

KANSAS FARMER

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The Shawnee Alfalfa Club

Meeting Especially Interesting Because of Numerous Reports. Address by

H. R. HILTON,

Port Allegany, Pa.,

"Preparing the Seed Bed for Alfalfa."

The June meeting of the Shawnee Alfalfa Club was especially satisfactory because of the numerous reports from many different sources and widely separated sections of the United States, of appreciation of its work.

H. W. McAfee reported numerous inquiries about the work of the club in New York during his recent visit there. H. R. Hilton who visited Topeka recently, stated that the people in Pennsylvania looked forward to the reports of the club meetings and that these were regularly published in a half dozen or more Agricultural papers in that State. O. E. Walker also reported a large interest in the eastern States to which he has shipped seed and inoculate soil. Prof. T. J. Headlee of the Kansas Agricultural College stated that it was a matter of real surprise to him to know of the eagerness with which these reports were read and the wide extent of territory influenced. The secretary had reported the enrollment of two members from Connecticut, the visits of interested parties from Missouri, Ohio, Nebraska and Oklahoma, the congratulatory letter received from the Director of the New York Experiment Station on the work of the club and the request, from New Mexico, for a copy of the by-laws after which to pattern some for a proposed club there. Reports from other states have been received at other times, all of which but served to inspire the members with renewed zeal.

The subject for discussion at this meeting was "Preparing the Seed-Bed for Alfalfa" and the principal paper presented was prepared by H. R. Hilton of Port Allegheny, Pa., and read by Hon. W. A. S. Bird. Mr. Hilton was "formerly of Kansas" and still has very many friends in this state who know of the powerful influence he always exerted for the good of its agriculture. Mr. Hilton's paper will be found elsewhere in this issue.

President Bradford Miller called out some information from various members on different subjects. O. E. Walker stated that his experiment of making whole alfalfa silage in an unused ice house had promised so well that he had purchased a silo and an ensilage cutter for use this season. He noted a great increase in the flow of milk when this ensilage was fed to his cows although it was brown and put up whole. So great was this that he reduced and finally withdrew the grain ration.

Mr. Whitworth, who is a practical dairyman and uses ensilage, gave a practical talk on the silo. He also stated that if alfalfa be cut too early it has less feeding value than hay. He stated that one of the best successes he had made in feeding came from the mixture of alfalfa meal with the "juice" at the bottom of the silo. His cows gave more milk than on any other feed.

Dr. DeWolf raised an interesting question. He stated that in Chase county, where one of his farms is located, those farmers who cut their alfalfa after the late frost this spring secured an excellent crop while those who did not do so failed on their first crop. C. W. Merriam and O. E. Walker had just the opposite experiment. Mr. Bird stated that the frost damage was greater in the counties to the

Southwest than here and that those who cut their alfalfa after the late killing frost got a good first crop and had fine prospects for a second.

C. M. Dyche of Riley county was a visitor and asked for information as to how to save his alfalfa without a hay barn. The general opinion was voiced by C. W. Merriam who said that a barn is necessary to the making of first class hay.

Dr. DeWolf raised the question as to whether we should cut early or wait until the proper time and risk it raining on the first crop. Henry Wallace, Scott Kelsey and W. A. S. Bird advised to cut early rather than risk damage by rain. H. W. McAfee, C. W. Merriam and O. E. Walker advised cutting when the field is about 10 per cent in bloom. Ed. Buckman thinks that when cut that soon the second and later crops will suffer. He advises cutting when in full bloom. E. B. Kellam cuts when he is ready while Scott Kelsey reported a neighbor who ran out of hay and cut his alfalfa before it had any blossoms. This seemed to benefit the second

crop.

The topic selected for the July meeting is "soil in oculation."

The election of officers having been postponed from the May meeting President Bradford Miller appointed W. A. S. Bird, Henry Wallace and Scott Kelsey as a nominating committee who recommended the election of the following members as officers: President, I. D. Graham; secretary-treasurer, Dr. F. L. DeWolf; vice-presidents, Mission township, H. W. McAfee; Rossville, D. M. Howard; Silver Lake, A. L. Entsminger; Menoken, Grant Kelsey; Soldier, D. L. Button; Topeka, A. T. Daniels; Tecumseh, Samuel Parr; Monmouth, Peter Everhardt; Williamsport, Geo. Neill; Auburn, F. M. Stahl; Dover, Wm. Lytle.

ADDRESS BY H. R. HILTON.

The alfalfa plant starts from a tiny seed that sends up to the sunlight a very slender stem. Its first roots are equally slender and the root hairs on these are visible only under the microscope. As the tiny seed must supply the necessary food elements to

sustain both root and stem till the latter reaches the surface it can readily be seen how important it is to have favorable conditions and a good environment.

When the soil is sufficiently moist for prompt germination of the seed a film of water surrounds every soil particle, the films thickening at the points of contact. Plowing, disking, planking and harrowing are different parts of the process of dividing up and separating the adhering soil mass so that it may be brought together again in a loose, uniform condition like peas or meal in a barrel free from cavities and with as many points of contact between the different soil grains as possible.

A finely pulverized moist soil insures contact with each seed at many points and a constant supply of water to promote germination and growth. The swelling of the seed increases the contact of the soil and strengthens the lines of communication over which the film water moves.

As the absorption of the seed and its developing root thins the films of water nearest them there is set up a movement of water from the near by thicker films to adjust the differences in thickness of the films. The more uniform the soil texture by thorough mixing of coarse and fine particles the more water is held in a given bulk of soil and the freer will be the movement of the soil moisture towards the new growth of roots with their covering of microscopic root hairs that absorb the food laden moisture.

The making of a seed-bed for alfalfa is therefore the making of a favorable environment for the seed that it may have a constant supply of moisture to dissolve the needed food elements in the soil, germinate the seed and maintain the growth of the tiny plant.

One of the difficulties in getting a good stand is the crusting that follows the puddling of the surface by a heavy shower of rain between the time of seeding and the appearance of the first leaves above the ground. A gentle rainfall may do good after seeding but a heavy rain is a misfortune till the young plant has reared its first leaves above the soil. There is small risk of puddling and its consequent crusting in a sandy soil and the risk is greatly reduced even in a clay soil when it is made rich in humus. The best insurance against puddling and crusting is a coat of stable manure or the turning under of a green crop about one year before the time of seeding.

The field to be seeded to alfalfa should be plowed not over six inches deep at least two months before seeding down and this should be done at a time when the soil will pulverize best. The surface should first be made mellow with disk or harrow and turned into the bottom of the furrow with the plow. Follow the plow at once with disks, drags, pulverizers and harrows till the soil particles are all separated so that they will lie together like meal in a barrel each in contact with several others and the whole mass free from cavities. In this condition it will take in the water more rapidly than if in loose form



The Joyous Anthem.

and will also hold back a larger percentage from drainage.

If there are any lumps or clods in the seed-bed the harrow teeth should slant forward to bring them to the surface and the aim all the time should be to keep the surface a little roughened to break the force of the heavy rain drops and prevent puddling and to get all the fine soil below the surface where the root development is greatest. Between the time of plowing and seeding the ground should be harrowed after every rain that wets through the dry earth mulch and as often as once in two weeks if it does not rain. In other words, the surface inch must be worked and kept dry to prevent the loss of the subsurface water by evaporation.

No seeding should be done after plowing till enough rain has fallen to cover every soil particle with a film of water as far down as the ground is plowed, say from two to three inches.

Do not depend on what water may rise from the subsoil by capilarity no matter how good the contact. The quantity secured in this way is not a dependable one.

The ground being thoroughly prepared, the clods and trash on the surface, the fine soil in the root zone, the time to seed is just as soon after a good rain that has moistened down at least six inches as the surface inch can be made dry by light harrowing. Drill the seed half an inch to an inch deep in the moist soil that has about one inch of dry soil covering. A narrow wheel is best to press the soil around the seed as it will let some of the dry surface soil roll into the furrow to give a loose covering of dry soil over the seed and thus protect the moist soil from the sun and wind. The object is to get the seed deep enough in the moist soil to insure its prompt germination and yet near enough the surface so that the seed

can send its stem to the surface in the shortest time and by the shortest route.

Favoring conditions the first two weeks are light showers and cloudy weather. Dry weather is preferable to heavy rains till the plant gets a good start. If the moisture can be held near the surface till the roots of the plants get a start downward they will go down faster than the soil can dry out downward so that once fairly started into moist soil the roots will take care of the plant. If the seed germinates two inches below the surface it needs an abundant and constant supply of moisture to carry the stem up, first, through an inch of moist soil and then through an inch of dry soil if it has not rained in the meantime.

As soon as the first leaves spread themselves to the sunlight then the cooperative work between the soil and sunlight commences. The seed is

no longer a factor. New roots forage deeper and widen wherever they find the most moisture and the most food in available form.

Assuming that the weed seeds have been sprouted and killed the month in which to seed between May and September is not so important as the moist, mellow condition of the seed-bed with a good film water connection beginning one inch below the surface and extending all the way down. This insures a tap root, a very essential part of the alfalfa plant. If the first roots have to spread laterally to find the needed moisture the plant is badly handicapped on the very start.

Put good seed in a fertile soil that is moist from beneath the surface dry earth mulch all the way down into the subsoil and unless excessive rains puddle and crust the surface during the first two weeks there need not be many failures in securing a stand.

The Bindweed a Terrible Pest

By F. H. Roberts, Botanist, Kansas Experiment Station.

A letter from E. E. Vickers of Pomona, Kan., requests information as to how to kill out what he calls "wild sweet potato vines." He states that he has a patch of about an acre started, and that the more they are pulled and hoed, the worse they spread. It is easy to identify this plant as the terrible pest that we have been combating for two years, known as the bind-weed. This is a plant belonging to the Convolvulaceae, or morning-glory family, of which the sweet potato is also a member. The botanical name of the bind-weed is *Convolvulus arvensis*. This plant is scattered rather generally over the United States, but in late years it has come to attract considerable attention and to arouse considerable apprehension in Western Kansas. The plant is a vine growing from three inches to six or eight feet in length according to the situation, bearing leaves somewhat resembling those of the sweet potato, and small white or pinkish flowers, somewhat resembling small morning-glory flowers.

It seeds abundantly, producing small, black, three-angled seeds. The plant lives indefinitely in the ground in its underground parts. This underground root system is one of the most extensive and tenacious that we know of in any perennial weed. In this vicinity (Manhattan), the root system extends three or four feet deep, but in Western Kansas it may reach a depth of from six to ten feet, or even more. What makes the plant so extremely difficult to eradicate is the fact that in addition to propagation by seeds, this underground root system is an additional means of propagation. What the farmer would ordinarily call "roots," in this case, are really for the most part, underground stems, which the botanist calls "rhizomes." The difference between an underground stem and a root, among other things, consists in the fact that while the stem produces buds which grow out into other stems, a root ordinarily will not produce buds even when cut stems also have joints, called "nodes," at which points buds regularly set, sometimes remaining dormant, and sometimes growing out into other stems. If such an subterranean stem is cut, the buds back of the point of cutting will

tend to develop and grow out to form stems, where they might have remained dormant, otherwise. So you will see that in this respect, a stem underground behaves just exactly as a stem above the ground does. Now the underground stems of the bind-weed, growing more or less horizontally under the surface, fill the ground like a network of wires very densely to a depth of from two to three feet, and more or less scattering to a greater depth. From these underground stems, the true roots come out, which absorb the moisture from the soil, and from the buds at the nodes or joints, grow up the shoots or stems which come above the surface and bear the leaves and flowers. Since these underground stems grow steadily outward in every direction, sending up to the surface aerial leaf-bearing stems as they go, it is easy to see how a single plant of the bind-weed, once started, may ultimately spread over an entire field. Now, the stems which go to the surface may start from horizontal underground stems lying as deep as from 12 to 24 inches below the surface. On this account, it is impossible to plow the weed out below the point where the propagating buds are produced. Furthermore, wherever by disking or plowing or by other means of cultivation, the underground stems are broken and dragged to other parts of the field, the broken pieces, by means of their buds, soon form new plants, and hence new centers of infection. I have seen this occurrence again and again.

In the western part of Kansas, some seven or eight counties are badly afflicted with this bind-weed, so much so that in Ellis county, for example, conservative men place the amount of wheat land rendered valueless and unavailable through its presence, at about one-tenth of the total acreage. As a matter of fact, where wheat land ordinarily yields from eight to ten bushels on an average, in that part of the state, on land infected with the bind-weed, it will scarcely produce one bushel. The weed grows up with the wheat, twining all over and around the stems and smothering the wheat out. It does the same with alfalfa, corn and sorghum. Even corn or cane broadcasted for hay, is sometimes

smothered out by the growth of the bind-weed.

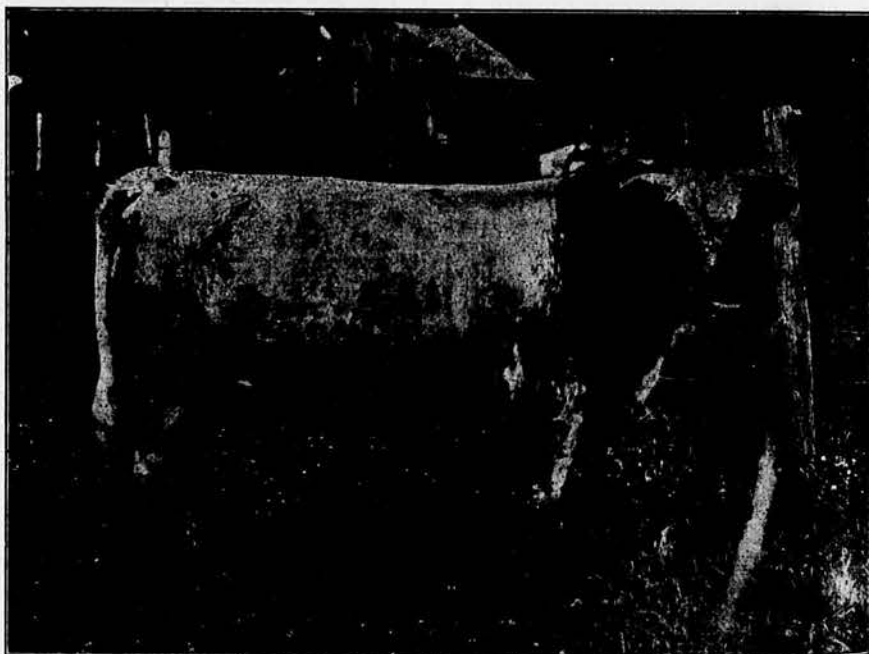
Rearing Calves.

One of the most important revenues of dairying is the rearing of calves, whether for veal or for replenishing the dairy herd. The little farm separator is a blessing to the calves, owing to the fact that by its use, sweet warm milk is always to be had. If the object is to build up the dairy herd by proper care in the choice of the sire, and by careful attention to the rearing of calves, the dairyman who is compelled to start with a herd of ordinary quality, may within a few years raise the average production of his herd to a marked extent. In breeding a full blooded sire to a grade, the first cross is more than 50 per cent; the second cross is more than 75 per cent;

	Whole milk	Skim-milk
Water	87.20	90.62
Fat	3.90	1.10
Casein and albumen	3.40	3.57
Sugar	4.75	4.95
Ash .....	.75	.75

The raising of the calves on skim-milk is economical because it is possible to make this substitution of a comparatively cheap grain for butterfat, which has a commercial value for human food out of proportion with its food values for a calf.

The parts of the milk which furnish the growth making material are the casein and albumen. From this material are made muscles, bones, nerves, hair, and hoofs, and this material remains in the skim-milk. The calf fed on skim-milk is not generally so fat during the first six months of its life, as the one nursed by the cow. It often has however a rather better



Lustre Buttercup, Head of the Idlewild Herd of Shorthorns Owned by W. P. Harned, Vermont, Mo., a Herd that Has Been Maintained by Mr. Harned on the Same Farm 45 Years.

the third cross 87½ per cent, and the fifth cross practically would be a full blood. So it is possible for everyone to build up his herd at comparatively little expense, by using sires of some dairy breeds with their ordinary cows.

In raising a calf, we should consider that we are raising a baby, and the nearer we can approach the care and

development of bone and muscle, and the difference between the two cannot be seen two weeks after weaning time.

The following table shows the amount of whole milk, skim-milk, grain and hay fed, and gains made by calves raised on skim-milk at the Storrs, Conn., and Missouri Experiment Stations:

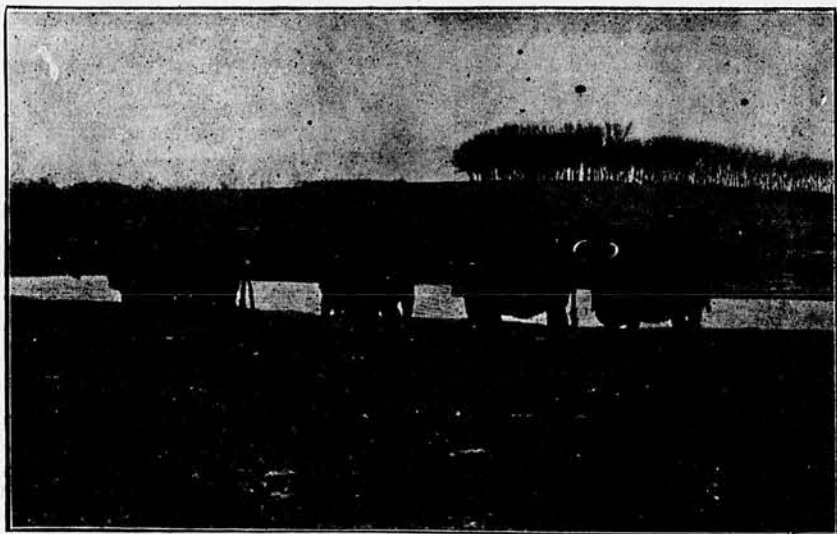
Number animals	Storrs.		Missouri.			
	9	8	2 spring calves	2 spring calves	3 fall calves	3 fall calves
Length of period	180 days	180 days	180 days	180 days	180 days	180 days
Breed	Dairy	Dairy	Jerseys	Holsteins	Jerseys	Jerseys
Weight at beginning	59	65	53	94	51	51
Pounds whole milk	90	220	334	400	367	367
Pounds skim-milk	3091	2908	2422	3660	2331	2331
Pounds hay	337	618	46	115	159	159
Pounds of grain	127	...	111	69	159	159
Pasture .....	...	...	90 days	90 days	...	...
Weight at end	284	315	268	390	250	250
Average gain per day	1.25	1.31	1.19	1.64	1.10	1.10

treatment accorded the human offspring, in a practical way, the better will be the results. It has been demonstrated in a number of places that just as good cows can be raised on skim-milk, as on whole milk, or as calves that have run with their mothers.

An examination of the following table, will reveal the fact that there is very little difference between skim-milk and whole milk, outside of the fat, and the latter can be easily substituted by the addition of cornmeal, oil meal, or flaxseed-meal.

The above table shows that the calf can get along with as little as 90 pounds of whole milk, although more is generally fed. The skim-milk fed, varies as a rule between 2,300 to 3,000 pounds, and while calves can be reared without grain when skim-milk is fed, better results can be obtained if some grain is fed in addition to the skim-milk.

Fall calves need 300 to 600 pounds of hay the first six months, depending upon how much other feed is given. Spring calves may be put on pasture and given no hay, or they grow equally as well, if they are kept confined the first three or four months and fed hay.



Shade Trees on Every Hill Top in the Pastures of Prospect Farm, Owned by H. W. McAfee, Topeka.

LIVE STOCK



What do you do that is more unsatisfactory in every way than doctoring sick hogs? It is the part of wisdom to use preventive measures. Give plenty of pasture in season, alfalfa hay in winter, good ventilation and good drainage. Dip occasionally and use a good dip. It pays.

Your packer does not care as to the color of the hair on a hog nor of what breed it is but he does care a lot about quality. Now, as the final destiny of all hogs is the pork barrel, why not breed the kind the packer wants and will pay the most money for? Choose the breed to suit yourself and choose the feed to suit the hog, but remember that the pure bred animal will make pork quicker, cheaper and of better quality than the scrub.

