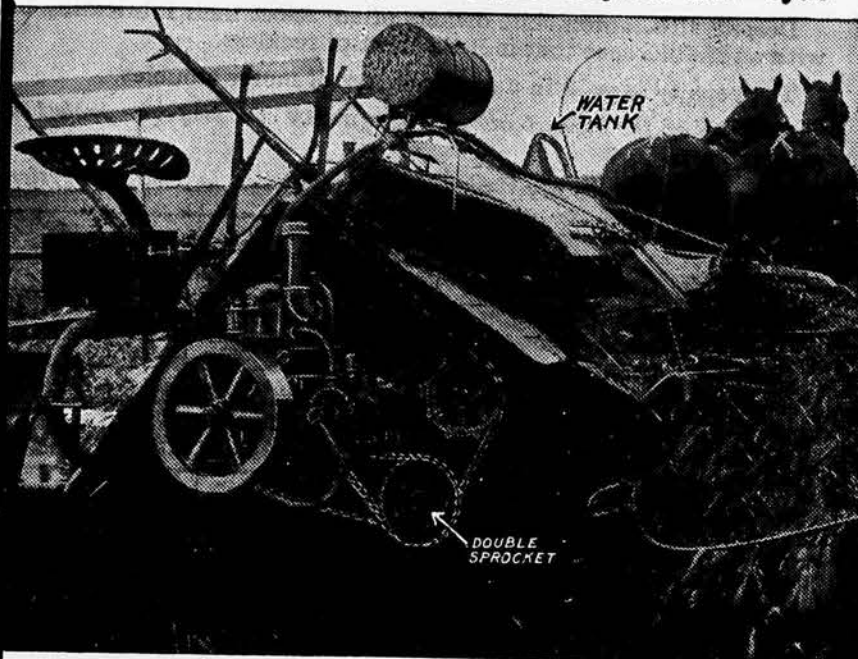
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H. P. Sickle never stops when bull wheel skids or in turning. Weight of engine only 167 lbs. Cycle



Easily and quickly attached. Our universal adjustable brackets do the trick. Anyone can run this simple 4-H. P. engine on the binder. It runs the reel and sickle, elevates, binds and delivers the grain. Team simply draws the machine. Don't overstrain your horses. Sickles continue to run when the bull wheel skids. Cut your grain when ripe. Wet weather, muddy fields have no terror where the Farm Cushman engine is used.

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This is a personal appeal to you. Insure your harvest. We cannot guarantee deliveries on orders in the rush season. Scores of farmers and dealers last year ordered too late to be delivered. Write now and make sure to get yours. See your dealer. If he does not handle the Farm Cushman, write us. Accept no substitute. Don't wait. Do it now.

Remember, the Farm Cushman is the all-purpose engine. Best for running the grindstone, pump, corn sheller, wood saw, feed grinder, washer, separator, etc. Runs at any speed, throttle governed. Change speed at any time without stopping. We also build 2-cylinder special heavy duty engines. 6 to 20 h. p., for use in the Corn Belt, for silo filling, operating large balers, grinding and sawing. Tell us your needs. Start the binder engine matter to-day. Catalog free.

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When the wind don't blow you will need an Appleton Gasoline Engine and pump jack. You can belt on to the pump, when needed, or run your churn, hand sheller, etc. For heavy work, running the husker or silo filler you have your pick up to 18 H. P. Hopper cooled, speed changing device, single side rod; a perfect engine. Write us today.

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SKIDDED-PORTABLE

LIVESTOCK

Our Osborne County subscriber, C. H. Tillquist, writes that his county was hard hit by the horse plague, but that farmers are restocking with better horses, and he expects to see Osborne one of the best draft horse breeding centers in the state. The smaller farmers of the county are erecting silos and giving much attention to dairying and Holsteins and Jerseys are in demand. He says the county is reasonably free from cholera, but that a disease somewhat like cholera is complained of by a good many farmers. He states that the hogs are sick for two or three months and then die, and that it is his judgment that not in excess of one-half of a pig crop can be saved.

"Mule sales are a little slow in Johnson County, Kansas," writes a subscriber. This he thinks is due to the inferior quality of mules offered. In order that the demand for mules might be supplied a few years ago inferior jacks were bred to small mares. He states that the good grades of beef cattle are in greater demand than are pure-breds. Dairy cattle with a "show me" record are in good demand. It is his judgment that there is a rapidly increasing tendency to feed on the farm the roughage and grain there grown, and that the introduction of the silo has done more than anything else to bring about this condition. He states that the live stock condition will continue to improve for years, and that it will be a long time before there is a surplus of breeding stock.

"Beef cattle are very scarce. In the near future I look for a demand for pure-bred beef stock which cannot be supplied. We are making a good thing selling cream, so I think dairy cattle will also be in big demand. In regard to beef cattle, farmers have been in the habit of buying bulls at from \$50 to \$100 and are slow to pay the advanced prices which the present general market for good animals really demands. Farmers maintain the same attitude with reference to beef cows, and also with regard to dairy cows. When they learn the difference in the value between a first class beef animal and a first class dairy animal, I expect to see the biggest demand this country has ever known for the best of animals of both breeds. The prices being paid for pure-bred stock are not in just proportion to the prices paid for grade cattle." This is what F. F., a breeder of Shorthorns and Durocs, writes from Pottawatomie County. He reports a 90 per cent pig crop, with poor results in saving winter pigs and good results in saving spring pigs. He knows of no cholera in his county.

J. P. Mast, Osage County, Kansas, writes that the prospects for good beef and dairy cattle were never better in his county. He says, however, that he cannot understand why farmers in his immediate neighborhood for the past two or three years have allowed the numbers of their stock to decrease, but the reason is because of the shortage of pasture, and because farmers think that by growing a calf until from four to six months old they can get more out of it than they can by keeping it until older. Such a condition as described above, is, in our judgment, deplorable. It seems to us a short-sighted view. It is certain, in our judgment, that throughout Osage County, good pasture can be had if the farmer will exercise the necessary care and patience in seeding such pastures. It is certain, too, that the county will produce silage in abundance, and with this condition prevailing, it would seem that many silos would be constructed. We are firm in the belief that for the average farmer it will pay to grow calves to the limit of the farm's capacity to grow feed. We do not believe that the calves can be marketed to the best advantage under one year. This of course, will mean that pasture for one season only need be had, and if the calf is dropped in the spring, he pastures only during the first half of his year's life, and consumes less pasture during that time than when older. With all of our farm lands producing silage in abundance, and which silage is the best and cheapest feed obtainable, and the feeding season coming on during the time of year when labor is not needed in the field, it would seem that it would be profitable to market the products of the land through such calves, selling at a year old as large as they can be made, and as fat as possible. It is our judgment that cattle cannot be grown and fattened as profitably by anyone as by the man on whose farm they have been reared. Of course, in

Save Your Hogs!

As a hog conditioner — as a preventive against Cholera — or for destroying worms in hogs, take a tip from one of the best known stockmen in the Northwest and feed

Lewis' Lye

The Standard for Half a Century

A quarter of a can to every barrel of slop, or a teaspoonful to five gallons is sufficient, and may be the means of saving you hundreds of dollars in hog profits this very year.

But don't experiment. Get the genuine. Insist upon Lewis' Lye, the purity and full strength of which is absolutely guaranteed — the only 98% lye made and sold by manufacturing chemists.

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Be Safe!

Don't take chances with spavin, splint, curb, ringbone, bony growths, swellings or any form of lameness. Use the old reliable remedy—



KENDALL'S Spavin Cure

Its power is testified to by thousands of users. At druggists \$1 a bottle; 6 for \$5. Ask your druggist for book, "Treatise on the Horse," Write Dr. B. J. Kendall Co., Keosauqua Falls, Wt.

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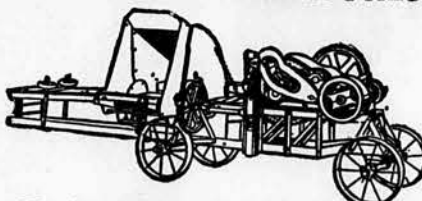


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The best and cheapest power press on the market. Ask for Catalogue. **THE AUTO-FEDAN HAY PRESS CO.,** 1564 W. 12th St., Kansas City, Mo.

Eli Motor Baler

Capacities 3/4 to 3 tons per hour. Built so engine can easily be used as a portable general utility engine. Runs press without belt or sprocket chain. No Vibration. Complete Line 4-Cycle, 6 and 12 H. P. Horse and Power Balers. Double Engine. Write for Free Catalogue. **COLLINS FLOW CO., 2059 Hampshire St., Quincy, Ill.**

Running Water

in House and Barn at even temperature Winter or Summer at Small Cost.

Send Postal for New Water Supply Plan. It will bring you 100 pages of it in actual use. Get it free. **Aermotor Co., 1144 S. Campbell Ave., Chicago** **Aermotor Co., 2d and Main St., St. Paul, Minn.**

Hopper & Son, Manhattan, Kansas Builders of

Concrete Silos

Write for list of silos we have built. Ask our customers about them.

When writing advertisers, please mention Kansas Farmer.

the case of females it is necessary to keep them longer, and every farm should be supplied with such females as are necessary to keep the farm at all times well stocked.

Beef More Expensive Than Mutton.

A pound of mutton can be produced from about the same amount of hay and only two-fifths the amount of grain and concentrates required to make a pound of beef. It requires 440 pounds of hay and 912 pounds of grain and concentrates to make 100 pounds of beef. To make 100 pounds of pork it takes 435 pounds of grain and concentrates, while sheep require only 464 pounds of hay and 383 pounds of grain and concentrates to make 100 pounds of mutton. These figures are averages of feeding tests, made at several experiment stations.

Sheep also help rid farms of weeds. Of the 600 kinds of weeds commonly found in this country, sheep will eat 76 varieties. Cattle will eat only 56 varieties. If there is a flock of sheep on the place the yard and fence corners always will be clean. This is another reason why the number of sheep in the corn belt is increasing. Is it not time for the Kansas farmer to grow a few sheep, if for no other reason than ridding the place of weeds?—Industrialist.

College Not Stock Show.

The sooner we quit thinking of the Agricultural College as an exposition or a stock show and begin to regard it as one of the state's great workshops, the sooner shall we get results from such experiments as the one just finished.

An incident showing the attitude too often assumed by some farmers toward their agricultural college occurred last Friday at the stock pavilion. President Waters had just finished his lecture on the steer-feeding experiment. One of these steers—an under-fed animal, kept on a maintenance ration for two years—was taken into the ring. Its appearance created a general laugh from some of the men, who evidently had expected to see in the college herds only animals of the highest merit from a stockman's viewpoint.

The main job of the college is not to produce show herds that shall take all of the prizes offered at the stock shows, but to learn and show farmers of the state how they can win the prizes.—W. E. G., in Industrialist.

Hog Cholera Vaccination.

We in Kansas associate the Kansas Agricultural College with all information regarding the vaccination of hogs for cholera. This is justly correct, too, but it may prove interesting to know what other institutions are doing along the same lines. So here is what the Wisconsin Agricultural College says to the farmers of its state:

"Hogs vaccinated for hog cholera by the double method, which includes an injection with a protective serum and a small quantity of virus at the same time, is effective for many months and probably for life.

"In a recent experiment a sow that had been vaccinated more than a year before was placed in a pen with pigs which were sick or dying with hog cholera. Although the sow was exposed in the infected pen for a month she did not contract the disease.

"Professor Hadley recommends that farmers lose no time in treating their hogs in all cases where cholera threatens. Young pigs can be vaccinated much more cheaply than mature hogs."

Cost of Rearing Horses.

The necessity of growing good horses, those in demand and which sell at the highest prices, is shown by the cost of rearing as reported by 10,000 correspondents who have made figures for the Federal Department of Agriculture on the cost of rearing colts to the age of three years. The figures are:

The average for the United States is found to be \$104.06; or, if we deduct the value of work done by the horse before he has passed his third year, namely \$7.52, the net cost is \$96.54; this is 70.9 per cent of the selling value of such horses, \$136.17.

The cost varies widely by states, from an average of \$69.50 for New Mexico, \$71.50 for Wyoming, and \$82.47 for Texas, to \$156.60 for Rhode Island, \$149.98 for Connecticut, and \$141.80 for Massachusetts.

Itemized, the cost is made up as follows: Service fee, \$12.95; value of time lost by mare in foaling, \$10.06; breaking to halter, \$2.22; veterinary service, \$2.04; care and shelter, first year, \$4.08, second year \$5.36, third year \$6.35; cost of grain fed, first year \$4.98, second year \$7.14, third year \$9.56; hay, first year, \$4.14, second year \$6.61, third year \$8.48; pasture, first year \$2.56, second year \$5.41, third year \$6.21; other costs, \$5.01; total, \$104.06.

The total cost for all feed is \$56.30,

being \$21.68 for grain, \$10.23 for hay, \$14.18 for pasture, and \$1.21 for other feeds. The total cost of care and shelter is \$16.69. Of the total cost, 54 per cent is charged to feeds, 16 per cent to care and shelter, and 30 per cent to other items, as enumerated above.

Intensive Dairying.

Earl Stewart, Owatonna, Minn., has been living on a 40-acre farm and on this kept a herd of 40 dairy cows. From these he takes in cash receipts of \$2,500, besides a good share of his living. He plants 35 acres in field crops and pastures. The remaining five he uses more for an out-of-doors resort for the stock. He grows all his own silage on this, and has more than enough.

"But I keep those cows like ladies," says Mr. Stewart. "They are stall-fed the year around. I curvy them as most folks do horses, and my barn is swept twice a day, and is as clean as my wife's kitchen. It pays, for the cows like it, and the milk yield shows how they respond to it."

