

NEBRASKA

# KANSAS FARMER

TOPEKA, KANSAS, JUNE 20, 1907

Established 1863. \$1 a Year

Volume XLV. Number 25

### THE ALFALFA TRAIN.

No more fitting windup for the comprehensive and highly valuable year's work of the farmers' institute department of the Kansas State Agricultural College could have been devised than that which was designated "The Alfalfa Train." No greater stroke of enterprise has ever been shown by any large business interest than that which is being shown by the Santa Fe Railroad in equipping and running these trains. No subject matter could have been chosen which is of more direct and vi-

justified by the realization on the part of the Industrial Department of the Santa Fe that the results of its work would be highly beneficial to the farmers in the territory covered.

More than a year ago the Santa Fe ran a Good Roads train over much of the same territory and the results were so great that this helped to encourage it to put on the alfalfa train at this time of year. The chief reason why the train was started now, however, lay in the fact that success is most readily attained with alfalfa when sown

in August or early September and, by giving the farmers the necessary information at this time, they could prepare their stubble or other land in ample time for seeding after the first rain in the last half of August.

The lecturers accompanying this train were A. M. TenEyck, professor of agronomy; Geo. C. Wheeler, professor of animal nutrition; J. H. Miller, superintendent of institutes; and Hon. Edwin Taylor, regent of the Agricultural College. These gentlemen alternated in giving lectures at all of the towns along the route and the crowds of farmers who came out to listen to them were phenomenal. At no town, however small, were there fewer than fifty



Part of the crowd at Nortonville in attendance upon the lectures on the "Alfalfa Train." Photograph by The Kansas Farmer Man.

tal interest to the farmers of Eastern Kansas than the one which gave its name to this train.

The Santa Fe Railroad equipped a train with two large audience cars which started from Topeka on the morning of June 10. The train ran to Atchison, Leavenworth, Holliday, and points on the Southern Kansas to Moline, thence to Emporia, and back to Topeka, where the final meeting was held at 3 o'clock on Saturday, June 15. This train was purely educational in its work and the enormous expense involved in sending such a train through this territory was



The crowd at Potter in attendance upon the lectures on the "Alfalfa Train." Photograph by The Kansas Farmer Man.

### Principal Contents of This Week's Paper

Agronomy at the K. S. A. C.....	729	Green bugs from Indiana another kind.....	725
Alfalfa train, the.....	721	Helen's Uncle Paul.....	734
Asparagus, some good ways to prepare.....	733	Hogs, money in.....	726
Because (poem).....	734	Home is woman's sphere.....	732
Burdens.....	733	Horse, killed the neighbor's.....	723
Butcher, the country.....	725	Kansas—her story and statistics.....	725
Chicks, boiled wheat for.....	737	Lady beetles not dead but sleeping.....	725
Child labor on farms.....	732	Merciful man, the.....	734
Combinations, a few points on.....	724	Morning prayer, a.....	732
Dairy industry, the.....	735	Poultry notes.....	737
Dairying.....	736	Poultry pointers.....	737
Eastern girl, the.....	733	Real estate agent claims commission.....	724
Fertilizers to fruit-trees, mode of applying.....	730	Scale in old apple orchard, controlling.....	730
Fireless cook stove, the.....	732	Veterinary examiners, board of.....	725
Fishing in Kansas waters.....	724	Weather bulletin.....	739
Forests, profits in planted.....	730	Web-worm, the garden.....	731
Geology of the Joplin district.....	725	When I can spel as good as you (poem).....	733
Green bug in New Mexico.....	724	Work (poem).....	732



# KANSAS FARMER.

Established in 1868.

Published every Thursday by  
THE KANSAS FARMER COMPANY  
(Incorporated, January 1906).  
Topeka, Kansas

SUBSCRIPTION PRICE: \$1.00 A YEAR

Entered at the Topeka, Kansas, postoffice as second-class matter.

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farmers, besides many farmers' wives and children, while most towns furnished very much larger crowds. The record of the first day out was 1,066 farmers by actual count. The second day showed a total of 1,283, and the record for the week was more than 6,000, or an average of more than 1,000 per day.

That these farmers came to listen and learn was shown by the intense interest they manifested in the words of the lecturers. Professor TenEyck is so well-known as an authority on farm crops that many farmers traveled long distances through the mud in order to listen to what he might say regarding alfalfa.

This train was under the very efficient management of Mr. R. E. Wilson, traveling industrial commissioner of the Santa Fe, and everything moved off like clockwork under his supervision. It was a noticeable feature of the trip that the larger cities furnished the smallest crowds while one little station of only four houses furnished an audience of 150 farmers. The final meeting at Topeka on Saturday afternoon was held in the Commercial Club rooms and was the largest meeting of its kind ever held in the city so far as the writer's information extends. The rising vote expressing thanks to the lecturers and the Santa Fe Road which was so heartily and unanimously given at the Topeka, meeting, was but an expression of what the farmers all over the eastern part of the State where the lectures were given, feel.

THE KANSAS FARMER takes pleasure in presenting portraits of some of the men who were responsible for the success of this, the first alfalfa train on earth, together with views showing portions of the crowds which gathered to listen to the lecturers. We also present the bulletin, prepared by Professor TenEyck on alfalfa, for distribution to the farmers who attended the meetings of this "school on wheels."

To Hon. Wesley Merritt, Industrial Commissioner, and R. E. Wilson, Traveling Industrial Commissioner of the Santa Fe, who originated the idea of the alfalfa train and carried it through to success, and to the professors named above who worked so hard and so continuously on this trip

is due the thanks of every farmer and business man in Eastern Kansas who, through their efforts may rightfully expect a renewal of prosperity for that end of the State. The only thing that Eastern Kansas needs is more alfalfa.

## Alfalfa: Seed and Seeding.

PROF. A. M. TENEYCK.

With good seed, a proper seed-bed, and land adapted for growing the crop, a careful farmer should be almost as sure of establishing a successful stand of alfalfa as the aver-



A. M. TenEyck.

Professor of Agronomy, Kansas State Agricultural College. Lecturer on the "Alfalfa Train."

age farmer is of getting a stand of wheat or oats. This may seem like a strong statement, since failure to get a good stand of alfalfa has often been the experience of many farmers, especially those who were inexperienced in growing this crop. However, it is generally true that the longer alfalfa is raised on any farm the more readily it grows and the easier it becomes for the farmer to start the crop. Whether this is due largely to the fact that a farmer learns better how to seed and handle the crop, or whether the land becomes better adapted for growing alfalfa is a question. Perhaps both are important factors in the successful production of the crop.

## THE SEED.

The first requisite in getting a stand of any crop is good seed. Not only should alfalfa-seed be of good quality and strong in vitality and germination, but it should be clean and free from fowl weed-seeds. It seems hardly necessary to enlarge on this point, yet many farmers are careless, much poor seed is sold and sown, and many costly failures result. Alfalfa-seed costs so much and the expense of a failure to get a stand is so great that great care should be taken to procure and sow only good seed. Much alfalfa-seed of the cheaper grades contain dead seed, to be recognized by its brown and blackened appearance. Weed-seeds are often present, the most dangerous being those of dodder an buckhorn or English plaitain. Dodder-seeds are round and yellow, or yellowish brown, with a rough coat. The seeds of the most dangerous species are smaller than alfalfa. The dodder plants form golden or orange-yellow leafless vines that wind around and over the alfalfa, sending suckers into the stalk and killing the plants. Most dodder-seed can be sifted out with a sieve having twenty-four meshes to an inch. However, no alfalfa sample containing dodder should be accepted. Dodder is an annual but it seeds very abundantly, and if a patch of dodder is found in a field of alfalfa it should be cut close to the ground and burned on the spot. Buckhorn-seeds are oval in shape and brown in color, with a rather broad oval crease lined with white on one side, and are larger than the seeds of alfalfa. The plants are perennial with strong taproots, and produce seed freely. They grow too low to be killed by mowing, therefore alfalfa-seed containing buckhorn should be rejected. Similarly, reject samples

containing the bright, shining triangular seeds of dock, and if alfalfa-seed contains much brown or blackened seed, it should be rejected. There is a great waste in sowing poor seed. One seed sample sent to the Experiment Station for analysis showed only 20.3 per cent of seed true to name and capable of germinating. In this sample there were enough weed-seeds, chiefly Russian thistle, to have sown over 4,000,000 seeds to the acre, or 300 to the square foot. At \$12 a bushel for standard alfalfa, this sample cost at the rate \$49.26 a bushel, calculating for the genuine good alfalfa-seed it contained. Another sample costing \$13.50 per bushel contained 73.6 per cent of alfalfa-seed true to name and capable of germinating (a fair sample in this respect as the market runs). Nevertheless this sample contained enough weed-seeds to have sown to the acre 78,550 buckhorn, 138,850 dock, 14,690 foxtail, and 4,880 dodder-seeds, which if they had all grown would have made five weeds to every square foot, and three of them noxious weeds.

Alfalfa-seed is sometimes adulterated, chiefly with yellow trefoil. The plant looks much like alfalfa but is smaller, has a rounder leaf, and a yellow blossom. The seeds are smaller and more oblong than alfalfa-seed, and have a sort of "beak" or projection on the inner edge. Sweet clover and also bur clover are occasionally found as adulterants of alfalfa-seed. None of these seeds are easily recognized in a mixed lot of seeds except by an expert. All doubtful samples should be



Hon. Edwin Taylor, Edwardsville.  
Regent of the Kansas State Agricultural College. Lecturer on the "Alfalfa Train."

sent for analysis to the Experiment Station.

Good alfalfa-seed should be yellow, with a faint tinge of green; the seeds are mostly pointed at one end, although many are kidney-bean shaped and a few are nearly round. The latter are difficult to tell from seeds of sweet clover or trefoil. Bur clover-seeds are much larger than alfalfa-seeds, although of the same shape.

The germination of alfalfa-seed should usually be tested. This may be done by counting out one hundred seeds at random, putting them between a folded piece of muslin cloth that has been boiled to prevent molding or souring of the seed. This should be moistened and kept at about 70° F. between two common plates, one inverted over the other for a cover; or a cigar-box or any other small box may be used instead of the plates. Several such samples will give a better average than one. Each day the samples should be examined, and the sprouted seeds counted and removed. Usually five days is sufficient time for a germination test of alfalfa seed. About 50 per cent of the seeds should germinate within forty-eight hours, and about 75 per cent within three days from the commencement of the test. Good alfalfa-seed should give a germination of at least 83 per cent.

## THE SOIL.

Alfalfa will succeed on a variety of

soils, grading from sandy to clay and "gumbo," although with favorable soil conditions of being more difficult to establish a stand. The crop, however, does thrive alike on all soils; perhaps deep, fertile loam or clayey loam supplied with the mineral elements of plant-food is the most favorable for growing alfalfa. The crop needs a deep, well-drained soil; on wet soil with the water too near the surface alfalfa will often produce poorly and the plants soon die. Alfalfa will thrive on a soil deficient in lime which shows an acid reaction. The old lands in Eastern and Southeastern Kansas being originally rather deficient in lime, after years of cropping have become deficient in humus, organic matter and so deficient in lime that they will hardly produce alfalfa successfully until the soil is fertilized by manuring and the acid condition is corrected by application of lime or land plaster.

In order that alfalfa may make a good stand and continue to produce large crops, the land must contain bacteria which live on the alfalfa plants and supply a part of the plant's food. Lands that have been farmed for many years, and seeded to alfalfa, may not contain these bacteria, and before alfalfa will grow well it may be necessary to supply the bacteria by inoculating the land with soil from an old alfalfa stand. From two hundred to three hundred pounds of infected soil, carefully spread and mixed with the soil by cultivation before the alfalfa is planted is sufficient to inoculate the new land and infect most of the alfalfa plants within a year or so after seeding. Nitro-culture preparations for treating the seed before sowing, now manufactured and sold, also give good results when used carefully according to directions. The average farmer will cure better results by using the infected soil, when it can be secured at reasonable cost, rather than to treat the seed with nitro-culture preparations.

## AMOUNT TO SOW.

The amount of alfalfa-seed to sow will depend to some extent upon the quality and vitality of the seed. A general practice has been, and perhaps still is, to sow from twenty to thirty pounds of seed per acre. Many of the oldest and most successful alfalfa-growers are now using much less seed. The seeding trials at the Kansas Experiment Station have proved that ten or twelve pounds of good seed per acre, sown in a well-prepared seed-bed, will produce an excellent stand of alfalfa. With alfalfa



Geo. C. Wheeler.  
Professor in charge of Feedings, Kansas Agricultural Experiment Station. Lecturer on the "Alfalfa Train."

as with clover, doubtless the success has much to do with securing a successful catch, but even in an unfavorable season it is possible, with an average amount of good seed sown at the right time in a properly prepared seed-bed, to secure a good stand of

alfalfa or clover or of almost any common domestic grass.

THE SEED-BED.

Next to good seed (let the weather conditions be what they may) a good seed-bed is the most important factor in establishing a successful stand of alfalfa. Although this matter of a "proper" seed-bed has been studied and discussed much in the last few years, yet the principles involved in the preparation of a seed-bed and its condition at seeding time, as related to a favorable environment for germinating the seed and starting the young plants, are not always fully understood by many farmers. A deep, loose seed-bed is not a favorable one in which to seed alfalfa, clover, or grasses. Such a seed-bed may be in a favorable condition for planting potatoes, or perhaps corn may sprout and grow well under the conditions named, since the seed is large and strong in vitality and contains much nutriment to nourish and start the young plants. But with clover, alfalfa, grasses, and other small seeds the "ideal" seed-bed should be mellow, but finely pulverized only about as deep as the seed is planted. Beneath the point at which the seed is placed and covered in the earth the soil should be rather firm, but not too hard or compact; such a condition as may be secured by cultivating the surface of well-settled fall plowing, or by disking and harrowing unplowed corn land in the spring.

The proper seed-bed for fall seeding may often be prepared by summer plowing immediately after harvesting wheat or early spring grain and harrowing or disking at intervals until seeding time. It is often advisable to disk clean stubble land in preference soon after harvest as possible. Mito plowing, starting the disking as let or cow-peas cut for hay make good crops with which to precede the fall sowing of alfalfa.

One method of seeding, adapted to weedy land or to land which is deficient in available plant-food, is to start the preparation of the seed-bed early in the spring, when the land may be either plowed or cultivated with the disk harrow. The cultivation with the common harrow, disk, or Acme harrow should be continued at intervals of a week or ten days, in order to destroy the weeds, conserve the moisture, and develop available plant-food. Late in the spring seed the alfalfa, choosing a time to sow, when possible, soon after a good rain, so that the soil may be in good condition to germinate the alfalfa seed. Alfalfa seeded by this method should sprout very quickly and the weeds should not be troublesome, since the weed-seeds in the surface soil have already germinated and the weeds destroyed by the early cultivation. The cultivation also causes some of the latent fertility of the soil to develop and become available to the young plants, and this, with the abundant moisture supplied, should usually insure a good start of alfalfa, provided weather conditions are not too unfavorable.

When the seeding follows closely upon the plowing of the land, whether in the fall or spring, a proper seed-bed may only be prepared by using such an implement as the subsurface packer, by which the bottom of the furrow slice is pulverized and firmed, thus reestablishing the capillary connection of the soil with the subsoil, by which the moisture may be drawn upward into the surface soil to supply the germinating seed and the roots of the young plants.

The firm condition of the soil beneath the seed and a good connection with the subsoil not only offers favorable conditions for supplying the seed with moisture, but the mellow covering over the seeds allows the air and heat to reach the seed from above, and these three—moisture, heat, and air—are the essential factors in seed germination; but if any of these are lacking the seed will not germinate. Moreover, the mellow surface above the seed allows the young plantlet to readily push its way up into the sunlight, when it throws out its

green leaves, and through the action of heat and light the work of assimilation begins and the plant grows and soon establishes its roots deep in the soil and becomes able to withstand drouth and unfavorable weather conditions.