An idea persists in many quarters that pasture is a cheap feed, which costs next to nothing, and is necessary for the economical production of milk, meat or wool. Many farmers consider themselves justified if they can carry their stock over winter without much or any increase in weight or yield of milk, just so they may have it to make profit from in the halcyon days of summer pasture. This mistaken view is responsible for what, in the aggregate, bulks up into one of the most enormous losses of the farming business. As a direct result of it, millions of animals are maintained at a dead loss during six or seven months of the year, and at but a meagre profit during the remaining five or six.

Pasture is about the least productive crop we raise. That is to say, an acre under pasture, grazed by stock, will furnish less sustenance for the human race than an equal area under any other crop. It is a very exceptional acre of pasture that will, without supplementary feeding, sustain an ordinary cow three months. More often it requires two acres. But suppose the case of a rich, well-seeded, well-manured, permanent pasture, on fertile soil, and assume that one acre of such land would graze a cow abundantly for three months. Now, put the land under alfalfa, and corn, roots, clover and mixed grain, grown in rotation. If well cultivated, and regularly enriched by the manure from the feeding of the previous year's produce, such a field will come very close to turning off enough feed and bedding to sustain the same cow a twelve-month.

When work is pressing in the fields there is a great temptation to delay trying mares from day to day in the expectation that it may rain so that the mares may be attended to during the enforced suspension of field work. The habit of mares in continuing the period of oestrus for several days encourages the laxity in returning them to stallions at the proper times. Even the old regular brood mares are liable any season to fail to settle to the first service, even though they are fortunate enough to have a reputation for doing so. The only way to be at all sure the mares do not skip a year by no fault of their own, is to try them regularly. The times set by the stallion should be followed in this respect. There is some variation in mares of different localities, and stallion owners learn by experience the intervals which are the most successful with the mares on which they work. Compliance with their dates also effects a better distribution of work for the stallions and consequently surer average number of conceptions. All of these things work for the interest of every one concerned, and the mare owner is the most benefitted. To allow a mare of some age to skip a year is practically inviting her to quit the business, and if she is naturally at all shy as a breeder she will probably stop producing. The general plans of the farm work out more perfectly if a steady rate of production of the various kinds of stock is maintained from year to year. This is especially true with horses, but the desired success cannot be attained with-

out returning mares to stallions regularly.—Breeder's Gazette.

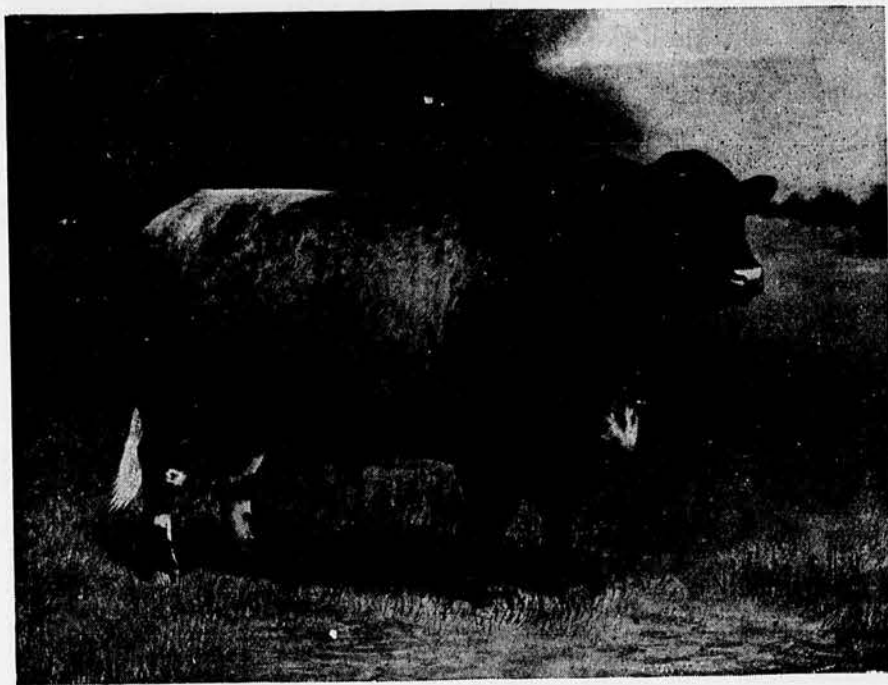
Alfalfa for Swine.

No community with high class swine prominent in its husbandry is poor. No community with large areas of alfalfa can afford to neglect swine husbandry, for its people possess the material for economical pork production equaled by no others. Those who know it best are persuaded that alfalfa will grow, with varying degrees of thrift to be sure, in every one of the United States and in Canada. Hence it is not a misstatement to say,

early opportunity for a mutual acquaintance.

As a pasture or sowing crop for sows and young pigs, alfalfa proves a wonderfully helpful ration for milk-making in the sow and for growth in the pigs. Experiments have shown that pigs make better growth when the dam is fed considerable alfalfa than those from sows fed the best of commercial rations but with no alfalfa. Of two sets of pigs, one fed clover, rape and soaked corn, and the other with access to alfalfa in lieu of clover and rape, those having alfalfa seemed to grow the more rapidly. For brood sows it is a most valuable food, either as hay, a sowing crop, or as pasture. The litters of such sows are generally large and vigorous and the dams have a strong flow of nutritious milk. Alfalfa meal in slop may be used with profit where the hay is not to be obtained. It is also claimed that sows fed on alfalfa during pregnancy will not devour their young, its mineral elements seeming to satisfy the appetite of the sow, while contributing to the fetal development of the pigs.

On a farm of former Governor Hoard, in Jefferson county, Wisconsin,



Roan Hero, owned by C. J. Woods, Chiles, Kan., is one of the greatest double standard Polled Durham bulls and a noted champion. He has made a great reputation for himself in the show ring. He was sired by Golden Hero who sold for \$1,000 at 9 years of age.

speaking generally, that the American farmer without alfalfa is so through his own fault rather than through any fault of location, latitude, longitude, altitude, precipitation or temperature. These premises being correct, it would seem almost self-evident that he who would rear swine to the best advantage should have alfalfa, and, conversely, the man with alfalfa fields is provided with a part of an excellent equipment for profitable swine growing. Either interest which is a stranger to the other should take

sin, all the brood sows have for several years been wintered on alfalfa hay of the season's third cutting, and their drink, skim-milk from the dairy, without any grain until the last two weeks of gestation. Mr. Hoard says the object is to give the sows a food that will keep them in a non-feverish state and furnish protein sufficient to build the bodies of the forthcoming pigs.

A Finney county, Kansas, farmer reports having pastured 30 pigs on one acre of alfalfa from May 1 to September 1, when they weighed 100 pounds each and were in fine condition for fattening. Another Kansas farmer reports keeping 100 pigs from about the middle of April to September on five acres of alfalfa pasture. A little grain during the last two months would have gained him many pounds of pork. Many alfalfa raising pig-growers insist that their pigs can be maintained from May to October on alfalfa for one-half what it would cost for almost any other feed.

Horse Owners! Use GOMBAULT'S Caustic Balsam



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The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERIZING OR FRIING. Impossible to produce scar or blister. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland, O.



Bickmore's Gall Cure

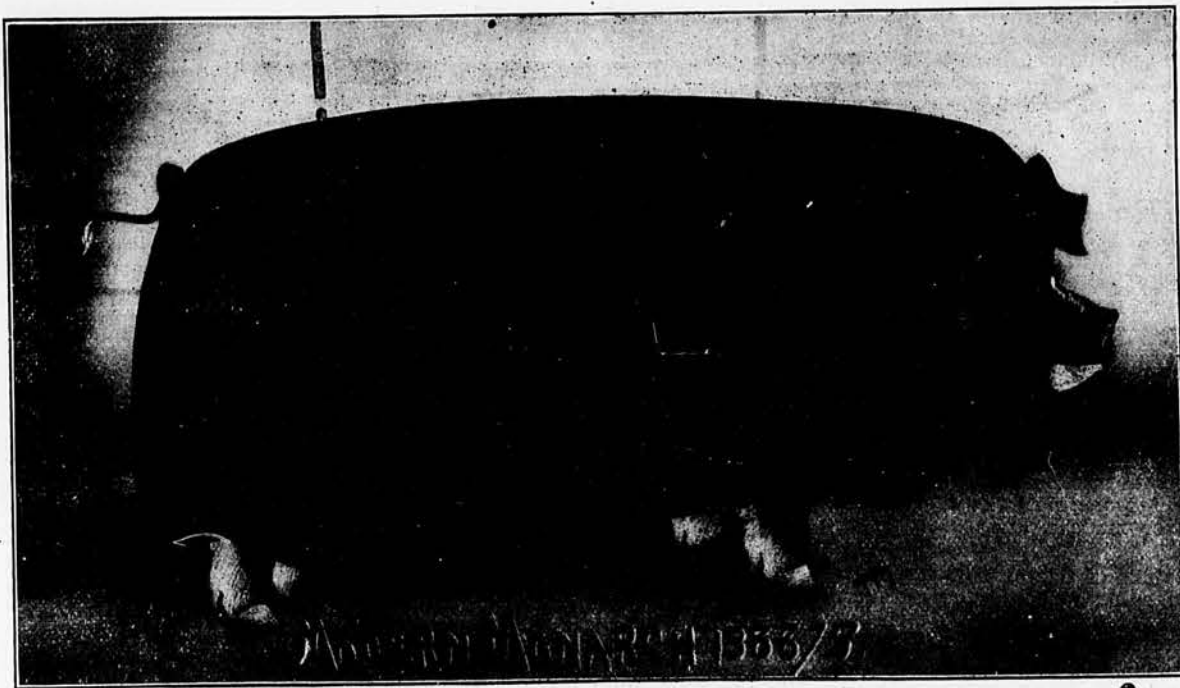
Money refunded if Bruises, Cuts, Harness and Saddle Galls, Scratches, Grease Heel, Chafes, Rops, Burns and similar affections are not speedily cured with Bickmore's Gall Cure. Old, tried remedy for these troubles. At all Dealers. Be sure you get Bickmore's. Trade-mark on every box. Valuable Horse Book and liberal sample free if you'll send 6 cents for packing and postage. Bickmore Gall Cure Co., Box 918, Old Town, Maine.

The Utah Station found that young shoats gained one-third pound a day on alfalfa pasture without grain. But the station found also that the gain was not so great in older hogs. A Wisconsin dairyman reported that he kept nine sows all winter and spring on alfalfa hay and skim-milk, without any grain, and raised from them 75 pigs, all healthy and vigorous.

The Colorado Station considers that a ration of three-fourths corn and one-fourth alfalfa hay is the best for fattening hogs for market, but for young hogs not ready for fattening the proportions should be reversed. The station does not recommend grinding alfalfa hay for hogs, probably on the theory that the hog's time is not worth much at best, and he can do his own grinding.—From Coburn's "Swine in America."

The blue grass seed crop of Kentucky this year is said to be an extra heavy one, and the quality is good. Buyers offered 40 cents a bushel on the stalk, the farmer bearing none of the expense of gathering and curing the seed. About ten bushels to the acre is considered a fair crop. Most of the farmer, however preferred to gather the seed themselves, the process being comparatively inexpensive, and the gathered seed being worth about \$1 a bushel.

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Modern Monarch No. 133873.

The above cut is a true drawing of the herd boar at the head of F. G. Nies & Son herd at Goddard, Kan. Modern Monarch was second in the yearling class at Wichita fair last year. It was the verdict of many good hog judges that this hog should have been placed inside the money at Hutchinson, Kan. Modern Monarch weighs about 700 pounds and is of the easy feeding type. His sire was Indiana, who was the champion of Indiana and Ohio State Fairs in 1906. His dam was Princess Vivian by Prince Iert. Princess Vivian was a great show sow, winning first in class at Illinois State Fair in 1907. Messrs. Nies & Son have a nice lot of spring pigs sired by Modern Monarch and will price them reasonable.



KANSAS FARMER

EDITORIAL



PROFITABLE FEEDING.

The wide fluctuations in the market prices of grains and meats emphasize the importance of continued alertness in arranging the system of farming. When corn was cheap and beef and pork were high there was no doubt about the advantage of feeding as compared with selling the grain on the market. True, some farmers continued to sell corn even when the price was so low as to return very little for the labor and rent. This in many cases was due to lack of capital, and in others to dislike of the confining labor necessary in the care of stock. While renters were the usual sellers of corn, some farmers who tilled their own land disregarded the advantages of the feeder in maintaining fertility of the soil.

The inclination to discontinue feeding operations is much greater since the prices for corn have maintained such high levels that any but the most judicious feeding has failed to return as much money as the feed was worth. KANSAS FARMER as repeatedly called attention to the fact that only the best bred animals can yield profits on high-priced feeds. Even these must be judiciously fed. Methods that would pass when corn brought 15 cents to 30 cents a bushel will not do when a bushel of corn brings 50 cents or more.

In a careful series of experiments, Director H. J. Waters of the Missouri Experiment Station piloted the way to profitable pork production by judicious combinations of feeds. These experiments were conducted before prices had reached the present high mark, but they indicate the line of economy applicable at any time. Incidentally they show harmony of dairying with the swine industry.

In these experiments 100 pounds of gain was produced at cost for feeds as follows:

Corn-meal and skim-milk.....	\$2.83
Corn-meal and green alfalfa.....	3.00
Corn-meal and green clover.....	3.25
Corn-meal and blue-grass.....	3.95
Corn-meal and middlings.....	4.07

The green feeds were cut and hauled to the lots where the experiments were conducted. Dean Waters remarks that it is not expected that in ordinary farm practice the green material would be cut and fed to the hogs in this manner. He favors the plan of allowing the hogs to graze the crops. For this purpose alfalfa has the advantage of furnishing tender green shoots throughout a long season if care is observed to mow portions of the field at proper intervals. The results show well for corn and skim-milk and for corn and alfalfa with corn and clover a good third choice.

In a series of experiments to determine economical methods of beef-production, Prof. H. R. Smith of the Nebraska Experiment Station showed valuable results. He fed 60 steers in lots of 10 steers in each lot. These were followed by hogs and the value of pork produced was taken into account. Full financial statements are given in the report. These may be summarized as to profits as follows:

Steers fed on corn, alfalfa hay, and corn stover produced a profit of \$6.38 per steer.

Steers fed on shelled corn, snapped corn (light feed), alfalfa, and corn-stover produced a profit of \$3.90 per steer. (This profit would have been \$4.61 had the steers been sold on the same market as the others and would have been greater still four weeks later.)

Steers fed on corn, linseed-meal and corn-stover produced a profit of \$1.65 per steer.

Steers fed on corn, cottonseed-meal and corn-stover produced a profit of \$1.32 per steer.

Steers fed on shelled corn, corn-meal (light feed), corn-fodder, alfalfa, and corn-stover made a profit of \$0.71 per steer.

Steers fed on corn, wheat bran and corn-stover made a loss of \$3.94 per steer.

The details of this experiment show a good feeding value for corn-stover. Alfalfa hay was found to be the cheapest source of protein.

It is undoubtedly true that beef and pork can be produced at less cost on corn and alfalfa than any other feeds. To get most value out of the corn crop it is necessary to save and feed the stover as well as the grain. It is not beyond conjecture that as closer counting of the cost becomes neces-

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ADVERTISING RATES—25 cents per square line, 14 lines to the inch. Announcements of reputable advertisers respectfully solicited. No medical nor questionably worded advertising accepted. Forms close Monday.

OUR GUARANTEE—It is our belief that all advertisements in this paper are from reliable persons or firms. To show that we are in earnest in protecting our subscribers we guarantee the trustworthiness of our adver-

sary the production of meats will be measurably circumscribed to the alfalfa-and-corn sections of the country.

ENLARGEMENT OF THE AGRICULTURAL COLLEGE INSTITUTE EXTENSION WORK.

The Kansas Legislature at its last session appropriated \$52,500 to the Agricultural College for its farmers' institute and extension work during the next two years. The appropriation for the two years just closed was \$10,500, the use of which was so wise and energetic as to commend the larger sum for future work.

The Board of Regents at its recent session approved the budget submitted by Mr. Miller, Superintendent of the Extension Department, and elected a corps of seven assistants and a secretary in addition to approving a large sum for clerical help. These assistants will devote their whole time to institute and extension work, spending probably the months from October 1 to March 1 in attending institutes and the other months in demonstration classes and actual demonstration work on "county" and private farms, orchards and dairies and in assisting in the building of roads and bridges.

The assistants and their work are as follows: P. E. Crabtree, assistant in general farming, institutes and demonstration work for all counties east of the west line of Riley County; G. C. Wheeler, work as above for all territory west of Riley County, assisted by the men at the Hays Station; C. V. Holsinger, institute and demonstration work in horticulture; C. H. Hinman, assistant in dairying; S. W. Black, work in agricultural education, school gardens, etc.; Miss Frances Brown, institute and demonstration work in domestic science. Miss Brown will attend institutes from October to March and then for three months will hold in many places over the state, schools for girls, schools lasting three or six days. W. S. Gearhart, institute assistant in road-making, will attend institutes during the institute season, holding at the same time special meetings of road overseers and township trustees, and then for the remaining months will be at the services of county commissioners, city councils, county engineers, etc., as expert advisor in the building of roads, culverts and bridges, helping lay out the road, preparing plans and specifications or passing on the same, and passing on the completed work, is desired. He will furnish in some cases plans and specifications for bridges, and give general supervision of the construction; will test materials for macadam roads through the engineering department of the college and in every way possible aim to be of service to the bridge and road builders of the state. His services will be free other than actual traveling expenses. While on institute trips the state pays the railroad fare.

Mr. J. E. Brock, '08, will be the secretary for the office and will assist in the demonstration work in Western

tisers under the following conditions: We will make good the loss of anyapid up subscriber who suffers by dealing with any fraudulent advertiser in our columns, provided complaint is made to us within thirty days after the transaction. This guarantee means just what it says. It does not mean that we guarantee to settle all trifling disputes between a subscriber and an advertiser, though we offer our good offices to this end. We do, however, protect you from fraud under the above conditions. In writing to advertisers be sure always to say: "I saw your advertisement in Kansas Farmer."

CONTRIBUTIONS—Correspondence invited on all farm topics, live stock, soil cultivation, grains, grasses, vegetables, household matters, recipes, new and practical farm ideas, farm news. Good photographs of farm scenes, buildings, live stock, etc., are especially invited. Always sign your name, not for publication, unless you desire it, but as an evidence of good faith. Address all communications to

KANSAS FARMER COMPANY, Topeka, Kansas.

Kansas. Mr. Crabtree is in the service now but the others will not enter upon their duties until September, except that Mr. Wheeler will look after some of the demonstration work on county farms during a part of July. All correspondence should be addressed to Institute and Extension Department, Manhattan, Kan., and not to individuals.

A NEW USE FOR ALFALFA.

Experiments in the use of alfalfa for human food are the subject of favorable report. At Creighton University, Omaha, Neb., a club of young men determined to test the culinary excellence of alfalfa by actual trial.

The alfalfa hay is carefully selected rejecting all weeds and seeds. It is then ground and bolted making a meal almost as fine as flour. The brownish color is changed to a creamy hue by bleaching. It is then ready for the culinary department of the club.

Among the articles of diet produced, alfalfa "gems" are mentioned as being so rich and tender that they "almost melt in the mouth." It is claimed that their food value is such that a man may make a meal on alfalfa muffins and do more work with less weariness than if he had eaten beef steak, bread and potatoes. Alfalfa meal pan cakes are reported to be "as light, flaky and airy as the frosting on a cake." Alfalfa meal mush is made after the manner of making cornmeal mush. It is eaten hot with milk, cold with sugar or sugar and cream, or fried. Many sorts of fancy dishes as well as "every day bread" have been tried with the "best possible results."

The chemical composition of alfalfa hay is such that if people can eat and relish it there will be little necessity for meat. The yield of nutrients per acre of alfalfa is far greater than in the case of other crops. The question of palatability has heretofore been the most serious one confronting those who would feed alfalfa hay to the human family.

If the young men at Creighton University have solved the culinary problem, Kansas will furnish the hay for a proper consideration.

AGAINST CHEMICAL PRESERVATIVES IN FOODS.