Fighting Insect Pests

(Continued from Page Four)

vessel is turned over the plant and about a teaspoonful of the chemical evaporated underneath.

Striped Cucumber Beetles.—As soon as these beetles appear, spray the plants heavily every few days with Bordeaux mixture and arsenate of lead. Where only a few hills of cucumbers, squashes, pumpkins, or melons, which are most commonly attacked by these beetles, are planted, the safest way is to protect the plants with small frames covered with cheese cloth. These must be on before the beetles get any chance to attack the plants, and should be left on until they are too large for the limited space within the frames.

Root Maggots.—Use carbolic acid emulsion or white hellebore. Pour directly upon the growing plants and around the roots of such plants as cabbage every week from the time they are set out until about the end of June.

Cabbage Worms.—Dust the plants thoroughly, when the dew is on, with paris green and flour in the proportion of one pound of paris green to 50 pounds of flour. Arsenate of lead three pounds to 40 gallons of water and two to three pounds of fresh air slaked lime may be sprayed over the plants instead of dusting them with paris green and flour. After the cabbage heads have begun to form use fresh pyrethrum powder, spraying it over the plants, instead of using paris green.

Flea Beetle.—Spray the plants with poison Bordeaux mixture. In order to get the spray to adhere to the smooth surface of the plants it may be necessary to add a sticker. This may be made by boiling together two pounds of resin, one pound of soda and one gallon of water, boiling in an iron pot in the open until a clear brown liquid is formed. This may require from one to two hours. This sticker is sufficient for 40 gallons of the Bordeaux.

Potato Beetle.—Spray with paris green or arsenate of lead combined with Bordeaux mixture.

Attorney-General Jackson Buys. Ex-Attorney-General Jackson has gone into the business of breeding Hereford cattle on his farm near Maple Hill, Kan. Through the International Cattle Co., Topeka, Mr. Jackson purchased a herd of 80 head of cows and heifers and a number of bulls.

C. W. Finley, breeder of Polled Durhams, is located at Niles, Kan., in place of Harper, Kan., as was stated in our field note last week.



THIS WILL PROVE That Your Hogs Have Worms

For years and years I have been telling you farmers that a great part of hog sickness can be traced directly to worms—just ordinary, every-day hog worms. Yes, sir! and what's more I say to you that many of the hogs you own have worms right now, unless you have already cleaned them out with MERRY WAR POWDERED LYE.

Here's an easy way to prove the absolute truth of that statement: Go to your dealer's and get a 10c can of

Merry War Powdered Lye

Mix ¼ of it thoroughly with one barrel of swill and feed from it twice each day, night and morning. If your hogs are on dry ration, mix ½ can in each barrel of drinking water. You'll shortly see vast quantities of dead worms coming away from those hogs. Seeing is believing. You can't get away from facts.

Now then, as a practical farmer, do you believe that a hog can be well, thrive and put on fat—in fact, can he live long, if he's filled with worms? Not much—he can't! Another thing: Don't imagine that just because your hogs are beginning to fall off in weight, snoop around, droop their heads and tails, cough and refuse to eat, that they have cholera. It's very likely worms—and you can easily and quickly prove it in the safe and inexpensive way I have pointed out. So don't lose your hogs—it's not necessary. And don't vaccinate your hogs simply because you think they have cholera. Vaccination won't kill a single worm. And, take my word for it, if you rid your hogs of worms they will be in prime strength to resist hog cholera.

This Man Tried It And Knows

A. U. PATE, Blue Jacket, Okla., writes: "I have been feeding MERRY WAR POWDERED LYE to my hogs for worms. It beats anything I ever saw." Hundreds of other practical hog raisers have written telling of similar experiences with MERRY WAR POWDERED LYE as a destroyer of hog worms. Read their letters in our free booklet.

10c a Can at all Dealers. MERRY WAR POWDERED LYE is for sale at most grocers, druggists and feed dealers everywhere, 10c per can (120 feeds). It is convenient to buy in case lots—4 dozen cans \$4.80. Costs only 5c per hog, per month, to feed regularly—by far the best and much the cheapest hog insurance you can buy. If your dealer can't supply you, write us, stating their names. We will see that you are supplied and also send you, free, a valuable booklet, "How To Get The Biggest Profits From Hog Raising." Order direct from us in case lots (4 dozen cans \$4.80) if your dealer won't supply you.

There Are No Substitutes

Don't experiment with ordinary, old-fashioned lye. It might prove dangerous. MERRY WAR POWDERED LYE is the specially prepared lye that is safe to feed to hogs. Full directions on each can.

Which Kind Do You Want?

E. Myers Lye Co., Dept. 12 St. Louis, Mo.



For Plowing, Freight, Threshing, Grading, It has no equal.



IT LAYS ITS OWN TRACK

The Creeping Grip Tractor

Good Roads, Rough or Swampy Ground are Alike to This Powerful Tractor. It Will Go Anywhere.

Motor Operated with Kerosene, Distillate or Gasoline

The "Creeping Grip" delivers at the draw-bar in pounds pull a greater percentage of the power generated by the motor than any other tractor made. Remarkable fuel economy and low cost of upkeep are its strong features. We absolutely guarantee the creeper shoes or tractor bands for the entire life of the machine.

The "Creeping Grip" Tractor has the strongest warranty of any tractor on the market. Three sizes: 40 Brake H. P.—30 Draw-Bar H. P.; 60—45 H. P.—55 H. P.

The "Creeping Grip" Tractor makes our customers our friends. Send for catalog and testimonials.

WESTERN IMPLEMENT & MOTOR COMPANY

Dept. T-6.

Davenport, Iowa, U. S. A.

Your horse should wear this humane collar

The Lankford Cotton Filled Horse Collar enables the horse to put his full strength into pulling without causing galls or sore shoulders. If the horse has sore shoulders, or is suffering from galls, this collar, if properly fitted, is guaranteed to effect a speedy and permanent cure.

Every genuine Lankford Collar has this Trade Mark



Lankford Humane Horse Collar

The collar illustrated is made of best duck, trimmed in heavy leather, and has an attractive appearance. Stuffed with medicated soft cotton, which gives it wonderful healing qualities. Adjusted to fit any shape neck. Acts as collar and pad, combined. Will not sweat the horse. Most known collar to use on colts or horses not commencing work. Yearly sales over 1,000,000. Prices \$1.25 and up. If not at your dealer's, write to: Memorandum Account Book FREE—also folders describing Lankford Collars.

THE POWERS MFG. CO., Dept. H-5 Waterloo, Iowa



Price \$1.25 and up

Pigs Without Worms



I'll Stop Your Losses from Worms—I'll Prove It 60 Days Before You Pay

Little pigs only a few weeks old are often found loaded with worms. Hogs of all ages suffer from these deadly parasites. Then cholera, swine plague and other contagious diseases get in their destructive work. Stock troubled with worms don't thrive; they cough, have fever, act dull, and don't gain a pound. Your feed is wasted; your profits are stolen. Your animals frequently die, causing total loss of many dollars. I'll stop all this quick with Sal-Vet, the great worm destroyer and conditioner. I have done it for thousands of others. I'll do it for you, before you pay me a penny, if you will just send me the coupon.



Read This Letter: "Have fed Sal-Vet to my hogs and lost none. Neighbors both sides of me, east and west, have had cholera bad. One went of me, on adjoining farm, lost about forty hogs and pigs with cholera; the one east, on adjoining farm, lost all he had, excepting four."

A. J. HOFFMAN, Leipsic, Ohio.

Send No Money—Just the Coupon. If you will fill out the coupon—tell me how many head of stock you have—mail it to me, I'll ship enough Sal-Vet to last them 60 days. You simply pay the small freight charge when it arrives, and when the 60 days are up report results. If it does not rid all your stock of the deadly stomach and free intestinal worms, I'll cancel the charge—you won't owe me a cent.

Prices 40 lbs. \$2.25, 100 lbs. \$5.00, 200 lbs. \$9.00, 500 lbs. \$21.00, 1000 lbs. \$42.00. No order filled less than 40 lbs. on 60 day trial offer.

S. R. Feil, Pres. THE S. R. FEIL CO., Dept. KF Cleveland, Ohio. 60-day trial shipments are based on 1 lb. of "Sal-Vet" for each hog or sheep, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular packages.

SHIP TO: S. R. FEIL CO., Dept. THE S. R. FEIL CO., Cleveland, Ohio. I will pay for freight and report results in 60 days and will then pay for it if it does not rid my stock of worms. Name _____ F.O. _____ Shipping Stk. _____ Ship. Co. _____ Hope _____ Cattle _____ 6-7-13

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Be Your Own Judge

We cannot believe that there is a sensible man living who would purchase any other than a DE LAVAL Cream Separator for his own use if he would but SEE and TRY an improved DE LAVAL machine before buying.



It is a fact that 99% of all separator buyers who do SEE and TRY a DE LAVAL machine before buying purchase the DE LAVAL and will have no other separator. The 1% who do not buy the DE LAVAL are those who allow themselves to be influenced by something other than real genuine separator merit.

Every responsible person who wishes it may have the Free Trial of a DE LAVAL machine at his own home without advance-payment or any obligation whatsoever. Simply ask the DE LAVAL agent in your nearest town or write direct to the nearest DE LAVAL office.

The new 72-page De Laval Dairy Hand Book, in which important dairy questions are ably discussed by the best authorities, is a book that every cow owner should have. Mailed free upon request if you mention this paper. New 1913 De Laval catalog also mailed upon request. Write to nearest office.

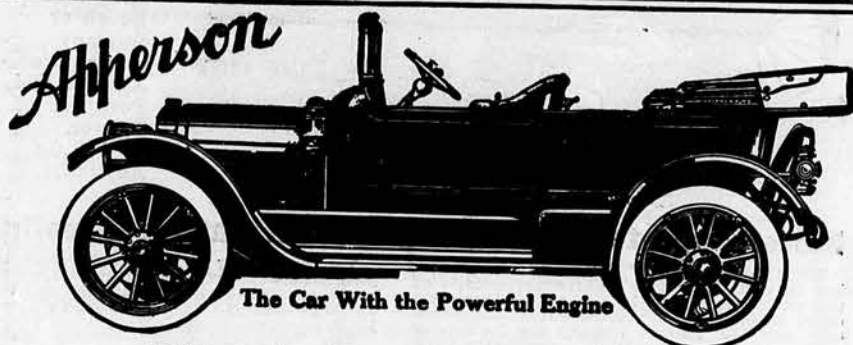
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The Car With the Powerful Engine

"Jack Rabbit" Cars Last 20 Years

This is not a claim. It is a certainty.

We have been building cars 20 years. The first American gasoline automobile was produced by the heads of this house, in 1893.

Still in use, are Apperson-made cars 17, 18 and even 19 years old.

Mechanical troubles have been practically unknown to Apperson owners for 10 years.

Of the 17,000 "Jack Rabbits" in use, the average age is 8 years. No "Jack Rabbit" has ever worn out.

We have the proof when we say—"You are insured a service of 20 years and longer in a 'Jack Rabbit' car." You can safely invest, if necessary, a lifetime's savings in a "Jack Rabbit" car.

It should be the only car you will ever need. It will cost you less for up-

keep than any other car. Low fuel consumption. Low tire expense. Little or no mechanical expense.

It is upkeep cost, and not first cost, that is the *real* cost of an automobile.

Give the "Jack Rabbit" thorough consideration. To enjoy its great strength, beauty, comfort and endurance is *economy*. Write today for the "Jack Rabbit" catalog and get all the facts.

Electric Self-Starter and Electric Lighting Furnished if Desired

Apperson Bros. Automobile Co.

321 Main St., Kokomo, Indiana



Bickmore's Gall Cure



The old-time remedy for keeping horses free from sores. Don't lose the services of your high-priced horses. Bickmore's Gall Cure cures Galls and Sore Shoulders while the horse works. Approved remedy for Cuts, Wounds, Scratches, etc. Money back if it fails. Be sure to ask at the store for Bickmore's Gall Cure. Gray Horse trade mark on every box. Sample and 84-page horse book sent on receipt of a stamp for postage.

BICKMORE GALL CURE CO., Box 432, Old Town, Maine.

DAIRY



Dirty pails, dirty troughs and dirty pens are principally responsible for calf scours.

The highest-priced feeds we buy are those high in protein content. These are cottonseed meal, cottonseed cake, linseed meal, gluten feeds, bran, etc. In Kansas we have the counterpart of these in cowpeas, soy beans, alfalfa, clover, etc. The concentrated protein feeds are high in price because the demand for them is great, and because no other class of feed can take their place. A certain class of feeders know the value of protein and thereby create a demand for these concentrates which demand places the price where it is. It would seem that the dairy farmer who can grow these protein feeds would realize the necessity for the same and grow more of them. Let us grow more legumes for our cows—for all our live stock, in fact—and thereby not only decrease the cost of production of beef, pork and milk, but also produce larger and more vigorous animals.

We are firm in the belief that for the best feeding of the dairy cow, silage should form the basis of all rations. This, because of its succulent nature. This consideration is from the standpoint of the quality of the feed alone, to say nothing of the convenience in feeding silage compared with other crops. With the silage should be fed some protein feed such as alfalfa hay, clover hay, cowpea hay, soy bean hay, or Spanish peanut hay. For the grain portion of the ration, corn meal with cowpea or soy bean meal can be used. However, until we become larger growers of cowpeas and soy beans than we have ever been or are likely to be in the immediate future, cottonseed meal will supply the cheapest source of protein. For a cow yielding 20 to 25 pounds of milk daily, the following ration will be found economical: Thirty-five pounds of corn, kafir or cane silage, 10 pounds of alfalfa, cowpea, soy bean or Spanish peanut hay, 5 pounds of corn and cob meal or kafir meal, 2 pounds of cottonseed meal, cowpea meal or soy bean meal.