TIME TO SEED.

Alfalfa may be successfully seeded throughout the eastern half of Kansas either early in the spring or early in the fall. Alfalfa may be destroyed by a hard frost just after the plantlets have appeared, showing their first leaves, but when the young plants have thrown out a few leaves and have made some growth they are not likely to be destroyed by frost. Thus very early seeding is sometimes more apt to be successful than medium early seeding, while late seeding is most apt to suffer from heavy rain packing the soil and from the effects of hot, dry weather.

As to how late it is safe to sow alfalfa in the fall is determined to some extent by the season. During a favorably moist, warm fall, seedings up to the last of September have succeeded at the Kansas Experiment Station, but on the whole the later seedings are much less apt to prove successful than the earlier seedings. Again, if the seeding is done too early in the fall, as early as in August, a period of dry weather may cause a poor germination of the seed or destroy many of the tender plants before they have established a root growth. This is a general rule which one may practise with success. Prepare the seed-bed early, either in the fall or spring, and seed when the soil is in a fit condition to germinate the seed. There is little use of sowing alfalfa unless the soil conditions are favorable to germinate the seed at once, because the seed will not germinate and grow until the conditions are favorable, and the seeds are much more apt to be injured and lost if they must lie for any considerable time in a seed-bed which is not in fit condition to germinate seed.

Fall seeding has the advantage of spring seeding in that the land returns a fair crop of hay the first season after sowing, whereas with spring seeding the alfalfa is not likely to make sufficient growth to produce a profitable crop of hay the first season, and should the alfalfa make sufficient growth, the weeds will usually be so abundant as to prevent the use of the first season's cutting for hay. On weedy land fall seeding also has the advantage of spring seeding. The weeds are not troublesome in the fall and the fall-seeded alfalfa starts ahead of weeds in the spring, giving a comparatively clean growth of hay the first year after seeding.

METHODS OF SEEDING.

A large amount of alfalfa has been seeded with the ordinary grain drill. At present the greatest objection to this method is that it requires too much seed. To sow in this way requires twenty to thirty pounds of seed per acre. The feed on the ordinary grain drill can not be set up close enough to sow less than the amount named. A better plan than to sow with the grain drill is to have a grass-seeder attachment to the drill, which will allow close adjustment, and with spouts emptying into the grain tubes, so that the seed may be dropped in the drill furrows and evenly covered. In some soils and in some seasons there is little doubt but that the method of seeding with the drill may give more favorable results than broadcasting. As a rule, however, alfalfa may be successfully started by seeding broadcast in a well-prepared seed-bed, care being taken to seed at the right time and when the soil is in favorable condition for sprouting the seed. Alfalfa is successfully sown by hand, but in recent years the little wheelbarrow seeder, several makes of which are sold on the market, has come into use for broadcasting grasses, clover, alfalfa, and all small seeds.

The seed should not be covered deeply, usually less than one inch is better than more than one inch of soil covering, while on heavy, compact soil or in wet seasons the seed should be covered very lightly. The seed-bed

should be fully prepared before seeding, and one brush with the harrow is usually sufficient to cover the seed in a well-prepared seed-bed having a mellow, even surface. If the seed is planted too deep, the young shoots will often be unable to reach the surface. The vitality of the small seed being quickly exhausted, the plant and the seed are lost.

As a rule the writer does not recommend rolling after seeding, preferring to do the firming of the soil before seeding. In light soils or dry seasons, however, it may become desirable to roll to cover the seed and press the soil about the seed. It will always be well, however, to follow the roller with a light harrow, leaving the ground furrowed and with a surface mulch, and not smooth and hard as left by the roller.

NURSE CROP.

It is safest, as a rule, to sow alfalfa without a nurse crop, and this is the method usually practised, although it is possible to get good stands in the most favorable climate, soil, and season by seeding with spring grain crops. If this method is practised, lighter seedings of grain should be made than is the usual practise when the grain is seeded alone, and in a dry season it may become desirable to cut the grain crop for hay before it matures in order to prevent the alfalfa from being destroyed by drouth. The nurse-crop method can not be considered a safe one for establishing a stand of alfalfa.

TREATMENT AFTER SEEDING.

Alfalfa seeded in the spring needs little care after the first season, more than to mow the weeds a few times during the summer to prevent the weeds from seeding and to keep them from smothering the young alfalfa plants. It is well to mow the field two or three times during the season, but the growth of weeds and alfalfa should not be cut too close to the ground until the alfalfa blooms, when it may be mowed close without injuring the plants. It seems to be true that when alfalfa has become well established, frequent close cutting seems to benefit the plant and cause it to grow more vigorously, but this is not true of the young, tender plants. It is true of alfalfa as with any other young plant, that it must form a top growth before or at the same time that it is producing roots. The leaves are the stomach and lungs of the plant, and before the roots can develop the leaves must manufacture the products which are built into the cells and tissue that constitute the roots. If this top growth of leaves is kept cut off before a sufficient root growth has been established to easily restore the top growth, the effect is to check the growth of the plant, weaken it, and perhaps destroy the plant. The writer has known of good stands of alfalfa that were destroyed by a single close mowing, not due wholly to the reasons assigned above, but to the fact also that the young, tender alfalfa plants which had been strongly shaded by a growth of weeds were suddenly exposed to the heat of the summer sun and a dry period of weather, which, together with the factors named, resulted in killing out the alfalfa almost completely. Clover seeded with a nurse crop of grain is often destroyed by too sudden exposure to the hot sun and dry weather when the grain is harvested. Others have ascribed this to the reflection of heat from the dry stubble cooking the young clover, and advise mowing the stubble close to the ground as a preventive.

The fall-seeded alfalfa needs no care in the fall; the full growth of plants and weeds should be left as a winter covering. The next season the alfalfa may be regularly cut for hay, and with a good catch will often produce three or four cuttings the first year, yielding three or more tons of good hay per acre, although on foul land the hay is apt to be a little weedy the first season.

When alfalfa has become fully established the crop is benefited by occasional cultivation. The implement best adapted for this work is the spike-tooth disk harrow. However,

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the common disk harrow is more generally used and does good work. Alfalfa may be disked in the spring before it starts much, and it may be disked after each or any cutting during the season. At the Kansas Experiment Station the usual practise is to disk once a year, quite early in the spring, although disking several times during the season as described above has given favorable results in a single trial. In these experiments the least injury was done the alfalfa and the best work was accomplished by setting the disks rather straight and weighting the harrow so as to make it cut two or three inches deep; then the field was cross-disked and harrowed with a common harrow. As the soil is left by disking with the common disk harrow, it does not form a perfect soil mulch to conserve the soil moisture, and also the clouds thrown up by the disk interfere in mowing. The purpose of the disking is to loosen the surface soil so as to favor better aeration in the soil, kill the weeds, and form a mulch to conserve the soil moisture, and at the same time present a surface more favorable to the absorption of the rains, and there is no question but that disking alfalfa favors the growth and development of the crop.

KILLED HIS NEIGHBOR'S HORSE.

EDITOR KANSAS FARMER:—Would you be kind enough to give a little information through the columns of your valuable paper about the liability of party or parties who cause death of animals that stray onto their premises, by chasing with dog and beating with sticks? Could party who did the killing be prosecuted besides made to pay for animals killed? What part of actual value could be collected?

FARMER.

The Kansas statute, Sec. 3180, General Statutes of 1905, provides for damages only in cases in which the straying animal is injured or killed on uninclosed land or on land not protected by a lawful fence. We find no reference to a case exactly like this in the opinions of the Kansas Supreme Court. In the Common Law books examined there is very little reference to such cases.

But as a reasonable proposition viewed in the light of equity between the two men a few considerations ought to lead to a correct determination of what is right. Leaving out all thoughts of the existence or non-existence of a lawful fence, or of a herd law, it should be observed that in any case the owner of the premises had a right to remove the trespassing animal from his land. This he could do by driving or by leading it, using such force as might have been necessary to accomplish its removal. When, however, the owner of the premises used unnecessary violence and, as in this case, killed the animal he became a trespasser against his neighbor's animal to the same extent as if he had

killed it in the public highway, and to much the same extent as if he had committed the act on his neighbor's premises. This act of aggression and trespass, taking this correspondent's statement as correct, was without excuse and should and probably does make the aggressor responsible for the full value of the animal destroyed.

The criminal feature of the case is covered in Section 2348, General Statutes of 1905, as follows: "Every person who shall maliciously and cruelly maim, beat, or torture any horse, ox, or other cattle, whether belonging to himself or another, shall on conviction be adjudged guilty of a misdemeanor, and fined not to exceed fifty dollars."

But this is a case that ought to be settled not by law but by neighborly good will. Probably this "good will" is not very abundant between the two men just now, but the little germ of it that is left may be cultivated. The third party in this case, the friend who writes the statement, says that both of the parties to the controversy are subscribers for THE KANSAS FARMER. This is a point in their favor, and it is almost certain that when not angry each wants to do what is right. The editor does not know enough of the circumstances to make sure that he can suggest any procedure that would be likely to succeed. But these two neighbors will presumably read these lines at about the same time. The man who killed the horse ought to make the first move. By a suitable effort he can rise to the occasion. Within a day or two after reading this, and, if he believes in such thing, praying over it, let this man go to his neighbor and offer to pay the value of the horse destroyed. Let the neighbor meet this advance with a spirit of generosity and manhood. There will necessarily arise the question of the value of the horse. Let that question be left to one, two, or three disinterested neighbors.

When this settlement shall have been made there will be no thought of criminal prosecution; instead the friendships of the neighborhood will have been made stronger, life in that community will be more worth living, and even land will be more valuable than if a feud be allowed to perpetuate itself.

Get together.

#### A FEW POINTS ON COMBINATIONS.

EDITOR KANSAS FARMER:—I desire to thank you for interest manifested in my securing hog-tight fence along railroad right of way. THE KANSAS FARMER is good, but I do sometimes wish it would take a more sympathetic interest in the matter of the farmers' controlling prices on their products. You tell us well how to raise crops, but to get a fair price, "there's the rub." Or have you reasoned beyond the matter of corporations to the nobler civilization of cooperation and simply await its arrival?

Rice County. S. J. STEINMETZ.

THE KANSAS FARMER has given some study to the subject suggested in this correspondent's letter. It has observed with some care several plans proposed for securing better returns for the products of the farm. The subject is not a new one. The desire to control prices of the products of his labor and capital is not confined to the farmer. Scarcely a week passes without bringing news of the institution of a Government suit against some combination of producers for the restraint of trade to the extent of compelling consumers to pay an advanced price for some commodity. Very many of these combinations do succeed in compelling consumers to pay advanced prices. In some instances the individual producers who have gone into the combination have received a portion of this advance. In not a few cases the expenses of organizing, maintaining, and operating the combination, together with the cost of the grafters who have gotten into or have in some way fastened themselves upon the management have consumed so large a portion of the advance paid by the consumers that the real producers have found lit-

tle benefit. In some cases actual losses have been experienced.

The editor does not say that this is true of all combined efforts to raise prices, nor does he say that such experiences are as likely to follow farmers' efforts as those of others. It is a notable fact, however, that farmers' efforts in this direction have been short lived and their results have not been sufficiently formidable to inspire anybody to apply the law to their prevention.

Besides the National laws to prevent control of prices by other influence than free competition, the Kansas law is very comprehensive. Section 4443 of the Kansas General Statutes of 1905 provides:

"That all arrangements, contracts, agreements, trusts, or combinations between persons or corporations made with a view or which tend to prevent full and free competition in the importation, transportation, or sale of articles imported into this State, or in the product, manufacture, or sale of articles of domestic growth or product of domestic raw material, or for the loan or use of money, or to fix attorney's or doctors' fees, and all arrangements, contracts, agreements, trusts, or combinations between persons or corporations, designed or which tend to advance, reduce, or control the price or the cost to the producer or to the consumer of any such products or articles, or to control the cost or rate of insurance, or which tend to advance or control the rate of interest for the loan or use of money to the borrower, or any other services, are hereby declared to be against public policy, unlawful, and void."

Section 4445 prescribes penalties for the violation of this statute, namely, fine not less than one hundred dollars nor more than one thousand dollars and imprisonment not less than thirty days nor more than six months, or to both such fine and imprisonment in the discretion of the court.

If any plan of combination has been proposed for controlling prices of farm products by other than the methods of free competition, which if successful would not make every member of the organization liable under this statute, such plan has escaped the attention of the editor. Shall THE KANSAS FARMER for any promised profits or favors encourage its readers to engage in a scheme which, if successful, will lay them liable under the law?

The Kansas law does not discourage such cooperative enterprises as elevators or stores. Local cooperative elevators have been beneficial in very many instances. Cooperative stores have also done well, especially when under the auspices of the Grange. Cooperative insurance is successful and economical. Kansas has so far encouraged cooperative enterprises as to enact a special statute for the incorporation of cooperative companies. See Sections 1519, 1520, 1521, General Statutes of 1905.

There are in the judgment of the editor some other than the legal features of certain schemes that have been advocated for controlling prices that make them undesirable. THE KANSAS FARMER does not desire a controversy on these matters but declines to influence its readers to spend time, energy, and money in efforts to do that which in the nature of things and in view of the experiences of the past is likely to fail.

There are great advantages in association, in comparison of ideas, in cooperation in lawful ways. The good spirit of cooperation is abroad in the land. But not all that is advocated in the name of cooperation is good. Some there are who live by profits on false hopes of their fellow men. The situation is such at this time that THE KANSAS FARMER declines to advocate one set of schemes or the other but finds plenty to do in helping its readers to reduce the cost of producing what they have to sell. If others can see farther than the editor's range of vision and can in legitimate ways pilot the farmer to greater profits, THE KANSAS FARMER stands ready with congratulations.

Some of the ablest men of recent times have devoted the best years of

their lives to the study of economics. They have examined every side of the problems of production and distribution, including marketing. They have written volumes candidly discussing these subjects. The study is still in progress; the discussion is still on. Perfection has not been reached. Injustices have not been eliminated. The producer is in many cases not able to secure the compensation due. It is hoped and expected that conditions more just will be brought about. But progress is likely to proceed from broad rather than narrow consideration of the situation, from the methods of business rather than from the schemes of the promoter, from observance of law and equity rather than from proceedings that we condemn in others.

These remarks go beyond a mere answer to this correspondent's inquiry. But it has seemed proper to consider the subject sufficiently to cover other inquiries. THE KANSAS FARMER desires its position to be fully understood. It does not oppose any movement in which honest men strive to secure their dues. But it does not advocate movements which do not commend themselves to its judgment. Those who know just what ought to be done are justified in proceeding energetically to do it. There is much that THE KANSAS FARMER does not know.

#### REAL ESTATE AGENT CLAIMS COMMISSION.

EDITOR KANSAS FARMER:—A and B trade properties. Two months later C comes and claims a commission from A. A never employed C and did not know that he had anything to do with the trade. Has C a right to a commission from A? A READER. Johnson County.

A real estate agent can obtain authority to serve a real estate owner only by consent of the owner. In many cases authority to sell property is conveyed very informally. If under the most informal authorization the agent perform services by assisting in the transaction he is usually able to collect a commission. These informal contracts are sometimes forgotten by the property owner, but it is not recorded that the agent ever forgot such a contract. But, if the facts are exactly as stated, A is under no obligation to pay C a commission.

#### FISHING IN KANSAS WATERS.

EDITOR KANSAS FARMER:—Please answer through THE KANSAS FARMER about the fish law. Some say it is against the law to fish with any line that has more than one hook on it. I would like to know if this is so? Coffey County. J. H. T.