At its recent meeting the American Medical Association took decided action against the use of benzoate of soda and other chemical preservatives in the preparation of food. In clear cut resolutions the doctors asked Congress as follows

"(1) To prohibit absolutely and unqualifiedly the use of benzoate of soda and similar preservatives in the preparation and preservation of foods destined for interstate commerce.

(2) To provide for a system of federal inspection of all establishments engaged in the preparation of foods destined for interstate commerce, such inspection having for its specific object (a) the prevention of employment in them of persons afflicted with a contagious, infectious disease; (b)

the prohibition of the use of preservatives, such as benzoate of soda, etc., and (c) the prevention of the utilization of unclean and offensive waste productions, which now, by the use of such preservatives are branded as food-stuffs and sent through the channels of commerce."

The strong pressure that has been brought by the manufacturers of chemical preservatives is likely to be offset by the equally strong pressure from the long suffering public for effective measures of protection against evils that are assuming dangerous proportions.

AN AGRICULTURAL COLLEGE MAN MAKES GOOD.

A Kansas man, Ernest Fox Nichols, has been elected president of Dartmouth College, the institution which graduated Daniel Webster and others of the world's great men. The new president of the old college is a native of Leavenworth, Kan. He graduated from the Kansas State Agricultural College in 1888 under that sturdy educator, Pres. Geo. T. Fairchild, and the devoted men and women whom he had called around him. Mr. Nichols was a good student but not "an old man in his youth."

For several years Mr. Nichols has been professor of physics at Columbia University, New York City, and has done notably fine work both as lecturer and as an original investigator. His assignment to the presidency of Dartmouth at the age of 40 years assures to that institution an able and conscientious administration, fired with the kind of western enthusiasm which several Kansas bred men have carried into the East.

THE MARCH QUARTERLY.

Secretary Coburn's Quarterly Report for March, 1909, reached the public almost three months late. The delay resulted from the great amount of work in the state printing house. The report contains the addresses, papers and discussions at the thirty-eighth annual meeting of the Kansas State Board of Agriculture; also information on beef- and pork-making; the feeding of work horses; the use of the fanning-mill for selecting seeds, and the growth and culture of cow-peas, with catechism of Kansas feeding-stuffs law.

It would be hard to find more value in equal space than is found in the 194 pages of this report. Every reader of KANSAS FARMER should write to Secretary F. D. Coburn, Topeka, Kan., and secure a free copy before the edition is exhausted.

DISKING AFTER THE BINDER.

The importance of disking wheat stubble land immediately after harvest can scarcely be overestimated. The soil will then not be as hard as it will become soon after the removal of the protection from the effects of sun and wind afforded by the crop. Disking prevents the rapid escape of soil moisture which will be needed for ease in plowing and for the next crop. If the disk can be started immediately behind the binder and kept making round for round with it, the sheaves will be delivered on the disked ground and will not be in the way of the disk.

Harvest is a busy time, but if a team and hand can be spared to run the disk immediately after the binder, the subsequent plowing will generally be so much easier than that of undisked stubble as to compensate for the labor of disking.

"Young man, better a successful farmer than an unsuccessful clerk in a city store."—Exchange.

Young man, better a successful farmer than the most successful clerk in a city store.

"Cement and alfalfa," declares a Nebraska cattleman, "are going to make farmers the most independent people in the world. Cement is bound to be the universal building material. It is clean and protective."

The balance of trade in favor of the United States on 50 leading articles of commerce for the eleven months ending May 31, 1909, is \$336,200,000 against \$619,300,000 for the eleven months ending May 31, 1908.

According to the information re-

ceived by the Department of Agriculture through the Department of State, the Belgian Government has issued a decree, effective May 1, removing the restrictions previously imposed against the importation of cattle from the United States because of the existence of foot-and-mouth disease.

The Progressive Farmer of Raleigh, N. C., is running a series of articles "500 More a Year Farming: How to Make It." The current issue contains the XXIV number which is devoted to the production of nitrogen in the soil by growing legumes. The cow-pea is the great legume in the South. Alfalfa has its friends, but the advocates of the cow-pea seem to have the best of the argument.

The Maine Experiment Station finds that, while lime applied to the soil is very beneficial to the clover crop, there is grave doubt of the propriety of using it on soil that is subsequently to be planted to potatoes. This is owing to the fact that potato scab is much worse in alkaline than in acid soils. Liming promotes the growth of clover, but it also promotes the production of potato scab.

The crop-killers have retired from the Kansas field. The estimate of 80,000,000 bushels as the size of the wheat crop on which the harvesters have commenced is pretty generally accepted. Some of this has been contracted at one dollar a bushel and up. That this one crop will have a value of \$80,000,000 is reasonably to be expected. It is worth taking care of in the best possible manner.

A Pennsylvania railroad company is setting out this spring more than a million young trees. The great railroad companies begin to realize the necessity of scientific forestry in view of the exhaustion of our natural forests. The trees that are being set out are 893,000 red oaks, 40,000

Scotch pines, 29,000 locusts, 14,000 hardy catalpas, 14,000 pin oaks, 5,000 European larches, 3,000 chestnuts, 3,000 yellow poplars, 2,000 black walnuts, and 1,000 white pines.

Forecasters predict that the exportation of wheat from America is soon to end. Not much is said of the exportation of flour. When flour is exported the bran and other by-products are usually sold and fed to live stock in this country. These by-products contain a large proportion of the elements of fertility taken from the soil in the production of wheat. The exportation of flour is to be preferred as a means of conserving the productivity of the soil.

Except for the danger of bloat, alfalfa makes the best possible pasture for cows as well as for other animals giving milk. Some farmers succeed in pasturing both cattle and sheep on alfalfa with little loss. In general alfalfa alone is more dangerous to ruminants than is red clover. The risk is greatly reduced by having a mixture of blue grass, orchard grass, or bromus inermis with the alfalfa in the pasture. In any case the animals should not go to the pasture hungry. A good many farmers report satisfactory results and no loss from careful use of mixed alfalfa pastures.

It is stated that at the close of the Patten deal in wheat on May 29, that speculators received 755,000 bushels of the actual grain. The stocks in public and private elevators at that date amounted to 4,700,000 bushels most of which was believed to belong to Patten, and to have cost him around \$5,000,000. The first sale of wheat sold for delivery May, 1909, was made June 25, 1908, at 89½ cents a bushel. May 25 to May 29 wheat sold at \$1.35¼, a rise of 45½ cents. It is not known how much Patten made on the deal but the present course of the market does not promise much profit on wheat of the speculative grade bought at \$1.35 a bushel.

For four seasons winter wheat has been grown on summer-tilled land at the Nebraska Experiment Station near North Platte, about longitude 101°, nearly north of Garden City, Kan. In 1905, owing to an excessive rainfall the crop was so heavy that it went down and was not cut. In 1906 the average yield was 42½ bushels per acre on a field of 10 acres that was very poorly summer-tilled. Four and one-half acres in 1907 produced 267 bushels or at the rate of over 59 bushels per acre. Eight acres in 1908 produced 456 bushels or 57 bushels per acre. These are not the high yields but the total of all varieties, rates of seeding, etc. In 1907 the high yield was 60 bushels per acre and in 1908, 67 bushels per acre.

It is officially stated by a writer of the Census Bureau that while agriculture has always been the chief occupation of man, the methods employed therein prior to 1850 were for the most part crude, and were conspicuous for the absence of system. Little or no improvement took place in European agriculture during the period of one thousand years from the age of Charlemagne until the revolutionary epoch of 1848. Even after the defeat of Napoleon in 1815, tillage, in many countries, was little beyond the stage it had reached at the time of the Pharaohs; wooden plows were used and grain was thrashed by the tramping of animals. That the present age is an age of transition with greater changes reserved for the near future than have taken place in the recent past may well be believed.

The management of the Colorado Chautauqua to be held at Boulder has gotten out a most attractive booklet of 48 pages with a three-color cover decorated with a scenic design suggestive of the beauties of Colorado. The descriptive matter tells of the charms of the mountain scenery, of the opportunities for camping on the Chautauqua grounds, of the great summer school with its strong faculty of specialists, of the platform program with the best talent of the country, of the numerous excursions and mountain climbs, of the social life to be enjoyed and of the reasonable expense of an outing at "The Greatest Assembly in the West." The illustrations show a number of interesting scenes in and about the assembly. Persons contemplating a summer outing in the mountains of Colorado should secure a copy of this booklet.

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CHEAPEST WAY TO BUY GOOD LAND. Subscribe for farms in irrigable district of Southwest Texas, 10 to 320 acres for \$250, \$30 cash, 22 monthly, \$10 notes without interest. Reliable agents wanted everywhere. \$20 commission per share. Get illustrated booklets from German Colony Company, Austin, Tex.

BARGAINS—160 ACRES, BOTTOM, 110 cultivated, 30 alfalfa, good improvements, orchard, timber running water. Price \$50. per acre. All kinds and sizes. Write for our large lists. Garrison & Studebaker, Salina, Kansas.

WELL IMPROVED RANCH OF 1,000 acres, near station, an abundance of water and good feed lots. Send for full and complete description. Price \$30 per acre. Hurley & Jennings, Emporia, Kan.

DO YOU WANT A HOME?—WE HAVE 100 of the best farms in southeastern Kansas on the easiest terms of any land sold in the state. Send for copy of the Southeastern Kansas Homeseeker, the best monthly land paper published—it is free. Address The Allen County Investment Co., Longton, Kan.

FREE HOMES FOR EVERYBODY UNDER the homestead and desert acts. Sulphur Springs Valley, Arizona, is fast settling. Water obtained at a depth as shallow as four and one-half feet. As fine alfalfa land as there is in the world. For further information address the McCall Realty Company, Cochise, Ariz.

FARMERS AND STOCKMEN—WE HAVE a number of irrigated farms and ranches in Routt county, Colorado, for sale at from \$40 to \$60 per acre. Unlimited free range for stock. This is the best place for profitable stock raising in the entire west. Write for circular. Whitaker Bros., Steamboat Springs, Colo.

PUBLIC LAND OPENINGS WILL SOON take place. For booklet containing general information, the land laws and many beautiful scenes, send four cents in stamps. Dept. G, Northwestern Publicity Bureau, Rock Springs, Wyo.

FOR QUICK SALE—120 ACRES, GOOD farm in Saline County Kansas, 3 1/2 miles from railroad town near good school, 50 acres valley land. 25 acres in alfalfa frame house, barn, granary, blacksmith shop, etc. Some timber, orchard, good water, situated in good farming locality. A bargain at \$7,500. For particulars and full list of farms for sale, write Joseph A. Brandt, Lindsborg, Kansas.

FOR SALE—80 ACRES IN VIRGIN State, school house site located on opposite corner, within 1 mile of saw and grist mill, Darcia postoffice and small store, 12 miles from the famous McAlester (city) coal fields, about 10 miles east of 96th meridian, 12 Crowder City, 8 Reams, 9 Indianola. 20 acres prairie, remainder open timber land with good grass, 40 acres or more free of stone, balance rocky, some of which rocky land is good for fruit growing, proof by fruit trees growing on adjoining land. Is 1/2 mile long east and west, section line on east and north side. Has Post Oak, Red Oak, Hickory, and Black Jack, etc., timber. Stock water can be provided a east and west end, small creek runs a little west of north. It is good soil, open country to the south, lies on the county road from McAlester to Indianola. Coal creek is bridged and part of timber on ground for Bull creek bridge, land adjoining south for sale. Fine proposition for parties of limited means, poultry man, apiarist, or small cattle feeder, as part of the land protects the other from blizzard weather by hill and timber. It has fine building rock, is encumbered a little, title good, obtained land by intermarriage. Oil pipe line runs through it north and south. There is an oil and gas lease on it. Mail received Tuesday and Saturday afternoons. Price \$10.00 per acre. Investigate, (see census). This ad will not appear again. Address John H. Peepgrass, Darcia, Okla., via McAlester.

MANURE SPREADER.

FOR SALE—A NEW MANURE SPREAD- er, never used, none better made. It is for sale for a special reason at considerably less than the list price. If you have been thinking of buying a manure spreader, and every progressive farmer is thinking about buying one, here is your opportunity to get an absolutely new one at a special price. Write quick. Address A. Turner, care Kansas Farmer, Topeka, Kan.

CATTLE.

SEE LESLIE OF ALYSDALE BY PRINCE Consort, out of Lord Mayor dam, calved May 8, 1908. Best individual of our last bull crop. I want to show him to you. Also offer some cows and heifers at fair prices. Come and see them. C. W. Merriam, Columbian Bldg., Topeka, Kan.

PATENTS.

PATENTS PROCURED AND SOLD; BIG money in patents; book free. H. Sanders, 115 Dearborn St., Chicago, Ill.

LAWYERS.

A. A. GRAHAM, ATTORNEY AT LAW, Topeka, Kan.

MARKETS

Live Stock.

Kansas City Stock Yards, June 28, 1909.—A larger outlet for beef in consumptive quarters last week, and better export demand, enabled sellers to break the killer's domination of the market, which has been in effect for the past three weeks. The cattle run amounted to \$7,000 head for the week, and prices advanced 20 to 35 cents. Today there is an extra heavy run of quarantine grass cattle on the market, three-fourths of the run of 17,000 head being yarded in that division, and prices are off 10 to 15 cents today on grassers. Fed cattle are strong to 10c higher today, with tops at \$7 in both the heavy weight and in the yearling classes. Heifers moved rapidly to the scales today, and indications favor a firm market balance of the week for butcher stuff and fed grades of steers. Dry lot steers reached \$7.05 last week, and prime steers are quotable at \$6.80 to \$7.10, good native and western steers fed corn on the grass \$6 to \$6.65, with short wintered steers fed out on the grass selling at \$5.25 to \$5.80. Straight heifers reach \$6.75, bulk of cows sell at \$3.25 to \$4.50, veal calves 50c higher last week, but most of this gain lost today, tops \$7.25. Stockers and feeders gained 10 to 15 cents last week, market strong today, choice feeders worth up to \$5.60, best stock steers \$5.40, with an increasing number of medium to common stockers at \$3.40 to \$4.50.

Mild fluctuations in the hog market left it practically unchanged in the close of last week from the close of the week before, but the small run of 4,000 head today excited sharp competition and prices were 10 to 15 cents higher. Tops sold at \$7.95 today, bulk of sales \$7.50 to \$7.90, light hogs up to \$7.80. The cost of packers' droves of hogs here last few days have been 5 to 10 cents above cost of same packers' droves in Chicago, although tops there for assorted hogs are slightly upwards of \$8. Predictions favor continued moderate marketing, receipts at the western markets now running 20 per cent below this period last year.

Sheep and lambs declined 25 to 50 cents last week, but there is some improvement in the situation today, prices 10 to 15 cents higher, run 5,000 head. Some spring lambs brought \$8.50 today, and yearlings \$6.25, short wethers worth \$4.25 to \$5.10, ewes \$4 to \$4.85. Country buyers have taken out a good many goats for browsing purposes lately at \$3.25 to \$3.60.

Cash Grain.

Kansas City, June 28, 1909.—Hard wheat—No. 2, choice turkey, nominally \$1.35@1.36, 1 car new \$1.25; dark, nominally \$1.30@1.33; yellow and ordinary, nominally \$1.29@1.33. No. 3 hard—Fair to good turkey, nominally \$1.33@1.34; dark, nominally \$1.30@1.32; yellow and ordinary, 1 car \$1.30, 1 car \$1.28 1/2. No. 4 hard—Turkey and dark, nominally \$1.30@1.32; ordinary, nominally \$1@1.24, 1 car bulkhead \$1.05. Rejected hard—1 car 95c. No grade hard—1 car 95c. Soft wheat—No. 2, nominally \$1.30@1.31. No. 3 soft—Choice, nominally \$1.26@1.27; fair to good, 1 car \$1.26. No. 4 soft—Nominally \$1.15@1.20. Mixed wheat—No. 3, 3 cars \$1.25. No. 4 mixed—2 cars \$1.02 1/2. White corn—No. 2, 1 car 70c, 3 cars 69 1/2 c, 11 cars 69 1/2 c. No. 3 white—3 cars 69 1/2 c. No. 4 white—1 car 69c. Mixed corn—No. 2, 4 cars 66 1/2 c, 5 cars 66c. No. 3 mixed—1 car light color 67c, 4 cars 66c. Yellow corn—No. 2, 1 car 67c. No. 3 yellow—Nominally 66 1/2 c. White oats—No. 2, choice, nominally 54 1/2 c, @55 1/2 c; fair to good, nominally 54@54 1/2 c. No. 3 white—Choice, nominally 53@54c; fair to good, nominally 54@54 1/2 c. No. 4 white—Choice, nominally 53@54c; fair to good, 3 cars 52 1/2 c. Mixed oats—No. 2, nominally 49@50c. No. 3 mixed—Nominally 48@49c. Kafir corn—Per cwt., No. 2 white, 1 car \$1.30; No. 4 white, 2 cars \$1.28. Bran—Per cwt. sacked, nominally \$1.17. Shorts—Per cwt. sacked, nominally \$1.13 @1.17. Corn chop—Per cwt. sacked, country, nominally, \$1.26.

Speculative Grain.

Chicago, June 28, 1909.
WHEAT.
Open. High. Low. Close. S'day. Closed.
July 1.1615% 1.16% 1.14% 1.15 1.16
Sept. 1.11% 1.11% 1.09% 1.10% 1.11%
Dec. 1.09% 1.09% 1.08% 1.08% 1.09%
May 1.11% 1.12

CORN.

July	.70%	.71	.70%	.70%	.70%
Sept.	.68%	.68%	.67%	.67%	.68%
Dec.	.58%	.58%	.58%	.58%	.58%
May	...	...	.58%	.58%	.59%

Butter, Eggs and Poultry.

Kansas City, June 28, 1909.
Butter—Packing stock, 18c, grease butter, 4c; creamery extras, 23c; creamery firsts, 21c; creamery seconds, 19c.
Cheese—Wisconsin, f. c. flats, 14 1/2 c; dairies 14 1/2 c; Missouri-Kansas stock, flat, 11 1/2 c; dairies, 12c.
Eggs—Steady. Extra, 21 1/2 c; seconds, 16c; current receipts, flat 17 1/2 c; loss off 19 1/2 c; Southern eggs, loss off, 17 1/2 c. In miscellaneous cases 1/4c less. All quotations are 1c less when cases are returned.
Poultry and game—Hens, 10c; roosters, 7c; broilers, under 1 1/2 lbs., 18c; over 1 1/2 lbs., 20c; culls 5c; old ducks 6 1/2 c; young ducks, 11 1/2 c; turkey hens, 11c; toms, 10c; pigeons, 50c per doz.; squabs, \$1@1.50.
Elgin, Ill., June 28, 1909.
Creamery butter, 25c.

Volume 31 of the American Berkshire Record is just received from Secretary Frank S. Springer, Springfield, Ill. It is up to its usual standard of excellence and contains pedigrees numbered from 115,001 to 1200,000 together with a roster of the officers and members of the association, the transfers of recorded animals, the list of breeders and the list of owners. Hon. Chas. E. Sutton, Lawrence, is the State Vice President for Kansas.

The Jones National School of Auctioneering. Col. Carey M. Jones is one of the most popular auctioneers ever seen in the big pure bred sale rings. Everybody likes him because of his pleasing personality and because he knows his business. For some years past he has been president of Jones National School of Auctioneering, 1213-1215 Washington Boulevard, Chicago, where he has built up a great school. Every branch of the auctioneering business is here taught and every teacher in this school is a successful man of more than state wide reputation. This school has been a success from the start and is now growing rapidly. Several of the better class of auctioneers of our acquaintance in Kansas are graduates of the Jones National School and every one of them is making good. One young auctioneer booked \$4,000 worth of business during the first year after graduating from this school. If you will mention Kansas Farmer and write Col. Jones he will tell you all about it.

L. M. PENWELL,

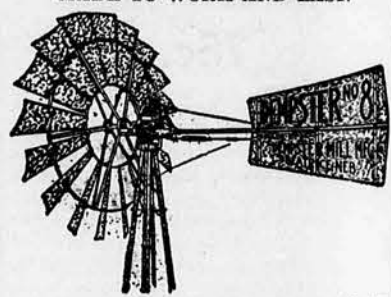
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Topeka, Kansas.