The federal department will this year make some experiments to ascertain whether or not oleo can be used in the place of butter in the feeding of the navy. If oleo is confined to the "jackies" mess and not served to officers, we will not be surprised to see a favorable report on the test. It is too bad that the United States cannot see her way clear to feed the privates of her army and navy real butter. We can expect that soon an effort will be made to find a substitute for beef steak. However, Uncle Sam with his employees behaves fully as well as does the state of Kansas, which supplies her charges in the eleemosynary institutions with oleomargarine instead of butter. There was a time some eight or ten years ago when Kansas supplied the navy with a half million pounds or more of butter, bringing to the state a considerable amount of Uncle Sam's money, which money was of course distributed to the farmers of Kansas who sold cream. Since that time the government has had the butter for its navy packed in the far east and in the far west, each section having a part of the contract because of its nearness to the storehouse. When Uncle Sam forgets the humble cow and the dairy farmer and places his favor with the beef steer and the packer, it looks as though he was not giving the farmer a fair shake.

The Fairmont Creamery Company of Omaha, Neb., has commenced suit against an internal revenue collector for the return of money collected by him as a fine on account of the alleged manufacture of butter containing over 16 per cent of moisture. KANSAS FARMER is glad that the above named company has started this suit. We have long been of the opinion that some one should undertake such suit pointing to the refund of money collected by the Internal Revenue Department from both large and small creameries. The small creamery at the hands of the Internal Revenue Department has in the years past suffered to a greater extent than have the large creameries. This, because the

large creameries are able to operate on such plan as permits them to make moisture tests on each churning and so be able to know with a very reasonable degree of certainty that they are not violating the moisture law. The small creamery which does not have a business sufficient to warrant it in keeping such skilled labor is at all times working to a greater or lesser degree in the dark. It is certain that by far the largest total penalty has been imposed upon the small creameries of the country and in a number of instances it has been reported that the fines have been so heavy as to force the creamery to close and dispose of its property in order that the fine might be paid. In this matter the Internal Revenue Department has ruled with an iron hand. They have assessed fine after fine without right or justice, and because the creamery could not afford to fight the government. Therefore we are glad that a creamery able to fight has taken up the matter with a view to showing up the actions of the Internal Revenue Department in the past and obtaining a supreme court opinion which in the future will govern in such instances.

Success Depends on Cow.

As I have been able to study the situation with respect to the dairy husbandry as I have seen it for the last 15 or 20 years, it has been more and more impressed on me that the one great thing on which hinges the improvement of the dairy industry is the cow, and until we have brought the cow of the country up to a much higher average of efficiency it does not seem that we have done as much as can be done for the dairy industry, and unless the man who milks the cow can do it at a profit you cannot build a prosperous industry upon the rest.—H. H. WING.

Rearing Dairy Cows.

That there is money in growing heifer calves from good cows and keeping these heifers until they become milk producers, is shown by the statement following from a recent work on dairying, by Charles B. Lane. This statement shows one of the good reasons why only good cows should be kept, wholly aside from the increased value and economy of their dairy products. A good heifer calf from a good cow has a value considerably in excess of the value of a steer calf grown for slaughter. There is no reason why the growing of milk cows for sale, from good parentage, is not a good business in these days of unusual demand for milkers. Mr. Lane writes:

"It is a mistaken idea that it costs too much to raise cows. The Illinois Experiment Station carefully investigated this subject by raising 48 calves. Records were kept of 12 at a time during four different periods. It was found that they could be successfully raised on 150 pounds of whole milk costing \$1.50 and 400 pounds of skim milk costing \$1.20. This milk was fed at the rate of ten pounds per day until the calves were fifty days old, when it was gradually lessened to one pound per day for ten days, when no more was fed. Only the ordinary grains which the farmer produces and a good quality of legume hay were fed, showing that the dairyman can raise a calf in this way with little trouble.

"Successful dairymen state that they raise heifer calves at a cost of \$18 to \$20 up to the time they are two years old, and frequently sell them for \$50 at this age. Even if it cost twice the above amount to raise them there is a good margin of profit. This is a good business proposition and shows that it is better to raise cows than to buy them.

"That the dairyman should raise his own cows is one of the fundamental elements of profitable dairying, and the lack of application of this principle is responsible for a large per cent of the poor herds in this country."

Why Cow Testing Pays.

I am glad to record my hearty approval of what appears to me to be an institution in which every dairyman in Kansas should be interested—the Pioneer Cow Testing Association.

Whether one keeps a few cows, or many, dairying is fast becoming a sci-

Square Deal On Cream Separators

Let me tell you one sure thing: The Beatrice is the only standard separator on the market that you can buy at a fair-play price. A square deal—that's what you get when you buy a

BEATRICE Cream Separator

Most dealers ask \$100 up for a high-grade separator. I paid \$75 for my Beatrice. I don't think I ever had so much cream separator satisfaction.

Why, I can clean the bowl and discs in less than 2 minutes, with the patented device furnished free with the separator. They come out as clean and as spotless as a new penny and as sweet as a nut.

I figure I save the price of my Beatrice every year by its close, clean skimming. It's the easiest-running machine I ever had. My repair bills have amounted to practically nothing. It's a sure-enough built-to-last cream separator.

Take Farmer Onswon's advice. Get a Beatrice. Get on the list of satisfied separator users. See your dealer or write to THE CONTINENTAL CREAMERY CO., Topeka, Kan., Oklahoma City, Okla.



Save \$50 to \$300

I absolutely guarantee to save you \$50 to \$300 on any Galloway gasoline engine. Made in sizes from 1 1/2 h. p. to 15 h. p. My famous 5 h. p. engine—without an equal on the market—sells for \$99.50 for the next 60 days only! Buy now! Same size costs \$225 to \$300 through your dealer. Think of it! Over \$200 Galloway engines in use today. All sold on same liberal, free 60-day trial offer. I make you—and all giving satisfaction. Isn't that proof enough?

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Made for hard
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Wood Mills
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DAIRYMEN

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Profit?
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GUERNSEY.

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\$10.00 Sweep Feed | \$14.00 Galvanized
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We manufacture all sizes and
styles. It will
pay you to in-
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Seventh St., Topeka, Kansas

entific proposition, and failure surely awaits him who is unwilling or unable to adopt the results of expert demonstrations. So far as this association is concerned, it is probably a little too soon to say what the results will be, but as one looks over the membership he feels that he is in good company.

I am certain that I am getting value received several times over for what it costs me. To know just what your cows are doing from month to month, the amount of butter fat they are giving, the amount of feed they consume, and its value, and the consequent profit or loss, creates an interest in dairying hardly possible under the old guess-work methods.

A sort of experience meeting held by the members who had met last Saturday, expecting to listen to an address from Professor Reed, showed that much interest is being taken in the work of the association.

As regards the question of the proper ration to use, there seemed to be a wide divergence of opinion.

Following a natural preference for the breed, I suppose, I am milking Jerseys. The ration I am feeding is silage 20 pounds, alfalfa 5 pounds, shorts 2 1/2 pounds, and cottonseed meal 1 1/2 pound. With this ration last month eight cows each gave an average of 23.14 pounds of butter fat, ranging from 14.7 pounds to 34.4 pounds, depending upon the period of lactation. Four heifers with their first calves gave an average of 30.75 pounds at a cost of \$3.75 each.

Undoubtedly one of the best results of the work of the association will be to teach us farmers how unbusinesslike is the way we conduct our affairs, trusting rather to guesswork when exact knowledge could be had with so little trouble.

Mr. Wilcox reported that his best cow had given 92 pounds of butter fat the month just past.—S. GOLDSMITH, Abilene, Kan.

April Cow Testing Report.

The first published monthly report of the Pioneer Cow Testing Association of Dickinson County, was printed in KANSAS FARMER issue of May 17, and accompanying which report was some comment of interest—and we hope of value to every dairy farmer reader.

The monthly report of the same association for the thirty days ending April 30, is given below. This is submitted by A. B. Wilcox, secretary of the association. The report gives the showing of the 24 best cows in the association for the month. Mr. Wilcox adds: "We are beginning to realize the great benefits to be derived from having our cows regularly tested. The testing shows the exact value of each cow and enables us to cull out our poor cows and save the calves from the best. More than this, the report shows that we are finding many really valuable cows—cows much better than we thought we owned. We are also getting practical lessons in the feeding and care of cows and the proper care of the milk, all tending to make dairying more pleasant and more profitable. I can see no reason why dairying on the average farm could not be made to pay well for all feed and labor and at the same time build up—not only maintain—the fertility of the soil."

Name.	Breed.	Milk.	Pounds	Per cent	Pounds Butter.
1. Jess, S. H.	...	1,182	3.7		43.78
2. Elsie, S. H.	...	1,287	3.5		45.04
3. Princess, Jer.	...	765	5.9		45.13
4. Sue, Hol.	...	969	4.5		43.60
5. Bluebell, Hol.	...	1,284	4.3		55.21
6. Ixia, Jer.	...	771	6.2		47.8
7. Dina, Jer.	...	984	4.9		48.21
8. Wheeler, Jer.	...	867	4.8		41.51
9. Star, Hol.	...	1,215	3.4		41.35
10. Nig, Hol.	...	1,275	3.3		41.08
11. Princess, Hol.	...	1,380	2.9		40.45
12. Black, Hol.	...	1,167	3.7		43.06
13. Mot, S. H.	...	1,089	3.7		40.29
14. Sue, R. P.	...	1,008	4.		40.30
15. Bess, R. P.	...	1,092	4.		43.68
16. Whitie, S. H.	...	915	4.5		41.17
17. Bones, S. H.	...	1,410	3.7		52.17
18. Doc, S. H.	...	1,077	4.5		48.19
19. Bill, S. H.	...	918	4.6		42.23
20. Cherry, S. H.	...	1,080	4.		43.20
21. Fannie, Jer.	...	1,062	3.9		41.42
22. Pet, Hol.	...	2,160	4.2		90.72
23. Daisy, Hol.	...	1,881	4.9		92.17
24. Frost, Hol.	...	1,473	3.3		49.33

The cows as numbered above are owned by the following farmers and members of the association: Nos. 1 and 2, J. H. Kohman; 3, S. Goldsmith; 4 and 5, A. J. Engle; 6, 7 and 8, J. R. Sterling; 9 and 10, George Lenhart; 11 and 12, A. E. Engle; 13, J. T. Leshar; 14 and 15, J. N. Engle; 16, L. L. Engle; 17, S. Rohrer; 18, 19, and 20, D. Sheets; 21, R. E. Hershey; 22, 23, and 24, A. B. Wilcox.

Keep it in the Barn

For Harness

Old Dutch Cleanser dissolves the greasy, dirty accumulations where the wear and contact comes. It gets under the uncleanness on hold-backs, traces and collar, and washes it away. Mildewed spots quickly disappear without tiresome rubbing.

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If the yield and quality are bad you must do better. If they are good it will pay you to make them better. A better fertilizer will do it. The usual wheat fertilizers do not contain enough

POTASH

Use 6 to 8 per cent. Potash, instead of 1 to 2, and balance the phosphoric acid of the bone or phosphate.

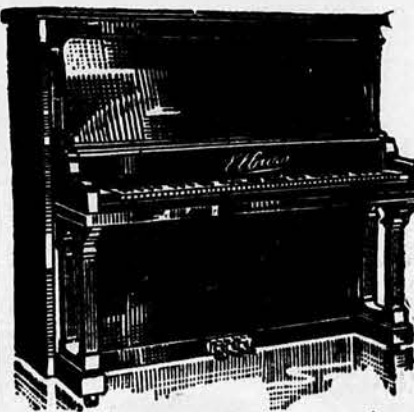
Tell Your Dealer about this Now before the fertilizer salesman arrives. Write us today for our free book, "Fall Fertilizers."

We sell Potash Salts in any amount from 1 bag (500 lbs.) up. Write for prices, stating quantity needed.

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Gentlemen—I feel that I am indebted for a great many courtesies in connection with my piano contract and I am very appreciative. Trusting to have further pleasant business relations with your house and assuring you that my piano is still in most excellent condition—Prof. D. F. Conrad, head of the piano department of Central College of Lexington, says it is the best Vose piano he ever played on. I am
(Signed) B. M. LITTLE, Supt.
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J. W. Jenkins Sons Music Company, Kansas City, Mo



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SENT ON APPROVAL.

HOME CIRCLE

The possessor of very brittle nails
should rub them at night with cold
cream or vaseline.

A leak in a water or gas pipe may be
temporarily stopped with a paste made
of soap and whiting. This, of course,
should not prevent one sending immedi-
ately for a plumber, but it will make
the waiting for him much less trying
than it usually is.

To bleach a dress or waist that has
turned yellow, have the garment clean,
then put it in a stone jar; pour in but-
termilk enough to cover the goods, and
let it stand from twelve to twenty-four
hours; then take out, wash in blue
starch, and dry. This is said to bleach
when sunshine, freezing and borax have
all failed.

After basting the seams and fitting
your thin dresses and underwear, put
the small hemmer on the machine and
sew up the seams, being careful to see
that the bias side is uppermost. In this
way you have your seams finished and
stitched at the same time, and save the
work of stitching them twice, as in
French seaming.

Home Rule.

"So you think your wife is qualified
to help reform politics?"
"Well," replied the other, thoughtfully,
"she has made a success of home rule,
all right."

Valuable Tip.