The law on the subject of methods of fishing is contained in section 3289, General Statutes of 1905. It reads:

"It shall be unlawful for any person to catch, take, or attempt to catch or take, from any lake, pond, river, creek, stream, or other waters, within or bordering on this State, any fish by any means or in any manner except by rod and line and fish-hook, or hand line, or set line."

This law was amended by the Legislature of 1907 so as to make it lawful to seine in the Missouri or in the Kansas as far as the dam at Lawrence, with a seine having 2-inch meshes, provided that all bass and croppie shall be thrown back into the stream.

#### GREEN BUGS IN NEW MEXICO.

EDITOR KANSAS FARMER:—I have been reading articles in your paper on the green bugs, and am now very much interested. This is a new irrigated district and the bugs were unknown here. I have seventy acres in alfalfa and planted oats as a nurse crop. My oat-seed was from the mountains and oats showed no signs of bugs, but some of my neighbors planted Kansas seed and were obliged to turn oats under, as the green bugs ate up their fields. The bugs are now starting on mine, and I would like to get some parasites as quickly as possible. Not being able to get any in this Territory, I will ask it as a favor

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to let me know where I can get some, what they will cost, or if possible can you obtain some for me and I will remit the price upon receipt? Every day's delay is loss, so that an early reply will be greatly appreciated.

F. A. MANZANAN.

Gaudaloupe County, New Mexico. The above request for parasites was forwarded to Professor Hunter, at Lawrence. Doubtless these destroyers of green bugs are by this time multiplying rapidly in correspondent's field in New Mexico.

"KANSAS—HER STORY AND STATISTICS."

Under the above title Secretary Coburn has just issued the report of the Kansas State Board of Agriculture for the quarter ending March, 1907. It contains detailed information of the State of Kansas, and of each of her counties; their location, area, history, population, resources, railways, productions, public lands, and meteorology; with a State map by counties revised to date. It also contains addresses, papers, and discussions at the Board's thirty-sixth annual meeting last January, and a resume of commercial sugar-beet production in Kansas.

This book of 444 pages fully confirms Mr. Coburn's claim that he is the official advertising agent of the State. It is a book that every farmer and every other business man will find valuable. It will be a part of wisdom to apply early for a copy, addressing the Secretary at Topeka.

THE COUNTRY BUTCHER.

EDITOR, KANSAS FARMER:—I would like to ask you:

1. What will a beef dress in pounds that will weigh 800 on foot?
  2. Is it lawful for the owner of a slaughter-house to dump the refuse in a running stream?
  3. Can a country butcher sell meat which has not been inspected, in a city, or can he get it inspected?
- Jefferson County. A READER.
- 1.—The packing-house people expect an 800-pound beef to dress about 440 pounds. There is considerable variation. The best finished, corn-fed animals yield a larger percentage of meat than is obtained from inferior stuff.
  - 2.—It is unlawful for the owner or any employee of a slaughter-house to dump any animal refuse or any part of an animal into a running stream.
  - 3.—Unless prohibited by city ordinance there is no law to prevent a country butcher from selling meat without inspection in Kansas.

BOARD OF VETERINARY EXAMINERS.

EDITOR, KANSAS FARMER:—What are the rules and regulations of the State law regulating the practise of veterinary medicine and surgery passed at the last session of the Legislature?

Russell County. C. E. F. The law regulating the practise of veterinary medicine in Kansas is Chapter 388 Laws of 1907. It is too long to admit of republication here. It provides for a board of examiners and makes it unlawful for any one to practise veterinary medicine in this State after January 1, 1908, without having first obtained a certificate from the examiners. Suitable punishment is provided for the violation of the law.

Prof. J. D. Walters, head of the architecture department of the Kansas State Agricultural College, celebrates his thirty-first commencement as a professor there. He has given special instruction to 20,000 students, and he says he has climbed College Hill 60,000 times, walking a distance equal to almost twice around the earth. He feels as good as ever and was recently elected alderman from his ward.

The discussion about the danger in using lead water pipe is up again. A fair statement of it is about as follows: Lime water will form a coating over the inside of the pipe, so that there will be little danger. Pure, soft water may take enough from the pipe to cause lead poisoning.—Rural New Yorker.

Miscellany

Green Bugs from Indiana Another Kind.

Enclosed find some bugs which we find in our wheat-fields and we think them to be green bugs. The wheat-fields are showing the effects of the presence of these bugs. Will you send some parasites? Please give your opinion of these bugs in the next issue of THE KANSAS FARMER.

JARED HICKMAN.

Ripley County, Indiana.

The insects sent by Mr. Jared Hickman, of Ripley County, Indiana, which he reports as doing great damage to his wheat are not Toxoptera graminum, the aphid that has done such injury to wheat in this part of the country, but are another equally destructive aphid, Nectarophora avenae, so often found in the same fields with Toxoptera that it is difficult to say which is really doing the greater damage. If the specimens are compared with a hand lens sufficiently powerful to show the wing veins they can be easily distinguished by the branching of the vein known as the cubital vein. Both of these wings are figured in the May 16 issue of THE KANSAS FARMER. All the specimens sent by Mr. Hickman have wings like Fig. 1, e. Several of the specimens enclosed were evidently parasitized by a Braconid fly similar to that which has been such an effective check to the ravages of Toxoptera this spring. Four of these parasitic insects have emerged and while they are not identical in wing venation with those figured in the article of May 16 yet they are evidently very closely related to Lysiphlebus sp. and possibly the same species, since the range of variation is considerable and it has been reported by good authority as attacking all of the grain aphids. As many of the parasitized aphids were winged it would seem that they would be likely to distribute their enemy wherever they might migrate. The percentage of parasitized aphids among those sent by Mr. Hickman seems great enough to prevent any very serious damage to the wheat by the aphids unless the weather conditions are unfavorable to the parasite. The lady beetles are usually everywhere, and further examination of the field will doubtless reveal one or more species, either larvae, pupae, or adults in ample numbers.

LUMINA C. RIDGLE-SMYTH.

Topeka, Kans.

Lady Beetles Not Dead But Sleeping.

I send a box of dead lady beetles. Will you please give the cause of the death of these bugs?

Rice County. BARTON KIRBY.

The lady beetles you sent me yesterday are not dead, but in that condition known as the pupal or resting stage. They are transforming from the larval 'aphis-lion' stage into the adult 'lady-bug' stage. Several of them have emerged from the little cases you saw them in before starting and are small orange-colored beetles with black dots. They are known as Hippodamia convergens, and are described and figured in THE KANSAS FARMER of May 16, also in the issue of June 6. I hope you read THE KANSAS FARMER. More information can be obtained from that publication relative to the "green bug" and its enemies, among which are this same lady beetle you send, than can be obtained from any other inexpensive publication this year. That paper keeps its readers well informed on all subjects of the day connected with the raising of farm crops. The beetles you send are in the condition represented by Fig. b on page 674, issue of June 6. They are now changing to the condition represented by Fig. a. Before you started them here they were like Fig. c, and were then voracious creatures, living entirely upon "green bugs" and all kinds of plant lice. These three pictures represent different stages of one and the same kind of insect known as lady beetle or by

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the old name of "lady bird." These insects are beneficial.  
Topeka, Kans. B. B. SMYTH,  
Curator of Kansas Museum of Natural History.

Geology of the Joplin District.

The lead and zinc deposits of Southwestern Missouri and Southeastern Kansas form the principal feature of economic interest in the United States Geological Survey's recently published folio on the Joplin district, a region covering about 476 square miles in Jasper and Newton Counties, Missouri, and Cherokee County, Kansas, including within its limits Carthage, Webb City, Cartersville, and Joplin, Mo., and Galena, and Baxter Springs, Kans. Lead and zinc ores were discovered in this district in the early forties, and at the time of the Civil War mines in Jasper and Newton Counties were producing so much lead that their possession was contested by the opposing armies.

Lead ore was discovered on the site of the city of Joplin in 1849, but no important mining was done there until about twenty years later. Joplin itself, first called Murphysburg, dates from 1871, and the discovery and development of zinc and lead ores in the vicinity of Galena, Kans., began at about the same time. In 1875 diggings were opened on the site of Webb City, Mo., and a year later mining had been extended to Cartersville.

The Joplin or Missouri-Kansas district of the Ozark region is the principal zinc-producing area of the Mississippi Valley. Its total ore production in 1905 was over a quarter of a million tons, averaging about 58 per cent of zinc. The zinc ores of the Ozark region are remarkably free from iron and produce concentrates of high grade. They are in great demand, and the Joplin prices fix those throughout the Mississippi Valley.

The genesis and structural relations of these ores have recently attracted great attention and are discussed in the text of the Joplin folio in connection with the description of the topography and general geology of the district. The mode of origin of the ores is perhaps the most interesting and most difficult problem that the geologist in this region has to solve, and the full discussion of the question should command also the attention of the miner and prospector, for the distribution and character of the ores are necessarily related to the manner of their disposition.

In addition to twenty pages of descriptive text, the folio comprises three large maps on a scale of one inch to the mile, showing the topo-

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graphy, the areal geology, and the economic geology, and several mine maps on a much larger scale. An interesting feature of the folio is the sheet of reproductions of photographs of ores and minerals. The price of the folio is 50 cents, and orders, accompanied by remittances, should be addressed to the Director of the Geological Survey, at Washington, D. C.

The authors, Messrs. W. S. Tangler Smith and C. E. Siebenthal, have profited by the earlier work of the Missouri Geological Survey and have incorporated in the text a list of the State reports relating to the Joplin district. It is probable that an arrangement will be made for turning over to the State Survey a large amount of detailed information not suitable for incorporation in the folio, which will be supplemented by additional field work and published as a State report.

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**Money in Hogs on Eighty Acres.**

EDITOR KANSAS FARMER:—Mr. Chas. A. Rowe, of Jacksonville, who spoke at the Illinois Farmers' Institute, has, with his father, Mr. W. H. Rowe, one of the most successful farming systems for a small place to be found anywhere in Illinois. It is a corn-small-grain-clover rotation, with hogs and seed-corn as specialties. Only eighty acres is devoted to this rotation, but it has been so profitable that a second eighty-acre farm has been bought near home, a hired hand in-

stalled, and exactly the same rotation started upon it.

**FOUR DEPARTURES FROM COMMON CUSTOM.**

The plan worked out so carefully by the Rows differs widely from ordinary methods, first, in moving the hogs and all their buildings each year to a new field; second, in putting the hogs on an August market at 15 or 16 months of age; third, in producing much of the pork from inexpensive clover, using correspondingly less of corn; and fourth, in feeding soy-beans and soy-bean hay to supply the protein food when the clover is gone. The Rows also know by definite weights and figures the cost of production and their profit or loss in any line of their work. They add ten bushels per acre to their corn yield by cultivating their corn twice after the ordinary farmer "lays by" his corn, and by hoeing out the bad weeds once in August. Their ground is worked much more thoroughly throughout the year than the ordinary farm. Their corn-fields are almost entirely clean of weeds in the fall, giving a great advantage to the succeeding crop of clover.

**LAND ENRICHED WHILE MAKING MONEY.**

This system produces very profitable pork, and at the same time is peculiarly adapted to maintaining the fertility of the land. It is no unusual thing for them to sell \$800 worth of seed-corn in a year.

**FOUR FIELDS AND THEIR ROTATION.**

The eighty acres are fenced with hog-tight wire into four equal fields. Each year two of these fields grow corn, excepting about five acres of soy-beans; the third field is in some small grain, always seeded with clover to come on after the grain is harvested, and the fourth field is in clover pasture for hogs. All of the shelters for the hogs are moved into the middle of this clover-field and remain there just one year at a time, and each year the rotation moves forward one field. About a hundred and fifty hogs are sold from the eighty acres each year and under fair conditions they are brought to weigh about 350 pounds. This system requires the minimum of labor, including very little hired help. The average yield of corn for four years has been 80 bushels per acre. Following are a few statements from the address of Mr. Rowe:

"Our pigs farrow in April when the weather is good and so they can soon be put on the clover. The larger hogs are selected for breeding stock and strength, vitality, and working capacity are of first consideration in the breeding.

**"FEEDING THE BROOD SOWS.**

"We feed the brood sows from the time they are bred until farrowing time with plenty of good food to give them large capacity for the work they do. We have been feeding corn, ground oats, bran, clover hay and oil-meal with a few soy-beans mixed in for Sunday. We aim to keep them growing and in good condition until farrowing time, when each occupy a tent shaped house, 6½ by 8 feet with the south end open. Eight acres of the clover-field is fenced off with a temporary wire fence for the sows and pigs (the other twelve acres being reserved for the fattening hogs that were raised the previous season). Each sow has a small pen by herself for a few days at farrowing time and she is usually put up at the 112th day and fed and cared for according to the best rules. At no other time of the year are the sows kept separate. In this way they know each other and do not fight, and as a rule we have little trouble about the pigs. We try to have the pigs all come at nearly the same time and they do not rob one another badly. When it is dinner time for one litter it is dinner time for all.

**"LIVING MOSTLY ON CLOVER.**

"The sows and pigs go on to the clover when the pigs are two or three days old; this way proves right every time. The sows and pigs get most of their living from the clover and are fed only a little corn and other grain. When the pigs are big enough to crack corn they get a little extra feed in a

pen where the mothers can not enter. They are kept thrifty during the whole clover season.

**"AFTER CLOVER, SOY-BEANS ARE FED.**

"When the clover pasture is gone we have a crop of soy-beans to supplement the corn. In the winter we use oil-meal to balance the ration of corn. Sometimes we use flour middlings, sometimes shorts, depending upon the market prices. Thus the hogs are kept healthy on a balanced ration through the winter. The next spring the hogs go on the clover-field until July or August when they will weigh close to 350 pounds.

**"CHEAP CLOVER OFFSETS LONG FEEDING PERIOD.**

"There must be something to offset this long feeding period. A pig can not be made to gain a pound a day unless he is put on expensive feed. We make the gain on clover and clover is inexpensive. Five tons of good clover can be produced on an acre and the first period of running these pigs, from May 1 until the fore part of the winter is almost entirely upon clover. The other feeds in winter are more expensive. From May until July or August of the second year we make another exceptional gain on the clover. We have found by accurate experiment that clover pastured thus brought \$24 an acre. The next year it make \$18.30 per acre.

"For twenty years the December hog markets have averaged low and those of August high. We put ten fattening hogs on an acre of clover and it will keep them until the first of August.

**"EVERYTHING IS MOVABLE.**

"We have discarded the permanent hog-houses. All the shelters are movable. A rail and straw shed is put up in hot weather. All the feed and water is kept at 'hogtown' in the middle of the field. The water supply is, at the center of the four fields and water is hauled in a barrel on a little sled to 'hogtown' each day. This painted air-tight barrel stands in a box trough built on the sled and feeds the water into the four corners of the trough as fast as the hogs drink it down enough to let air into an open hole three inches above the bottom of the barrel. The little work in hauling this water to the middle of the field each morning is more than offset by not requiring the hogs to run to the corner of the field whenever thirsty. Having the headquarters in the middle of the field secures a more even distribution of the manure.

**"HOW THE SHELTERS ARE MADE.**

"Partly open shelters 8 by 14 feet, built on two by ten runners for easy moving, accommodate twenty grown hogs. The lumber is planted on one side and painted. The framing is the simplest possible, but the sills are braced at each corner making the sled strong for moving. The lower half of the shed front is always open; the upper half is a door hinged at the top that may be swung inward and hooked to the under side of the roof to admit sunshine on bright days in winter. A cross sill at the center prevents the hogs from piling up. Such a shed costs \$20, and when put in place fronting the south is anchored to a deep set post so that the wind will not blow it over. The tent-shaped shelters (already described) for a sow and her litter costs but \$7 and is so light that one man can up end it and let the sunshine into the nest all day for disinfection, or it may be easily moved a few feet to new ground. Its south gable is always open. When all these shelters are moved to the new clover-field in the spring, everything is renovated and cleaned.