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Steel and Wood.
Vaneless and Solid Wheels.
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Noiseless. Long Lived Gears. Center Lift. Crank. Three Bearings for Wheel Shaft. Reserve Oil Boxes. Many other good points. Address Dept. G.
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We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.
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Seventh St., Topeka, Kansas

GALVANIZED STEEL \$12.75 WINDMILL.
Sold direct from factory to user at wholesale price. Strongest guarantee. Send for catalogue. Prices will surprise you.
THE OTTAWA MFG CO.
702 King St. Ottawa, Kansas

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Simplest, Safest, Surest Vaccination for the prevention of
BLACKLEG IN CATTLE
NO DOSE TO MEASURE. NO LIQUID TO SPILL. NO STRING TO ROT.
Just a little pill to be placed under the skin of the animal by a single thrust of the instrument. You cannot afford to let your cattle die of blackleg when a few dollars spent on Blacklegoids will save them. Write for circular.
PARKE, DAVIS & COMPANY
HOME OFFICES AND LABORATORIES, DETROIT, MICH.
NOTICE—For a limited time we will give to any stockman an injector free with his first purchase of 100 vaccinations.

Bargains in Farms, Ranches & City Property

SPECIAL BARGAINS—80 acres 3 miles from Clyde, second bottom, \$50 acre, 150 acres near Green in Clay Co., 99 under plow, well improved, \$50 per acre. 160 acres pasture near town. \$8,500. Write for fine large list. **WALTER NELSON, Clyde, Kan.**

COMPLETE DESCRIPTION
Texas Panhandle, covers 25 years, 32 pp., complete birdseye view and wall map Amarillo, 15,000 population, in heart of Panhandle, sent prepaid for 35c; clubs of four, \$1. Order today—edition limited. Mirror Publishing Co., Amarillo, Texas.

320 ACRES of extra good land, house of 14 rooms, a fine barn, and other good improvements, 2 1/2 miles to town. One of Brown county's best. Enquire of **R. A. HENRY, The Real Estate Man, Hiawatha, Kansas.**

160 ACRE farm bargain, 7 miles north-east of Ness City. Small frame house 2 rooms, frame barn for 4 horses, hen house, small granary, good well and windmill, 75 acres in cultivation, 35 acres in wheat, one-fourth with place, 12 acres alfalfa. Land can be plowed, nearly level, 1 mile to school. Price \$2,500. \$2,000 must be cash. **J. C. LOHNES & SON, Ness City, Kan.**

LYON COUNTY LANDS.
Choice half section, well improved, school, mail, town, 8 miles Emporia \$60. Photos sent. A choice \$80, \$5,000. 160 near town, \$50. Send for list. **H. B. GILES, Emporia, Kansas.**

THE BEST TOWN TO LIVE IN.
If you would like to live in the most beautiful city in the West, with unsurpassed educational, business and religious advantages, in a city clean, progressive, where real estate values are low, but steadily advancing, where living expenses are reasonable, a city with natural gas at low prices. Address the Secretary of the Commercial Club, Topeka, Kan.

ALL GOOD CORN, ALFALFA
and wheat land. 80 acres, 70 acres in cultivation, 10 acres pasture, 3 room house, barn for 4 horses, granary, crib and other outbuildings, small orchard and good grove, fenced and cross fenced, good well living water in pasture, 3 1/2 and 4 1/2 miles 2 good railroad towns in Sedgwick county. Price \$1,000. A bargain. **THE NELSON REAL ESTATE & IMG. CO., 137 N. Main St., Wichita, Kan.**

ARKANSAS.—"Don't you wish you had bought when you were here before?" That is what they all say; and then, buy before it doubles up again. What have you got that half equals it? You can't find it in America. Think of the money bags being hauled in by a single farmer. Thrashing and hauling \$1,000 a day and more—getting the cash the same day. We have other proposition that will beat your best; besides, the best climate, best roads, best water and fine people, and anything else you want. I own the cheapest land on Grand Prairie and can make you terms—won't price you out. Also, fine timber lands. **F. W. HOUSTON, Stuttgart, Ark.**

LOOK AT THIS.
No. 503.—Here is a ranch of 2,960 acres, that we can recommend as good a cattle ranch as there is in the country; all under fence, plenty of water, 600 acres fine bottom land, suitable to grow alfalfa; the improvements, stone house, barn 50x35, stone shed 100 feet long, and all other necessary improvements that are required on a ranch of this kind. The survey of the new railroad running from Garden City to Stockton, runs near or through this place. Rural telephone and post office on the place. Price \$12.50 per acre, part time will be given. **TEED & ORBISON, Jetmore, Kansas.**

FREE NATURAL GAS FOR FUEL AND LIGHTS.
160 acre farm 3 miles from Mound Valley all tillable, 15 acres corn, 100 acres clover and timothy, 40 acres clover and blue grass pasture, lays just right to drain well, watered by wells and creek, good practically new ten room, two story house, summer kitchen, granary and good barn 24x40—16 ft. studdings; free gas for fuel and lights—house already plumbed—crops go with the place if sold before harvested, orchard and small fruit, two miles to nice church, 1/2 mile to nice brick gas heated school house, fine neighborhood. This is something choice. Come and see it.—**DONAHUE & WALLINGFORD, Mound Valley, Labette Co., Kansas.**

SOLOMON VALLEY LAND.
We have farms for sale in Ottawa and adjoining counties, good upland improved at from \$25 to \$60 per acre. Bottom land improved at from \$60 to \$125 per acre. You have not seen the best till you see the Solomon Valley. **A. E. ROBINSON LAND CO., Minneapolis, Kansas.**

SMITH CO. KANSAS STOCK FARM.
240 acres all ready to move on to and make money. Mostly in cultivation, 25 acres alfalfa part in hog pasture, fair house, good barn, other improvements fair, good shallow water, shade and fruit trees, all fenced, land is rolling and some rough but makes good pasture; an ideal stock farm, close to school and church. North of town 1 1/2. Good roads, investigate now. Price \$35 per acre. **CARL G. ANDERSON, Athol, Kansas.**

BARGAINS IN KANSAS LANDS.
400 acres in Morris county, 2 sets of improvements, \$50 per acre, 240 acres one mile from Herington, well improved, \$75 per acre. City property in Herington to exchange for land. Farms in Kiowa, Gove, Ford, Rush and Ness counties at various prices. **ROBT. SUTHERLAND, Herington, Kansas.**

A Hum Dinger.
640 acres in good location, 540 acres in cultivation, 100 acres of good pasture fenced, 2 good wells, windmill, tank, fair house, stable, granary, 6 miles Spearville. A dandy at \$25 per acre, part terms. Look this up. Send for list. Address, **G. F. WEYAND, Spearville, Kansas.**

400 ACRES meadow land nicely located, well fenced with 4 wires, all lies in a body, and can be used for pasture. Within 40 rods of switch on Mo. Pac. R. R. Could be divided into a nice farm and is a bargain at \$30 per acre. **C. R. CANTRALL, Fredonia, Kan.**

90 ACRES CREEK BOTTOM
and upland, 75 acres in cultivation, balance meadow, no other improvements, 3 miles from town. Price \$3,800. A snap, as 40 acres of it is fine alfalfa ground. **J. S. BOYLE, Bennington, Kansas.**

McPHERSON COUNTY.
80 acres, 3 1/2 miles Salina, all in cultivation, \$4,500.
240 acres in Saline county, 80 in cultivation, all fenced, fair improvements, 1/2 mile school and church. \$25 per acre. **WM. KINDT, Marquette, Kan.**

J. W. BRADSHAW, The Land Man, of Herington, Kansas,
is offering a section of land with two sets of improvements, six miles from Herington, for \$45 per acre. 200 acres under cultivation. A snap well worth \$50 per acre.

GOOD FARM CHEAP—160 acres, 130 in cultivation, all fenced, 3 room house, barn, cow shed, poultry house and well and windmill, only 4 miles to R. R. where an elevator will be built this summer. Will take a small cash payment and give 5 years on balance. Price \$2,500. **KIRBERG & MILLER, Ness City, Ness Co., Kan.**

MARSHALL COUNTY BARGAINS.
Large list of improved farms for sale at \$40 to \$100 per acre. 200 trading propositions. Can match you on anything. Write for complete list. **TROSPER & BLACKNEY, Frankfort, Kansas.**

IRRIGATED FARMS FOR SALE.
In the famous Arkansas Valley of Colorado and the Pecos Valley of Texas, reasonable prices; good terms. If you want a money making investment or an ideal home write for further information. **J. F. CURRY, Lamar, Colo.**

960 ACRES of good farm land in Chase county, Kan., close to market, well improved, 80 acres alfalfa, 280 acres in cultivation, balance meadow and pasture. Price \$25 per acre. **HALE & ENGLISH, Dodge City, Kansas.**

SCHUTTE & SHINEY, the Rush county, Kan., real estate hustlers, 80 years in the same old place. Good farmers raised from 25 to 47 1/2 bushels of wheat per acre here last season. We can sell this land at from \$20 to \$35 per acre. Good improved ranch land, 1/2 good farm land, at \$15 per acre. Good bottom land not over 5 miles from market at \$25 to \$35 per acre. Well improved and running water, plenty of timber. See us, or write us at La Crosse, Kan.

FOR SALE—320 acres of good wheat land in the famous wheat belt of Logan Co., Kan. 4 miles from Monument, and 3 miles from Page. 40 acres in cultivation. Price \$12.50 per acre. Purchaser to assume R. R. contract for about \$1,700. This is a snap. **W. H. LINVILLE, Beloit, Kansas.**

A NESS COUNTY BARGAIN—400 acres 11 miles from Ness City, 100 in cultivation, well fenced, good house, barn, well and windmill, 18 ft. to water, all smooth, half mile to school. Price \$5,000. Reasonable terms. This is only one. Come and see. **LOHNES & CASON, Ness City, Kan.**

WASHINGTON COUNTY LAND FOR SALE.
160 acres 4 miles from county seat, one mile to school, all fenced, one set improvements, orchard, well, 120 in cult., 40 pasture. \$50 per acre; terms on half. **W. J. GORDON, Washington, Kan.**

FARMS FOR SALE in South Missouri. I have several good farms for sale on easy payments from \$5.00 to \$10.00 an acre. Please write me for full particulars. **WILLIAM BOWEN, Houston, Missouri.**

TEXAS SCHOOL LAND, \$1 to \$5 per acre, one-fortieeth cash, balance 40 years time; 3 per cent interest. Now is the time to buy. Send us your name. **TEXAS INVESTORS PUBLISHING COMPANY, Dallas, Texas.**

GREENWOOD COUNTY LAND,
Two fine sections of land; both well improved; close to Eureka; price \$30 per acre. Write **G. K. JACKSON LAND CO., Eureka, Kansas.**

ATCHISON COUNTY FARM.—240 acres, 2 sets improvements, in fine condition, 1 mile school, 5 1/2 miles from good town, land in high state cultivation, all but 20 acres plow land, the 20 acres are in timber and pasture. Price if taken soon \$16,000. **ADAMS BROS. & HAMM, Atchison, Kan.**

ARE YOU LOOKING FOR A HOME?
No farmer should think of buying a home before seeing a copy of THE FARM AND REAL ESTATE JOURNAL. It contains the largest list of farm lands, city property and stocks of goods of any paper published west of Chicago. It reaches 50,000 readers each issue. 85 per cent of whom are farmers. Every one who has any property they wish to advertise will find this journal one of the best advertising mediums published. Advertising rates, 2c per word each insertion. Send 75c and we will mail you the Journal for one year, or for 10c in silver or stamps we will send it for two months on trial and stop it at the end of the two months unless you renew your subscription. **FARM AND REAL ESTATE JOURNAL, TRAER, IOWA.**

Zimmerman Irrigated Lands
The cream of the Pecos Valley. Now open. All river-front sections. The best alfalfa and fruit lands in America. Sold in 40-acre tracts, which will provide a permanent annual income of \$1,500 or more annually. Price \$40 per acre on 5 years' time, without interest or taxes, including perpetual water-right, 50 cents per acre as first payment. Address **THE HEATH COMPANY, 109 West Seventh St., Topeka, Kan.**



Kansas State Agricultural College

MORRIS AND NORTH LYON COUNTY
farms for sale. Write for list. We have a few bargains that will not be on the market long. Property for sale and trade. **F. L. JOHNSTON & CO., Dwight, Kansas.**

HOMES AND INVESTMENTS.
In reach of all in a growing locality. For information write, **WINN REALTY CO., Jetmore, Kansas.**

ROOKS COUNTY LAND
One Hundred Farms for Sale. Write for Lists. **C. H. DEWEY, Stockton, Kan.**

Corn and Alfalfa Farms for Sale
Dickinson Co., Kansas, 160 acres, 30 acres in alfalfa, 7-room house, large orchards, good improvements, price \$60 per acre. 320 acres, large 6-room house, 50 acres nice alfalfa, 60 acres meadow and pasture. Living water. All good corn and alfalfa land. Price \$60 per acre. 80 acres good improvements, nice orchard, large 4-room cottage. Corn and alfalfa land. Price \$6,000. This is a bargain. Write to James Sheeran, Solomon, Kan.

Reno Co. Farms.
320 acres, 12 miles from Hutchinson, Kan., all in cultivation, improved land, at \$21,000. Also 320 acres, 3 miles from Burtron, Kan., well improved, 200 acres in cultivation, balance pasture, at \$11,500. **CHARLES PETERSON, Hutchinson, Kansas.**

Missouri Farms For Sale.
Everman has a farm for every man. Write for description and price list. **JOHN W. EVERMAN, Gallatin, Mo.**

Ford County, Kan. Lands.
For sale. Write for price list and crop reports. Cooperation solicited. **BROWN & VERNON, Dodge City, Kansas.**

HELLO FARMERS!
Have you read my list of GREENWOOD CO. FARMS? The best corn, alfalfa, clover, cattle and hog country in the west. Fine blue stem pastures. Write for list and prices to P. D. STOUGHTON, Madison, Kan.

160 ACRES, 100 broke out, balance meadow and pasture, 6 room house, painted and in good condition, small barn and sheds, good well and windmill, orchard for family use, smooth upland, 4 mi. from Eskridge, 1/2 to school, phone and mail route. This is one of the best farms in the county. Offered for a short time at \$50 per acre, good terms. 80 acres, well improved, 60 under the plow, 4 mi. to town, good orchard, \$40 per acre. **F. L. MCCOY, Eskridge, Kan.**

Ozark Fruit Farm For Sale.
120 acres, 600 acres in cultivation, balance fine timber. Good 3 room house, 3 fine springs, fine apple orchard, large thrifty trees, other fruits. 1 mile from town. Good reason for selling. Price \$1,000. Write me for full particulars. **JOHN D. BAKER, Ava, Douglas County, Missouri.**

A BARGAIN IN LAND.
160 acres, 100 in cultivation, balance pasture all fenced and cross fenced, fair 6-room house, good barn, small orchard, can nearly all be cultivated, 5 miles from a good town. Price \$8,500. **HULL & ZIEBEL, Herington, Kansas.**

Arkansas Alfalfa Plantation.
Containing 895 acres, all deep rich black land above overflow, 450 acres now alfalfa, six cuttings each year, hay sells for \$15.00 per ton on track, railroad station on property, three large barns, ten houses, store building. This property is the best money maker in the south, will sell for \$50.00 per acre on easy payments. Address **J. G. HOWARD LAND CO., Ozark, Arkansas.**

Buy Western Kansas Land.
Should you want to buy any western Kansas land for speculation or for a home, don't fail to write me. I am selling land throughout all counties in western Kansas. I am myself farming extensively on the kind of land I offer for sale. I can sell you land that will make you money. Write me at once for prices. Address **EUGENE WILLIAMS, Minneola, Kansas.**

HOME IN MANHATTAN

or Lands anywhere in Kansas. See Manhattan Realty Co., **HULL & MOORE, Manhattan, Kan.** You should buy or rent this summer. Write us now.

\$100 REWARD for every farm you can find where we have sold above the owner's price. Call on us or send for new list of land. \$5 an acre up. **G. N. DAVIS & CO., Cimarron, Gray County, Kansas.**

640 acres of good wheat land, 8 miles north of Dodge City, 320 acres new sod ready for wheat. Price \$17.50 per acre, terms.
320 acres 7 miles north of Dodge City, 200 acres of good wheat land. Price \$10.
160 acres 9 miles south of Dodge City. Price \$15 per acre.
640 acres well improved, 5 miles south of Dodge City. Price \$30 per acre. This is a dandy, cooperation solicited. Price list furnished upon application. **G. L. PAINTER & CO., Dodge City, Kansas.**

320 ACRES CHOICE ROOKS COUNTY LAND, \$6,400.
Nearly all tillable. Some in cultivation, 5 miles from station. **STEVENS & RUBY, Stockton, Kansas.**

Hodgeman County Lands.
Choice wheat and ranch lands. Write for price list and county map. **F. M. PETERSON, Jetmore, Kansas.**

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a quick deal, list your trading property with us. We trade while the other fellow sleeps. We have exchanges for land, merchandise, live stock, or anything of value. Try us. **NEFF REALTY CO., Olathe, Kansas.**

Good 320 acres in Marion Co., Kan., improved, \$8,500.
Fine 320 acres close to Marion, Kan., all grass. \$10,500.
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I have good farm to trade for hardware stock and some lands to trade for merchandise. Write for my big list of bargains. **SOUTHWESTERN LAND CO., Geneseo, Kansas.**

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500 TRADES.

We have the largest list of farms, ranches, income property, merchandise and hardware, hotels, livery, etc., of any firm in the West. We print description of your property on our list, and will get you a good honest trade of just what you want. **GRAHAM BROTHERS, Eldorado, Kansas.**

THE STRAY LIST

JUNE 19.
Geo. Throckmorton, Co. Clk.
Taken up on the 5th day of May, 1909, by D. F. Vanness, Burlington, Kan., in Hampden tp., Coffey Co., 1 red steer, branded with the letter S; some white on head and belly; very thin in flesh. Appraised at \$20.

JULY 3.
J. A. Maxwell, Co. Clerk.
Taken up by G. E. Wilkerson who resides at Washington, Washington county, Kansas, June 5, 1909, 3 red barrows, one year old, no marks except a piece torn from the left ear of one; value as appraised \$22.50. 1 red sow, one year old, no marks, value \$7.50; total value \$30.

July 3—1909.
Guy G. Adams, County Clerk.
Taken up on the 1st day of March, 1909, by Sam Sprague, Tribune tp., Greeley County, P. O. Tribune, 1 mare, 2 yrs. old, black weight 900 pounds, spot in forehead, snip on nose, valued \$75.

July 3, 1909.
J. B. Spurlock, County Clerk.
Taken up by A. C. Castleberry, Liberty tp., Geary County, June 13, 1909, 1 gray horse, 14 yrs. old, weight about 1,200 lbs., 1 bay mare 11 yrs. old, weight about 1,000 lbs. Mare blind in right eye.

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Notice in "Inventive Age." **FREE**
Book "How to Obtain Patents" **FREE**
E. G. SIGGERS, Box 7, N. U. Bldg., Washington, D.C.

DAIRY



That territory known as the "Elgin District" comprises the entire state of Illinois, the three lower tiers of counties of the states of Wisconsin and the eastern tier of counties of the state of Iowa.

C. B. Lane, one of the leading authorities on dairying says: "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."

Joel G. Winkler, who for two years has represented the dairy division of United States Department of Agriculture in Kansas, Nebraska and Oklahoma has been transferred to take charge of a district composed of North Dakota, Northern Minnesota, and Eastern Montana, beginning July 1.

Professor Frandson emphasized a truism when he said, "By selling only the cream, farmers are retaining fully 95 per cent of the fertilizing material contained in the feed. Perhaps this can be better understood by saying that \$26 worth of wheat takes as much fertility out of the soil as \$390 worth of cream."

Here are reasons why a rotation of crops is necessary, namely: To prevent the exhaustion of some plant foods more than others; to provide plenty of humus; to provide bacteria for legumes; to keep the land in use; to distribute labor evenly through the year; to control weeds; to rid the land of insects and pests; to provide for "ready money;" to get nitrogen from the air, and to break up the underlying subsoil by deep roots. Dairying fits into this system.