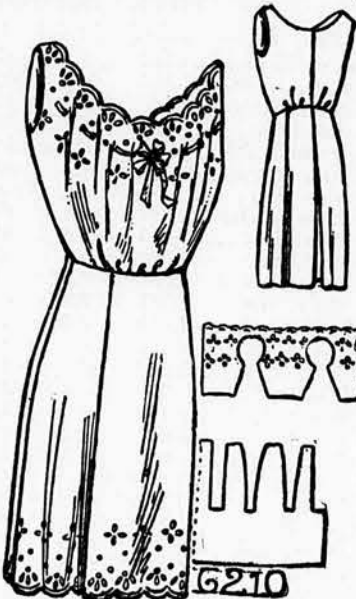
I would not exchange my American
citizenship for a pass into Paradise, even
if the pass was good for a return trip.
Do you know, I have a valuable tip for
any one who might desire to write a
book on how to behave at court. The
first and last thing to do is to laugh.
I always laugh when I am in the
presence of a king. As a general rule
the monarch does not mind. He usually
knows himself that he is something of a
fakir, so he laughs with me.—ANDREW
CARNEGIE.

Uses of Whalebone.

The function of whalebone in the life
of the whale is of the utmost import-
ance. The inner edges of the whale-
bone-plates are frayed into innumerable
hairlike processes and the whole forms
a sort of sieve whereby the whale may
sift out its food from the seawater. It
must be remembered that the food of
this gigantic creature consists chiefly
of minute organisms, crustacea, mollusca,
etc., floating near the surface.

When the whale opens its mouth and
moves along a great multitude of these
minute forms of life find their way in.
Then the whale closes its mouth and the
water is strained out through the whale-
bone sieve and the food is retained.

The common uses of whalebone are
known to everybody. It is, however,
put to two uses not generally known
even in England, where the fine inter-
nal fringes mentioned are employed in
the making of barristers' wigs. By rea-
son of their lightness they retain the
curl better than does ordinary hair. Fine
whalebone threads are also sometimes
employed to stiffen the tissue in high-
grade silks.—American Woman.



No. 6210—Misses' One-Piece Corset Cover
and Petticoat. This garment may be made
as a combination, or in two separate parts,
as preferred. Embroidered flouncing may
be used for both corset cover and petticoat,
or plain material with a lace or embroidery
edge. If made in two garments, the corset
cover may open in front or back. The
pattern, No. 6210, is cut in sizes 14, 16
and 18 years. Medium size requires for the
petticoat 2 yards of 24-inch embroidery and
for the corset cover 1 1/4 yards of 16-inch
flouncing. In plain material 2 1/4 yards of
36-inch material will make both garments.
Price of pattern, 10 cents.



What Salt Is in It?

Your butter may just fall short of
the perfection that commands the
highest price.

Ordinary salt fails to bring out
full flavor.

The fine, even grains of Worces-
ter Salt melt right into the butter.
Its absolute freedom from bitterness
insures that full and complete savor
and tastiness which command the
highest market price.

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The Salt with the Savor

Send us your dealer's name and address
and we will mail you, free of charge, our
booklet, "Butter Making on the Farm."



For farm and dairy
use, Worchester Salt is
put up in 14-pound
cotton bags and 28 and
56-pound Irish linen
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everywhere sell Wor-
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Your Allegiance to "Uncle Sam" and
take up your abode where the grow-
ing season is short and the climate is
rigorous, when the very best land
that the sun shines on is in the
United States, and where, in many
places, you can work outdoors almost
all the year 'round?

If you think of moving from your
present location, ask me where to ob-
tain good land at reasonable prices.
Say what state you prefer and I will
send information to you free.

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Send us this ad with \$10.00 Money Order
and we will ship you one first-class new 40-
pound Feather Bed; one pair 6-pound new
Feather Pillows, worth \$2.50; one 6-pound
new Feather Bolster, worth \$2.50; and one
pair full size Blankets, worth \$3.50, all for
\$10.00. All new goods and no trash. Big-
gest bargain ever offered. Satisfaction
guaranteed. This offer is good for a short
time only. Mail money order now or write
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FINE DAIRY FARM

240 Acres, highly improved, in high state of cultivation; good orchard, silo, alfalfa; near best college town. \$52 per acre. Write for farm list. **T. B. GODSEY**, Emporia, Kan.

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—200 Acres Fine Bottom Land, above overflow; virgin timber, near railroad. \$4,000, terms. Also handle exchanges everywhere. List free. **BURROWS**, Warm Springs, Ark.

640-ACRE HOMESTEAD in Nebraska, Platte Reserve, open to entry after October 1, 1913. Send \$2.00 for complete map to **A. J. VAN ANTWERP**, County Surveyor, Broken Bow, Neb.

FARMS AND RANCHES FOR SALE—Wheat, corn, alfalfa and grazing land; any size tract you want, from 80 acres to 16,000 acres, from \$10.00 to \$60.00 per acre. This is the banner wheat county. Write me for list. **C. E. SETTLE**, Coldwater, Kan.

KINGMAN 1,120 a. solid body, 350 cult., 500 bot., fair bids, near market. **COUNTY** price \$32.50, half cash, bal. at 5% RANCH per cent. **JOHN F. MOORE** LAND CO., Kingman, Kansas.

WE TRADE OR SELL ANYTHING ANYWHERE. The Realty Exchange Co., 18-22 Randall Bldg., Newton, Kan.

THE BEST OF ALFALFA LAND to be had. Will yield from \$50 to \$100 per acre. Can be had at a very low price and on the best of terms. **J. D. RENEAU**, La Cygne, Kan.

ALWAYS HAVE Just what you want in farm or city property. A new list just out. Write for it. List your sale and exchanges with me. Hardware for sale. **ED A. DAVIS**, Minneapolis, Kansas.

GEORGIA: McDuffie County's large plantations offered in small tracts, well located and improved, \$15 to \$25 acre. Fine public roads, telephones, grain, cotton, fruits, live stock grow to perfection; ideal climate, fine citizenship. Free booklet. President Board of Trade, Thomson, Ga.

FINE 160 A. FARM, lime stone soil, good house, barn, etc. Nicely located. Will produce wheat, corn, clover, alfalfa. Part cultivated, balance pasture, meadow. Close to Fredonia, Kan., in oil gas belt. Will take \$40 a. and is worth \$75. Address **Overer, Lock Box 807, Fredonia, Kan.**

IDEAL DAIRY FARM—320 acres, 1 1/2 mi. of Utica. Seven-room house, large outbuildings, spring, large grove, orchard, alfalfa, all tillable land; 160 pasture; in Utica High School district; black loam soil, well and mill. This will suit you if you want something good. Price now only \$7,000. Easy terms of \$3,500 cash, balance long time. **Buxton Land Co., Utica, Ness Co., Kansas.**

Fine Home, Little Money—160 acres, 4 miles southwest Sharon Springs; plenty buildings, good wells, 40 acres suitable for alfalfa, 8 to 10 feet to water; fenced; \$5 acres in cultivation. Price, \$1,600; \$580 cash, \$440 due January, 1914, without interest, \$480 on or before 3 years at 5 per cent interest. Come and you will buy. **Harry C. Wheeler, Sharon Springs, Kansas.**

OPPORTUNITY KNOCKS At every man's door. This knock is for YOU, if you have money to buy one of the best farms in Kansas, not far from Kansas City and adjoining one of the richest cities in Kansas. Will earn 10 per cent net this year. \$20,000 will handle, balance long time, 5 per cent. **JOHN A. KERR**, Independence, Mo.

Forced Sale—160 Acres, Unimproved, close to school, church and inland town. Every foot nice smooth plow land, splendid investment. Price, \$6.00 per acre. No trade. **D. E. Carter, Bonded Abstractor, Leoti, Kan.**

FOR SALE—On account of sickness, must be sold quick at the price, \$40 per acre with good terms—320 acres, 10 miles from railroad; 230 acres farm land, balance pasture; 30 acres alfalfa, hog-tight; good 8-room house, good barn 54x76. **W. T. JOHN, Athol, Kan.**

DICKINSON COUNTY BARGAINS. We have many fine creek and river bottom farms, also splendid upland farms for sale. Soil deep rich black loam, producing the big corn, wheat and alfalfa. Our prices are reasonable. Write for terms and list. **Briney, Pautz & Danford, Abilene, Kan.**

THE GREAT SUMNER COUNTY produces good crops corn, wheat and alfalfa when crops fall in other portions of the state where land is double the price. Write for list of bottom and upland farms for sale. **WM. HEMBROW, Caldwell, Kan.**

FOR SALE—60 Acres—All bottom land; some timber, running water, small improvements, 3 miles from Manhattan, the seat of the largest agricultural college in United States. Price, \$6,500.00. **Bardwell Real Estate Co., Manhattan, Kan.**

SPLENDID CORN FARM—147 a., nearly all under cultivation, nearly all Dragon bottom above overflow; fine corn, wheat and alfalfa land; 4 mi. Burlingame, 5 mi. Osage City, Osage Co., Kan. Fair improvements, fine location. Price, \$10,000, half down. Ask for list. **F. C. BRACKNEY, Burlingame, Kan.**

THIS IS A SNAP

160 acres nice level land, 12 miles from Dodge City, Kansas, 2 miles from switch on D. C. & C. V. Ry. Co. 100 acres fenced with two-wire fence, 60 acres in wheat, one-third goes with place. \$23 an acre. **H. B. BELL LAND COMPANY, Commerce Building, Dodge City, Kansas. Phone 2.**

For Sale—Small up-to-date dairy; Eight cows, milk wagon, established route. All hours per day delivers milk. Five-room house 16 x 34, barn with shed, cement floor in barn, brick floor in shed; electric lights in house and barn; two blocks to car line. A money maker. Price, \$3,000; \$2,000 cash, balance time. **F. H. BOCK, 1755 Arkansas Avenue, Wichita, Kansas.**

The GRANGE

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Sec'y.....C. M. Freeman, Tippecanoe City, O.

Picnic Advertisers Grange Advantages. The Grange picnic is a splendid thing. It has become popular in nearly all the Grange states. These picnics are advantageous for the purpose of assembling all the members of the Grange in a county or for that matter any other territory, thus enabling them to become acquainted with each other and creating an enthusiasm in the interest of the Grange. The Grange picnic also serves the purpose of attracting attention of the general public and farmers who are not members, to the order. The picnic gives them practical information of what the Grange stands for. In other words, the picnic is a good advertisement for the Grange as well as a means of pleasure and profit to Grange members. These public meetings properly handled can be made a medium for educating the farmer outside the gates and fitting him for the great work inside.

Would Work Well in the Grange.

Co-operative butchering companies are organized in many rural communities. A dozen farmers mutually agree that they will each supply one animal for butchering purposes. They butcher once in two weeks, or oftener. All the members of the association are present on killing day and the "cuts" are distributed so that account is kept of what each gets so that at the next killing some one else will have a chance at the choice cuts. Nobody eats liver or neck all the time. At the end of the season weights are balanced and the individual that got the least will be repaid for his deficiency, and the fellow who had the heavy animal will be reimbursed for his excess of weight. The fellow who has been the best customer will also come in to refund for his excess. The plan works excellently in districts remote from regular meat markets and will be found to be a money saver for any farming community.

Coffey County Valley Grange.

Coffey County Valley Grange No. 336 met in regular session the fourth Friday of March. It was voted to unite with Union Grange and the farmers' institute in asking Professor Steiner to give his lecture on "The Home Beautiful" at our first meeting in April, and to have an open meeting for the public at that time. Our lecturer is to arrange a memorial service for O. J. Kelley, including our own deceased members.

Our first meeting in April was the open meeting, and well attended. After "America" was sung by all, Professor Steiner sang "The Man Behind the Plow." The lecture was interesting and practical. The views were excellent. One Granger who wanted to know how to stretch his pocketbook to make the home beautiful learned one way from two views of the same home—before and after—transformation due to a 10-cent packet of flower seeds. The program closed with a song, "Home Sweet Home." Already many suggestions of Professor Steiner are being followed, and this good seed planted will surely grow.—**MRS. BELLE CELLAR.**

Official Testing Pays.

This is the day of official test for all breeders of dairy cattle. Breeders have discovered that testing pays. It adds value to the animals tested as well as to their breeders. M. E. Moore & Co., Holstein breeders, Cameron, Mo., have been making some seven-day tests. Among the cows tested is a heifer one year and ten months old. She is Shadybrook Gerben Korndyke, granddaughter of old Shadybrook Gerben of world's fair fame. This heifer bids to equal her illustrious granddam, who was never beaten in butter test by any breed, by producing within a small fraction of 17 pounds of butter in seven days.

Readers wishing to purchase Jacks will please look up the offer of Louis Koenig, Solomon, Kan. Mr. Koenig is going out of business and has two Jacks 16 and 18% hands high. They will be five and six years old next July. When writing please mention Kansas Farmer.

TO EXCHANGE—Western Kansas land and other property. Submit propositions. **V. E. WEST, Ransom, Kansas.**

1,000 ACRES OF WHEAT LAND WANTED. Not farther out than Trego County. Give good description in the first letter. Must be priced worth the money. Don't care for any improvements. **BOX NO. 1, LA CYGNE, KAN.**

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items or stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 500,000 readers for 4 cents a word for one week; 8 cents a word for two weeks; 13 cents a word for three weeks; 14 cents a word for four weeks. Additional weeks after four weeks, the rate is 3 1/2 cents a word per week. No "ad" taken for less than 50 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

HELP WANTED.

WANTED—MEN WITH KODAK OR camera to take farm views in Kansas for Kansas Farmer, Topeka, Kan. Write for particulars.

FREE ILLUSTRATED BOOKLET TELLS about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you sure and generous pay lifetime employment. Just ask for booklet \$-609. No obligation. Earl Hopkins, Washington, D. C.