**"AVERAGE OF EIGHT PIGS PER LITTER.**

"We breed for one litter a year and have made a five years' average of 8 pigs per sow. The breed is Duroc-Jersey. We keep the sows just as long as they will do well. A sow that has had cholera is kept just as long as possible for her pigs will be immune to cholera to a certain extent as long as they live. We keep salt and wood ashes before our hogs all the time.

"SOY-BEANS THAT MADE \$38 PER ACRE. "We found by actual test when pigs

**Help the Horse**  
No article is more useful about the stable than Mica Axle Grease. Put a little on the spindles before you "hook up"—it will help the horse, and bring the load home quicker.

**MICA AXLE GREASE**  
wears well—better than any other grease. Coats the axle with a hard, smooth surface of powdered mica, which reduces friction. Ask the dealer for Mica Axle Grease.

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**REVOLUTION PATENTED BUCKLES...**  
When used will save more than one-half the cost over old way of repairing harness. No stitching, no riveting. Send 25c to pay for sample assorted set of Buckles, postpaid. Free illustrated catalog. Big profits to agents.

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**FARMERS AND STOCKMEN!**  
The Myers Pumping System designed to automatically supply fresh water as needed in feed lots, barns and under pressure, in house. No Tank; No Stagnant Water. Great demand for machines everywhere. Agent wanted in each county. For information write or call

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SEALS BUILDING, 6TH & WYANDOTTE, KANSAS CITY, MO.



**HOTEL KUPPER**  
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One of the newest and most centrally located hotels in the city. Absolutely modern in every detail.  
European Plan, \$1 per day and up.

Remodeled, Handsomely Furnished New Throughout.

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Absolutely Fire Proof. In the Heart of the City. 500 rooms, 300 bath rooms. European plan. Cuisine unexcelled. Gentlemen's cafe. Ladies' restaurant and Moorish rooms. Popular prices. Plenty of life—but home-like. Single room and suites with and without bath \$1.00 per day and up. Send for booklet.

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Read This Carefully. It May Be Just What You Want.

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No Stock Jobbing Mining Scheme. A Safe, Conservative Manufacturing Enterprise.

Strongly Endorsed by the Manufacturers and Merchants' Association of Kansas City.

## HAVE BUILT AT KANSAS CITY THE ONLY STEEL AND MALLEABLE IRON CASTING PLANTS IN THE ENTIRE SOUTHWEST

### A MANUFACTURING INDUSTRY THAT CAN NOT BE SURPASSED AS A DIVIDEND EARNER

**THREE SHARES \$1.00**

## THE CRUDE OIL POWER COMPANY

**60 PER CENT ON YOUR INVESTMENT**

We Are Already Assured of More Orders Than We Can Possibly Fill Next Year.

Our Crude Oil Burner Solves the Fuel Problem for Steaming and Domestic Uses.

Remember, this is no Mining or Oil Scheme, but a Safe, Conservative Manufacturing Industry

**Our Machinery is all Installed and in Working Order**

The Crude Oil Power Co. is incorporated under the laws of the District of Columbia, under Federal supervision for \$1,000,000, divided into 1,000,000 non-assessable shares, par value \$1.00 each.

### THIS IS IMPORTANT

I desire to particularly impress on you the fact that it is absolutely necessary that you should carefully read and fully grasp and understand the following features.

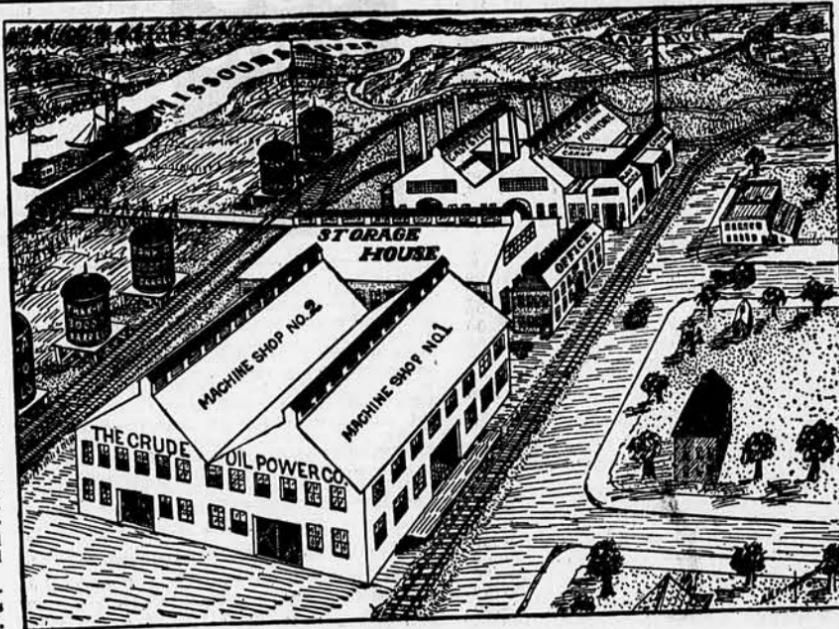
First—That 15 per cent profits assured in our advertising and other matter comes from our Foundry and our Steel and Malleable Iron and Casting Department alone.

Second—Absolutely no mention is made anywhere in any of our literature of the vast profits that will POSITIVELY accrue from our Portable Refiner or Generator, our Crude Oil Engine and our Crude Oil Burner for steaming and domestic use.

Third—We have already several hundred orders for our Crude Oil Burners and more are pouring in every day. These burners are not an experiment. A large number of them have been in use for a long time; they have given perfect satisfaction, and this Company is in possession of many unsolicited testimonials from those who are using them that we will be glad to send you, should you so desire. THE PROFIT ON THESE BURNERS EXCEEDS 800 PER CENT. Over 3,000 can be sold annually.

Fourth—That more orders are already assured us for our Foundry and Casting Department than we can possibly fill, if we run day and night next year and double our capacity in the bargain. This should occasion no surprise, as all other factories of like character are from nine to twelve months behind with their orders and ours are the only two factories of this kind in the entire Southwest. You can easily verify this upon proper inquiry.

Fifth—That our Crude Oil Generator or Refiner is no experiment, as a num-



**\$235,000 Already Expended on the Company's Plants**

A Practical Illustration of the Two Mammoth Plants of the Crude Oil Power Co. at Kansas City and Sour Lake, Texas, as They Will Appear When Completed. Invest in a Sure Thing.

Stock Is Now **33 1/3 cts.** Per Share

ber of them are to-day, and have been for a long period, in use in the California oil fields and are giving unqualified satisfaction.

Sixth—That this Company has already purchased and paid for in full the following equipment, which as soon as our buildings are completed will be installed, viz.: A complete Foundry outfit, including Crucibles, Copola, Flasks, etc., capacity 30,000 lbs, daily; a Traveling Crane, capacity 30,000 lbs., and 120 feet of trackage; a full Blacksmithing outfit, including a 50 H. P. gas engine, air compressor, forges and all necessary tools, anvils, etc.; a 500 light Dynamo and Equipment; a full equipment for Drilling oil and gas wells complete, with a vast quantity of casing, etc.; a metal Lathe and several other valuable metal working machines for the machine shop equipment. There is no indebtedness on the foregoing whatsoever.

Seventh—Our plants will positively be in fair operation by July 1, 1907.

Eighth—We most confidently expect to pay a semi-annual dividend of at least 7 1/2 per cent by July 1, 1908.

Ninth—The work on the plants is being pushed forward expeditiously and it is the purpose of the Company to keep all stockholders notified of the progress of the Company.

Tenth—That by purchasing this Company's securities at 33 1/3 cents on the dollar YOU WILL EARN AT LEAST 60 PER CENT on your investment the first year. THE EARNINGS WILL PROBABLY DOUBLE THAT AMOUNT. For all information address by wire or letter

**F. C. VINCENT, Fiscal Agent, 509 Dwight Bldg. Kansas City, Mo.**

## Read This and Permanently Increase Your Income

 It Costs You Nothing to Inquire. Fill Out Coupon Below and Mail To-day.

**DON'T DELAY**

### IMPORTANT NOTICE

As our 33 1/3% allotment of stock is almost subscribed for, it is important that I should have your subscription immediately if you want stock before the price advances. Everybody who has investigated this Company has either bought stock or reserved same. Another opportunity equaling this will probably never be offered you. I earnestly advise you to let me hear from you by return mail or by telegram. F. C. VINCENT, Fiscal Agent, 400 Gibraltar Building, Kansas City, Mo.

**WRITE TO-DAY**

## THIS COMPANY

is building TWO GREAT FACTORIES, one at Kansas City, the other at Sour Lake, Texas. Both plants will have the same initial capacity, and both will have the advantage of natural gas for fuel and splendid transportation facilities. The Company's purpose in both plants will be:

FIRST—A Steel and Malleable Iron Casting Foundry—to manufacture Malleable Iron and Steel Castings at a larger net profit than by any other known process. THIS WILL BE THE ONLY PLANT OF THIS CHARACTER IN KANSAS CITY, and we are already assured of orders that will tax the full capacity of this department. This department alone will pay big returns on the total investment.

Second—A Portable Crude Oil Refiner and Burner—to manufacture Special Machinery for Refining Crude Oil at the wells. These machines can be manufactured at a nominal price for great profit, and they will REVOLUTIONIZE the Refining of Crude Oil. The use of this machine makes it possible to refine crude oil at 50 per cent less than by present methods. The Burner is the only satisfactory one invented.

THIRD—A Crude Oil Engine—to manufacture a Crude Oil Engine which is destined to SUPERSEDE the present gasoline engine, because the same initial horse power can be developed at one-half the present fuel cost. These engines can be used wherever the gasoline or steam engine is used. The special Crude Oil Burner manufactured by this Company can be affixed to any stove, furnace, or boiler to heat, cook and steam at less cost than by using natural gas, gasoline, kerosene, wood, or coal. Just think of an engine that will develop the same horse power at half the cost. No need to use gasoline, coal, or even denatured alcohol; just crude oil at less than 60¢ per barrel, instead of gasoline at \$4.50 per barrel.

### Our Monthly Payment Plan

Gives every one, rich or poor, an opportunity to become a stockholder in one of the big industries of the country. The proposition is up to you. If you neglect to investigate it and learn for yourself what an investment in this stock means to your future you have yourself to blame.

- You can buy stock now at 33 1/3 cents per share and have several months' time to pay for it. It will pay you to buy all you can carry before the advance, as stock with such value behind it can not remain long at such a low price.
- \$12.00 buys 36 shares of stock, payable \$5.00 down and \$2.50 per month.
- \$25.00 buys 75 shares of stock, payable \$8.25 down and \$3.75 per month.
- \$50.00 buys 150 shares of stock, payable \$12.50 down and \$7.50 per month.
- \$100.00 buys 300 shares of stock, payable \$25.00 down and \$15 per month.
- \$200.00 buys 600 shares of stock, payable \$50 down and \$30 per month.
- \$400.00 buys 1,200 shares of stock, payable \$80 down and \$80 per month.
- \$800.00 buys 2,400 shares of stock, payable \$100 down and \$100 per month.
- \$1,000.00 buys 3,000 shares of stock, payable \$100 down and \$100 per month.

**F. C. VINCENT, Fiscal Agent, 509 Dwight Bldg., Kansas City, Mo.**

Please send me all information regarding the Crude Oil Power Co.

SIGNED: .....

Address: .....

K. F.

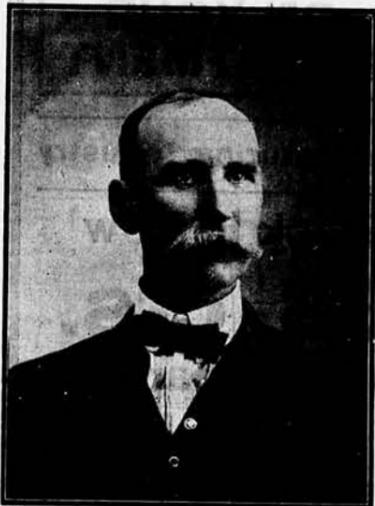
NOTE—Write name and address plainly.

were turned into a soy-bean field that one acre of the beans alone produced 647 pounds of pork, making a little over \$38 per acre. But the hogs ate too much when fed that way and we now harvest the beans in the fall and feed them all winter along with corn.

"We use a temporary feeding floor and move it each year with 'hogtown.' In the summer time we feed out on the open ground. Our hog-houses are all without floors. Cleanliness and pure water are considered essentials. We ring our hogs when they go out on the clover-fields, but not until they are 1 year old. We generally ring our sows, but it is doubtful whether this is necessary. If the hogs have plenty of clover and plenty of ashes and salt they do not do much rooting. In lieu of dipping tanks we pour coal-oil on the hog wallows and the hogs do the rest. This is a practical way to keep them clean of lice and it will keep the mosquito away too."

H. A. McKEENE,  
Secretary Illinois Farmers' Institute.

W. T. Hammond's Poland-Chinas.



W. T. Hammond, proprietor of Sunny Slope Stock Farm, which is located 4 miles northeast of Portis, Kans., starts his card in this issue of THE KANSAS FARMER. We respectfully call the attention of our readers to this fact, and also that he is offering for sale some fancy bred sows and gilts, and 10 heavy-boned, toppy fall boars that are fit for service in good herds. They are sired by Guy Hadley and Thompson's Choice. Guy Hadley 35683 by Guy's Price is without doubt one of the best hogs in the West having shown himself able to go out and compete for the highest honors at the different State fairs. He won first at Topeka 1905, in the "under 18 months class," first at the American Royal in aged class 1906; and headed aged and breeder's herd with three of his daughters, that won second at same place; also won at Nebraska in herd, 1906. Guy Hadley weighed 650 pounds at 16 months old, in show form, and 850 pounds at 2 years old. He has scale, bone, constitution, and great fleshing qualities, and is a remarkable sire. Some of the sows and gilts Mr. Hammond is offering for sale are by this great sire, and they are bred to Impudence I Know for early farrow. Impudence I Know is a very fancy individual and is a good son of the great Impudence 97551, and out of an E. L. Perfection dam.

Mr. Hammond is one of the oldest breeders in this part of the State, and has been long breeding a type that is very popular, for they combine size and quality, with fancy head, and ears, heavy bone, and remarkably good feet. Mr. Hammond has a fine crop of "springs" by Guy Hadley and Sunflower Perfection, another great breeding boar who sired the first and sweepstakes boar in class at Nebraska State Fair 1906. These pigs will soon be ready to ship, and if you want pigs with size, quality, bone, fancy head and ears, and good feet, write Mr. Hammond soon for the class of stuff he is offering will not last long.

Write him for prices and description on these fall males and bred sows and gilts, and mention THE KANSAS FARMER.

**Reed's Crimson Herd Durocs.**

J. W. Reid of Portis, Kans., proprietor of the Crimson herd of Duroc-Jerseys is well known as a successful breeder, and producer of the best.

Some of the best blood lines of the breed are represented in Mr. Reid's fine herd, and by skillful matings he has produced a type, that for scale, bone, constitution, fancy head, and ear, good feet, and natural fleshing qualities, can not be excelled.

Red Perfection, by Leona Chief, he by Red Rex, dam Interstate Lady, by King Perfection, heads the herd. He is an outstanding individual with heavy bone, and lots of size, and quality, he is a remarkable sire and a producer of show stuff. At Topeka 1905 where his get was shown, they won, 1st on gilt, 1st on litter, and 1st on get of sire in open competition. Pathfinder 37919, got by American Royal, he by Missouri Wonder, dam Shadeland Belle by Red Chief I Am, holds a strong place in the herd, on account of the blood lines he carries, and his ability to produce good litters. Red Pathfinder a good son of Pathfinder, dam Red Arino, out

of Thornton Lady, is also doing good work as a sire. The herd sows are an outstanding lot, and are remarkable for their good feet, fine head and ears, great size, fleshing qualities, and their ability to farrow and raise large smooth litters. Some that we will mention, are Golden Duroc by Chapins Duroc, this is a show sow with a show litter by Colossal, who combines the blood of Chief of Ohio, Kant Be Beat, and Top Notcher.