The Oklahoma Board of Agriculture has appointed O. W. Holmes, a grad-

uate of the A. & M. College at Stillwater as State Dairy Inspector. His headquarters will be at Guthrie. Mr. Holmes is a man trained along dairy lines. His predecessor had no dairy training. How absurdly foolish it is to endeavor to promote dairying by employing in the work men who are not dairy men! The Oklahoma board so regarded the situation and in Mr. Holmes the dairy interests should be well represented.

Acidity and Butter Flavor.

It has been a generally accepted theory among teachers of and writers on dairy subjects that the production of good butter necessitates the development of a certain amount of acid in the cream, for two reasons, to develop a desirable flavor and to improve the keeping quality. Recent investigations by the United States Department of Agriculture indicate, however, that butter made from pasteurized sweet cream has better keeping qualities and remains free from objectionable flavors for a longer time than butter made from sour cream. If these facts are established it might seem that in the years to come only sweet cream would be bought for butter-making.

Less Bovine Tuberculosis.

The tuberculin test on Wisconsin dairy herds has been applied under the direction of the Agricultural Experiment Station. Since testing was begun in 1892 a total of 72,638 animals have been tested. Over 66,000 of these animals were tested in the last three years.

The state has paid to owners two-thirds of the appraised value of reacting animals, and has received in return whatever was paid for the carcasses of those animals passed by federal inspectors.

There has been a decline in the per cent of animals reacting from 17.7 per cent in 1906 to 5.6 per cent in

The Aristocrat of Moderate Priced Cream Separators

We are often asked the reason for the great success of the

United States Separator

In a nut shell it is this:

U. S. Cream Separators are made of the best material, are most thorough in skimming and most durable in wearing qualities.

Every UNITED STATES owner will stand back of these facts.

In every line there is one best. Why? Because that one is the standard. So it is with Cream Separators, the **United States** is the **Standard Cream Separator**. Many thousands being operated in all dairy sections have established its value.

Promises and performances. There are cream separator manufacturers that promise great things—on paper—but in actual daily use their machines cannot fulfill their glaring claims.



When some glib salesman claims he has something equal to the United States, make him show you proof. It is one thing to make a claim and another thing to prove it.

The United States has the proof. For it **Holds the World's Record** for closest skimming in fifty consecutive runs, covering one month, at the Pan-American Exposition from the milk of ten different breeds of cows, a record never having been equalled.

Before you decide examine the United States carefully. Ask any of the thousands of satisfied users and get their verdict, then have a **United States** selling agent place a **United States** in your dairy on free trial and it will prove all claims.

In the meanwhile send for illustrated Catalogue No. 91

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

1908. In 1906 almost half of the herds which were tested were infected, while in 1908 less than one-fourth had the disease. This indicates that the disease is present in a great many herds, although it has not spread in each herd to any great extent.

The evidence shows that the most common mode of herd infection is through the purchase of infected animals. Of 363 herds found infected in 1908, there were 263, or nearly three-fourths, infected through purchase.

Keeping Cream Sweet.

The first step in keeping cream sweet is to keep it as clean as possible. Clean cream cannot be produced by filthy methods of milking nor by handling the cream or milk in unclean utensils. Milk cans, stirrers and pails should be thoroughly washed in luke-warm water, then thoroughly scalded in hot water and dried and

exposed to the sunlight and pure air. Treat all the separator tinware, including the interior parts of the bowl, in the same way. The separator bowl should be washed thoroughly after each separation. Wooden and galvanized iron pails are hard to keep clean and sweet.

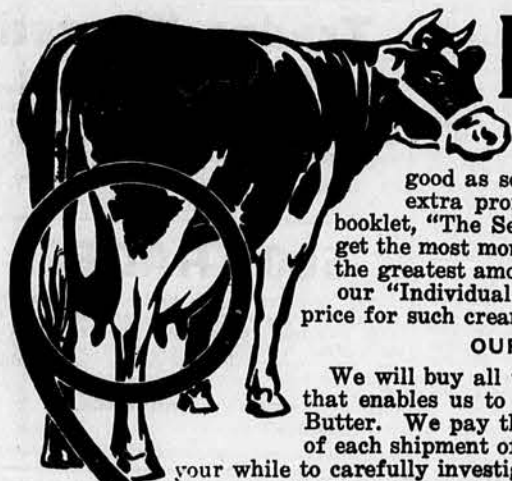
The next step is to remove the animal heat from the cream as soon as possible after separating. Run the cream from the separator into a convenient utensil for cooling. A three or five-gallon shotgun can is most convenient. Cool the cream in well water by stirring. In a few minutes it can be reduced to the temperature of the water. After the cream is cooled it can be added to the cream contained in the supply can used in delivering cream to the station. The cream supply can, while being filled and held for delivery, should be kept in water at as near the temperature of freshly pumped water as possible. The average temperature of well water in Kansas is about 56 degrees. With it, cream can easily be held at 58 or 60 degrees, and at this temperature will remain sweet for delivery in good shape at the station.

Different conditions on the farm will govern arrangements for the cooling of cream. Where windmills are used, many farms have cheaply-constructed milk houses in which can be placed a tank or half barrel through which all water is led from the windmill to the stock watering tanks. With the cream cooled and held in these tanks the arrangement is everything required.

Where windmills and milk houses are not used, a half barrel can be set near the pump and a cheap shade constructed. The water can be pumped by hand with small expenditure of time and labor. The cooling of the cream will heat the water. Run out the warm water and pump a fresh supply in which the cream can set over night or through the day before being added to the supply can. When another lot of warm cream is to be cooled, the operation can be repeated. A large box can be set over the barrel to protect the cream from the sun. The farmer's ingenuity may suggest some other protection equally as good.

There are a dozen or more arrangements, inexpensive and easily made, which can be devised on every farm for the proper care of cream. These remarks suggest only the principle of keeping the cream in good condition and with everyday facilities.

Aside from the souring of cream, there are many other things which enter into its care and which should be observed to insure cream of first quality. Cream rapidly takes up odors, and for this reason should be kept in pure atmosphere. A great deal of cream, otherwise first quality, has an odor of fried onions and fried meat and even tobacco, the result of keeping the cream in the kitchen, or in the living-rooms, and spoiling it for making good butter. Do not place the cream can in the cellar where there



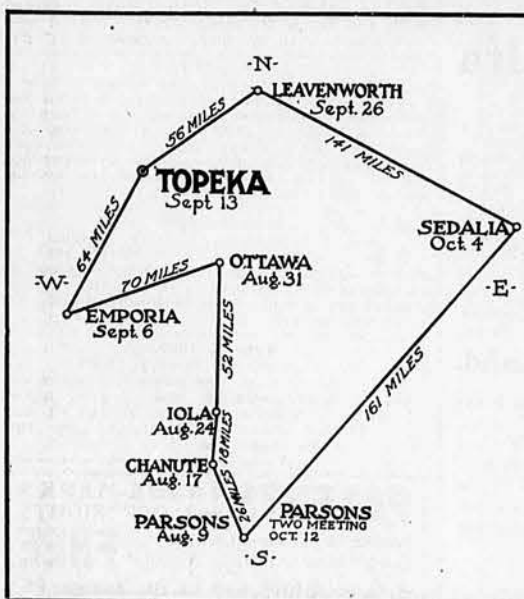
It's just like found money

Every cent of extra profit you can get out of your cream is as good as so much found money. Wouldn't you like to know how to get this extra profit? Of course you would—then write us today for our valuable booklet, "The Secrets of Successful Dairying." In it we show how you can get the most money out of your cream—how to produce cream that will yield the greatest amount of butter fat—how to produce Blue Valley Cream—how our "Individual Shippers' System" will afford you the highest possible price for such cream.

OUR PRICE for Butter Fat this week is 25c.

We will buy all the cream you can produce—rich in butter fat—the kind that enables us to maintain the uniformly superior quality of Blue Valley Butter. We pay the highest price, mailing you a check for the full amount of each shipment of cream the same day it is received by us. It is well worth your while to carefully investigate our proposition and satisfy yourself that we can help you get this extra profit out of your dairy herd. Address Desk A.

BLUE VALLEY CREAMERY COMPANY, St. Joseph, Mo.



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New Buildings, New Sewer System, New Equipment. Reduced stall rents and increased premiums. Free space for Implements and Machinery. \$20,000 in premiums and the glad hand to you.


Member of the Kansas Grand Circuit. Also member of the Big State Fair Circuit with short shipments for each fair. Everybody accommodated and everybody welcome. Exhibits in every department, but especially strong in live stock, implements, machinery, agriculture, horticulture, dairy, poultry, apiary and household. Special money for the Boys' Corn Contest and for pure bred live stock. The best track in the State and a large race entry.

For entry blanks and premium list address

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\$33⁵⁰ Galloway
"BATH IN OIL"
 High Grade Separator—Direct
 Save \$25 to \$50 direct at my factory
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 like a \$5,000 automobile. This
 alone is worth \$50 extra, but
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90 Days'
Farm Test—Freight Prepaid
 Why pay \$85 to \$110 to dealers or agents
 who cannot sell you a separator equal
 to the Galloway—closest skimmer—
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Save One Mans Wages
with a
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Gang



One man and four horses
 can do as much work with a
 Liberty Gang as two men and two
 teams can do with ordinary sulks.
 Figure out how long it would
 take for this saving of wages to
 pay for a

Liberty Gang Plow
With Patent Low
Swing Foot-Lift

You don't have to dodge or
 climb over the levers—they are
 all on the mold board side within
 easy reach of seat which is set
 well back so the driver can watch
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 swing foot-lift works so easily
 that a small boy can raise the
 plows with it.

The Liberty has dust proof
 boxes, 1,000 mile axles, bottom
 fitted with steel blocks—furrow
 wheel that doesn't change level
 of plow—rides like a buggy—
 nothing lacking to make up the
 best gang ever made. Write for
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"Caldwell Special"
60 Days
Trial FREE



Prove it on your
 own premises that
 it saves time,
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 makes money.

The "Caldwell Special" is as clean out as a
 race horse. Built right—works right. Sim-
 ply built—always gives full H. P. Costs little
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 and a dozen other things.
 Write any or all the 8 Banks of Waterloo as
 to our responsibility. Sixty day Trial Free.
 We prove it to you on your own premises at
 our expense that you cannot afford to do
 without a "Caldwell Special."

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15 Cents a Rod

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 for 34-inch, 27¢ for a 47-inch
 Farm Fence. 60-inch Poultry
 Fence 37¢. Lowest prices ever
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 Two Men can run it.
 The Auto-Feeder Hay Press Co.
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 Ask for Catalogue No. 614

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Newton's
 Cough, Croup &
 Whooping Cough Cure
 Guaranteed or Money Back.
 \$1.00 per can, at dealers, or
 Express Paid. 15 Yrs' Sale.
THE NEWTON REMEDY CO.
 Toledo, Ohio.



are decaying potatoes, cabbage and
 other vegetables.
 The most objectionable, as well as
 the most characteristic flavor found in
 hand separator cream, is that old,
 stale and rancid flavor which develops
 in cream as a result of being held too
 long on the farm. This flavor is char-
 acteristic of nearly all hand separator
 cream produced during the fall, winter
 and early spring months when the re-
 ceipts of cream on the farm are small
 and the weather being cool, and pat-
 ron thinks he can hold his cream in
 good condition for once-a-week ship-
 ment or delivery at the cream receiv-
 ing station. As a rule, this cream is
 not too sour, but it is so old that even
 with the most skillful handling it will
 make very poor butter, and the quality
 of this cream can only be improved
 by more frequent delivery to the
 creamery.

In winter cool the cream as in sum-
 mer. The atmosphere is then colder
 than water. Hang the cream pail in a
 tree or on a post in the open and stir
 until cool. Then set away in a clean,
 sweet place until delivery. A barrel
 set in the ground and banked up with
 dirt, with a board cover and a blanket
 or carpet thrown over it in the coldest
 weather can be used to good advan-
 tage, insuring pure atmosphere for
 the cream and preventing the cream
 from freezing.

A great deal of cream leaves the farm
 in good condition, but on the road to
 the creamery or shipping point is ex-
 posed to the sun, when the develop-
 ment of souring germs rapidly begins.
 Be careful, therefore, to protect the
 cream from the sun while it is on the
 road. This can best be done by throw-
 ing a wet blanket over the can, then
 a dry blanket over the wet one. The
 dry blanket prevents the evaporation
 of the water from the wet blanket. A
 heavy dry blanket is much better than
 no covering. In the winter throw a
 blanket over the cans while on the
 road, preventing freezing and making
 possible accurate sampling at the sta-
 tion.

In stirring cream for cooling, use the
 stirrer with an up-and-down or dash
 motion on the principle of the dasher
 in the old-style dash churn. This
 thoroughly agitates the cream, getting
 the center to the outside and allowing
 the cream to cool through and
 through.

Separate a cream as heavy in but-
 ter-fat as possible, testing 35 to 45 per
 cent fat. The heavier the cream the
 better it will keep sweet if proper pre-
 cautions are taken in cooling. The
 milk in cream causes rapid deteriora-
 tion and the less milk the smaller bulk
 for delivery and the more milk for
 pigs and calves.

In a few words, the principle of
 keeping the cream in good condition
 is to produce as clean cream as pos-
 sible by having clean milk; by having
 all utensils with which the cream
 comes in contact thoroughly cleansed;
 and by the proper cooling of the cream
 as soon as possible after separation
 and the holding of it at as low tem-
 perature as the well water will allow;
 and the delivering of the cream every
 other day at the station; and protect-
 ed as much as possible from the heat
 in summer and from cold and freezing
 in winter.

Oklahoma produced more crude oil
 than any other state in 1908. The offi-
 cial record is 45,798,765 barrels. Cali-
 fornia is second with 44,854,737 bar-
 rels. But Pennsylvania with a produc-
 tion of 9,424,325 barrels on account of
 the superior quality of her oil stands
 almost as high as Oklahoma in value
 produced. Pennsylvania oil brought an
 average of \$1.7912 per barrel while Ok-
 lahoma oil brought only \$.386 per bar-
 rel. In total value of oil for the year
 California had \$23,433,502 Illinois,
 \$22,648,881; Oklahoma, \$17,694,843;
 West Virginia, \$16,911,865; Pennsylva-
 nia, \$16,881,194. Kansas oil is a little
 better than that of Oklahoma, but the
 product of this state brought only
 \$746,695.

Reports received by the Kansas
 State Horticultural Society indicate
 the prospects for the fruit crop to be
 as follows for the state compared with
 the prospects of June, 1908:

	June 1909	June 1908.
Apples	21	39
Pears	8	26
Peaches	3	51
Plums	16	38
Cherries	26	44
Grapes	58	62
Strawberries	45	48
Raspberries	50	63
Blackberries	51	70

DE LAVAL CREAM SEPARATORS THE WORLD'S STANDARD



De Laval Cream Separators were the original and have led in every
 step of cream separator development. Constantly improved, they have
 been fully remodelled every five or ten years, the last time from top to
 bottom in 1908, with the finishing touches of perfected refinement added
 in 1909.

Others cream separators have always been merely the product of
 those following in the wake of De Laval success, utilizing variations of
 the ten to twenty year old De Laval features which expiring patents
 have so laid open to them.

De Laval cream separators skim closer, particularly at low tem-
 perature and running heavy cream; have greater actual, if not claimed
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 sanitary and easily cleanable; are far easier handled, assembled and
 unassembled, and are so much better made as to design, materials and
 workmanship that they last from two to ten times longer than other
 separators.

They produce cream so much superior to other systems and separa-
 tors that butter made from De Laval cream scores highest in all respec-
 tive contests, which, together with their other advantages, has brought
 about their exclusive use by more than 98 per cent of the world's cream-
 ery and butter factories, with their thirty years practical separator
 experience.

De Laval cream separators cost no more than other separators,
 considering actual capacity. They save an average \$50.—per year over
 other farm sizes of separators and an average \$100.—per year over
 other creaming systems, and they last twenty years as against two to
 five years for other machines. They are sold for cash or on terms that
 enable their paying for themselves, and there is no payment of any
 kind in advance that practically binds the buyer to his bargain.

De Laval Cream Separators are the highest type of farm imple-
 ment made and invariably prove the most profitable of farm invest-
 ments. They are guaranteed to be in every way as represented and to
 fulfil every claim made as a condition of their acceptance by the pur-
 chaser. They are sold on as sound a basis as a government bond and
 their prestige is as solid as the Rock of Gibraltar.

The buyer who puts his money into any other separator today and
 continually wastes some of his product through its use must surely do
 so without knowledge of the up-to-date De Laval machine, the oppor-
 tunity for which knowledge is free to him for the asking.

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HOME CIRCLE



One Fourth of July Picnic.

RUTH COWGILL.

The morning dawned sultry and bright, with the cloudless sky and the breezeless atmosphere which prophesied a stifling day.

"Fine day for the picnic, Luella," said Mr. Hughes, and he set down the two great pails of milk with a grunt, and mopped his dripping face.

"Hot, though!" said Frank, following his father in. "Gee, it's going to be a sizzler!"

Luella had been busy preparing the separator in the little milk house that opened off the kitchen, but now she came in, smiled at her father, patted her brother's big bare arm in passing and began cutting slices of bread rapidly and skillfully. She was a little woman just out of her teens and there was a certain grace about her swift movements that made one's eyes follow her without realizing why they did so. She was one whose native tenderness was of that light and unconscious kind which makes those who receive it happier and kinder.

"You'll go, won't you, father?" she asked.

"Why, yes, I thought I'd hitch up the black team, and we'd all go in the spring wagon."

"Well—eh," began Luella, but Frank spoke at the same time, his face reddening bashfully.

"I'll use my pony and take the buggy, if you don't mind."

"Got a girl, Frankie?" asked Luella, teasingly.

"Well, I'm eighteen," he said defensively.

"Oh! have you really got a girl?" Luella repeated, this time in surprise.

"Who is she?"

"Won't tell," said the boy. "You'll see for yourself."

"Oh, I think you might tell your sister," said Luella. But Mr. Hughes chuckled.

"They never do," he said, his eyes twinkling.

"I was just going to tell you, father, that you need not make room for me in the spring wagon either."

"Going with Bert, are you?" queried her father.

"No," she said, quietly, though her cheeks were faintly red.

"Who then?" said Frank, evidently surprised.

"Jim Brunt—in his new automobile."

"Whew!" whistled Frank. "What's the matter with Bert?"

"He seems to be alright," she said, demurely.

"Turned him down for an automobile, did you?" said Frank, in great scorn. "Never thought that of you, sis."

"No, and you don't think it now," said their father, kindly. "Luella will tell us about it, if you 'give her a chance.'"

They were eating breakfast now, and Luella was in and out, as she served

them. The younger children had come straggling in one by one, and were seated at the table, their healthy young appetites making food disappear as if by magic.

"I'll tell you some other time, father," said Luella, with a glance at the table full of "little pitchers with big ears."

Her father commenced at once talking of the picnic to the children, who were all excitement.

"Luella is going in an automobile," said Frank.

"Oh—has Bert Falkner got an automobile?" asked the others.

"No—it's Jim Brunt."

"Wish I could go, too, in an orter-mobile," said Charlie, the youngest.

"But, say, has Bert got another girl, sis?" asked the middle-sized boy.

"Oh—no—no—no," said Luella, in momentary exasperation. "I—I—I just decided to go with Jim."

"Well, I know I wouldn't throw Bert over for an automobile—I know that, Miss Luella." Luella's sister looked at her with all the wisdom and all the self-righteousness of fourteen years.

Mr. Hughes glanced at Luella, then prudently introduced another subject of conversation.

When breakfast was over and the work swiftly done up, Luella helped the children into their picnic clothes, finished packing the substantial lunch which she had prepared the day before, and piling them into the spring wagon heaved a sigh of relief as her father picked up the lines. A big family was sometimes quite a task, she thought. Her father bent down toward her just before he started, and said, in a low voice:

"You need your mother, girlie, but whenever you need your father you know I'm here."

Tears sprang into her eyes, but she said brightly, "Yes, yes, I know, dad. But—I don't need anybody, particularly."