WE WANT A MAN WITH RIG, FARMER preferred, to drive our representative and introduce him to farmers who should buy old line life insurance from one of the best companies doing business in Kansas. Good pay. Reference, any bank in Topeka. Address **J. E. Spalding, Topeka, Kan.**

MEN AND WOMEN WANTED FOR GOVERNMENT positions. \$60 to \$100 month to commence. Vacations. Steady work. Over 12,000 appointments this year. Parcel post requires several thousand. Influence unnecessary. Write immediately for free list of positions. Franklin Institute, Dept. 085, Rochester, N. Y.

SALESMAN—TO SELL HIGH GRADE guaranteed groceries at wholesale direct to farmers, ranchmen and all consumers. Earn \$4 to \$10 and up per day. A big chance to get into business for yourself. Save the buyers the retailer's profit. Every customer is a permanent one. Demand constantly increasing. Latest plan. **K. F. Hitchcock Hill Co., Chicago.**

GOOD PAY AND PERMANENT BUSINESS connection for one man in each county in Kansas, Nebraska and Oklahoma to look after established business. \$25 or better per week at start can be made, working small towns and rural routes. Good chance for rapid advance in earnings. Complete outfit free and credit given. Previous experience unnecessary. Write at once. Fireside Sales Co., 623 Jackson St., Topeka, Kan.

SHEEP

REGISTERED SHROPSHIRE SHEEP. Special prices on yearlings, twos, and my herd ram, three years old. Also a few yearling ewes. **D. E. Gilbert, Beloit, Kan.**

BEE SUPPLIES.

BEE SUPPLIES, ROOTS GOODS, SEND for catalog. **O. A. Keene, 1600 Seward Ave., Topeka, Kan.**

PATENTS

SEND FOR FREE BOOKLET, ALL about patents and their cost. **Shepherd & Campbell, Patent Attorneys, 500-R Victor Bldg., Washington, D. C.**

REAL ESTATE.

LIST YOUR TRADES—GIVE COMPLETE description first letter. **Frank King, Atlanta, Ga.**

BARGAIN—A NICE SMOOTH 80 ACRES of tillable land, only 7 miles from Salina; \$3,200.00. Write for list. **V. E. Niquette, Salina, Kan.**

CALIFORNIA LAND. SEND FOR CAT-alog. Properties in all counties. Valuable, reliable information. **C. M. Wooster Co., Phelan Bldg., San Francisco.**

FOR SALE—TERMS: TWO FINELY improved tracts; 20 acres Atlanta, 2 1/2 acres Winfield, Kan. Good rental. Save commission. Owner, **Frank King, Atlanta, Kan.**

160 ACRES, GROVE COUNTY—LAND well improved, all fenced, 90 acres broken. Price, \$3,200; \$1,000 cash, balance easy terms. **C. H. Gonder, 217 Temple Block, Kansas City, Mo.**

FOR SALE—SUBURBAN HOME AT 324 South East Street. All modern. Nine rooms, wash house, cistern and city water, good barn, fine fruit; 8 acres. **G. W. Hurley, Emporia, Kan.**

EIGHTY ACRES—35 ACRES IN CULTI-vation, balance fine timber; 2-room frame house, barn, wagon shed, hen house, workshop, smoke house, cistern, paved garden, bearing orchard, on two public roads, convenient to school, church, store and post office. For quick sale, only \$10.00 per acre. Terms on part. **Crain, Licking, Mo.**

COME TO MARION, KAN., THE IDEAL home town. Can sell you a choice plot 150 x 50 feet with two-story frame house, eight rooms (one unfinished), modern improvements except bath tub, good barn, fine old shade, on corner paved street, handy to high school. Price, \$3,000, on terms. Here is merit for home or investment. **Box 117.**

VIRGINIA FARMS.

WRITE FOR LITERATURE DESCRIB-ing great bargains in Virginia farm lands. Venable & Ford, Lynchburg, Va.

WYOMING.

COME TO PINE BLUFFS, WYOMING, where farming pays—where 1,000 cars of grain were shipped out last season—where on an average the crop each year on every acre under cultivation more than pays for the land—where oats yield 35 to 100 bushels per acre, wheat 30 to 40 bushels—where the land cultivated easily—where we have fine climate and ample rainfall—where those who are here have made good. Will refund your expenses if these statements are untrue. I own 30,000 acres of virgin soil, stored with the untold riches of centuries, which I offer for sale at \$10 to \$25 per acre on terms within your reach. Let me send you descriptive literature. **C. L. Beatty, Pine Bluffs, Wyo.**

WILL TRADE my \$3,700 automobile for a Kansas farm. Must be unencumbered. Auto is in good condition. One of best makes. Address **Auto Man, Care Kansas Farmer, Topeka, Kan.**

CATTLE.

SOME CHOICE JERSEY BULLS THAT must be sold quick. Two nearly ready for service. **Chester Thomas, Waterville, Kan.**

REGISTERED HOLSTEIN BULL, TWO years old, for sale. **W. Hilands, Culver, Kan.**

A FEW HIGH-GRADE HEIFER CALVES two to four weeks old, \$15 each. **Burr Oak Farm, Whitewater, Wis.**

WELL BRED GRADE HOLSTEIN BULL calves crated at \$20 per head while they last. **Arnold & Brady, Manhattan, Kan.**

REGISTERED HOLSTEIN HERD—BULL and bull calves of choice breeding. Price reasonable. **Carl Snyder, Route 7, Topeka, Kan.**

FOUR REGISTERED JERSEY BULL calves from the best families, from two to six months old. Your choice for \$30.00. **B. Salisbury, Tescott, Kan.**

FOR SALE—35 HEAD HOLSTEINS, 3 TO 6 years old, fresh and springing; also Jerseys, Guernseys, a few fawn Jersey heifers, bred; special prices; satisfaction guaranteed. **Jack Hammel, 215 Adams St., Topeka, Kan.**

FOR SALE—75 HEAD OF YOUNG dairy cows, just shipped in from Minnesota. Jerseys, Guernseys and Holsteins. Prices reasonable for quick sales. Also have some extra fine 2-year-old bulls. **O. N. Himelberger, 405 Fillmore St., Topeka, Kan.**

HORSES AND MULES

FOR SALE—22 HEAD OF 3-YEAR-OLD mules, well broke. **H. Frusher, Riverside, Ness Co., Kan.**

DOGS.

SCOTCH COLLIES—WESTERN HOME Kennels, St. John, Kan.

FOR SALE—SCOTCH COLLIE PUPS. Sable and White stock farm. **U. A. Gore, Seward, Kan.**

YOUNG MAN

YOUNG MAN, WOULD YOU ACCEPT and wear a fine tailor-made suit just for showing it to your friends? Or a Slip-on Raincoat free? Could you use \$5 a day for a little spare time? Perhaps we can offer you a steady job. Write at once and get beautiful samples, styles and this wonderful offer. **Banner Tailoring Co., Dept. 321, Chicago.**

SEEDS AND PLANTS.

WE NOW HAVE ABOUT 5,000 BUSHELS of fine Whippoorwill Cowpeas that show excellent germination. We will make farmers in Kansas and Missouri price of \$2.75 per bushel, sacked, freight prepaid, in five or ten-bushel lots or more. Good cowpeas are scarce. Let us hear from you. We refer you to any bank in Ft. Scott. **Brooks Wholesale Co., Ft. Scott, Kan.**

HOGS.

350 BIG-TYPE MULEFOOT HOGS FOR sale. **Dunlap, Williamsport, Ohio.**

REGISTERED DUCRO SPRING PIGS, both sexes. Bred gilt. Yearling and aged boars. Prices reasonable. **James Weller, Faucett, Mo.**

MISCELLANEOUS.

ROOFING COMPOSITION, SLATE, TILE, sheet metal, tinwork. **Rinner & Warren, Topeka, Kan.**

WE PRESS, CLEAN, DYE, MAKE AND repair clothes. **Glenwood Cleaners, Topeka, Kan.**

H. W. BOMGARDNER, FUNERAL DI-rector. Excellent new chapel. Best attention. **Topeka, Kan.**

HOW TO TRAIN ANIMALS. CIRCUS men's methods, 20 cents. **Charles Olive, Danube, Minn.**

FOR SALE AT BARGAIN—ONE HART-Parr Gas Tractor, 30-60, and eight 14" bottom John Deere plows. In first class shape, only run 36 days. Reason for selling, have quit farming. Address **Box 82, Clyde, Kan.**

LUMBER—ENORMOUS SAVING IN BUY-ing direct from mill. Send list of material for estimate. Write today for catalog number 48. **Keystone Lumber Company, Tacoma, Wash.**

LADIES—WE SELL THE LATEST hand bag made. Lasts for years. Guaranteed. Strong, serviceable and stylish. Write today. **The Star Supply Co., Creighton, Neb.**

MAIL PRESCRIPTIONS TO GIBLER'S drug store. Filled correctly, sent parcel post. **Topeka.**

BEST MANURE LOADER—ONE MAN and team loads 50 loads manure a day. Cornstalks, stack bottoms, loaded easily as dirt. Write **Anderson Mfg. Co., Osage City, Kan.**

W. L. PHILBRICK, COUNTY CLERK, Hamilton County. Taken Up—One brown horse, male, about 900 pounds, 12 years old, "h" on left jaw, "G" on left shoulder, scar of wire cut on left fore leg. Appraised value \$25.00.

TAKEN UP—STRAY SORREL MARE, weight about 500 pounds, 9 years old, strip in face, three white feet, branded MS on right hip, 1A (inverted) on left shoulder, flying W on left shoulder, ISI and RII on left hip. **H. T. Bandy, Kanorado, Kansas.**

WANTED—TO BUY THREE GENTLE Shetland ponies. Must be sound and young and weigh between 300 and 600. Send photo if you have it. Address **P. O. Box 82, Topeka, Kan.**



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An engine that you can bet your last dollar on to work right in all kinds of weather—a fuel saver—an easy starter—a steady worker.

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From 1 1/2 to 60 H.P. Stationary, Portable, Semi-Portable Types.

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Seven years in use. Proved and Perfect. Makes best Silage—(Wisconsin Experiment Station Test). Permanently Proof Against Cracking, Shrinking and Blowing Down.

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"OHIO" 1913 Model



The Silo Filler With the Direct Drive

Wonderful improvements of 1913 "Ohio" eclipse anything ever before produced. One lever controls all movements—reverses by wood friction at finger pressure. Self-feeder—with famous "Bull Dog" grip. Patented Direct Drive—Shear cut—non-clogging, non-clogging. Enormous tonnage on half inch cut—50 to 250 tons a day—6 to 15 h. p. 20-year durability. "Ohio-cut" silage famous—cuts all crops. Used by Experiment Stations everywhere. Guaranteed. Many big new features this year.

Write for free catalogue, also send 10c for 24-page book, "Modern Silage Methods."

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WRITE FOR BOOK

FARMERS CAN GET THIS NEW MAGAZINE FREE

Farmers Can Get This New Magazine Free. Railroads are in the magazine field as one of the ways of advertising the country they serve. There are towns that need more and better stores, more manufacturing enterprises to employ their surplus labor and to work up their raw material, and more farmers to till the lands adjacent.

The Kansas City Southern Railway Company has a new magazine out in April, THE CURRENT EVENTS, with a beautiful cover design, indicative of its resources. An especial feature of this issue is an article on the Gulf Coast, America's Mediterranean. This is now the best stock and general farming country and is rapidly developing into the growing of semi-tropical fruits and winter vegetables.

The entire Kansas City Southern line traverses a region of ample rainfall and a crop is assured every year. The Ozark district is celebrated for its fruits and as being a splendid home country.

This magazine and other illustrated literature will be mailed free on application to Wm. Nicholson, Immigration Agent, 454 Thayer Building, Kansas City, Mo.

St. Joseph Veterinary College

Thoroughly modern three years' course in veterinary medicine leading to the degree of D. V. M. College recognized by the U. S. Department of Agriculture. Modern and completely equipped laboratories. Unexcelled clinical facilities. For prospectus address

DR. F. W. CALDWELL, DEAN,
St. Joseph, Mo.

POULTRY

Those who have no pure-bred chickens can often get a bargain at this time of year from those breeders that are through with their breeding stock for the season.

Now is the time to have a general clean up in the poultry yards. The hatching season is about over, and all old stock not needed for next year should be disposed of.

The poultry houses should be sprayed with whitewash and carbolic acid, and the yards should be spaded up, so as to get rid of the accumulated foulness that has been piling up for some time.

As the weather gets warmer it is necessary to gather the eggs several times a day, for if left in the nest boxes, the hens sit on them and incubation starts at once and spoils the egg for cooking purposes. To get absolutely fresh eggs in hot weather it would be well to keep the males away from the hens. Sell all the males you do not need—pen the balance by themselves.

No matter how handsome a hen is, or how much of a pet, if she does not lay eggs enough to yield a good, substantial profit, she should be disposed of as food, for no poultryman can afford to keep hens at a loss, or even when they just a little more than pay for their keeping. Weed out the drones, should be the slogan, not only of the poultryman, but of the bee keeper, the dairyman and general farmer, for the unprofitable stock eat up the profits of those that are profitable. So what does it profit a poultry breeder to keep two hundred hens when one hundred good ones will bring him in more money than the two hundred.