Another great sow is Iowa Girl by Duroc Challenger, dam West Choice; she has great size and the best hams and back we ever saw on a sow of this breed. She is a producer of show stock, and none of her produce has ever been defeated in the show ring. Another good one is Look Me Over by Missouri Boy, dam Iowa Girl; she is large and fancy and a producer of the best.

Other good ones are, Choice Goods by Red Perfection, I Am, Reids Choice with a fancy litter of 9 by Red Pathfinder, (the dam of this sow is Bessie Hunt by Eclipse), and others by Blue Blood, Hunts Model, and other good ones. The spring farrow from this mating is large, and way up in quality, and will soon be ready to ship. Remember that Crimson herd will be headquarters for the very best this fall.

Mr. Reid is starting his card in this issue of THE KANSAS FARMER and is offering for sale two extra fancy gilts by Pathfinder, and bred to Red Perfection for September farrow. Everything here will be priced worth the money. Look Mr. Reid's advertisement up and write him for he can supply your wants. Mr. Reid has plenty of show material in his herd, which he expects to fit and show at the fairs this fall, and we predict that he will capture his share of winnings.

**J. W. Leeper's Shorthorn Sale.**

The busy season of the year kept many people away from J. W. Leeper's Shorthorn sale at Auburn, Neb., on Friday, June 14. But a large crowd was in attendance and the sale was a very successful one. This was Mr. Leeper's initial sale and even the oldest breeders present expressed surprise at the quality of the offering. It was the best conditioned lot of cattle we have seen go through the sale ring in two years and the breeding while not the most fashionable was good enough for the ordinary breeder and the individuals that were offered showed that Mr. Leeper was far above the average in ability to mate properly. No high prices were realized, the top being \$150 for Lad Tilbert, who went to H. G. Todd, of Murray, Neb. The following is a complete list of buyers and prices paid:

W. Goings, Auburn, Neb.	97.50
E. F. Morton, Union, Neb.	125.00
Robert Leeper, Auburn, Neb.	110.00
Geo. Smedley	100.00
H. G. Todd	135.00
W. Goings	115.00
C. F. Morton	67.50
H. G. Todd	100.00
G. B. Parker	135.00
Joe Felthouser	110.00
Chas. Howell, Howell, Neb.	82.50
C. F. Morton	52.00
Arlic Remus, Brock, Neb.	95.00
F. Reed, Auburn, Neb.	125.00
C. B. Clark, Auburn, Neb.	125.00
J. Gillette, Auburn, Neb.	70.00
Joe Felthouser	95.00
C. F. Morgan, Union, Neb.	90.00
Joe Gillette	90.00
Joe Felthouser	100.00
Joe Gillette	97.50
Henry Kuper, Humboldt, Neb.	125.00
C. F. Morgan	100.00
J. Gillette	92.50
H. G. Todd	125.00
H. G. Todd	77.50

**BULLS.**

H. G. Todd	\$150.00
Bird Yates, Auburn, Neb.	100.00
Tom Reid, Auburn, Neb.	100.00
White Grings, Auburn, Neb.	97.50
J. Gillette	100.00
L. Adams, Peru, Neb.	75.00
Hauxby Brothers, Nemaha, Neb.	75.00
T. P. Moran, Johnson, Neb.	137.50
E. Zook, Brownville, Neb.	105.00
M. C. Clark, Auburn, Neb.	145.00
10 bulls brought	\$1,085.00
Average	108.50
29 cows and heifers brought	2,327.50
Average	97.50

**J. A. Hebrew's Poland-Chinas.**

A representative of THE KANSAS FARMER recently visited Mr. Hebrew's herd of Poland-Chinas near Stockton, Kans., and found every thing in a satisfactory condition. Mr. Hebrew is one of the oldest breeders in that part of the State, and has done much to improve the herd there.

He made a couple of sales last spring and sold off most of his older stuff, but he has 25 young sows and fall gilts that he is breeding for early fall farrow. These are nearly all line bred Perfections and choice individuals.

The herd boar is Expansive by Expansion. He is a strong backed, heavy boned, vigorous young fellow, with good feeding qualities, and lots of style, and is proving himself a good sire.

Mr. Hebrew has nothing to sell at the present time, but will probably hold a bred sow sale in February '08.

**J. L. Boner's Poland-Chinas.**

On Lost Creek Farm, 2 miles south of Lenora, Kans., is where J. L. Boner keeps his fine herd of Poland-Chinas. It is an ideal place for growing them for it is provided with the pure living water, natural shade, and alfalfa pasture to which the hogs have access at all times. This herd, although it is not as well known as some, is one of the best in that part of the State.

Mr. Boner is breeding the strong, medium type, with plenty of bone, size, and quality, and his hogs almost without exception have fancy head and ears, good feet, strong backs, and possess natural fleshing qualities. His herd is headed by Boner's Perfection, got by Chief Tecumseh S., dam King's Beauty by King's Perfection Jr. He is a thick-fleshed, mellow fellow with plenty of bone, good length, strong, masculine



**OLDS Engines**

Every Olds Gas Engine is guaranteed by us to operate successfully.

No risk is taken in buying one for we stand behind it. An Olds Engine will run a threshing machine or feed cutter, cream separator, wood saw, etc., more economically than any other engine.

It will last longer because it is made of a special tough gas engine iron, after a time-tried German formula, instead of ordinary coke iron. **Repairs cost practically nothing.**

Write for catalogue of Type A Engines (2 to 15 h.p.); tell us your requirements and we will help you figure out what you need.

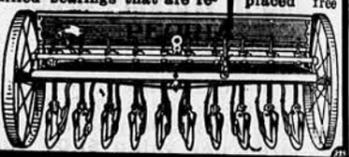
**OLDS GAS POWER CO., 920 Chestnut St., Lansing, Mich.**  
1226 W. Eleventh St., Kansas City, Mo.



The better your wheat the bigger price you'll get for it. To insure a good stool of the grain, it must be properly deposited in the furrow and well covered. You cannot raise a "bumper" crop with a machine that won't plant the seed right. Buy the

**PEORIA DRILL**

It will plant so that you will be sure to increase your crops. It sows beans, peas, wheat, oats, barley and flax and it won't crack or grind the seed. Will drill or broadcast alfalfa and other grass to operate if they wear out. Discs have self-oiling chilled bearings that are re-placed free with Press attachment if desired. No better drill made at any price. Made by an independent factory and sold at anti-trust prices. Circulars free. Peoria Drill and Seeder Co., 243 N. Perry St., Peoria, Ill.



head, and fancy ears, stands up well on his toes, and is an excellent sire.

B's Perfection by Perfection, dam Lost Creek Lady, by Black Perfection was bred by Mr. Boner. He is a show prospect, and way up in quality and will probably be fitted for the fairs this fall. The herd sows are a choice lot, and are nearly all line bred Perfections. They have farrowed a remarkably fine crop of pigs which are making a fine growth. Mr. Boner has claimed October 26 as the date of his fall sale, and his offering will be a good one.

**J. S. Goodrich's Durocs.**

Valley View Stock Farm Durocs are among the good ones in North Western Kansas. J. S. Goodrich is proprietor, and the farm is located 6 miles Northwest of Lenora. There are 40 brood sows in the herd carrying some of the best blood lines of the breed, such as Oom Paul 2nd, Tip Top Notcher, Joe, The Lad for Me, 2d Climax and other good ones. These sows are as good individually as they are well bred and have farrowed some large, even litters this spring. The spring farrow numbers 150, fine growthy pigs, and there will be enough sows bred to produce an equal number this fall. Mr. Goodrich is a careful, intelligent breeder, and a good feeder, and his type of Durocs are noted for the scale, bone, constitution, and feeding qualities, fancy head, and ears, and good feet, and are well grown out. He is also using some fine males in his herd.

**Stewart & Son's Polands.**

Stewart & Son, of Portis, Kans., have recently purchased for use in their herd the fine young boar, L's Chief, he is a good son of Grand Chief, Dawleys \$3,000 show hog. They have also been liberal buyers at some of the good sales the past season and have added a number of good ones to their brood sows, which numbers about 20 at the present time. The spring farrow has been a good one, and there is 75 early growthy pigs on the place at the present time. Stewart and Son are planning to hold a bred sow sale in January or February '08. Watch for their announcement in THE KANSAS FARMER, for their offering will be a choice one.

**Gossip About Stock.**

Mr. E. F. Murray, of Illinois, who is advertising a public sale of registered Percherons and Herefords to be held at Hutchinson, June 25, writes as follows: "The fourteen Percheron mares are 2- and 3-year-olds, most of which are safely bred. They are a large, heavy-boned, well-made lot and will make good, useful brood mares. The Herefords consist of ten cows and five bulls, four of the cows with calves at foot. They are all richly bred and of high quality. For catalogue address E. F. Murray, Hutchinson, Kans."

Samuelson Brothers, owners of the Timber City Herd of Duroc-Jersey swine, send a change of copy and state that stock is doing well. They have a number of male pigs ready to ship any time. Also a few good fall boars left that are a bargain for the money they ask. Their spring pigs weigh from 75 to 100 pounds and better. They also have a number of tried sows bred for

August and September farrow, that they will price right. They are bred to Doty Wonder 41889, Geneva Chief 48049, and Rose Topnotcher 54059.

McLaughlin Brothers, of Columbus, Kansas City, and St. Paul, write: "Our new importation left France on the 30th of May, sailed from London on the 1st of June, arrived in New York Tuesday, the 10th, and in Columbus Wednesday afternoon, the 11th; every horse well. We have been importing a very large number of horses during the past half dozen years, but we never received an importation very one of which is so good and in such fine condition as those in the new lot that arrived here day before yesterday. Most of the horses to-day look as though they might have been here a month and are in as good condition to offer for sale as though they had been imported last year instead of this week."

**Two Great Berkshire Sales.**

Breeders of Berkshires and farmers who desire to become such will find great interest in the announcement that T. F. Guthrie, of Saffordville, and Chas. E. Sutton, of Lawrence, will each hold a sale of Black Robin Hook Berkshires in August. Mr. Guthrie will sell at Kansas City on August 15 and Mr. Sutton will sell at Lawrence on August 16.

In these two herds may be found more of the blood of the famous Black Robin Hood than any other herds on earth. Masterpiece was the most famous son of Black Robin Hood but expert judges unite in saying that both Berriton Duke, who is at the head of the Guthrie herd, and Forest King, who heads the Sutton herd, and both of whom are litter brothers of Masterpiece, are better breeders than he. Watch these columns for further particulars in regard to these great sales.

**A Good Traction Engine.**

We are pleased to call the attention of our readers to the Winneshiek line of traction engines and grain-separators which are furnished by the Cascade Manufacturing Company, of Waterloo, Iowa, the big "one price factory" which is advertising to save buyers of thrashing machinery fully one-third on all styles and sizes of engines and separators. Their advertisement which appears on another page should interest every reader of this paper. The Cascade Mfg. Company was established in 1870 and is now making an extensive line of goods in one of the largest and best-equipped plants in the country.

**Gem City Business College, Quincy, Ill.**

This is a high-class institution with a National reputation and is now the leading business college of America. It owns and occupies its elegant \$100,000 college building, has 20 experienced teachers, practical courses of instruction, and a yearly enrollment of from 1,200 to 1,400 earnest, enthusiastic students. Its graduates are in demand, and may be found holding lucrative situations in banks and business offices all over the United States. Beautiful 64-page illustrated catalogue will be sent free to any one interested in a successful course of short-hand or business training.

**Agriculture**

Agromony at the Kansas State Agricultural College.

PROF. A. M. TENNEYOK, IN THE INDUSTRIALIST.

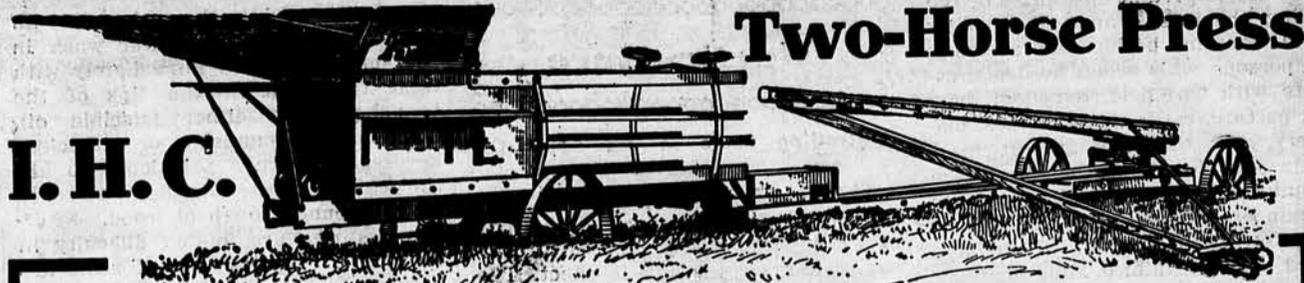
Agromony is a division of agriculture. The word means, primarily, the management of land and crops. Agriculture in its broadest sense means not only the cultivation of the land and the production of crops, but also includes stock-raising and dairying. Agromony includes four general lines of study: Soils, crops, farm management, and farm mechanics. Agriculture I, as given in the college curriculum, takes up the elementary study of soils and crops and serves as an introduction to the several branches of agriculture. All male students are required to take first-year agriculture. In this study, in a simple way, the whole subject of agriculture is briefly presented to the student from appropriate text-books, accompanied by lectures and demonstrations by the instructor. The object in teaching agriculture to all students, whether or not they intend to follow the profession of agriculture, is this: Agriculture has to-day attained to that high degree of development which entitles it to be classified as an art, about which every well-educated person should be well informed. To be a well-educated citizen, whatever the profession or occupation, a man should have a knowledge of the primary facts and principles of agriculture.

It is proposed to make the agricultural studies thoroughly practical. Agriculture is a business; it is not truly a science, but it depends upon science, and to understand the "principles of agriculture" requires a knowledge of many sciences. Physics, botany, chemistry, geology, and mechanics teach theory and science, while the studies in agriculture assist the student to make the application and put the theory and science into practise on the farm. The regular agriculture course extends over four years and includes practically every subject that pertains to the handling of a farm.

**CROP PRODUCTION.**

Crop production is one of the most important subjects taught students in agriculture. This subject includes the study of the farm crops as to the preparation of the seed-bed, planting, cultivating, harvesting, storing, and marketing. A careful study is made of each crop with reference to the plant, its root system, and method of culture. Under this head is included the rotation of crops, maintaining of soil fertility, the application of manures and fertilizers, destruction of noxious weeds and injurious insects and the prevention of plant diseases. Each of the staple crops is taken up in order, and its history, characteristics, uses, methods of culture, etc., discussed. Crops are also studied in the class room as to their special uses as hay, forage, silage, pasture, sowing, green manure, cover crops, etc. New crops are also investigated. All the different crops are grown on the college farm, so that the students may see them, or at least see samples in the class room, and thus become acquainted with their characteristics and the best methods of handling them.

Special attention is given to seed selection and seed-breeding. As a sample of the practical knowledge gained, students are given practise work in the scoring of corn and in judging all common cereals according to standards of inspectors and buyers or according to other recognized standards of perfection. It is surprising that few farmers can pick out a "good" ear of corn before being carefully instructed and trained in the vital points, both as to the desirable qualities and the defects. It is just as important to select and grow a perfect type of corn or wheat as it is to select a well-formed hog or a proper type of dairy animal for breeding purposes. A higher per cent of protein, greater pro-



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First, you will be sure of getting your hay up in good marketable shape. The bales will be compact, heavy, well squared—the kind that will pack well in the car, and the kind that city

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The feed opening is unusually large. It is arranged for convenient feeding and tying. The pressure is applied by a pull

instead of a push. The team travels constantly forward in a circle instead of stopping and backing up every time a charge of hay is pressed. No driver is needed.