Frank drove away soon after, and then, all alone for the first time that day, she put her head down on the table, and cried.

"I don't know what I'm crying for," she said. "I guess I'm tired."

So she dried her eyes, and combed her pretty hair, and put on her white dress, and was waiting on the front step bright and serene, when Jim Brunt's machine drove noisily up.

"An automobile seems to suit the Fourth of July, doesn't it?" she said, as she stepped in. "It is so noisy and so red and shiny."

The man laughed. He was proud of his machine, the only one thereabouts.

They spun along gaily and the swift motion stirred Luella's blood, drove away all thoughts of tears, and filled her with a pleasant excitement. They passed several teams on their way, and frightened the horses, but no accident occurred, and they rolled at

last into the picnic grove, to the great excitement of the children already gathered there.

Fire-works were popping, flags flying, and crowds were gathered around each barrel of ice water. The horses hitched to the trees were restive and nervous under the combined effect of noise and flies and heat.

They walked over toward the merry-go-round. In one of the double-seats Luella saw Bert, with 'that city girl,' as Luella always called her, though she had been introduced, and knew that her name was Miss Rebecca Briggs. She met Bert's eye, and he became suddenly more assiduously attentive to Miss Briggs. Now Bert loved Luella, and she knew it, and why he had taken to being so devoted to Miss Briggs was beyond her imagination. She did not care for Bert, she knew that, but she was certainly puzzled. She sat down under a tree within view of the merry-go-round, and pretended to be amused with Jim's labored pleasantries but once in a while she forgot to laugh, in her absorption over the problem why Bert did so. It was a natural enough thing that he should be pleasant to a pretty girl when she came his way, she knew that, but—Well

"Dinner's ready," said Jim, looking over her shoulder toward the tables. "Shall we go?"

"Yes, let's do," she said, and rose listlessly.

One table by common consent had been reserved for the young people. Jim led the way to this, and before they were fairly seated, Bert and Miss Briggs had followed and taken the only empty seats left, which placed Bert next to Luella.

Luella talked to them brightly and even Bert who knew her well, did not know that she was excited.

"How do you like Jim's automobile?" Bert asked of her, in a low voice, and with a meaning look.

"It's fine," she said, "and Jim knows how to handle it so well."

"Like it better than horses?" he asked. Bert's specialty was breeding fine horses, and he always bred some beautiful ones to drive.

Bert was looking at her in a certain way which set her heart to singing happily, but she looked down demurely, and said,

"Yes, for some purposes."

Bert turned away abruptly and for the rest of the meal devoted himself to the company at large, setting them all laughing again and again.

"I've made him angry again," said Luella, to herself, but she tossed her head and thought she did not care.

After dinner Jim took different parties of three or four for short rides in his machine, and Luella looked clear away the remnants of the feast.

She was looking around for some one to talk to, when her eyes fell upon Bert Falkner in the act of mounting his beautiful black riding-horse.

"Oh! Then he did not bring the city girl," she said to herself with some satisfaction. "But where is he going?"

He was evidently going home, for he started down the lane toward the entrance. Jim's machine was just coming back from one of its trips and now pulled into view, with a mighty puffing and whirring. The spirited horse upon which Bert sat, unused to such sights and noises, was frightened out of its seven wits. Bert must have been dreaming, or he would have been prepared for the emergency. The horse reared, plunged, swung against a tree, threw Bert headlong against it, and bolted.

Luella, watching what happened so quickly, yet so terribly, gave a scream and ran to where Bert had fallen, and before Jim, stupefied, had got out of his machine, she was there.

"You have killed him—you have killed him," she said, to Jim. For the moment she had quite lost her head.

But she rallied her strength and courage, lifted his bleeding and unconscious head upon her lap, sent some one flying for water, and when Bert opened his dazed eyes in a moment. She was sopping his head with her wet handkerchief, her face pale but full of that grave tenderness which she always showed toward weak or suffering things. He saw something else in her face, too, something which the crowd saw, too, and of which she was not ashamed.

He raised himself abruptly and dizzily.

"Where's that brute gone?" he asked.

"Jim Brunt?" asked a precocious small boy in the crowd, and that gentleman presented himself sheepishly.

"No, no," said Bert, with an approach to a laugh. "The horse?"

"He's gone, Bert," said Luella, quietly. "You'd better let Jim take you home in the automobile."

"No, thank you, I've had enough automobile for today," he said. "I'll walk."

The crowd came forward here handsomely and he was overwhelmed with offers to take him home.

"I'll go with you, Mr. Hughes, thank you," he said, to Luella's father. "I guess you'll have to go too, though," he said to Luella. "I'm afraid my bandage will come off."

Mr. Hughes laughed, and Luella with heightened color turned to Jim.

"You see how it is, Jim," she said. "I guess I'll have to go with him. Thank you so much for the ride over and I've had a very pleasant day."

And so Luella preferred horses to an automobile, after all.

What happened on the way home am not in a position to tell, but it was not many weeks after the Fourth of July before people were saying that Bert and Luella were engaged. And the wedding took place that fall.

POTASH

You can no more get wheat without straw than you can get cream without milk. If you get too much milk for too little cream, don't starve the cow to reduce the milk, but feed her for richer milk. If your wheat this year shows too much straw and not enough grain, feed your soil this Fall for wheat that will grow more grain next year.

Complete your commercial fertilizer with **Potash**. It builds up a strong, sturdy, well rooted, springy wheat stalk, fills out the grain, and carries it through wind and rain to make a profitable harvest for you.

POTASH PAYS

Add enough **Potash** to your fertilizer to bring it up to a 2-8-6 formula. Two pounds of Muriate of **Potash** to each 100 pounds of fertilizer increases the **Potash** total one per cent.

Send for *New Farmers' Note Book*—about soil, crops, manures and fertilizers—a practical book compiled by experts. Mailed on request, Free.

GERMAN KALI WORKS, Monadnock Building, Chicago
New York—93 Nassau Street
Atlanta, Ga.—1224 Candler Building

I'll Save You \$50 On a Manure Spreader

If You'll Let Me

This is just a little ad—but a postal will bring my *Big Book*—and give you my \$50.00 Saving Price and Special Proposition. You can save as much answering this little advertisement as if it covered a page.

My Spreader positively will do better work and last longer than any Spreader made—no matter what the price—so why pay \$50 more? 20,000 farmers have stamped their O. K. on my spreader and money-saving price. My Special Proposition will interest you.

Just a postal addressed to Galloway of Waterloo, Iowa, will bring you everything postpaid.

Will You Pay a Penny For The Postal and Save \$50.00?

Address Wm. Galloway, Pres. WM. GALLOWAY CO., 389 Galloway St., Waterloo, Ia.

POULTRY



Dry feed is preferable to wet mash during hot weather, for the wet food if any is left over, is very apt to sour in a short while and cause derangement of the bowels.

Do not forget that chickens need shade from the hot rays of the sun. It is essential to their comfort and thrift. If you have no trees in the yard, artificial shade of some kind must be provided.

Especially should the nest boxes and the roosts be cleaned, for they are very liable to be overrunning with lice and mites. Put tobacco stems in the nest boxes, coal oil on the roosts and whitewash the walls and ceiling.

Hot weather is apt to make the poultryman skimp some of his duties. How much nicer to lay in the shade than to be cleaning up the poultry house. Still this should be done, and done oftener in hot weather than in cold.

When the chicks droop and are inactive, it is a pretty sure indication of lice. If the chicks are still in care of the mother hen, it is best to dust her thoroughly with insect powder and there will generally be enough left in the feathers to kill the lice on the chicks. Or take a sponge, dip it in coal oil and squeeze the oil out. Then rub the hen's feathers thoroughly with the sponge, especially under the wings and breast. As the young chicks nestle under the hen enough of the oil will be left to cause the lice to leave them.

A correspondent writes: "I have just noticed an advertisement in a poultry paper saying that chicken feed can be made for ten cents per bushel, but a dollar must be sent for the book which tells how to make the feed. Do you know anything about it?" Yes, we have written about this more than once. It is sprouted oats that is meant for chicken feed at ten cents per bushel, but sprouted oats is only green feed, and hens and chicks will not eat enough of it to keep them alive. It is not as good as alfalfa or clover and they don't cost ten cents per bushel. No, the thing is a fraud on the face of it. As well might they advertise excellent food for man at ten cents per bushel and give him a bushel of spinach. Spinach is very good with corned beef or boiled bacon, but without some meat is hardly fit for human food. So is sprouted oats or any good green food good for chickens, but without grain of some kind in addition, the hens fed on sprouted oats will never lay eggs.

Care of Summer Chicks.

Little chicks, whether hatched under hens or in incubators, are usually fed too often and too much at a time. Earlier in the spring when the weather is cool and chilly the little chick requires more food and must be fed oftener.

The chicks must get bugs, worms and green stuff which we must allow for and which should be fed but three times daily. They should be fed nothing for 36 hours after being hatched as food before this time causes more sickness in little chicks than any other one cause.

The first feed should be rolled oats, just a little at a time, plenty of sand and water within their reach being careful that the water is so they cannot get in it and get wet. A good way to prevent this is to punch holes, about one-half inch from the top of a quart can, then fill the can with water. Turn a saucer over the top of the can and invert quickly. Place this in the chick pen and they cannot get wet.

After the first week feed cornbread thoroughly baked. I also feed whole Kafir occasionally. Keep oyster shells within their reach. I have plenty of milk and feed one feed each day of clabbered cheese and wheat bran. This I find is indispensable feed for poultry, both old and young. I consider chicks two weeks old half raised, as far as mortality goes. Of course cats, minks, skunks and rats do not care if chicks are one day or one month old

and a cat is very cunning and may have devoured many chicks before being suspected, so if your chicks are mysteriously disappearing, watch the cat. About bowel trouble. This is almost always blamed to the kind of feed but I think a greater part of the experienced poultry raisers will agree with me in saying that bowel trouble and also other small chick ailments, are more often due to other causes than the kind of feed. Over heating, chilling, wet and cold, etc., are the vital obstructions to success. Mites and lice are blood suckers and often impair the health and vitality of small chicks until they fall heir to disease. I want to repeat again that coops, brooders and brooder houses for small chicks should be kept scrupulously clean and should be kept some distance from the old vermin-breeding hen house.

Another fatality which I wish to mention is, if you have an orchard of summer apples at the mercy of little chicks they will eat too many which is certain death. Perhaps it is needless to speak of that this year. I have lost many chicks in this way before I knew what was the trouble.—Mrs. Lizzie B. Griffith, Emporia, Kan.

Hunting for Eggs.

Most masculine America, at some time or other in its career, has hunted birds' eggs, but few of all those who have tramped hill and dale, climbed towering trees and peered into hedge-groves in search of the fragile shells realize that in far corners of the world there are men who are spending their lives in pursuit of those very eggs or others more rare, says the Technical World Magazine. The tangled jungles of equatorial Africa know these men; the snowy steppes of Northern Asia have felt the pressure of their tireless feet; they trace new trails across the Saharas of the globe and on the spreading pampas of the New World's southern continent, while the distant islands of the sea are scoured for new specimens in bird skins and birds' eggs.

Swinging on slender threads of rope from dizzy cliffs that lean above the lashing waters of the routh North Atlantic they glean rare sea birds' eggs from niches in the rocky walls which these winged wanderers call home; form the tops of the sky-reaching pines they take eagles' eggs while the brave parent birds hurl themselves in vain fury against their daring enemies.

From caves far up in the face of the Sierra they gather the solitary egg of the California vulture, the largest bird that flies, and in the jungles of the tropics they risk their lives amid

fevers and poisonous reptiles and vindictive natives in search of rare humming birds and other gorgeous feathered dwellers in the warmer lands.

The writer tells some very interesting stories of birds' eggs and egg hunters, including one of the \$1,600 eggs which is the heart's desire of collectors.

Kansas Agricultural College to Conduct Demonstrations on County Farms.

An act of the last legislature authorizes the Agricultural College to arrange with County Commissioners to use from 10 to 40 acres on each "poor" farm for demonstration purposes. The experts at the Agricultural College have long known that some of the things actually proved by them at Manhattan do not work out in the same way in remote parts of the state. The College is willing to put to a test on county farms many things they have proved to be correct at Manhattan. Certain methods have been found best there and certain varieties of corn and wheat have been found better than others. Now comes the opportunity for the farmers of each county to have these things put to a test.

The Institute and Extension Department of the College has variety tests of corn and seed fields of pure bred corn on the county farms in the following counties: Jefferson, Johnson, Coffey, Cherokee, arvey, Ellsworth, Saline, Jewell, on the private farm of Mr. C. Clark of Colony, Anderson county, and several seed fields in Bourbon county on lands leased by the County Commissioners.

This bill carried with it no state appropriation but the law authorizes the county board to expend considerable money in carrying on this work. The College people are planning to make these demonstrations a source of profit, except the variety test plots and these need cost but a few dollars each. The best of tools are required, but no more and no better than should be found on any good modern farm.

Such work ought to be carried out in every county in Kansas. The law authorizes the Commissioners to lease or buy land if the county does not have a county farm. The legislature made a liberal appropriation for the Institute and Extension Department and men will be sent out by this Department to supervise the county work and their advice and services are absolutely free to each county, except that each county is expected to pay its share of the traveling expenses of these experts, to meet them at the station and take them to the farm and return them to the station. The total expenses will be small, probably not fifty dollars a year other than for necessary and useful tools. The work ought to be worth thousands of dollars.

The request for such cooperation must come officially from the County Commissioners and then the College will send a man to meet the county board and inspect the farm and arrange definite plans for the carrying on of the work. In this way these farms ought to be made of some use

to the farmers of the state and not merely an expense. All requests for such cooperation should be sent to the Institute and Extension Department, Kansas State Agricultural College, Manhattan, Kan.

Kansas State Fair

HUTCHINSON, SEPTEMBER

11-12-13-14-15-16-17, '09

"I desire to announce to the stockmen that the live stock classification and premiums will be practically the same as last year, with the exception of about \$750 added to the premiums on Shorthorns mostly for state exhibitors which is to encourage the Shorthorn breeders of Kansas, and a better classification and more money will be given Polled Durhams. In the swine division a full classification will be given this year to Hampshire hogs, also Chester Whites."

\$35,000 in purses and premiums. Seventeen grand divisions. Unrivalled attractions. The fair for the people, by the people. For catalog or detail information address

A. L. SPONSER, Hutchinson, Kansas.

RHODE ISLAND REDS.

ROSE AND SINGLE COMB RHODE ISLAND REDS.

Eggs from any mating half price remainder of season. Mixed eggs Rose or Single Comb from several matings, \$1 per setting. Red pullets hatched in midsummer will make winter layers. Write for descriptive mating list. It is free.

H. A. SIBLEY, Lawrence, Kansas.

BUFF ORPINGTONS.

BUFF ORPINGTONS—Chicks, pens, baby chicks, eggs. More first prizes State Fairs and State Shows than all other breeders. My POULTRY BOOK, containing information worth hundreds of dollars to farmers sent for 10 cents. W. H. MAXWELL, R. 95, Topeka, Kan.

LEGHORNS.

SINGLE COMB BROWN LEGHORN eggs 15 for \$1, 100 for \$4. H. N. HOLDEMAN, Meade, Kan.

BUFF COCHINS.

BEST BUFF COCHINS IN KANSAS. This variety exclusively. Can furnish eggs from prize winning stock at \$1.50 and \$2 per setting. J. C. BAUGHMAN, Topeka, Kan.

LIGHT BRAHMAS.

LIGHT BRAHMA EGGS from birds scoring 93 to 94 by Judge Rhodes, \$1.50 per 15, large flock \$1 per 15, \$4 per 100. Baby chicks each month \$2 per dozen. MRS. A. P. WOOLVERTON, R. 8, Topeka, Kansas.

PLYMOUTH ROCKS.

BREEDERS.

Our White Rock breeders are for sale at right prices.

SMITH & KNOPP, Route 2, Mayetta, Kan.

PURE BRED POULTRY.

SUNNY CREST.

Stock, fruit and poultry farm. Eggs to sell from M. B. turkeys, R. I. Reds and Leghorns. Registered Jersey calves and Poland China hogs for sale. Write me. MRS. WM. BRITE, Pierce City, Mo.

For Sale

S. C. Buff Orpington and R. C. R. I. Red cockerels, \$1 to \$5 each.

White Plymouth Rocks, pullets and cockerels, for \$1 to \$2.50 each.

Also some of my breeding stock of Reds, White Rock and Buff and White Orpingtons \$1 to \$5 each. Extra fine White Plymouth Rock 2 year old male bird \$2.50.

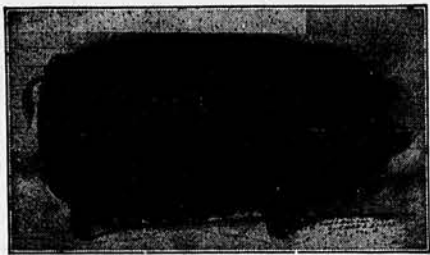
Mrs. Lizzie B. Griffith,

Route 3, Emporia, Kan.

BREEDING STOCK FOR SALE

In order to make room for growing stock I will sell a few dozen W. P. Rock hens at \$10 per dozen or less quantities at \$1 each. Such breeders would be worth from \$2 to \$5 each at breeding season. Some late chicks might yet be gotten out of them.

THOMAS OWEN, Station B, Topeka, Kansas.



POLAND CHINAS and DUROCS



To successfully raise and put on the market, Poland Chinas, Durocs and swine in general, you must look after their health at all times. On account of their manner of living they are susceptible to various diseases, caused directly or indirectly from worms and parasites, later resulting in fevers, and other diseases.

Protect your interests by protecting your stock. Use a good preventive and worm destroyer. Our remedies will give you this protection. A trial will convince you.

With perk at 7 cents, and corn at 72 cents, can you afford to feed worms and take the chances of not getting your hogs on the market? Certainly not. Then begin at the foundation, eliminate the worms, fever and congestion, by using our remedies, thereby reducing the cost of producing fat, from ten to twenty per cent, in addition to protecting yourself against possible losses.

Seeing is believing. Convince yourself by a test on your own place, and send us a trial order. Our remedies will save you more than they cost, in your feed. Grass is a parasite breeder, so get your stock in condition while they are on grass, by using a worm expeller so when you bring them in you have not a hog more or less wormy to consume a large per cent of the nutriment your grain should give.

We can help you to larger profits on your stock, if you will give us the opportunity. Write for free booklet, or send in a trial order.

THE STANDARD REMEDY COMPANY, Topeka, Kan.

PUBLISHERS' NEWS

Read and think about that advertisement of the Highland Park College and write to President O. H. Longwell, Des Moines, Iowa, for a catalog. You will be interested.

Did you ever see a "Cyclone" baler at work? If you have it will make you want to own one. It is self-feeding and has three strokes to the round of the team. It is better than ever and very reasonable in price. Ask Geo. Ertel Co., Quincy, Ill., to send their "baler book." It is free to our readers.

A free book telling why you should equip for a business life at the Lincoln Business College will be sent you if you will mention Kansas Farmer and write them at 11 North 13th St., Lincoln, Neb. This practical school was established in 1884 and had 900 students last year. Its popularity indicates its quality.

If you want the top market price for your cream and have your check for every shipment mailed out to you the very day of the shipment just try the Blue Valley Creamery Co., St. Joseph, Mo. If you will write for it they will send you their book on the "Secrets of Successful Dairying." Address: Blue Valley Creamery Co., Desk A, St. Joseph, Mo., so your letter will reach the right man and insure a prompt response.

The Dain Manufacturing Co., 836 Vine St., Ottumwa, Iowa, has a pull power hay press that is all steel with a rocker tucker and no toggle joints and no step over pitmans. It makes smooth bales that pack well and sell well. They also make an excellent belt power press which they claim is the best on the market. Their catalogs are free. Please mention Kansas Farmer.

A real farmer's bank—one that devotes special attention to farmers' business—is the German-American bank of Topeka. A majority of its directors are active farmers and it is one of the strongest banks of Kansas. They will handle your business anywhere and do it safely and judiciously. If you want to deposit money or to borrow on your farm just drop them a line. They are nice people to do business with and you feel that you are dealing with safe men.