"Blessings brighten as they take their flight," is a true old saying, and we often fail to appreciate them till they are gone. If the farmer who thinks the old hen a nuisance, was deprived of his fresh eggs for breakfast or his roast chicken for Sunday's dinner, he might think the hen was of some benefit after all. Often the farmer fails to appreciate the blessings of the family cow and the industrious hen, because the fresh milk and eggs come so easily and naturally, but let him go to market and pay high prices for his milk, butter and eggs as we city folks do, and he would soon change his tune as to the profit of keeping cows and hens. In computing the profits of his farm, the farmer too often forgets the milk, butter eggs and fowls that are consumed at home, and reckons only what he receives in cash. This is a wrong system of book-keeping, for everything used in the home is equivalent to cash. But "we never appreciate the water 'till the well goes dry," nor will we fully appreciate the old hen 'till she goes on a strike or takes a long vacation during the summer months.

How to Feed Chicks.

Difficulties in feeding chicks are due to feeding too soon after hatching, and from giving them grain that has heated or is slightly musty or moldy.

The chicks should not be fed until 36 to 72 hours after hatching. If they appear eager for food, feed them when 36 hours old, otherwise it will do no harm to wait until 72 hours after hatching, according to William A. Lippincott, head of the poultry husbandry department at the Kansas Agricultural College.

The best food for the first feeding is pinhead oats. This is simply oats with the hulls removed. Oatmeal is not so desirable. The oats should be accompanied by grit and water.

On the second day add to the oats, cracked kafir and cracked wheat. Change the chicks to a ration of whole wheat and kafir as soon as possible. When obtainable, supply all the skim milk that they will drink. It is sometimes soured and fed as a curd or "Dutch cheese."

The chicks should be fed often and in small amounts. Sloppy feed is not desirable. Never put out more than they will clean up. Lime must be supplied. It usually is fed in the form of ground bone.

When about four weeks old, the chicks will start ranging some, and can then be fed beef scraps in a hopper. After they are eight weeks old, all the feed can be given to them in the hopper, as the chicks get plenty of exercise while ranging.

PURE BRED POULTRY

The "Big Three" Poultry Farms MYERS & STOVER, FREDONIA, KAN. EGGS AT REDUCED PRICES FOR MAY AND JUNE

R. C. R. I. REDS, half price remainder of season. Our strain has won for years at Kansas State Poultry Shows. Golden opportunity to get the best and get it cheap. Write for special May-June prices.

INDIAN RUNNER DUCKS—American Standard, Light Fawn and White. Eggs, \$1.25 per 15; \$7.00 per 100. Pure White Runners, original Spencer strain, none better, \$2.50 per 12. Both varieties are high-class prize winning birds, heavy all-year layers, white egggers.

BOURBON RED TURKEYS—Eggs, \$3.00 per eleven.

ORPINGTONS.

WHITE ORPINGTON EGGS, \$2.00 PER 15—\$10.00 per 100. Special price on larger amounts. Ed. LeClere, Central City, Iowa.

GUARANTEED PURE-BRED S. C. White and Buff Orpington eggs, \$1.50 per 15. J. A. Blunn, Sta. A, Wichita, Kan.

BIDE-A-WEE BUFFS—EGGS FROM winners. Mating list free. Roy J. Lucas, Agra, Kan.

BUFF ORPINGTONS—SPECIAL SALE. Big reduction in price of breeding stock of my prize winners at Kansas City, St. Joseph, Topeka and Des Moines. Eggs and baby chicks. H. F. Farrar, Axtell, Kan.

PLYMOUTH ROCKS.

BUFF ROCKS—EGGS, 15, \$1.00; 45, \$2.50; 100, \$4.50. W. Hilands, Culver, Kan.

RETURN AD WITH DOLLAR; GET 15 Barred Rock eggs, prepaid. L. R. Connor, Lexington, Mo.

BUFF PLYMOUTH ROCKS—EGGS AND baby chicks at reasonable prices. Mrs. Fred Miller, Wakefield, Kan.

BARRED ROCK EGGS, \$5.00 PER HUN- dred. Write for catalogue. Harry E. Duncan, Humboldt, Kansas.

THOROUGHbred BARRED PLYMOUTH Rocks—Farm flock, large size. No pens. Eggs, \$3.00 per 100. Mrs. Will Bocker, Solomon, Kan.

PURE-BRED BARRED ROCKS, FARM raised. Good stock. Eggs, 15, \$1.25; 30, \$2.00; 100, \$5.00. Mrs. John Yowell, McPherson, Kan.

BARRED PLYMOUTH ROCKS EX- clusively—Ringlet strain; good layers, rich color, fine, narrow, regular barring to the skin and good size. \$2 per 15 eggs. L. P. Coblenz, La Harpe, Kansas.

BUFF ORPINGTON EGGS FOR HATCH- ing from our prize winners at Kansas State, Newton and Hutchinson shows, \$2 to \$5 per 15. Special discounts shown in our fine mating list. Eggs, half price after May 15. Wichita Buff Orpington Yards, Wichita, Kan.

LEGHORNS.

SINGLE COMB BROWN LEGHORN PUL- let mating only Topeka and Wichita. Winners 32 years with this breed. Eggs, 15, \$1.00; 100, \$5.00. Tiff Moose, Osage City, Kan.

SEVERAL BREEDS.

PURE-BRED EGGS, SIXTY VARIETIES. Quick delivery. Catalog free. Jordan Poultry Farm, Coffeyville, Kan.

EGGS—BARRED, WHITE, BUFF ROCKS; Reds, Wyandottes, Langshans, Brahmas, Orpingtons, Leghorns. 15, \$1.25; 100, \$5.00. Toulouse Geese, \$1.75 per ten. Turkeys, \$2 per seven. Monroe Poultry Yards, Monroe, Iowa.

DUCKS AND GESE.

INDIAN RUNNER DUCK EGGS, \$1.25 per setting. Gertrude Haynes, Meriden, Kan.

WHITE RUNNERS—EGGS, \$2.25 PER 12, prepaid. W. Hilands, Culver, Kan.

INDIAN RUNNERS, FAWN AND WHITE. Eggs, \$1 per 15. Baby ducks, 25c each. J. W. Fretz, Bosworth, Mo.

WHITE INDIAN RUNNERS—THIRTY- nine premiums. Cleared \$50 per duck. Booklet free. J. H. Drake, Nickerson, Kan.

AMERICAN FAWN AND WHITE RUN- ners. Eggs, \$1.00 per 12; \$3.00, 40. W. Hilands, Culver, Kan.

INDIAN RUNNERS OF QUALITY. AM- erican Standard Light Fawn and White. Eggs, \$1.50 and \$2.00 per 15. Ed. H. Killan, Manhattan, Kan.

WHITE INDIAN RUNNERS, SPENCER and Dun strains. Eggs, \$3.00 per 13; \$5.00 per 26. Golden Fawn and White Runners, Pen 1, \$1.50 per 13 eggs; Pen 2, \$1.00 per 13. Absolutely white egg strain. Circular. Mrs. E. F. Lant, Dennis, Kan.

RHODE ISLAND REDS.

PURE SINGLE-COMB RED EGGS, 18, \$1.00; 100, \$4.00. Gertrude Haynes, Meriden, Kan.

SINGLE COMB REDS—100 EGGS, \$3.50; 30, \$1.25. Mrs. Rosa Janzen, Route 3, Geneseo, Kan.

R. C. R. I. REDS—HIGH SCORING heavy laying strains; \$1.50 per 15; \$4.50 per 100. Mrs. O. Fitzsimmons, Yates Center, Kan.

EGGS FROM S. C. REDS THAT ALWAYS win. Choice cockerels for sale. Write for mating list. Moore & Moore, 1239 Larimer Ave., Wichita, Kan.

ROSE COMB RED EGGS, FROM PENS mated to roosters costing from \$10 to \$30. Eggs at sacrifice prices after May 25: Fifteen eggs, \$1.00; 30 eggs, \$1.75, and 50 eggs, \$2.50. Also a few extra good roosters at \$2.50 and \$5.00 each, and good hens at \$1.00 each. W. R. Huston, Americus, Kan.

HAMBURGS.

SILVER SPANGLED HAMBURGS IN ALL their purity. Eggs, 15, \$2.00; 30, \$3.50. Harry Inman & Sons, Route 1, Keokuk, Ia.



MEN WANTED IN AUTO BUSINESS

Big demand for trained men. Earn from \$75.00 to \$150.00 per month. Learn all about automobiles in six weeks by THE "SWEENEY SYSTEM" of practical experience. In our machine shop, garage and on the road you learn by actual experience how to repair, drive, demonstrate and sell automobiles. Send for free catalog explaining The "Sweeney System" and showing views of the largest and best equipped auto school in the world. Write today. Now.

SWEENEY AUTO SCHOOL,
1324 Woodland
Kansas City, Mo.

PURE BRED POULTRY

LANGSHANS.

EXTRA BIG-BONED HIGH-SCORING Langshans, guaranteed. Osterfoss Poultry Farm, Hedrick, Iowa.

BLACK LANGSHANS—PEN, \$1.50 PER 15, \$2.75 per 30; open range, \$1 per 15, \$1.75 per 30. Good hatch guaranteed. D. W. Wolfe, Route 2, Carrollton, Mo.

BUFF COCHINS.

FOR SALE—BUFF COCHINS OF QUAL- ity. Send for mating catalog. J. C. Baughman, Topeka, Kan.

LEGHORNS

S. C. BUFF LEGHORNS—EGGS FROM choice birds, 30, \$2; 100, \$4.50. J. A. Reed, Lyons, Kan.

ROSE COMB BROWN LEGHORN EGGS, 100, \$3.00. Specialty 11 years. M. E. Hoskins, Fowler, Kan.

FOR SALE—ROSE COMB BROWN LEG- horns, stock and eggs. Mrs. J. E. Wright, Wilmore, Kan.

EXTRA FINE S. C. WHITE LEGHORNS. Eggs, chicks. Superior layers. Prices reasonable. Armstrong Bros., Arthur, Mo.

EGGS FROM PURE-BRED S. C. BROWN Leghorns. \$1 for 15; \$4 for 100. H. N. Holdeman, Meade, Kan.

SINGLE COMB BROWN LEGHORNS exclusively. Choice farm flock, carefully mated. Eggs, \$3.00 per 100. Mrs. D. A. Wohler, Hillaboro, Kan.

WYANDOTTES

WHITE WYANDOTTES EXCLUSIVELY. Eggs, \$4.50, 100; \$1.75, 30. Mrs. Will Beigel, Holton, Kan.

WHITE WYANDOTTES—FOUR PENS select matings. Pure Fishel strain. Eggs for sale. Dodd's White Wyandotte Farm, Route 2, Girard, Kan.

LIGHT BRAHMA, WHITE WYANDOTTE, Indian Runner Duck eggs, half price. Ducks for sale. Mrs. Emma Ahlstedt, Roxbury, Kan.

BUFF WYANDOTTES—CUT PRICES for balance of season. Eggs from all our breeding pens at \$1.50 per 15; \$5.00 per 100. Baby chicks, \$1.50 per dozen. Mating list on application. Wheeler & Wylie, Manhattan, Kan.

BABY CHICKS.

STOCK BABY CHICKS, EGGS—LEAD- ing varieties, \$1.50 per 15; \$5.00 per 100. Quality high. Circular free. K. I. Miller, Box K, Lancaster, Mo.

FIELD NOTES

Constant & Son to Sell Bred Sows June 27. Jeff Constant & Son, Denver, Mo., owners of the famous Constant herd of Duroc Jerseys, have claimed Friday, June 27, as the date of their next sale of bred sows. On that date they will sell 20 head of high-class tried sows and gilts bred for August farrow to their great boars, W. J. C's Prince of Colonels by Prince of Colonels, I Am Bell's Chief by Ohio Chief, and their fine young boar, Constant's Crimson Wonder Again by Crimson Wonder. They will also sell 12 head of open gilts that are extra good. The sows and gilts were sired by W. J. C's Prince of Colonels and I Am Bell's Chief, both noted individuals and great breeders and out of the best sows of the herd, and Constant & Sons' herd is famous for fine sows. They will also sell eight August boars and four November boars sired by these boars and out of choice sows of the herd. This offering of young boars is one that will interest breeders, as there are several herd header prospects among them. The Constant & Son herd now numbers 200 head, and it is one of the choice herds of the corn belt. They have over 70 head of the finest spring pigs that the writer has seen this year, and will have a great fall offering. Send your address early for catalog of June sale offering, and watch Kansas Farmer for further announcement of this sale. Please mention this paper when writing.

Good Red Poll Herd.

This week we start advertising for Reser & Wagner, Bigelow, Kan., Red Poll breeders and successors to J. B. Reser, now deceased. Mr. Reser for several years maintained and bred up this herd and at the time of his death had one of the good herds of the state. The foundation stock came largely from the Charles Morrison herd located at Phillipsburg, Kan. Other good purchases were made from the different herds of Kansas and Nebraska. The present herd bull, Waverly Monarch, was bred in Nebraska. The cows in this herd are exceptionally good milkers and all of them are large. The present owners desire to reduce the size of the herd so they can give what is left better care. They are offering some large fine bred cows at reasonable prices. Write them right away, and if possible visit the herd.

The manufacturers of metal grain bins are looking forward to a big business this season. The enormous wheat crop combined with the changing prices will cause many farmers to hold the crop. The grain bins built by the Butler Manufacturing Company, Kansas City, Mo., are well known over the state, and a letter to that firm will bring prices and catalog.

Note Change of Advertisement. J. L. Griffiths, Riley, Kan., is all sold out of bred sows and gilts. A Kansas Farmer representative visited Mr. Griffiths herd recently and says the pigs are the best ever seen on the farm.

June 7, 1913

FIELD NOTES

FIELD MEN.

O. W. Devine.....Topeka, Kan.
 Jesse R. Johnson.....Clay Center, Kan.
 W. J. Cody.....Topeka, Kan.

PURE BRED STOCK SALES.

Percherons.

Oct. 21-22, 1913—Woodlawn Farm, Sterling, Ill.