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We also make a one-horse press, same general style, with bale chamber 14 by 18 inches, which will bale conveniently eight to ten tons of hay a day.

Either of these presses handles timothy, clover, alfalfa, straw, pea vines, shredded fodder, excelsior or other material requiring baling.

If you are interested in hay baling, call on the local International agent and investigate these presses. He has catalogs and is able to give particulars. Or write—

**INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A.**  
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ductiveness, and other valuable qualities which may be bred into corn by careful and intelligent selection, may greatly increase the value of this crop to the farmer. The training received by the student in agriculture in this line becomes a valuable possession, both financially and otherwise, when he engages in practical farming.

**FARM MECHANICS.**

The tillage of the soil and planting and harvesting of crops, the operation of farm machinery and construction of farm buildings, and in fact a larger part of the work on the farm involves the application of physical laws and principles. Farm mechanics is the name of that branch of study which deals with the larger part of the physical problems of the farm. This is one of the most interesting and valuable agricultural studies.

In the introduction of this study some time is spent in reviewing principles in physics, such as constitution of matter and kinds of force, while the terms, work, energy, machinery, etc., are defined and their relation to the mechanics of the farm established. Several lectures are devoted to the elements of machines, discussing the principles involved in the use of the lever, evener, wheel and axle, pulley, inclined plane, etc. The several classes of farm machinery are taken up in their order and studied as to the principles of construction and use of each machine, and attention is given to the operation and care of farm machinery and the building of machinery sheds. On three-fourths of our Kansas farms much of the farm machinery is allowed to remain out-of-doors the year round. This is a great waste. Such machinery not only wears out in one-half the time, compared to machinery that is well cared for, but it gives a poor grade of service while in use. In this course the fact is demonstrated that the average Kansas farmer can save 33 per cent on the investment by building a shed and shedding his machinery.

The subject also includes the principles of the study of draft as related to the horses, the wagon, and the road over which the load is drawn. Attention is given to the construction of roads, irrigation, and drainage systems, and other mechanical problems of the farm, while the various farm motors, as the horse, tread-power, sweep-power, steam-engine, gasoline engine, and windmill are made familiar to the student in their construction and the requirements necessary to operate them successfully. Some attention is given to rural architecture, which includes the study of strength of materials, plans and specifications for buildings, and the essential factors to be considered in the construction of buildings, such as warmth, light, and ventilation, with reference to the comfort of the animals housed, handiness in use and economy in construction. There is no

study in the agricultural college course which offers greater attraction to the student than farm mechanics. It should not fail to secure the interest of every young man who expects to follow agriculture as a profession, and there is no more valuable or practical study taught in our Agricultural College.

**FARM MANAGEMENT.**

Farm management is the practical application of all the facts, principles, and sciences related to agriculture, and includes the conducting or management of the farm, not only as regards present success and profits, but also with reference to the future prosperity of the farm. It is the crowning study in agriculture. A knowledge of the sciences related to agriculture and skill in producing large crops and fine herds are important factors in farming, but proper management of the farm and the farming business is the essential factor which largely determines a farmer's success.

The study of farm management is a study of the farming business with all its wide variations of class, character, and place, and it is possible in the half-term which is given to this subject to present briefly only some of the more important phases of the subject, such as, "Choosing a Farm," "Laying Out the Farm into Fields," as regards plan, arrangement, rotation of crops, fences, drainage; "Selection of Building Site," with reference to healthful location, good water, convenience to farming operations, public highway and market, etc.; "Plan and Arrangement of Building Site," with reference to location of buildings, yards, garden, fruit orchard, etc. Some attention must be given also to the "Farm Equipment," which includes not only the buildings but also the stock and machinery.

"Soil Management" is really a part of farm management, and refers to the proper tillage of the land under cultivation, the saving and handling of manure, and the use of chemical fertilizers. Under this head are discussed the means and methods of preventing the waste of land by wind and water and the rotation of crops with reference to maintaining soil fertility, and producing the largest and most profitable yields. "Crop management" refers to crops to grow, methods of culture, harvesting, storing and marketing of farm produce. "Live-stock management" includes not only methods of caring for stock in the way of feeding, shelter, etc., but also methods of breeding and feeding for market, time to sell, etc.

One of the most important subjects considered in farm management is "Farm Accounts." Under this head are presented methods of keeping farm accounts methodically in books. This is perhaps the most important part of farm management, and the one which is most neglected by the farmer. A careful farmer should keep accounts

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with every important enterprise of the farming business, and his ledger should contain, beside the accounts with persons with whom he deals, accounts with corn-field, oats-field, hay-field, pasture, cattle, hogs, horses, machinery, and the like, and at least once a year he should balance these accounts and thus determine not only his gain or loss, but also what enterprises have paid best, or which have proved a costly failure, thus enabling him to escape losses and make larger gains. The student in farm management is not only informed regarding these things, but he is required to carry out a theoretical business for a year, keeping a complete set of farm books.

Young men who take the agriculture course will not only be well prepared to carry on various lines of farming successfully for themselves, but they will be competent to act as foremen, and, after some experience, as managers and superintendents of large farms or other agricultural interests. They will also be prepared to take positions with our agricultural colleges and experiment station as instructors and assistants. More than this, the graduate from the agriculture course, whatever calling he may choose or wherever he may make his home, will be a strong and influential citizen as well as a skillful producer, because, while many studies of this course are primarily practical, emphasizing the business side of life, yet enough "culture" studies are offered to give the student a well-balanced and well-rounded education.

The time has passed when an uneducated and unskilled man can become a successful farmer and a man among men. It is not so easy to make a good living at farming to-day as it was forty years ago, or even twenty years ago. The soil is poorer, and competition is greater. There are many educated, hustling men engaged in the various lines of farming to-day, and if one wants to compete successfully with them he must be educated also. He must understand the soil and the great principles of cultivation, aeration, and soil-moisture conservation; he must know the science of plant growth and propagation, must know the chemistry of the plant and of the animal, and must learn the principles of animal nutrition and balanced rations in stock-feeding; must study the animal and be practised in stock-judging in order to select breeding stock, and he must know a thousand things about agriculture if he hopes to compete successfully with those who have knowledge and training in these things.

The motto of the agricultural college is "Practise with Science." This does not mean, however, that the agriculture-course student is put to work on the farm. The agriculture course is a course of study, not manual labor. Some manual labor is required as practise work in the field and laboratory. The student is taught to handle tools in carpentry and blacksmithing; he is given some practise in handling stock, grafting, tree-planting, and general farm management. He is not sent into the fields to plow, harrow, or cultivate, but he has an opportunity to observe the best methods of farm practise and become acquainted with the great principles of agriculture which apply everywhere and upon which crop production and the breeding and raising of stock depend.

Every young farmer in the State of Kansas should take the agriculture course. It does not matter so much how long a man lives, as how much he lives, and one can live so much more and accomplish so much more after spending four years in college than the time is never missed. Every young man can find means to carry him through college. "Where there is a will there is a way."

Trichinosis is a disease of man, hog, and rat. It is caused by eating uncooked flesh containing a parasite, Trichinella Spiralis. Rats and hogs pass the disease from one to another. When pork is thoroughly cooked or cured it becomes harmless.

## Horticulture

### Controlling Scale in Old Apple Orchards.

The Act of the last Kansas Legislature which provides a commission one of whose chief duties will be to combat scale insects is now in effect. The appropriation for the first year will become available July 1, 1907. In this connection the following statements from Prof. P. J. Parrott, formerly of Kansas, now of the New York Experiment Station at Geneva, will be read with profit:

#### "RESULTS USUALLY UNSATISFACTORY.

"Orchardists experienced in this work are fighting the scale efficiently and profitably upon peaches, plums, pears, and apples-trees, of moderate size. Spraying of old apple orchards by the general fruit-grower is not usually satisfactory and in certain localities the trees are being destroyed. Commercial apple-growers are the most successful in protecting the larger trees. The secret of their success is the intelligent use of sprays for special purposes and thorough spraying by the liberal use of the remedy, applied by power outfits.

#### "CAUSES FOR FAILURES.

"The principal reason for failure is that the trees are not well sprayed. The obstacles to efficient spraying are the height and spread of the trees, interference by large limbs, close planting, rough bark, pubescence of buds, careless pruning, and lack of power in spraying outfit, which tends to insufficient or indifferent spraying. A scale remedy kills only those insects with which it comes into contact. If an infested apple-tree is not thoroughly sprayed, many scales are liable to escape treatment, which will produce enough young to reinfest the bark. In the treatment of old apple orchards, attention should be given to these various details to facilitate more thorough spraying.

#### "PRACTISE OF COMMERCIAL APPLE-GROWERS.

"Commercial fruit-growers rely on the boiled lime-sulfur wash for the general treatment of infested trees. The topmost branches are usually 'headed in' from four to ten feet to reduce the height of the trees, to permit of more thorough applications of the spraying mixture. Some orchardists supplement the usual treatment with the sulfur wash in the spring by an application in the following fall of the same mixture or of a proprietary or a home-made emulsion. In Niagara County spraying, on alternate years with the sulfur wash and crude oil is commonly practised. The oil is applied on sunny days as buds are swelling, spraying ceasing as soon as the oil commences to run on the bark. The clear oil is a dangerous spray and is only advised for use on old apple-trees after failure with the safer sprays. A power spraying outfit with tower and long extension rods is necessary to do the best work.

#### "SUGGESTIONS FOR FUTURE WORK.

"To protect the large trees, spraying must be more thorough than is usually practised. To do this it will be necessary to take more time and pains than is customary in making the single application in the spring, or more treatments should be made. To facilitate spraying, head in the trees judiciously if this has not already been done, so that the trees will in the future be reduced in size.

#### "SOME STATION EXPERIMENTS.

"In the experimental work on old trees the station is endeavoring to ascertain the relative merits of: (1) An application of a commercial oil in the fall following with a second spraying in the spring as buds are swelling, using one part of oil diluted with ten parts of water; (2) an application of a miscible oil in the fall, followed by spraying in the spring with the boiled lime-sulfur wash; (3) an application of a home-made oil-emulsion (25 per cent oil) in the fall, followed with an application of the

lime-sulfur wash in the spring; (4) an application of a lime-sulfur wash in the spring, followed immediately with light treatment of the tips of the branches with either miscible oil, home-made oil-emulsion, or with clear kerosene or crude petroleum to kill the scales protected by the pubescence on the young growth of wood. Fruit-growers who are finding difficulty in keeping the apples free of scale are requested to try experimentally some of these treatments supplementary to the usual application of the sulfur wash. The station officers wish to get into communication with orchardists willing to conduct such experiments."

### Mode of Applying Artificial Fertilizers to Fruit-Trees.

In most of the text books on fruit-growing, one is advised in the chapters on manuring, to manure the trees within the circle covered by the crown, as it is assumed that the roots reach no further in the soil than the crown does in the air. This, however, does not apply. It has been shown by investigations carried out on the Continent of Europe, that the root system is much more widely distributed in the earth than the crown of the tree in the air, and this is also easily realized if one considers that in the first years of the tree's development, the crown is pruned while the roots are free to develop unhindered from the time of planting. Further, the elements of nutrition are often present in very small amounts so that the roots must spread far and wide in order to find the requisite quantity. It has also been demonstrated by actual test that in a poor soil the roots develop and spread further than in a rich one. In the investigation above referred to, a pyramid tree of which the roots were laid bare, had a root system 39 feet in diameter, while the diameter of the crown only amounted to a little over 16 feet. In the case of a standard tree on poor soil, the root system in comparison to the crown was much greater. It is therefore obvious that manures should be applied to a larger area around the stem than that covered by the crown. In modern orchards it is therefore more advisable to make no attempt to manure the single trees, but rather to distribute the fertilizers uniformly over the whole area.

The method of bringing under the manures varies according to the condition of the same and also according to the nature of the soil and the size of the trees. On the lighter soils and in the case of shallow rooting varieties such as plums, the manures may be lightly hoed in or brought under by a light cultivation. In the case of the stiffer soils, and especially in the case of deeper rooted fruit-trees such as apples and pears, it is well to bring the manures under to a fair depth. The system formerly strongly recommended of strewing the manures in trenches or in single holes is not at all a good one, as in this case the manures do not become sufficiently mixed with the soil and solution can not take place, but on the other hand hardening sets in.—Australian Garden and Field.

#### Profit in Planted Forests.

Everywhere vast areas of valuable woodland are being stripped of their timber by the demands of commerce, and while the supply of lumber is constantly diminishing the demand and the prices are constantly increasing. The primeval forest is rapidly disappearing. To secure a continuous supply of timber it must be replaced by second growth of the best species and the best form in the shortest possible time. This can be done by forest management; but the supply thus obtained must be supplemented very largely by timber grown in commercial plantations.

If the tracts of forest cut over each year were permitted to make a second growth, a future supply would be provided naturally, but this is not generally the case. The transformation of so large a percentage of forest land into fields and of nearly as much



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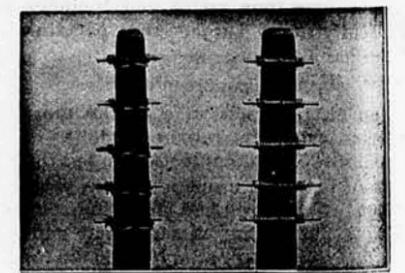
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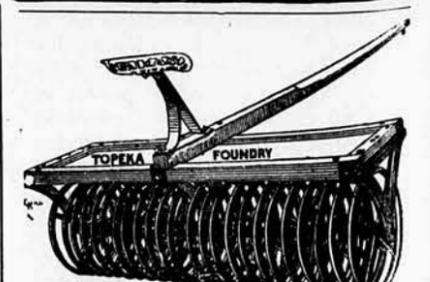
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The Gem Full Circle Steel Baler offers large feed, opening, power head getting greatest baling pressure out of a light team, quick return plunger, allowing two charges to each circle, and brake device which relieves any jerk from the rebound. Easiest for men and horses and bales most. Our press weighs 2,600 pounds, some others only 1,500. Such light presses require constant repairs. We save you \$25 or more in first cost and more every year in repairs. Send us a postal today for prices, 5 days' free trial plan and a free copy of our new "Baler Book."

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more, through reckless lumbering, into waste land must eventually reduce the wonderful fertility of the country, for no other natural agent is so active a soil-builder as the forest. A pure water supply for large cities and towns and for the protection of irrigation reservoirs requires extensive planting along streams and canals and on watersheds.

The profits from growing timber are certain, and farsighted business men are recognizing the possibilities for conservative and highly profitable investment in forest plantations. More and more, railroads and other corporations and farmers throughout the country are establishing commercial plantations to supply the timber for their own needs or for commercial profit.

Financial profits in commercial forest planting can best be obtained by the selection of species which will produce the most valuable product in the least time. Many planters are not aware, however, that each kind of tree has a definite geographic and climatic range, beyond which it will not grow with sufficient vigor to justify its use for commercial planting. Each region has certain trees that are adapted to it. It is in selecting the proper trees for a given region that the prospective investor must use good judgment. If the venture is to be successful. Mistakes are not only extremely costly, but they may not be found out for a number of years. Any one who has observed the great number of plantations in the West which have not met the planters' expectations can readily appreciate the necessity for definite knowledge on this subject.