"Goes like Sixty. Sells like sixty. Sells for sixty" dollars is the war cry of the Gilson Manufacturing Co., 97 Park St., Port Washington, Wis., when they talk about their Gilson gasoline engine. Made in all sizes from one to 25 horse power and you can have either size for a free trial if you mention Kansas Farmer. At any rate, it will only cost a postal to ask for their free catalog and from this you can determine the size you need and learn the cost of it.

The time has come when Kansas farmer must do something to renew the fertility of their land or quit raising wheat. If you do not renew your soil you are simply selling away your farm with every load of wheat. Barnyard manure will do it but it takes time. If you will read the advertisement of the German Kall Works in this paper and write to them at 93 Nassau St., New York City they will send you a copy of their new Farmer's Note Book free. This tells all about it.

If you don't happen to want to pay cash down for a new buggy or wagon you can get one—any kind you want—on credit from the Century Manufacturing Co., Dept. 494, East St. Louis, Ill. These buggies and wagons range in price from \$20 up and they are warranted for three years. A former member of Kansas Farmer staff bought one of these rigs about five years ago and it looks good yet. If you want a rig or want the agency to sell their line of rigs just write them for a catalog.

"OHIO" SILAGE CUTTERS

What do you know about Silage Cutters?

Which do you think is the best?

Why do you think so?

"Ohio" Silage Cutters give absolutely the best results. We believe we can prove this to you. Will you give us the chance?

Our big new "Ohio" book—the finest ever printed—will post you on Silage Cutter essentials. It's a beauty—104 pages—with 56 pages of photographs of "Ohio" Cutters at work everywhere. It will make you sure about

"Ohio" Blower Silage Cutters

(6 Sizes—Cut 3 to 30 Tons an Hour—5 to 16 H.P.)

about their dependability, capacity, durability and construction, power requirements, evenness and quality of the cut product, high class of users, prices, etc. Send for it today. Mailed free.

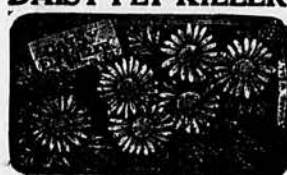
The Silver Mfg. Co.

Salem, Ohio

Modern Silage Methods,

224 pages, 10c coin or stamps.

DAISY FLY KILLER



placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, cannot spill or tip over, will not soil or injure anything. Guaranteed effective. Of all dealers or send prepaid for 20 cents. HAROLD SOMERS, 150 DeKalb Ave., Brooklyn, N. Y.

Ask your shoe dealer for a Bentley & Olmstead Co. buffalo calf and see if you can tear it. If you can you will get a pair of their Buffalo Calf Shoes absolutely free. If it should happen that your dealer does not handle these shoes just write his name and address to Bentley & Olmstead Co., Des Moines, Iowa, and they will send you a buffalo calf free and also a pair of these splendid shoes free if you tear the calf tag. Read their advertisement and mention Kansas Farmer when you write.

The Caldwell-Hallowell Co. of Waterloo, Iowa, offer you a free trial of 60 days on their "Caldwell Special" gasoline engine. This engine is built right and works right. It develops the full horse power at which it is rated and is a profit making machine on the farm. It is the best kind of a hired man and is backed by a guaranty of responsibility made by all of the eight banks of Waterloo, Iowa. If you will mention Kansas Farmer and write them at 506 Commerce St., Waterloo, Iowa, they will tell you some mighty interesting things about the "Caldwell Special."

When one picks up a scythe, a razor, plane, saw, pocket knife or a pair of shears and finds the words "Keen Kutter" branded on it he is sure of having a good tool and the consequent comfort in using it. "Keen Kutter" stands for quality and the reputation of these tools is backed by long use and their tested wearing qualities. They have been made and sold under the following motto for nearly 40 years: "The Recognition of Quality Remains Long After the Price Is Forgotten." If your dealer should not have these Keen Kutter tools write to the Simmons Hardware Co., St. Louis, Mo., and try them once. A good tool lessens the work.

Stryker Bros., Route 2, Fredonia, Kan., have some nice Poland China boars for sale. Two of them are dandies that were sired by Imy's Likeness who won the ribbons in 1908 and who weighed 820 pounds in his two-year-old form. The dam of these pigs was Ebony Queen by Meddler 2d and was one of the State Fair winners of 1907. These pigs were farrowed in October and the whole litter of seven was raised. They will weigh right at 300 pounds now and are good for 450 pounds at a year and 700 pounds at maturity. A brother of these pigs will be shown at the fairs this fall and with their size, quality and finish they could also make good in the show ring. Stryker Bros. say that these young boars are certainly the kind to buy and the first checks for \$35 each will get them.

R. J. Linscott, the big Jersey breeder at Holton writes that "today's mail brought me the following two letters. The first from a man who last spring bought of me three heifers and a cow, and now orders a bull of me on mail order.

"I enclose check for the oldest of the three bulls. My heifers are on fine pasture and could not be doing better. Miss Stanton has a beautiful helper calf, and promises to make a very fine cow (Signed) S. W. Stewart, Allen, Kan.

"The other was from a man who a few days ago bought of me a three-year-old cow on mail order alone. He knowing nothing about me or my cattle other than that I advertised good Jerseys.

"I received the cow Ina today in fine shape. I like the looks of her and think she will prove O. K. (Signed) C. E. Piper, Pittsburg, Kan."

The use of the Liberty gang plow with four horses insures as much work as could be done by two men and the same number of horses on sulky plows and the work is better done. It has a balanced foot lift which works so easily that a small boy can operate it. It is made by the Rock Island Implement Co., Dept. 3, Kansas City, Mo., who will be glad to tell you all about it and send you their booklet if you mention Kansas Farmer. Now is the time to get busy and be ready for the fall sowing of alfalfa and wheat, and the saving of one man's time is a big item.

Col. W. B. Carpenter, president of the Missouri Auction School at Trenton, Mo., says that for four years they have taught actual practical auction work so thoroughly that their graduates will be found conducting auction sales in all parts of the United States. The student gets a thorough course before facing the crowd. He is taught to advertise, write sale bills, make the opening talk, what to sell first, how to get the first bid, how to keep track of the bidders, when to sell and when to hold. Everything about the business with actual practice until you are thoroughly trained. Write Col. Carpenter about those special terms he is making to students and mention Kansas Farmer.

The Best Ensilage Cutters. Just lately about 25 silos have been sold in the immediate vicinity of Topeka and there are a number in this county that have been in use for many years. The demand for them has been increasing rapidly of late. The possession of a silo means the necessity of securing an ensilage cutter. The oldest and best known silage cutter is the Ohio which has been on the market for many years and which is made by the Silver Manufacturing Co., Salem, Ohio. These are made in six sizes which require from five to 16 horse power and cut from three to 30 tons of silage per hour. If you will send 10 cents in coin the Silver Manufacturing Co. will send you a 24 page book on "Modern Silage Methods" or they will send you their "Ohio" book of 104 pages and 56 photographs free if you mention Kansas Farmer.

Gem City Business College. With this issue begins the announcement of the Gem City Business College, Quincy, Ill. This is the oldest and most successful business college in the country. President D. L. Musselman has been connected with business colleges continuously for 43 years and has been principal of Gem City Business College 39 years. Prof. Musselman certainly holds the record for continuous service in one position. This of itself is proof positive of the success of his school. Gem City Business College stands at the head of the list in superiority and attendance. His students are found in every line of business. The school is beautifully located and there is no more pleasant place to attend college than Quincy. If there is a young man or young woman who reads this and is contemplating a business course, let us urge you to write at once to D. L. Musselman, President, Lock Box 149, Quincy, Illinois, for a catalog.

Tear Tag for FREE Pair of Shoes

Your dealer has a tag for you—it's a little Buffalo Calf made from the same leather as our Buffalo Calf Shoes. If you can tear the tag, you'll get a pair of Bentley & Olmstead Company's best Buffalo Calf Shoes, absolutely free. They're made from the hides of young, inside-raised, well-fed, summer-killed cattle, and combine all that's good in other work shoes with many valuable features found in no other shoe.

B. & O. Buffalo Calf Shoes

Our leather is all specially tanned to set the fibre closely together, add to the wearing qualities and at the same time get the highest degree of smoothness and flexibility without the use of powerful chemicals and artificial greasing. The soles are made from best grade Hemlock tanned Texas steer hides. Send us your dealer's name if he doesn't handle our shoes, and we'll send the test tag and also the shoes if you tear it. BENTLEY & OLMSTED CO., Des Moines, Iowa

\$3.00
Buys the Best

\$20.00 Up. Catalogue FREE.

\$45.00

\$20.00 Up. Cash or Credit.

AGENTS WANTED

We want men who are not actively engaged in business to act as our agents. We pay liberal cash commissions. Write for our catalogue and full particulars.

ON CREDIT

Buggies

Only \$10. Cash.
Balance \$5 a month. Warranted for 3 years.

Surreys

Only \$25. Cash.
Balance \$7 a month. Warranted for 3 years.

Farm Wagons

Only \$15. Cash.
Balance \$5 a month. Warranted for 3 years.

We trust honest people located in all parts of the world. Cash or easy monthly payments. Write for our free catalogue.

CENTURY MFG. CO.,
Dept. 494 East St. Louis, Ill.

Don't Miss The Exposition

All eyes are now turned toward Seattle.
The cost of this marvelous undertaking has reached the \$10,000,000 mark.
It's the most beautiful and instructive fair ever held. You'll always be glad you went.
Unexcelled train service and low round trip rates via the

Union Pacific

"The Safe Road to Travel"

Electric Block Signals—
Perfect Track

Get booklets and further
information of

H. G. KAILL, A. G. F. & P. A.
901 Walnut St., Kansas City, Mo.

E. L. LOMAX, G. P. A.
Union Pacific Ry. Co., Omaha, Neb.



GERMAN-AMERICAN BANK

Kansas Ave. and Third St., Topeka.
A BANK FOR FARMERS.

One of the strong, conservative banks of Topeka, and a farmers' bank in a real sense. Four out of seven of the directors of the German-American Bank are active farmers. We are open on Saturday until 6 p. m. for the accommodation of farmer patrons. We do a general banking business. SPECIAL ATTENTION TO FARM LOANS.

Interest Paid on Time Deposits and on Savings Accounts

You will find the German-American Bank a pleasant bank to do business with, combining as liberal a policy as possible in dealing with customers consistent with conservative management. The business of Kansas Farmer readers is respectfully solicited.

COME AND GET ACQUAINTED.

FIELD NOTES

FIELD MEN.

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

PURE BRED STOCK SALES.

Percherons.

Nov. 9—J. C. Robison, Towanda, Kan.
Nov. 11—Percheron Breeders, Sale at Manhattan, Kan. Will H. Rhodes, Manager.

Jersey Cattle.

Sept. 30—Mrs. Wm. Brite, Pierce City, Mo.

Herefords.

Sept. 29—Miss Lou Goodwin, Blue Rapids, Kan., dispersion.

Poland Chinas.

Aug. 3—J. A. Jenkins and W. L. Clark, Conway Springs, Kan.
Aug. 26—W. R. Coleman, Kingman, Kan., and A. W. Shriver, Cleveland, Kan.
Aug. 26—A. W. Shriver, Cleveland, Kan.
Sept. 8—F. G. Nies & Son, Goddard, Kan.
Sept. 23—J. R. Sparks, Hunter, Okla.
Oct. 5—J. D. Spangler, Sharon, Kan.
Oct. 20—Roy Johnson, South Mound, Kan.
Oct. 21—Herman Groninger & Sons, Bendena, Kan.
Oct. 27—Geo. W. Smith, Pawnee City, Neb.
Oct. 27—G. M. Hull, Garnett, Kan.
Oct. 29—J. H. Harter, Westmoreland, Kan.
Nov. 3—J. W. Pelphry & Sons, Humboldt, Kan.
Nov. 10—H. B. Walter, Effingham, Kan.
Feb. 2—F. G. Nies & Son, Goddard, Kan.
Feb. 12—D. A. Wolfersperger, Lindsey, Kan.
Feb. 15—C. H. Pilcher, Glasco, Kan., at Concordia, Kan.
Feb. 16—J. H. Harter, Westmoreland, Kan.

Durocs.

Sept. 3—H. J. Coppins, Potwin, Kan.
Oct. 27—Pearl H. Pagett, Beloit, Kan.
Nov. 5—Miner & Cross, Guide Rock, Neb.
Nov. 8—C. L. Carter, Cabool, Mo.
Nov. 9—A. L. Aitkin and W. W. Weast, Parsons, Kan.
Nov. 12—S. W. Alfred & Son, Sharon, Kan.
Jan. 31—J. E. Joines, Clyde, Kan.
Feb. 1—Pearl H. Pagett, Beloit, Kan., and R. G. Sollenbarger, Woodston, Kan. Combination sale at Concordia, Kan.
Feb. 2—E. M. Myers, Burr Oak, Kan.
Feb. 3—Rinehart & Slagle, Smith Center, Kan.
Feb. 4—W. C. Whitney, Agra, Kan.
Feb. 7—Frank Elder, Green, Kan. Sale at Clay Center, Kan.
Feb. 8—Samuelson Bros., Manhattan, Kan.
Feb. 9—Samuelson Bros., Cleburne, Kan.
Feb. 10—Samuelson Bros., Blaine, Kan.
Feb. 17—Thompson Bros., Garrison, Kan.
Feb. 18—T. E. Goethe, Leonardville, Kan.
Feb. 21—W. T. Fitch, Minneapolis, Kan.
Feb. 22—Pearl H. Pagett, Beloit, Kan.
Feb. 23—F. G. McDowell, Corns, Kan.
Feb. 23—R. G. Sollenbarger, Woodston, Kan.

Herefords.

Sept. 29—Miss Lou Goodwin's dispersion at Blue Rapids, Kan. Chas. R. Thomas, manager, Williamson Building, Kansas City, Mo.

Combination Sales.

Sept. 28 to Oct. 1—Woodson County Breeders' Association will sell: Aberdeen-Angus cattle, Sept. 29; Shorthorn cattle, Sept. 30; Durocs, Berkshires and Poland Chinas, Oct. 1. Write G. A. Loude, Secretary, at Rose, Kan.

Dr. Brown of Reading, Kan., is pricing Ohio Improved Chester White hogs so cheap that no farmer can afford to own scrubs. It only costs two cents to write for description and prices.

Charles Foster & Son, Route 4, Eldorado, Kan., are among the oldest and best known Red Polled cattle breeders in the West. They have recently sold their herd bull Dandy S9147 because of having on hand so many of his heifers. This bull weighed 2,400 pounds and was a great sire. One yearling bull and some 10 or 12 younger ones yet remain on the farm for sale. This yearling is an extra fine bull. Because his health is not extra good Mr. Foster has sometimes talked of selling his entire herd. This might be a good chance for the right man.

In this issue of Kansas Farmer will be found the advertisement of Bert Finch, Prairie View, Kan. Mr. Finch is a well known breeder of Duroc Jerseys and owner of College Boy by old Golden Rule. College Boy is a full brother to Pearl's Golden Rule, the great sire in Pearl H. Pagett's herd until a few months ago when he lost him. College Boy was a litter mate to Pearl's Golden Rule and Mr. Finch bought him at the same sale at which Mr. Pagett bought his. Both were popular in the sale and both sold for extremely high prices. College Boy has proven very satisfactory to Mr. Finch and is an extra good producer. Another good bull that has been in use in this herd was Hio by Ohio Chief. Many good sows in the herd are by him. Two good sows are by Medoc by Kant Be Beat, dam Daisy Wait. Other sows are by leading sires known and favorably considered by Kansas breeders. Mr. Finch will not hold a fall sale but will have a nice number of boars and gilts of spring farrow for sale. The writer knows Mr. Finch intimately and is glad to recommend his splendid herd and will guarantee you will be pleased if you give him an order.

W. R. Coleman Will Sell.

W. R. Coleman, Kingman, Kan., will sell August 26 with A. W. Shriver at Cleveland, Kan., 25 Poland China fall gilts. Watch Kansas Farmer for further mention of this sale.

H. B. Walter Visited.

Recently the writer spent a half day very pleasantly at the home of H. B. Walter near Effingham, Kan. Mr. Walter, who is well known as one of the state's most successful Poland China breeders, used to be located at Wayne in Republic county, Kan. He now owns one of the finest farms in Atchison county and is prospering in a way that makes his old friends rejoice. He is still in the Poland China business and has about 60 very fine pigs. His herd boar is Logan W., grandson of Expansion. His sows are very large and are principally of Expansion and Chief Tecumseh 3d breeding. Mr. Walter will hold a sale at the farm November 10.

Woodson County Does Things.

In a letter from G. A. Loude, secretary of the Woodson County Breeders' Association, at Yates Center, Kan., Mr. Loude claims Sept. 28 to Oct. 1 for a stock show and sale of

pure bred cattle and hogs; Aberdeen-Angus cattle sale Sept. 29; Shorthorn cattle sale Sept. 30. The three breeds of hogs, Durocs, Berkshires and Poland Chinas, will be sold on Oct. 1. All the stock entries both for show and sale will be rigidly inspected and nothing but first class animals goes in. Breeders wishing to consign to this show and sale should write to G. A. Loude at Rose, Kan. Kansas Farmer will have more to say about this show and sale in later issues. Watch for further mention.

Last Chance for Pearl's Golden Rule Pigs.

In this issue Mr. Pearl H. Pagett, Beloit, Kan., is offering for sale at private treaty last October gilts sired by Pearl's Golden Rule. Also four boars of the same breeding and age. The writer thinks he is perfectly safe in saying there is not another half hundred fall yearling gilts that are as desirable as these, both from the standpoint of breeding and individuality. The four boars are really good herd boar material. Mr. Pagett has a big crop of spring pigs and desires to reduce his herd. The prices at which these gilts are offered will move them fast. Here is a chance if you act quick to pick up something good at a fair price. Address Pearl H. Pagett, Beloit, Kan., Route 2.

Singer's Poland Chinas.

In his advertisement, which appears elsewhere in this issue, W. C. Singer, Poland China breeder at Hiawatha, Kan., is offering to sell choice big type pigs at \$30 per pair, pairs not related; or he will sell boars singly for \$15. They are good ones and sired by Prince Hadley, one of the very best sons of the \$500 Big Hadley. Prince Hadley is one of the good boars now in service. He is very large and hasn't a crease or wrinkle. Very strong heavy bone and lots of quality. A few of the pigs are by Capt. Hutch and Banner Boy by Orphan Boy. The dams of the pigs are nearly all matured sows and all of them large. They are by such sires as Granite by Expansion, Quality Lad by First Quality, all of the big type and all of them selected carefully from the best herds. Write Mr. Singer early and get a good pig for considerably less money than they can be bought for after August 1. Mention Kansas Farmer.

Glit Edge Stock Farm.

A fieldman for Kansas Farmer called on F. M. Giltner, the proprietor of the Glit Edge Stock Farm, at Winfield, Kan. We found Mr. Giltner very busy plowing corn but not too busy to stop and show us the stock, and sign up an order for some advertising in Kansas Farmer. Mr. Giltner has raised about 75 very fine spring pigs, mostly sired by his herd boar, Hulda's Keep On by Mo. Keep On. His dam was by Idea Sunshine. Mr. Giltner will take out a show herd to the leading fairs as usual and in all probability will take home a part of the prize money. While Mr. Giltner is not a stickler for pedigree he believes in raising a good useful farm hog of the easy feeding type. The ad for the Glit Edge Stock Farm will appear in Kansas Farmer shortly. Look it up and write Mr. Giltner about his herd. Kindly mention Kansas Farmer when writing.

Hazford Herefords Lead.

Robt. H. Hazlett, owner of Hazford Place Herefords at Eldorado, Kan., has scored another hit. Not long since Kansas Farmer recorded the sale of a herd bull from this great herd to one of the best known breeders of Missouri. Now he follows by selling the grand young bull Publisher 28964 by Printer by Beau Brummel to head the prize winning herd of J. M. Curtice of Independence, Mo. The dam of this bull is Hazford Mary, a great granddaughter of Beau Brummel Jr and he is just past one year of age. Mr. Curtice has been an exhibitor of good Herefords at many big shows, including the Ohio Royal and his Herefords are his pets. He looked long and carefully for a herd bull and his final choice is a distinct compliment to his own judgment, to old Printer and to Mr. Hazlett who owns the largest and best herd of Herefords in the West.