Jersey Cattle.

June 11—H. J. Morris at New Cambria, Mo.
 B. C. Settles, Palmyra, Mo., Manager.
 Nov. 3—Alvey Bros., Meriden, Kan. Sale at Topeka, Kan.

Poland Chinas.

Oct. 3—Cline & Nash, Iola, Kan.
 Oct. 4—Frank Mitchell, Erie, Kan.
 Oct. 10—Wigstone Bros., Stanton, Iowa.
 Oct. 11—Freeman & Russ, Kearney, Mo.
 Oct. 16—L. V. O'Keefe, Stilwell, Kan.
 Oct. 20—H. B. Walter, Effingham, Kan.
 Oct. 21—P. M. Anderson, Lathrop, Mo.
 Oct. 22—H. C. Graner, Lancaster, Kan.
 Oct. 23—J. H. Baker & Son, Butler, Mo.
 Oct. 23—R. J. Peckham, Pawnee City, Neb.
 Oct. 25—J. W. Leeper, Norton, Kan.
 Oct. 24—A. J. Swingle, Leonardville, Kan.
 Oct. 24—A. B. Garrison & Sons, Summerfield, Kan.
 Oct. 28—M. T. Williams, Valley Falls, Kan.
 Oct. 29—Walter Hildwin, Fairview, Kan.
 Oct. 30—Hubert J. Griffiths, Clay Center, Kan.
 Nov. 3—Joe Schneider, Nortonville, Kan.
 Nov. 3—R. B. Davis, Hiawatha, Kan.
 Nov. 7—Wigstone Bros., Stanton, Iowa.
 Nov. 10—H. B. Walter, Effingham, Kan.
 Nov. 11—H. C. Graner, Lancaster, Kan.
 Nov. 11—H. L. Faulkner, Jamesport, Mo.—Old original Spotted Poland.
 Nov. 12—J. H. Harter, Westmoreland, Kan.
 Nov. 12—W. E. Long, Meriden, Kan.
 Nov. 13—J. E. Willis, Prairie View, Kan.
 Nov. 14—J. E. Foley, Oronoque, Kan. Sale at Norton, Kan.
 Nov. 17—E. Klein, Zeandale, Kan.
 Nov. 18—J. H. Harter, Westmoreland, Kan. Sale at Manhattan.
 Nov. 19—J. L. Griffiths, Riley, Kan.

Duroc Jerseys.

June 27—Jeff Constant & Son, Denver, Mo.
 Oct. 17—Moser & Fitzwater, Goff, Kan.
 Oct. 28—R. P. Wells, Formoso, Kan.
 Oct. 31—A. M. Rinehart & Son, Smith Center, Kan.
 Nov. 1—N. B. Price, Mankato, Kan.
 Nov. 4—E. S. Davis, Meriden, Kan.
 Nov. 4—Jeff Constant & Son, Denver, Mo.
 Nov. 7—Leon Carter, Asherville, Kan.
 Nov. 8—C. C. Jonagan, Albany, Mo.
 Nov. 8—C. Thomas, Webber, Neb. Sale at Superior, Neb.
 Jan. 26—R. P. Wells, Formoso, Kan.
 Jan. 27—Ward Bros., Republic, Kan.
 Jan. 28—W. E. Monasmith, Formoso, Kan.
 Jan. 29—N. B. Price, Mankato, Kan.
 Feb. 4—Moser & Fitzwater, Goff, Kan.
 Feb. 5—Samuelson Bros., Cleburne, Kan.
 Feb. 6—Leon Carter, Asherville, Kan.
 Feb. 7—Horton & Hale, DeKalb, Mo. Sale at Rushville, Mo.
 Feb. 7—E. G. Munsel, Herington, Kan.
 Feb. 10—Kansas Agricultural College, Manhattan, Kan.
 Feb. 11—Thompson Bros., Garrison, Kan.
 Feb. 12—J. A. Porterfield, Jamesport, Mo.
 Feb. 20—John Emigh, Formoso, Kan.
 Feb. 21—Dana D. Shuck, Burr Oak, Kan.

Chester White and O. I. C.

Oct. 14—George E. Norman & Sons, Newtown, Mo.
 Oct. 16—J. S. Kennedy, Blockton, Iowa.
 Nov. 3—Alvey Bros., Meriden, Kan. Sale at Topeka, Kan.
 Nov. 18—J. D. Billings, Grantville, Kan.

Hampshires.

Nov. 4—H. D. DeKalb, DeKalb, Iowa. Sale at Council Bluffs, Iowa.

Welter's Polands.

Edward Welter, of Plush, Pottawatomie County, Kan., has one of the good herds in his part of the state. He has about 35 nice pigs sired by his herd boar, Kansas Metal, a son of Gold Metal and one of the few sons of Gold Metal now in service in Kansas.

Sales Buys Boar.

W. H. Sales, Poland China breeder of Simpson, Kan., writes that he has just bought from H. B. Walter a great young boar sired by Samson Ex and out of Model Ex by old Expansive. Mr. Sales says he is an outstanding good one and he has named him "Bulck 10."

Trapshooters Hold Meet.

Seventy shooters participated in the Oklahoma state shoot at Pond Creek. Thomas J. Hartman of Tulsa, shooting Remington-UMC speed shells, won the title of champion trapshooter of the state by breaking 47 out of 50 targets and shooting off a tie with 23 out of a possible 25.

The Four County District Agricultural Society of Chanute is looking for the biggest day in the history of its grounds on Wednesday, October 8, on which occasion the A. H. T. A. will hold a picnic and a free barbecue. The dates for the fair are October 7, 8 and 9.

Harter for Fall Boars.

This week the veteran Poland China breeder, J. H. Harter, Westmoreland, Kan., offers for quick sale ten extra good fall boars. Four were sired by the great old breeding boar, Mogul's Monarch; two by Gephart, and two by Long King by Long King's Equal. These young boars are in fine breeding form. Room is something of an object just now and low prices are being made. If you need a boar, write quick.

Peckham Offers Fall Boars.

R. J. Peckham, Pawnee City, Neb., offers six big strong September boars and a couple of spring yearlings. The fall boars were nearly all sired by Blue Valley Goldust, the boar that sired the great bunch of gilts that went into Mr. Peckham's last winter sale. The spring yearlings are by the same boar, and one is out of the famous sow, Tee, Goldust. If you need a boar, get busy while they last.

Ames Sells Pigs Cheap.

This issue contains the announcement of Howard R. Ames, Poland China breeder of Maple Hill, Kan. Mr. Ames has 60 choice spring pigs now ready to ship and he offers to sell them at the low price of \$20 each for first choice, and to all who buy within the next 30 days he will pay the express charges himself. These pigs were sired by a boar that won at Topeka State Fair last year and they are out of large smooth sows and all eligible to registry. Buy now and save express. Mention Kansas Farmer when writing.

An Experienced Auctioneer.
 With this issue Col. R. L. Harriman, of Bunceton, Mo., starts a card in Kansas Farmer. Colonel Harriman is an experienced auctioneer of many years' practical experience as a breeder of cattle, horses and hogs. Colonel Harriman knows the value of all kinds of stock and has made a reputation for getting the high dollar. If you have not employed an auctioneer for your next sale, it might pay you to write or wire Colonel Harriman.

The Sunflower Manufacturing Company, Manhattan, Kan., has made a very important change in the manner of selling its new improved hay stackers. This company is now selling hay stackers direct from the factory instead of through dealers as heretofore. It is now possible to secure Sunflower stackers at greatly reduced prices because of this important change in selling policy. Stackers may now be bought direct from the factory, giving purchasers the benefit of dealers' profits. Write for prices and catalog to the Sunflower Manufacturing Company, 915 Fremont Street, Manhattan, Kan.

Dunlap's Mulefoot Hogs.
 John H. Dunlap, Williamsport, Ohio, owner of the Ohio Blue Ribbon herd, reports a big demand for Mulefoot hogs. While this breed has not been before the public as long as other breeds, it has been in existence for centuries, and is very potent, as well as being able to resist disease. Mr. Dunlap reports tests made in many different states with stock from his herd, in which the Mulefoot lived and the other hogs were lost. He has always been able to sell all the good Mulefoot hogs he can raise. No other breeder in the land has made such a record at the state fairs as has Mr. Dunlap. Just now he has over 350 Mulefoot hogs of all ages to select from. Look up Mr. Dunlap's ad in this issue and write him. Please mention Kansas Farmer.

Bert Griffiths and His Polands.
 Hubert J. Griffiths, Poland breeder, Clay Center, Kan., is one of the progressive breeders of the territory. Mr. Griffiths' father was a breeder of Polands and Bert grew up in the business and he has never taken a backward step, but his herd has shown marked improvement each year. The sow herd contains a lot of big Expansion-bred animals that are hard to beat. Several are by Hugh Corwin and Billy K. previous herd boars. His spring pigs are nearly all by the great old boar, Colossus Pan, with a few litters by Orange Lad, a son of Big Orange. Mr. Griffiths offers for quick sale some choice fall boars and a few bred gilts, also spring pigs in pairs not related.

Col. J. H. Brown.
 This issue of Kansas Farmer contains the announcement of Col. J. H. Brown, live stock auctioneer and Poland China breeder. Colonel Brown lives on and cultivates his own farm, which is located near Oskaloosa, Kansas. He has had a lifetime experience in the handling and breeding of all kinds and grades of live stock, and in this respect is especially well fitted to assist in making all kinds of sales where live stock is to be sold. He knows Polands and their breeding. And besides this, Colonel Brown is a graduate of the Missouri Auction School, having graduated from that institution with good grades, taking the course at a time in life when he could fully appreciate and digest the course of study. Colonel Brown's terms are reasonable and he wants to make or assist in sales in Kansas territory, and is especially desirous of helping on Poland China sales. Write him.

Important Improvement on Helder Tractors.
 In another part of this paper appears the advertisement of the Helder Manufacturing Company, Carroll, Iowa, announcing an important improvement on Helder tractors, namely, a simple device which permits the using of either gasoline, motor spirits or kerosene. As a gasoline tractor, their machine was a success as a practical, economical, one-man tractor. With the kerosene device which from now on becomes a part of every Helder tractor, the operating expense is not only greatly reduced, but it enables every owner of a Helder tractor to use the kind of fuel best adapted to his needs. Those of our readers who expect to look into the tractor proposition should by all means investigate the Helder tractor. An illustrated descriptive catalog and full particulars will be sent free to all who write the Helder Manufacturing Company, 540 Main Street, Carroll, Iowa.

Col. John D. Snyder.
 We had the pleasure of meeting Col. John D. Snyder, the Kansas auctioneer, at Hutchinson, Kan., this week. Colonel Snyder is one of the hard working men in business and is booking a number of fall sales for our best breeders. Colonel Snyder is well known both as a breeder of fine stock and as an auctioneer of pedigreed stock, having been identified with the Snyder Bros. at Winfield, Kan., for a number of years. With years of experience in the breeding business, Colonel Snyder has fitted himself for the auction field and is eminently qualified to render perfect satisfaction to any who may employ him. Colonel Snyder is well posted on the value of live stock, and if you want an able auctioneer for your next sale, write Col. John D. Snyder, Hutchinson, Kan., and mention Kansas Farmer.

Amcoats Has Great Bull.

Recently the writer saw for the first time in several months S. B. Amcoats's herd bull, Secret Sultan, one of the really big smooth bulls of the breed now in service in this state. Secret Sultan was a herd bull in the Bellows herd at Marysville, Mo. He is now in his two-year-old form and weighs 1,700 pounds, with fair prospects of making a 2,300-pound bull, and with his size is a splendid lot of quality and smoothness. Secret Sultan was sired by Misses Sultan by Glenbrook Sultan, he by White Hall Sultan. His dam was the fine richly bred Secret cow, Westlawn Secret 2d, by Victor Sultan. Mr. Amcoats has enjoyed an unusual trade and has sold all the females he cares to spare for the present. The calves that are now arriving are mostly sired by Happy Barmpton by Barmpton Knight and Captain Archer. A complete herd is being fitted for the local fairs. Write Mr. Amcoats at Clay Center, Kan.

Jerseys at Linscott Farm.

Never before since the herd was established 20 years ago has R. J. Linscott, Holton, Kan., had such a large number of richly-bred and high-testing cows on his farm, and never before was he so well fixed to supply the wants of customers for breeding stock. It is doubtful if any western Jersey breeder ever at one time had such a fine lot of bulls of serviceable age. Among these are sons of the great imported bull, Oakland Sultan, Gambos Knight, one of the noted bulls of past years, and some by one of the last sons of Golden Fern's Lad. There are also some extra choice daughters of the heifer calves by the great Gambos Knight. Mr. Linscott is now milking about 35 head, and practically every one has either finished

a yearly official test or is now under test. It is a pleasure to note the splendid sanitary way in which the milking is done and the product cared for on this farm. When buying Jersey cattle, buy from a herd with official records and know exactly what you are doing. When writing please mention Kansas Farmer.

Horton & Hale's Great Duroc Herd.
 Horton & Hale, DeKalb, Mo., claim February 7 as the date of their annual bred sow sale. This firm owns one of the best Duroc herds in Missouri. In fact they have one of the best herds now assembled. Their foundation stock was the best of the breed, and by using Crimson Rambler, first under six months at St. Joseph Interstate Fair, first prize winner as a yearling, also in the aged class, and a boar that proved a breeder of unusual merit, and by careful culling, they now have one of the great Duroc herds. They have about 40 head of extra fine fall gilts sired by Crimson Rambler and his son, E. A.'s Crimson Rambler, another great breeder that will go in their next sow sale. This lot will head an offering that will be hard to beat. They also have an extra lot of spring pigs sired by E. A.'s Crimson Rambler and a fine double-bred Prince of Colonels boar. This lot of spring pigs will interest breeders wanting high-class spring boars or gilts. They are out of an extra high-class lot of Top Notcher, Prince of Colonels and Pathfinder sows, also granddaughters of Oom Paul. They also have a few extra good fall boars, and breeders should keep this herd in mind this fall when selecting breeding stock. Watch for further announcement concerning their fall offering.