The Forest Service has investigated problems of tree-planting and has recently issued planting circulars on the trees best adapted for timber production in the United States. These circulars give a general description of the tree and its use; they also give detailed instructions in regard to the methods of propagation, planting, cultivation, and care. Among these trees may be mentioned the following: White pine, red pine, Scotch pine, jack pine, Western yellow pine, European larch, Norway spruce, white elm, honey locust, hackberry, cottonwood, shagbark, bur oak, red oak, black locust, and basswood. Special leaflets on the eucalypts and on fence-post trees have also been issued. These

publications can be secured free upon application to the Forest Service, United States Department of Agriculture, Washington, D. C.

**The Garden Web-Worm.**

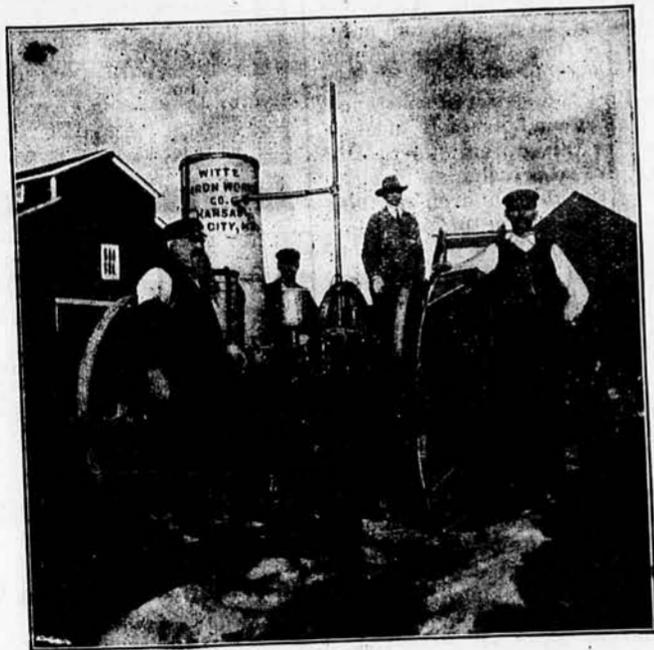
E. A. POPEHOE.

In seasons of its normal abundance, it feeds almost entirely on certain common field and garden weeds, notably on the species of pig-weed, and lambs-quarter, so called. It passes readily from these to garden beets, peas, and sweet potato plants, however, the eggs being laid near the ground by the parent moth, and the caterpillars apparently being found only on leaves not over ten inches from the soil. The time required for the growth from egg to moth is about one month. A second brood of the worms may be expected during August, but the forward state of the crops, and the abundance of their more natural food plants, the weeds above named, ensure that their presence will be little noticed.

As the worms are about half grown before their attacks are perceived, it is commonly a matter of expense and little profit to attempt remedial measures except in special crops or among garden plants. As abundantly proven by trials here, the insects are very easily killed by an application of the arsenical poisons, in a spray in water, which must, however, be made in such a manner that the liquid will be forcibly thrown through the web, reaching the plant surface underneath on which the worm feeds. An ordinary light spray will have little effect, and may give rise to the unwarranted conclusion reached by one correspondent, that "the worms fatten on Paris green."

Unless very young at the time of attack, corn will commonly recover, the heart of the plant not usually being eaten by the worm. Alfalfa will also easily make new growth, and little damage will probably result to the plant itself. Sweet potatoes, unless strongly rooted, are often largely killed, and with them replanting immediately seems to be the most satisfactory treatment.

Life is a jest, and all things show it; I thought so once, but now I know it. —Gay's Epitaph on Himself.



**To the Editor.**

I enclose herewith a photograph of a traction wood-sawing outfit, which I made myself. It was very inexpensive, and such a great success and money-maker that I thought others might be interested in hearing about it. I make wood-sawing a business in connection with my blacksmithing work, and I have to get around over the country considerably with my saw rig. After thinking the matter over, I decided to use a gasoline engine and make my own traction, so I purchase a 4-horsepower Witte Gasoline Engine. I took the two large wheels from a Plano Header, using the axle, and on the axle I placed two pieces 4 in. by 16 in. by 16 ft. I used two plow wheels 2 ft. high for the front wheels. I attached a sprocket wheel to the gear which was driven from a sprocket chain. On the middle shaft I placed two friction clutch pulleys with levers connected for going ahead and backing up. I mounted the Witte Engine between the rear wheels and ran the middle

shaft by belt from the engine. On the front end of the truck, I placed the mandrel and saw with heavy balance wheel, operated by belt from the middle shaft. I then put up a frame, making a swinging carriage.

With four of us riding we can go up a 25 per cent grade with ease. We are at work in a few minutes after we reach the wood-pile, and can saw an average of three cords an hour, or 30 cords in ten hours of 4-foot wood in the 16-inch lengths. I use about 2 1/2 gallons gasoline for ten hours' work so you can easily see how any energetic person can get a traction outfit at small cost and one that will bring in big profits, as there are no expenses except my help and 2 1/2 gallons gasoline for a day's work, and for sawing 30 cords of wood. I can move from one job to another as fast as horses travel, and I can start to work, or to move, on a moment's notice. There are no delays such as there used to be with the old way of using horses to pull from one place to another. L. B. STEVENS, Govan, Wash.

## TEN REASONS WHY

**You Should Buy the Jawhawk in Preference to Others.**

1. Because you can do the same amount of work with less help.
2. Because you lose no time setting, as they are always ready.
3. Because you can make ricks as long as you wish. No limit.
4. Because you can re-top your ricks without any loss of time.
5. Because you can place hay in any spot on a rick of any length.
6. Because you can build stacks that settle evenly and keep.
7. Because there is not a pulley on the machine and only 18 feet of rope.
8. Because the load can be dumped or carried at any point of elevation.
9. Because you can move the stacker as readily as a sweep.
10. Because you want the only Up-to-Date Stackers made. We also manufacture Sweep Rakes. Write for catalogue and prices.

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Salina, Kansas.

C. W. PECKHAM, President, Haven, Kans.      R. R. BEALL, Manager, Kansas City, Mo.

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**Receivers and Shippers of Grain.**

This Company is conducted on the cooperative plan by the Independent Co-operative Elevators. We are the terminal for Farms and Independent Elevators and solicit your membership and patronage.

**ARE YOU POSTED**

on the recent development in the Grain Trust investigation by the Interstate Commerce Commission? **IF NOT, ASK US.** Why don't you farmers fight the Trust? We will help you, if you will help yourselves.

**DO YOU KNOW**

that the President of the Kansas City Board of Trade admitted in his testimony at the hearing of the Interstate Commerce Commission, that they had boycotted The Independent Farmers' Terminal Co?

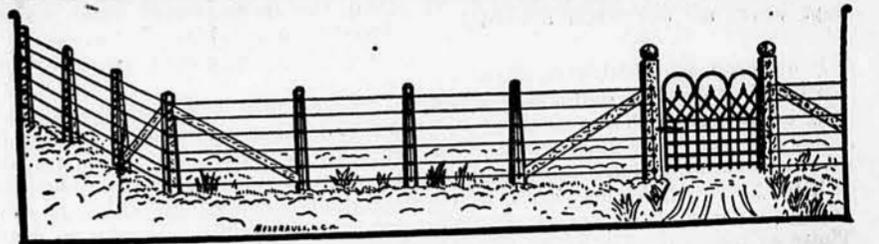
## The National Grain & Elevator Co.

Kansas City, Mo.

References—The Editor of this paper.

### THE BANNER RIDING ATTACHMENT

Will fit on any right or left hand wood or steel beam walking plow, lister, sod breaker, middle breaker or harrow. **ALL OF THIS WITH THE SAME ATTACHMENT.** A wrench all the tool for attaching. Is regulated by levers, same as a regular riding plow. Plow or lister may be adjusted to depth from 1 to 12 inches, and from 8 to 24 inches width. Lifts point out of the ground for moving. Made of malleable iron and steel; no wood or hard castings. 26-inch wheel with removable box, 2-inch oval tire, 1 1/4-inch solid steel axles, steel levers, pressed steel seat—the best of material used throughout. Weight complete 110 lbs., and will cause plow or lister to stay in as hard ground and do as good work as any riding plow or lister. 15,000 now in use. **WE GUARANTEE EVERY ONE.** Only \$15 from your dealer, or delivered by us to your nearest station. We want an agent in every locality and we prefer men who use plows. Write for terms and full descriptions. **THE IMPLEMENT AND MFG. CO., Coffeyville, Kans.**



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

## Home Departments

CONDUCTED BY RUTH COWGILL.

### Work.

Let me but do my work from day to day,  
In field or forest, at the desk or loom,  
In roaring market-place, or tranquil room.  
Let me but feel it in my heart to say,  
When vagrant wishes beckon me astray:  
"This is my work, my blessing, not my doom;  
Of all who live I am the one by whom  
This work can best be done in the right way."

Then shall I see it not too great nor small  
To suit my spirit and to prove my powers;  
Then shall I cheerfully greet the laboring hours,  
And cheerful turn when the long shadows fall  
At eventide to play and love and rest,  
Because I know, for me, my work is best.

—Van Dyke.

### The Fireless Cook Stove.

Two or three years ago this paper published an excellent article from the pen of Miss Coburn about the hay cooker. It described it minutely and told of its possibilities as they appeared at that time. It has come more and more into use and has surpassed her expectation, and its possibilities are much greater than was imagined at that time. As the hot days approach, the thought of cooking over the heated stove a third of the day in order to provide the hearty noon meal that is necessary in the farm home, is not a refreshing aspect. The fireless cooker will provide this hot dinner without heating the house or overheating the housewife. The dinner may be prepared in the cool of the morning and put into the cooker—and left till time to serve it, leaving the mind free from all care for it or worry lest it burn or be undercooked. She may spend the time usually employed prespiring over the hot stove in reading in the shade and be refreshed and rested to partake of the food with the dear ones around the table, or she may take her sewing and visit a neighbor while it cooks, or attend to other duties that she would otherwise be compelled to perform in the hot afternoon, thus leaving that time for a nap or quiet rest.

This invention—so simple in its construction and so easily procured—is not only a saver of time, strength, and energy, and a promoter of happiness, but it saves at least 75 per cent in fuel. It cooks the food better and leaves it with a delicate flavor. It makes no odors in the house—cabbage, turnips, onions may be cooked and no one discover their presence in the house until he tastes the delicious flavor in his mouth. Tough meat and old chickens are made as tender and palatable as younger and more desirable articles of foods. Oatmeal and other cereals may be prepared in the evening and be ready for breakfast, hot and excellently cooked. It is ideal for cooking these things. Water may be kept hot ready for use at any time of day or night, and milk for the baby which is often so essential may be kept warm for use when needed.

It does not seem extravagant or unreasonable to assert that every home may be blessed with one of these luxuries. One may be improvised from an old trunk, by making two cylinders, a little larger than the vessel to be used for receptacles of the food. These cylinders may be made of cardboard and after putting in a layer of hay over the whole bottom place these cylinders in the middle of each end and then pack the hay around them. The lid of the trunk should be filled with a pillow of hay and pads or little pillows of the hay made to be placed over the vessels of food which are closely covered with fitted lids. The large-sized cottolene buckets make desirable vessels to be used for the food receptacles. If a trunk is not obtainable, any tight box will answer the purpose. These cookers may be purchased but are quite expensive.

Cotton, wool, or excelsior is used as packing. Even shredded paper is said to serve the purpose. The principle of these cookers is to retain the heat generated on an ordinary cook stove. The food desired to be cooked is first prepared in the ordinary manner in the vessels with which the cooker is equipped and brought to a boil for a few moments, when it is covered tightly and placed in the cooker and left for time and the retained heat to do the rest. It may remain from eight to fourteen hours and then will be found hot and ready to serve.

### Home is Woman's Sphere.

In an address at the semi-centennial of the founding of agricultural colleges in the United States, President Roosevelt said, "The best crop is the crop of children, the best products of the farm are the men and women raised thereon," and continuing he spoke as follows about woman and the home:

"I emphatically believe that for the great majority of women the really indispensable industry in which they should engage is the industry of the home. There are exceptions, of course, but exactly as the first duty of the normal man is the duty of being the home maker, so the first duty of the normal woman is to be the home-keeper; and exactly as no other learning is as important for the average man as the learning which will teach him how to make his livelihood, so no other learning is as important for the average woman as the learning which will make her a good housewife and mother.

"But this does not mean that she should be an overworked drudge. I have hearty sympathy with the movement to better the condition of the average tiller of the soil, of the average wage-worker, and I have an even heartier sympathy and applause for the movement which is to better the condition of their respective wives. There is plenty that is hard and rough and disagreeable in the necessary work of actual life; and under the best circumstances, and no matter how tender and considerate the husband, the wife will have at least her full share of work and worry and anxiety; but if the man is worth his salt he will try to take as much as possible of the burden off the shoulders of his helpmate.

"There is nothing Utopian in the movement; all that is necessary is to strive toward raising the average, both of men and women, to the level on which the highest type of family now stands.

### CHILDREN THE BEST CROP.

"The best crop is the crop of children; the best products of the farm are the men and women raised thereon; and the most instructive and practical treatises on farming, necessary though they be, are no more necessary than the books which teach us our duty to our neighbor, and above all to the neighbor who is of our own household.

"Young men and women of the industrial colleges and schools—and, for that matter, you who go to any college or school—must have some time for light reading; and there is some light reading quite as useful as heavy reading, provided of course that you do not read in a spirit of mere vacuity. Aside from the great classics, and thinking only of the many healthy and stimulating books of the day, it is easy to pick out many which can really serve as tracts, because they possess what many avowed tracts and treatises do not, the prime quality of being interesting.

"You will learn the root-principles of self-help and helpfulness toward others from 'Mrs. Wiggs of the Cabbage Patch,' just as much as from any formal treatise on charity; you will learn as much sound social and indus-

trial doctrine from Octave Thanet's stories of farmers and wage-workers as from avowed sociological and economic studies; and I cordially recommend the first chapter of 'Aunt Jane of Kentucky' for use as a tract in all families where the men folks tend to selfish or thoughtless or overbearing disregard of the rights of their womenkind.

### CONTEMPT FOR SHIRKERS.

"Do not misunderstand me. I have not the slightest sympathy with those hysterical and foolish creatures who wish women to attain to easy lives by shirking their duties. I have as hearty a contempt for the woman who shirks her duty of bearing and rearing the children, of doing her full housewife's work, as I have for the man who is an idler, who shirks his duty of earning a living for himself and for his household, or who is selfish or brutal toward his wife and children.

"I believe in the happiness that comes from the performance of duty, not from the avoidance of duty. But I believe also in trying, each of us, as strength is given us, to bear one another's burdens; and this especially in our own homes. No outside training, no cooperation, no government aid or direction, can take the place of a strong and upright character; of goodness of heart combined with clearness of head, and that strength and toughness of fiber necessary to wring success from a rough work-a-day world.

"Nothing outside of home can take the place of home. The school is an invaluable adjunct to the home, but it is a wretched substitute for it. The family relation is the most fundamental, the most important of all relations. No leader in church or state, in science or art or industry, however great his achievement, does work which compares in importance with that of the father and mother, 'who are the first of sovereigns and the most divine of priests.'

### Child Labor on Farms.

The overworking of school children in dairy-farming districts and the early withdrawal of pupils from school to take a hand on the farm is the cause of annual complaint by school authorities in the Taranaki district. The inspectors of schools of Wanganui take up the protest this year. "There is no doubt," they say, "that the gross and almost criminal indifference of many parents leads them to place a higher value on the products and gains of their farms than upon the training and welfare of their children. We can not think that the stress of existence, and the task of making ends meet in this colony at the present juncture of its history, are so pressing as to make it necessary to rob children of their just due in the matter of education. Every child should have its rights in this matter, and the serious question emerges in the presence of some facts that are constantly meeting us, whether some stricter measures should not be taken with those who wilfully and from no good cause neglect to give their children the full benefit of the training afforded them by the State. We are persuaded that it is not so much poverty and necessity as downright greed of gain that is the operating cause with many of those whose action has been censured. The time has surely come for making it compulsory that every child shall be educated up to a certain standard without regard to his age. Why should a boy, simply because he has reached the age of fourteen, be exempt from school attendance? The time must come when those who leave school, be they fourteen years or more, to enter the ranks of the workers will be required to pursue their studies at evening schools. If it is deemed right and proper that a youth of fourteen may leave school while still uneducated, then it should be the duty of the State to provide further means for continuing his education, and to insist that he shall continue it. In the working of our present scheme of continuation classes we have over and over again come face to face with lads who would willingly continue their studies, but who can

Do it Now! Don't Wait  
Until It's Too Late!