The Phillips County Red Polls.

Chas. Morrison, owner of the Phillips county herd of Red Polls and Poland Chinas at Phillipsburg, Kan., is one of the oldest and best known breeders in the West. He states that the best advertisement he ever has was in the satisfaction of his customers who not only come back to buy but bring others. He has been in business for 16 years and the demand for his cattle is such that he rarely has an animal on hand that is more than 12 months old. Red Polls of all ages to suit are always on hand and buyers can take their choice. Plenty of pasture and the alfalfa crop this year is a big one. Mr. Morrison has one of the finest farms in Kansas and it is splendidly equipped with buildings and machinery. It is so situated that it is a great producer of all kinds of farm crops as well as of Red Polls and Poland Chinas. His old herd bull "Actor" was one of the finest animals of the breed we have ever seen and much of his blood still remains in the herd. The Phillips County herd is headquarters for the best.

Garver's Polands.

This week we start the advertisement of Jas. R. Garver, Poland China breeder, of Abilene, Kan. J. R. is a son of C. M. Garver, for many years one of the most successful breeders of the state. James learned his first and most valuable lessons of his father and has since graduated from the Kansas Agricultural College and spent some time at Cornell University. The herd is being kept on the same farm near Abilene and in connection with a big dairy. This makes it possible to raise pigs and have them grow without feeding a large quantity of corn. The milk shorts and alfalfa pasture making the ideal feed for growing pigs. At this time there is something over 100 very fine pigs, most of them out of the sows that Mr. Garver selected from the different good herds that he visited during the early fall and winter. They are for the most part representatives of the large type, the Garvers always being strong advocates of plenty of size. They are a fine lot and the early ones are ready to ship. They will be priced reasonable. When writing please mention this paper.

Chapin & Nordstrom's Durocs.

After closing out his entire herd of Durocs to Frank Elder of Green, yielding to the temptation which every man feels that has once bred good hogs, Grant Chapin formed a partnership with Ola Nordstrom of Clay Center, Kan. Both names are familiar for both Grant Chapin and Ola Nordstrom are well and favorably known among the best breeders. As a result of the partnership 10 choice sows were bought from Frank Elder and these, together with a bunch of fall gilts and the two or three choice young boars which Mr. Chapin retained when he closed out, was quite a start. From the 10

HARVEST 100% OF YOUR CORN CROP THIS YEAR AND EVERY YEAR INSTEAD OF 60%

You would soon want to quit farming if you could harvest only 60 per cent of your hay crop, for instance. But how about the corn crop?

Forty per cent of the feeding value of the corn crop is in the stalks, leaves and husks just at the time when the ears reach maturity.

If you leave the stalks standing or cut them slowly by hand the fodder is little more than woody fiber by the time the live stock gets it. You have lost practically 40 per cent of the protein, starch and sugar which the crop contained as it stood in the field, just at the time the ears began to glaze.

And none of that 40 per cent of food value goes into the ears. It is just lost—wasted. Turn over a new leaf this year. Double the value of the crop by using machines.

Using I.H.C. Machines Is The 100% Way

The right machine will give you the 100 per cent feeding value, because it will enable you to cut the entire crop just at the time when the corn plant is at its best for feeding purposes.

If you are prepared at this time with a Deering—McCormick—Milwaukee—or Osborne corn binder, you can go over the field rapidly, as fast as the team can walk, cutting and binding it into bundles, already to shock, in one operation. One man and a team is all that is necessary.

You have then confined within the stalk, all those nourishing elements which make the fodder, when properly prepared, almost equal to timothy hay for stock feeding.

Then you are ready to put this crop through the husker and shredder. A Deering, McCormick or Plano husker and shredder will husk every ear, with practically no shelling, and will cut the entire plant, stalk, pith, leaves and husks, into fine, nourishing fodder, which every head of your live stock will relish to the last shred.

Think it over—The purchase of two machines and 100 per cent of the corn crop—or hand work and 60 per cent of the crop. Talk it over with the International agent in your locality. He can give you more facts and figures than we have suggested here, and every point will show you the way to larger profits. If you want our interesting pamphlets on the subject, ask the dealer for them or write us.

INTERNATIONAL HARVESTER COMPANY OF AMERICA

(Incorporated)

Chicago, U. S. A.

AN ALFALFA MILL FOR EVERY FARMER

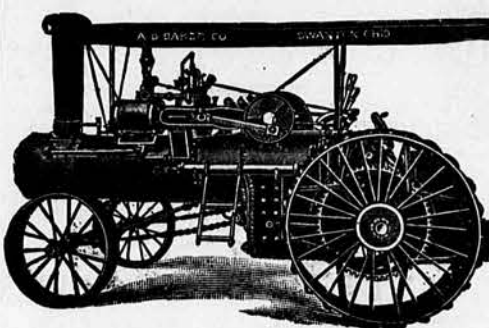
PRICE \$300

F. O. B. WICHITA

Every farmer growing as much as 40 acres of alfalfa can profitably operate one of these mills.

Manufactured and for sale by

W. F. RESCHKE, 908 Washington Ave., Wichita, Kan.



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also manufacturers of the PRAIRIE QUEEN SEPARATOR. We have a full line of engines and separators on hand for your inspection. Write for catalog.

THE PRAIRIE QUEEN MFG. CO.,
Newton, Kansas.

SELF FEED 35 STROKE BALER

"Cyclone" three stroke self feed hay press is latest, most powerful and most efficient. Each circle of team presses three charges. Self feed automatically puts hay down. Wonderfully increased capacity. Write now for "Baler Book" and special low prices. Best press, cost least. Five days free trial. GEO. ERTEL CO., Quincy, Ill. Established 1867.

\$50 TO \$300 SAVED

We are manufacturers, not merchants. Save dealers, jobbers and catalog house profit. I'll save you from \$50 to \$300 on my High Grade Standard Gasoline Engines from 2 to 32-H.P.—Price direct to you lower than dealers or jobbers have to pay for similar engines in carload lots for spot cash.

GALLOWAY

Price and quality speak for themselves and you are to be the sole judge. Sell your poorest horse and buy a 3-H.-P. only \$119.50

Direct from my factory on 30 Days Free Trial. Satisfaction or money back. Write for special proposition. All you pay me is for raw material, labor and one small profit. Send for my big BOOK FREE.

Wm. Galloway, Pres.
Wm. Galloway Co.
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Pull Power Hay Press, Easiest Work, Handles Most Hay

a continuous travel, full circle, all steel press with numerous exclusive advantages saving money, time, labor. No step-over pitman—no tricky toggle-joints—no pile-driving rebound. No waste power. Rucker Tucker—an exclusive feature—turns out smooth bales that pack well, sell better than ragged bales. We also make best belt-power press on market. Write for catalog and letters from users. Wait until you get word from us before you buy any press.

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Cuts Baling Cost In Two

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GILSON Gasoline ENGINE

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GOES LIKE SIXTY SELLS LIKE SIXTY

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GILSON MFG. CO. 7 Park St. Port Washington, Wis.

GET BUSY

Sawing your summer's wood with the DIAMOND SAW FRAME AND SAW. The very best made. FULLY GUARANTEED. All sizes of saw blades. Ask your nearest dealer, or write direct to the factory. Printed matter free.

NEW WINONA MFG. CO.
104 W. Fifth Street, WINONA, MINNESOTA

MOFFAT ROAD OPENING GOVERNMENT LAND FREE

To secure good farmers, we tell you how to locate 160 acres of fine government land in Route County on Moffat Road Denver, Northwestern & Pacific Railway. Big crops, pure water, good soil, fine climate and markets. We have no land to sell, it's absolutely free from the government. Law allows you to return home for 6 months after filing. Write for free book, maps and full information that tells how to get this land free. Address, W. F. JONES, General Traffic Manager, 710 Majestic Building, Denver, Colorado

sows about 60 fine pigs have been saved. They are sired by the following boars: seven litters by King of Cols 2d, Frank Elder's great boar; two by G. C.'s Col, and the others by the young Col. boars that are now heading the herd. These 60 pigs are out of as good dams as can be found anywhere. Two are daughters of W. L. A's Choice Goods, one by Kelly's Pilot Wonder and out of an Ohio Chief dam, one is by old King of Cols and a litter sister to G. C.'s Col, one by G. C.'s Col, and several by the great old sire Model Chief Again. In the advertisement which appears elsewhere special mention is made of some young boars and bred gilts; a pair of the gilts are especially fine. They are show prospects and will be priced very low considering the kind. Write the firm about them and mention Kansas Farmer.

B. M. Bell's Big Polands.

This week's issue of Kansas Farmer contains the announcement of B. M. Bell, the big Poland China breeder located at Beattie in Marshall county, Kan. Mr. Bell has something over 200 head of very choice pigs of February, March and April farrow. The farm, that is the part where the alfalfa grows, is covered with pigs. They are by the three great boars Bell Metal, What's Ex, and Nebraska Jumbo. Bell Metal is a line bred Expansion and a boar of great quality. He is one of the best breeding boars the writer has ever known. What's Ex is also by Expansion and out of a What's Wanted sow. Nebraska Jumbo is the farmer's type, very large and strong. If he continues to grow he will make the biggest boar ever seen in the West. Mr. Bell has a wonderful herd of sows representative of every one of the big type strains. Not only this but they are great individuals. Mr. Bell always bought the best, whether at public or private sale and kept the best ones for breeding purposes. The dams of the pigs are of the 700 pound sort and all of them matured sows. A number are by Bell Metal, others by Big Hutch, Expansion, Prince Youtell, King Do Do, Expansion See, Logan B., Highland Prince, etc., daughters and granddaughters of Highland Chief Jr., First Quality and other boars that have won at leading state fairs and helped to make the type famous. Let no reader get the idea that Mr. Bell is breeding a big, rough hog for the opposite is true. With all their great size is combined quality. Good wide heads with nice ears that handle well. Mr. Bell is feeding principally protein food. Every pig has the run of big alfalfa fields and this together with shorts, slop and just a little corn comprises the daily ration. Mr. Bell does his own feeding and watches and feeds with a care and judgment that spells growthy pigs that are certain to make good breeders. Write Mr. Bell about his pigs. They are ready to price. When writing please mention Kansas Farmer.

Vanhouser Stock Farm.

H. B. Vanhouser of Spring Garden, Mo., has purchased the Goodrich Stock Farm near Eldon, Mo., and most all of the herd of prize winning Poland Chinas, including the herd boar Decatur, champion at the American Royal in 1907, also Masticator 2d, first prize boar Illinois State fair. A few of the most noted sows in this herd are Cute Keep On, the dam of the highest priced litter of pigs ever sold at public auction; Thistle Top, the dam of Meddler 2d; Princess Goffy, the dam of Home Run; Carnation, one of the greatest individual daughters of old Darkness; Runaway Girl, the dam of Sis Hopkins; Thistle Top 2d, Colonial Girl, Perfection R. K., Hightide, Kiever's Best, and many other prize winning hogs have been produced on this farm. The valuable farm is nicely arranged for handling and raising hogs. It is located one-half mile from Eldon, Mo., on the main line of the Rock Island railway and a branch of the Missouri Pacific railway. Mr. Vanhouser is a young man with ability, a tireless worker and we predict only success awaits his efforts in the future. We will make further mention of this herd and the Vanhouser Stock Farm.

Three Shorthorn Bulls for Sale.

D. H. Forbes & Son of Topeka, Kan., are offering three young Shorthorn bulls for sale, sired by Royal Violet. These young bulls have not been pampered, but are in good growing condition. They are priced reasonable. Look up ad on another page and write for prices and complete description. Kindly mention Kansas Farmer when writing.

Notice To Club Raisers.

New subscriptions to KANSAS FARMER may be taken at the special trial rate of only fifty cents for the balance of 1909. Orders will be started the same week they are received and will continue until January 1, 1910. Order at once. The sooner your order is received the more you get for your money. Send stamps if you prefer.

BERKSHIRES

BAYER'S BERKSHIRES—Herd headed by Field Marshall, first at Sedalia and second at St. Joseph, Mo., in junior yearling class, 1906; assisted by Lee's Masterpiece. Young boars ready for service and bred gilts for sale. J. T. BAYER, R. R. 5, Yates Center, Kan.

MAPLE HEIGHTS HERD BERKSHIRES.

A fine bunch of long bodies, smooth spring pigs ready for shipment, also a few showyard pigs. Extra gilts and boars. Write or come and see them.

J. M. NIELSON,
Marysville, Kansas.

FOR SALE.—Yearling boar by Forest King. Very few boars. Spring farrow. Good ones. Few gilts. Prices reasonable. Get prices before buying. **MANWARING BROS.,** Lawrence, Kan., R. D. 1.

SUTTON BERKSHIRES.

10 fancy show sows \$75 to \$100; 100 fancy sows and gilts at \$35 to \$50; 10 good gilts bred to our show boars.

3 Show Boars 3

Fancy enough to head the best herd in the land. The above are all sired by or bred to Berryton Duke Jr. 77341, Lord Baron 2d 88899 and Sunnyside Royal 86065. **SUTTON FARM, Lawrence, Kan.**

BRAEBURN BERKSHIRES

Young pigs, high class in quality and breeding. One yearling boar cheap.

H. B. COWLES, Topeka, Kan.,

JERSEY CATTLE

JERSEY BULLS.—My herd bull, Jewells Decanter by Decanter by Diploma, sire of sweepstakes cow at World's Fair. He is gentle as a lamb and will be priced low—also 8 young bulls with pedigrees. Must be sold quick.—**MRS. L. C. FRENCH, Marion, Kan.**

Linscott Herd Jersey Cattle

Established 1878. Registered in A. J. C. C. For sale, tuberculin tested, 60 heifers under 2 years old, 13 cows under 6 years, 5 yearling bulls.

R. J. LINSOTT,
Holton, Kansas

ANGUS CATTLE

ANGUS BULLS.

Sons of Champion Ito (our show bull) a son of Imp. Prince Ito—cost \$9,100—and out of the \$3,500 champion cow, Queen Mother 7th of Drumfergus, and RUTGER MIKADO \$3395, whose get took first prize at the Kansas State Fair last year, and from the best families of the breed. Also a number of females open or bred and some with calves at foot.

SHROPSHIRE SHEEP.

A few high class Canadian bred ewes with lambs at foot, sired by our Imported English show ram. The best you can buy anywhere. Write us your wants or come and see us. **SUTTON FARM, Lawrence, Kansas.**

HOLSTEIN CATTLE

BRAEBURN HOLSTEINS.

Bull calves from dams yielding 10,000 pounds of milk in a year, and upward.

H. B. COWLES, Topeka, Kan.

HOLSTEINS AND JERSEYS.

Choice young stock, heavy milking strain. Some extra good bull calves, either breed.

HUGHES & JONES, Topeka, Kan.

EAST SIDE DAIRY HOLSTEINS

has several sons of Hengerveld Sir De Kol (sire of Fontine Maid 13.2 pounds at two years); he is by Hengerveld De Kol (82 ARO dau's) and dam is Inka Darkness 2d Queen (over 25 pounds). The dams of these fellows are of Gerben, Pietertje, and Johanna strains and are excellent cows. Two bulls old enough for service. If you are looking for good breeding and individual excellence I have both. Also get particulars on cows and heifers.

F. J. SEARLE,
Oskaloosa, Kansas.

HEREFORD CATTLE

SPRING CREEK HEREFORDS.

100 head in herd. Prairie Donald 3d by Beau Donald 7th in service. Females represent Anxiety 4th, Lord Wilton, Garfield and other families. Few good bulls 7 to 8 months old at easy prices. Write or come.

T. A. WALLACE, Barnes, Kan.

HEREFORD BULL FOR SALE.

17 months old, grandson of Imp. Lord Saxon, dam by Stonemason 13th, weighs 1,000 lbs., nicely marked, good top and under line, droop horn and a fine individual in every respect. Will price reasonable.

J. W. TOLMAN, Hope, Kansas.

HEREFORD BULLS FOR SALE.

12 head sired by Onward 18th and Majestic Baron by Imp. Majestic, ranging in age from 12 to 26 months. All good ones. At least four of them herd headers. Very low prices considering quality. Will also spare few females.

S. W. TILLEY,
Irving, Kansas.

Beau Brummel
10th 167719
Modern Herefords. Herd bulls Beau Brummel 10th 167719, Beau Beauty 192285 and Protocol 2d 117715. Robert H. Hazlett, Hazard Place, Eldorado, Kansas.

SHORTHORN CATTLE

Evergreen Home Farm.

Milking Shorthorn Cattle, bred Hornless. Berkshire Hogs, Oxford Down Sheep. Bourbon Red Turkeys.

LATHROP, MISSOURI.

CEDAR BLUFF SHORTHORNS.

100 head headed by Double Standard Orange Cup X5565 (253226). **SHAW BROS.,** Glade, Kan. (Rooks County).

A RARE BARGAIN.

My herd of Shorthorns is on the bargain counter. Five bulls \$50 each; 12 young cows with calves or coming fresh \$800; 10 heifers \$45; herd bulls \$175. Entire herd \$1,550, a rare bargain.

J. E. WELLER, Faucett, Mo.

OHIO IMPROVED CHESTERS

ORDERS BOOKED for early spring pigs for the next 60 days at the Andrew Carnegie herd of high bred O. I. C. swine.

W. S. GODLOVE, Onaga, Kan.

THE BROWN FARM.

For sale.—O. I. C. females, 12 tried sows bred for early fall farrow, 20 fall gilts. Pigs both sexes, 2 registered Jersey cows. 2 bull calves and 2 registered standard bred Silkwood stallions.—**T. O. BROWN, Reading, Kan.**

SHORTHORN CATTLE

N. S. LEUZLER,
Breeder of the best in Shorthorns.
Almena (Norton Co.) Kan.

GREENDALE STOCK FARM.

25 YOUNG BULLS by Imp. Ardathian Mystery and Best of All for sale at bed rock prices. Can also offer some good Berkshire swine and Shropshire rams. Correspondence solicited.

COL. ED. GREEN, Prop.,
Florence, Kansas.

RENO HERD SHORT. HORN CATTLE

Bulls in service, Forest Knight 226084 and Victor Archer 264156. Breeding stock for sale.

Stewart & Downs, Hutchinson, Kan.

FOR SALE.

10 choice young bulls from 8 to 13 months old, part straight Scotch. Choice yearling and short two-year-old heifers. Good colors, bred right, priced right.

C. W. TAYLOR, Pearl, Kan.

Address mail R. F. D. 2, Enterprise, Kan.

Prospect Farm Shorthorns

The oldest Shorthorn breeders in Kansas. The largest herd of Cruickshanks in Kansas. Herd headed by Violet Prince 145647 and Orange Commander 220590. Young stock of both sexes and some cows for sale. Quality and prices right.

H. W. McAFEE,
Bell Phone 59-2, Topeka, Kansas.

JEWEL SHORTHORNS

A young herd of up-to-date breeding. Also Percheron and Standard bred horses. In stud: the Percheron stallion Marquis De Wierre (Imp.). Also the Standard bred stallion, Red Seth 31185. Farm adjoins town. Come and see us.

W. T. LOWE,
Jewell, Kansas.

Spring Hill Shorthorns

300 Head Scotch and Bates Pedigrees

C. G. COCHRAN & SONS,
PLAINVILLE, KANSAS.

20 Shorthorn Cows and Heifers

All are bred or have calf at side. 3 GOOD YOUNG BULLS that I am sure will suit. Everything nicely bred and in good condition. Moderate prices.

D. H. FORBES & SONS, Topeka, Kan.
R. F. D. No. 8, Bell Phone 31.

POLLED DURHAM CATTLE

POLLED DURHAMS.

Young bulls. Cows and heifers bred to Roan Hero the Double Standard champion. Prices reasonable. Write for them.

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Galloway herd, headed by Pat Ryan of Red Cloud 20038, Starlight 2d of Tarbreoch 24473 and Valarius 29088. Bulls and heifers for sale from my herd of 180 registered Galloways.

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Choice young stock of both sexes for sale; also a few cows.

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