Look Out for Worms.
 A little precaution right now in ridding your farm animals of the treacherous stomach and free intestinal worms may save you a good many hard-earned dollars before the end of the year. It is not only positively known that these pests kill millions of lambs and pigs every year, but they also keep your stock in a thin, weak, and half-starved condition, rendering them money losers instead of money-makers. But the gravest danger from these destructive pests is the weakening of the animals' constitutional and resistive powers, making them easy victims to hog cholera, swine plague, horse plague, and other contagious diseases. It is well known that the best way to fight off these plagues is to keep every animal in the healthiest condition so it can resist the contagion, and one of the first steps is to drive out the worms. If you do this, your chances of loss will be decreased about 90 per cent. Speaking of the different remedies recommended to destroy these worms, E. C. Evans, well known live stock authority and secretary of the American Hampshire Record Association, says: "There is nothing within my knowledge as good or as cheap as 'Sal Vet.'" He is supported in this claim by many agricultural colleges and by such prominent breeders as Henry L. Wardwell, Hon. A. J. Lovejoy, president of the International Live Stock Exposition; George McKerraw & Sons, Robert Blastock, Robert Evans, Roscoe Wood, C. O. Judd, C. A. Tyler and hundreds of other leading lights in the live stock industry. Mr. Sidney R. Fell, president of the S. R. Fell Company, manufacturing chemists, Cleveland, Ohio, who make this preparation, offers in his advertisement on page 9 to send any reader of this paper a full 60-day supply of "Sal Vet" without a cent of pay in advance and with the plain understanding that if it does not do what is claimed for it, no charge will be made.

Freeman & Russ Have Big-Type Herd.
 Messrs. Freeman & Russ of Kearney, Mo., claim October 16 as the date of their annual fall sale of big-type Poland Chinas. They have one of the very best big-type herds in the corn belt, and have one of the outstanding good lots of early spring pigs that the writer has seen this year. The head of the herd is Big Superior by Chief Look Superior by Grand Look, dam Model Ex L. Big Superior is one of the best all-round big-type boars that the writer is ever seen. He will weigh 900 pounds in ordinary breeding condition, has a 14-inch bone, a head and ear almost faultless, fine back, extra good ham, good feet and all-round class and easy-feeding qualities that give him a place as one of the great big-type boars now in service. As a breeder he is making a record second to none. A large number of spring litters by this boar, also older offspring, show him to be a uniform breeder. The spring pigs are uniform in size and type and general conformation, and all are a great lot and will be one of the best offerings of the season. They also have litters by Long Wonder by A. Wonder Jumbo, dam Jumbo Jr., out of Lady Jumbo 1st. This is one of the good young boars and is showing well as a breeder. They have an extra good lot of big-type sows, among them daughters of Longfellow and out of a Colossus dam; daughters of A. Wonder, Jumbo, Big Superior and other big-type boars. The offering of Freeman & Russ this year is one that will especially appeal to breeders wanting strictly high-class breeding stock, and breeders wanting this kind should not overlook this herd. Watch for their announcement later.

Two Great Boars.
 The Royal Scion herd of Durocs is owned by G. C. Norman, Winfield, Kan., and is the home of the two great boars, Graduate Col. and Col. Scion. Graduate Col. is reputed to be one of the great breeding Duroc boars living today. He is the only boar alive that sired a son that was fitted and shown four times without defeat. He also is the sire of a son that won championship of same state four times in succession. He also is the sire of the highest priced under a year boar ever sold at public auction, Grand Master Col. 9599, \$500. His son, Grand Master Col. 2d 9493, was junior champion Oklahoma State Fair in 1910; champion and grand champion Enid stock show in 1911; champion and grand champion Oklahoma State Fair in 1911, and again champion and grand champion Oklahoma State Fair in 1912. Col. Scion is by the undefeated grand champion, Chief's Col., who sold at auction for \$2,100. His dam, Helen's Duchess, sold for \$675. His full sister, Brownie's Duchess, was junior champion, Illinois State Fair in 1912 and sold at auction for \$525. Another full sister, Fay Templeton, was first prize sow at Wisconsin State Fair in 1912 and sold at auction for \$375. He not only comes from a family of winners, but is a producer of winners, and has helped to hold up the banner of his tribe. In this herd are such sows as Belle Vara, a first prize sow, by Prince of Cols., and the dam of two first prize winners: Crimson Duchess, by the grand champion Crimson Wonder 3d, and out of the grand champion sow, Rosemary Duchess, and full sister to the grand champion boars, Duke of Cols. and Colonel S.; Helress Royal, by Belle's Chief; Scion's Duchess, Royal Duchess and Belle's Duchess, by Belle's High Notcher, and others. Mr. Norman is offering about 30 head of boars ready for service by these two great herd boars. It isn't often buyers have an opportunity to buy this class of Durocs. He also is offering a few outstanding fall gilts bred, Mention Kansas Farmer when you write.

SHORTHORN CATTLE

10 SHORTHORN 10 BULLS 10

SIBED BY DOUBLE CHAMPION AND WHITE MYSTERY, OUT OF MY BEST COWS, PRICED REASONABLE.
 ED GREEN, HOWARD, KAN.

RED POLLED CATTLE

AULD BROTHERS Red Polled Cattle

Bull calves for sale. Prices right. Herd headed by Prince, one of the best sons of Actor.
 AULD BROS., Frankfort, Kansas.

Coburn Herd of Red Polled Cattle and 25 extra good young bulls and 7 first class young stallions for sale at bargain prices. Also young cows and heifers.
 GEO. GROENMILLER & SON, Pomona, Kansas.

PHILLIPS COUNTY RED POLLS AND FOLANDS.

All bulls over six months old sold. Bred sows and heifers for sale, also choice lot of big-type Poland China fall boars. Inspection invited.
 Chas. Morrison & Son, Phillipsburg, Kan.

RED POLLS FOR SALE.
 In order to reduce the size of herd we offer choice registered cows of large frame and splendid milkers at very low prices considering quality.
 RESER & WAGNER, Bigelow, Kan.

JERSEY CATTLE.

Register of Merit Jerseys

The only herd in Kansas making and keeping official records. Eighty head to select from. Cows in milk, bred heifers, heifer calves, and the finest lot of young bulls ever on the farm. All ages. Six or eight now ready for service out of cows with official tests up to 512 pounds of butter with first calf, sons of Imp. Oakland Sultan, Gambos Knight, and a son of Golden Fern's Lad. Tuberculin tested and fully guaranteed. E. J. LINSOTT, Holton, Kansas.

Jersey Calves only \$15 to \$25

From heavy butterfat producing dams. Solid colors. These calves should grow into \$150 dairy stock inside one year. Order today and get choice selection from this big Jersey cattle district. Send all orders or inquiry to
 W. R. DRAPER, Owner White River Stock & Fruit Farm, Springdale, Ark.

60 HEAD of solid fawn-colored Jersey cows and heifers of fashionable breeding. Will make special prices on car lots. Most of them in calf to "Blue Boy Baron," sired by half brother to Noble of Oakland. His five nearest dams on mother's side made 102 pounds butter in 7 days. A few light fawn bull calves. S. S. Smith, Clay Center, Kan.

BANKS' FARM JERSEYS

Quality with milk and butter records. One of the best sons of CHAMPION FLYING FOX, imported, at head of herd. Stock for sale.
 W. N. BANKS, Independence, Kan.

REGISTERED JERSEY BULL CALVES FOR SALE.
 Nice colors and individuals and closely related to noted sires and dams. Low prices for young calves. Also few bred heifers. Farm near town.
 Johnson & Nordstrom, Clay Center, Kan.

WINELAND FARM JERSEYS.

One of the strongest official record herds in the west. For sale, 10 choice young bulls, sired by Imp. "Duke's Raleigh," and other good bulls. Out of cows now undergoing or having authenticated tests. Also, 25 females of different ages. H. C. YOUNG, Lincoln, Nebraska.

BULL WANTED—I would like to obtain an aged Jersey bull of rich breeding, from someone who has used him as long as he can and has calves to show.
 NEAL THOMPSON, Bonner Springs, Kan.

REGISTERED JERSEYS AND POLANDS
 Best strains and individuality. Fed and handled intelligently. Stock for sale always.
 O. E. NICHOLS, Abilene, Kan.

JERSEYS FOR PROFIT AMERICAN JERSEY CATTLE CLUB, 324 W. 23d St., New York.

MULE FOOT HOGS

350 big-type Mulefoot hogs of all ages for sale, from champion herd of America.
 JOHN DUNLAP, Williamsport, Ohio.

POLAND CHINAS

PECKHAM HAS GOOD FALL BOARS.
 Six of September farrow and two spring yearlings. Strong, vigorous fellows, mostly by Blue Valley Goldust, out of large sows. Also 100 spring pigs.
 R. J. PECKHAM, Pawnee City, Neb.

TEN BIG FALL POLAND BOARS.
 Four by Mogul's Monarch. Two by Long King, son of Long King's Equal. Two by Gephart.
 Extra good individuals at \$25 each.
 J. H. HARTER, Westmoreland, Kansas.

WE WILL PAY EXPRESS ON PIGS.
 Sixty choice Poland China spring pigs at \$20 each for choice, express prepaid, for the next thirty days. Can furnish pairs.
 HOWARD R. AMES, Maple Hill, Kan.

POLAND CHINAS

WRAY & SON'S BIG TYPE POLAND CHINAS

Herd headed by Sterling Prince, one of the largest and best 2-year-old boars of the breed. Assisted by Chief Price's Wonder, one of the best sons of the great breeding boar, Chief Price Again. Young stock for sale. Better than your grandpa ever raised.

B. T. WRAY & SONS, Hopkins, Mo.

FALL BOARS ALL SOLD

I now offer a tried herd boar, an excellent individual and breeder, priced where any good farmer can buy him. Also three January boars.

H. E. WALTER, EFFINGHAM, KANSAS.



ADVANCE 60548

The mammoth 2-year-old grandson of the great Expansion is the sire of the great line of spring pigs I am offering for sale at weaning time. Either sex. The dams of these pigs are a splendid bunch of brood sows of the Black Mammoth breeding. None better in big-type Polands. Write for descriptions, breeding and prices. Book your order early and secure choice, mentioning Kansas Farmer.

PAUL E. HAWORTH, Lawrence, Kansas.

BIG POLAND BOARS

TEN FALL BOARS, ready for service. Price, \$25 and \$30. Good ones, sired by Wedd's Long King. Wedd's Expansion and Big Logan Ex. Order quick. These bargains won't last.

GEO. WEDD & SON, Spring Hill, Kan.

Sold Out—More to Sell

Our fall boars are now all sold. We are booking orders for the finest bunch of spring pigs we ever raised. If you want the great big-boned Spotted Poland Chinas, write us. Also young Jersey bulls and heifers.

THE ENNIS FARM, Horine Station, Mo.
(30 Miles South of St. Louis.)

SIX CHOICE SEPTEMBER BOARS

Sired by a son of Big Orange and out of large sows. Immune and ready for hard service. Also fall gilts, bred or open, and a lot of spring pigs, both sexes, and one Shorthorn bull 16 months old. Visitors always welcome.

S. B. AMCOATS, Clay Center, Kan.

Poland China Bred Sows

18 Priced to sell quick. They are the big kind. Also choice spring pigs. A. J. EKHART & SONS, Beeler, Ness County, Kansas.

Hildwein's Big Type Polands

Herd headed by Gold Standard Junior and Wonder Ex. Herd sows representing best blood lines. Fall sale October 29.

WALTER HILDWEIN, Fairview, Kan.

POLAND CHINA BOARS

20 Extra Good Fall Boars, ready for service, sired by Big Logan Ex. and Missouri Metal, out of my best sows. Prices reasonable. Write me.

L. V. O'KEEFE, Stilwell, Kansas.

MELBOURNE HERD POLAND CHINAS. Headed by Melbourne Jumbo, one of the large smooth sires of the breed, mated with the best of big-type sows, among them daughters of What's Ex. Big Prospect, Dorr's Expansion 1st, and Union Leader. Stock for sale.

R. B. DAVIS, Hiawatha, Kansas.

CLEMETSON POLAND CHINAS. Headed by Major Zim by Major B sows carrying the blood and mostly daughters of Gold Metal and Model Look by Grand Look. Choice spring pigs, express prepaid, \$18 each until further notice.

O. B. CLEMETSON, Holton, Kansas.

BUY EARLY AND SAVE EXPRESS. Fifty big kind Poland China pigs, either sex, sired by Ott's Big Orange, Big Ben and other great boars. Booking orders now to ship when old enough to wean. Pairs not related.

J. E. FOLEY, Oronoque, Norton Co., Kansas.

FALL POLAND CHINA BOARS AND GILTS

We still have some extra good fall boars and will price them rather low in order to sell out and make room for spring pigs. Also fall gilts, bred or open.

HUBERT J. GRIFFITHS, Clay Center, Kan.

SELECTED POLAND CHINA BOARS. Five October farrow, strictly tops, the last sons of Mastery, the great Expansive and Mogul bred boar. Dams by Big Tom and Prince O. K. Weight, 200 pounds each; 6 to 7-inch bone; 42-inch or more heart girth. Low prices for the kind.

F. A. TRIPP & SONS, Meriden, Kan.

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