**K**EEP your body clean!  
Most people are very neat and clean in their outward appearance, but how about the inside?

Are you clean inside?  
And if not, how can you face the world with clean thoughts, clear intelligence, a fair, just, bright mind and get your full share of capacity for work and enjoyment?

Neglect of exercise, rich over-feeding and carelessness about stools, often leave the delicate internal mechanism in a nasty mess.

The small intestine is compelled to absorb the poison of decaying matter instead of wholesome nourishment.

The liver gets inactive; the bile doesn't "work off"; the eyes get yellow; the skin gets dead like putty and pale like dough, disfigured with boils, pimples, blackheads and liver-spots.

There's only one solution to the problem: Keep clean inside all the time. That's the answer.

If you can not diet, or keep your mechanism going by proper exercise, take Cascarets, the sweet, fragrant, harmless little vegetable tablets, that "act like exercise" on your bowels, and gently but powerfully clean out and disinfect the whole digestive canal.

A Cascaret every night before going to bed will "work while you sleep" and make you "feel fine in the morning."

If you have been neglecting yourself for some time, take a Cascaret night and morning and break up the "constipated habit" without acquiring a "cathartic habit."

Cascarets are sold by all druggists, 10c, 25c and 50c. The 10c size trial box is a neat fit for the vest pocket or lady's purse.

Be sure to get the genuine with the "long-tailed C" on the box and the letters "CCC" on each tablet. They are never sold in bulk.

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not afford to do so. For such the conditions of continuing their studies should be made absolutely free."—New Zealand Farmer.

**Some Good Ways to Prepare Asparagus.**

**Escalloped Asparagus.**—Cook one bunch in boiling, salted water until tender; drain; place a layer on a baking-dish which has been buttered and sprinkled with bread crumbs. Sprinkle the asparagus with chopped hard-cooked eggs, pepper, salt, and grated cheese. Continue this method until the baking-dish is full, having the top layer of asparagus. Make a white sauce of one level tablespoon of flour, one tablespoon of butter, and one cup of milk, and pour over the prepared mixture. Place in a hot oven and bake about twenty minutes.

**Asparagus Salad.**—Cook asparagus in boiling, salted water until tender; drain, and set aside to cool. Serve with the following dressing: Rub the yolks of four hard-cooked eggs to a paste; add one teaspoon of sugar; one teaspoon of salt, one teaspoon of mustard and two teaspoons of vinegar. Mix all together thoroughly and blend in one and one-half cups of cream. Serve cold.

**Asparagus with Hollandaise Sauce.**—Cook one bunch of asparagus in boiling, salted water until tender; place in a heated vegetable dish, and add the following sauce, which has been carefully prepared: Place one tablespoon of butter in a sauce-pan; add three tablespoons of flour and stir until butter is melted; then add one cup of boiling water and stir until thick and smooth; add one-half teaspoon of salt; one-fourth teaspoon of pepper and a few drops of onion juice; let simmer for a few minutes; add one-half cup of the water in which the asparagus has been cooked, and one tablespoon of chopped parsley; remove from the fire and add the beaten yolks of two eggs. Pour over the asparagus and serve.

**The Young Folks**

**When I Can Spell as Good as You.**

Dear Father:  
No more need you be ashamed of or displeased with me, and no more need you be frown as of you do when I fall down; Not 'cos I can't subtract or add, but just becuz my spelling's bad. You know, pa, when I took exams, it's kawsed me munny silent Kwams to think the hie marks that I got in other studies went for not. My reading's good, my riting's fare, can't beet my grammar anywhere. Arithmetic, jeografy, and my department, you'll agree, are not so bad, but mite be wurse; but it's my spelling's been my curse, I get my verbs and pronouns strate; I know how, too, to punctuate, tho' I'm not making an axcuse; If one can't spell, why what's the use? But, O deer dad, I heard to-nite that soon all wurds will be spelled rite, no more, when you see how I spel, will you say things it hurts to tell, and you'll not be inclined to say words that you ort n't any way, Our spelling, dad, you'll be surprised, is soon to be Karnegized; then you'll be proud, and I will, too, for I will spell as good as you. So, now, pa, that my letter's dun, I'll sign myself Your loving sun.  
—Century.

**A Morning Prayer.**

The day returns and brings us the petty round of irritating concerns and duties. Help us to play the man, help us to perform them with laughter and kind faces, let cheerfulness abound with industry. Give us to go blithely on our business all this day, bring us to our resting beds weary and content and undishonored, and grant us in the end the gift of sleep.—Robert Louis Stevenson.

**PICTURES FROM LIFE.**

**The Eastern Girl.**

As I entered the sleeping-car at the beginning of a long journey, a stately young lady preceded me, and after examining the numbers above the seats, seated herself in the berth designated by the figure four. She was tall and dignified of manner. Her hair was

dark and arranged according to the prevailing fashion, although not extreme in any particular; her eyes were blue and her features regular and clear-cut. Her bearing was that of a lady. She possessed the gift either from culture or by nature of seeing everything without staring or in any way seeming to be looking. She was attired in a black street suit—skirt and jacket, and black silk waist with a neat turnover collar of fine white linen drawnwork; her hat and gloves were also black. She seemed perfectly at ease, self-possessed and self-satisfied. But there was something in her face that spoke of disappointment and sorrow. She seemed very exclusive and showed no desire to be communicative or friendly.

The journey—which seemed to us at the beginning to be a long one—was lengthened twenty-four hours by the intervention of a wreck on the road ahead of our train, and as the hours and days went slowly by I saw her chafe and become more and more impatient and finally she came to me and showed a desire to be entertained, and in a short time she unburdened her heart and told me her story, and here it is.

Her home is in Boston. She had been in Los Angeles just three days and had become homesick and was returning, and she said with emphasis, "If I ever get there I shall never leave again."

"Is this the first time you have ever been away from home?" I inquired, thinking it strange that one of her age and appearance would become homesick in so short a time, especially in such an enchanting country.

"Oh, no, I have often been away, but under different circumstances," she replied. "I came away without telling any one until after I had started, when I sent a telegram. I knew my mother would not consent to my going, but I felt that I must go."

And then dropping her cold reserve she told me the whole story. She had been engaged to a young man for a year; he had completed his education and had gone to Los Angeles to start in business and next spring she was to come and they were to be married. They were own cousins and the mother did not approve of the marriage, but she loved him, she said, and the mother did not understand. He had been very devoted and since he had been West his letters had been frequent and fervent, until the last which did not sound right, and thinking he was discouraged or sick she impulsively resolved to go to him and they would be married and then she could help him. Her father having died when she was a child, after her education was completed she became cashier in a wholesale and retail grocery in Boston, which position she held when she took this foolish notion into her head. But I know you are impatient to know the rest of the story. After sending a telegram to her mother and one to the place of business where she worked, and one to her cousin in Los Angeles she turned her back upon her home, mother, brother, and sister, and started to the unknown country and untried future—unmindful, I fear, of the sorrow she was bringing upon the dear mother, "who did not understand." The young man met her at the train but instead of the ardent lover, she found him changed. He told her he was mistaken; that he did not love her but that he had found that some one else had taken his affection. He was kind and offered to find her employment and took her to a hotel, saying he would return the next day and tell her all about it. She waited in vain for three days for his return, then, disheartened and discouraged, started on her return trip home, where let us hope she arrived in due season a wiser and a better girl.

**Huge Vegetables.**—"May not be new, but I just heard it," said the man at the head of the table.

"Give it to us."  
"Man from California said that they raised cabbages out there as big as a washtub. Man from Missouri said that they didn't brag much on cab-



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to raise the members. And yet the minister—say that his first name was George—was not satisfied. And he told me all about his troubles. He told me that his clubs and societies and classes that were so successful in outward appearance seemed to suffer from some kind of dry-rot. I listened long to him and then I said:

"See here, George, I know what is the matter with you. You think too much of yourself. You are all the time planning how to improve yourself and how to entertain yourself, that is, your own people. You have reading rooms and libraries and courses of instruction, and helpful organizations, but all for yourself. What are you doing for the other man? Nothing! You are not giving him a thought, and that is why there is no real life in your undertakings.

"Suppose you pick up a paper tomorrow and find out who has been hurt the day before—some workman fallen from the scaffolding of some building, or anything of that kind. Then find out all about the people of that man. See whether you can do anything for him or for them. Put up this to your boys and girls. Teach them to think of others and to live for others—to carry the other man's burdens—and you will see that you have no further cause to talk of dry-rot and indifference."

"He said he would follow my advice, and I have reason to believe that he did. And what he taught his children and young people and parishioners to do, that is what I want you to do. Then your organization will grow so fast and so far that there will be no holding it back. And to that work I wish you all luck."

#### The Merciful Man.

An incident occurred the other day that I think is worth relating. It was about 3 o'clock in the afternoon and I was out taking a stroll, when I noticed a man driving along the road. Suddenly his horse stumbled. He gave it a cut with the whip and proceeded but a few feet when the poor animal stumbled again. This time he got out and clubbed it. Having already called the attention of a passerby to the scene which was being enacted, and seeing he was not inclined to interfere, I ventured to say to the brute who was belaboring the poor, patient animal:

"Your horse did not stumble on purpose. Look at his feet; something may be the matter with them."

The man gave me a very severe look, that plainly indicated I had better mind my own business. Seeing he had no intention of acting upon my suggestion, I went to the horse's rescue, and picking up one of its forefeet removed therefrom a sharp-pointed stone, which was the cause of all the trouble. The faithful animal looked gratefully at me, as though he understood, and indeed, he did understand the whole proceedings. The man took his seat in the vehicle and drove off, pondering deeply, no doubt, on the unnecessary sufferings to which poor animals are subjected at the hands of merciless owners. Who was it said, "The merciful man is merciful to his beast?"—Ontario Sun.

#### Rules Worth Observing.

Here are some rules made up by Thomas Jefferson which have seldom been seen in print. You boys and girls will enjoy reading them:

Never spend your money before you have it.

Never buy what you do not want because it is cheap; it will be dear to you.

Pride costs us more than hunger and cold.

We never repent of having eaten too little.

A mechanic his labor will often discard,

If the rate of his pay he dislikes; But a clock—and its case is uncommonly hard—

Will continue to work, tho' it strikes.

—Hood.

## The Little Ones

### "Because."

"Because" was the name of a cat, Blue-blooded Angora at that; As traced by a long pedigree, The finest you ever did see.

Her ruff was of Angora silk, Her tongue double-coated with milk, Her ways they were mincing and nice, Her nose just designed to smell mice. She wore a goatee like a goat,

And dressed in a shaggy gray coat. She caught all the vermin in sight, For she hunted them day and night. As she sat in her mistress' lap, The little girl gave her a slap; "Because" ran away with a mew! And she never came back—would you? —Selected.

### Helen's Uncle Paul.

ELVIRA LEE.

"Oh, mama, I wish I had a little sister. Please, mama, won't you get me one?" Little Helen sat on the floor in the sunshine with Mary Jane, Miss Belinda, and Ruth lying around her. She loved all these dolls very much, especially Miss Belinda, but still she was lonesome.

"My dear little girlie," said Helen's mother, "are you lonesome with all your dolls to play with you?"

"I want somebody to play wif me." And this little girl lay down on her back in the sun and looked very unhappy. Just then a wonderful thing happened. A carriage came up the drive and a big man jumped out.

"Why, there's Paul," said Helen's mama, and Helen and she ran to the door. The big man ran up and kissed Helen's mama and then picking Helen up in his arms he swung her up in the air and kissing her on both cheeks said, "And so this is the little rascal I have been hearing about."

Helen at first did not know what to make of the surprise, but she knew she loved this big man whom her mother told her to call Uncle Paul. She forgot all about being lonesome and sat on his lap while he told her mother about things she didn't care about, and when he said, "Well, Helen, little girl, come out and show me around the farm," she ran joyfully to get her bonnet, only stopping long enough to whisper to Miss Belinda, "He's lots better'n a wittle sister."

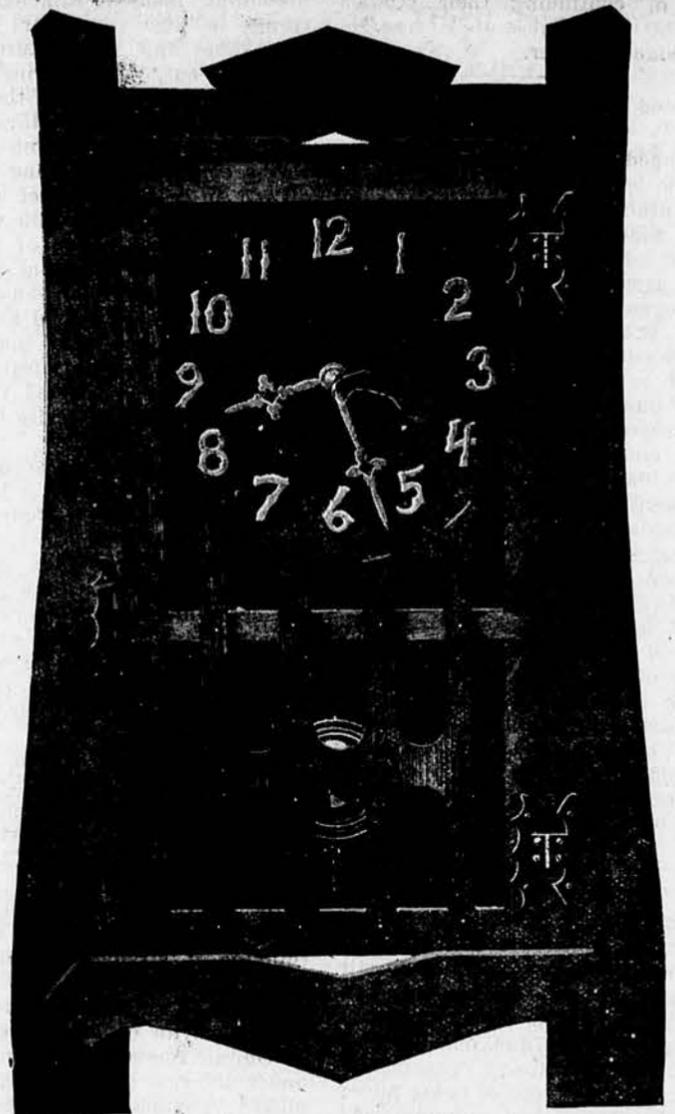
First Helen took her big man to the chicken-coop and told him about the big hen that took care of another hen's chickens because the "uver hen didn't wike 'em." She picked up her pet bantam and told her uncle that "Moses" knew "a lot of fings."

She took him to the pig pen and told him which pig she loved the best, "'cause it's so wittle." She climbed up on the pasture fence and called, "Come here, Bessie, here Bessie," and when the big horse came to her she gave her an apple and whispered to her, "Uncle Paul's come and I wove him more in you."

She took him to the rose-bushes, and putting her fingers on her lips and saying, "Sh," she showed him the wren's-nest with three little birds in it.

Then they met her father coming in from the field, and he said, "Who have you got here, little Girlie?" and Helen said: "Oh, papa, it's Uncle Paul, and I love him better'n anything but you and mama."

"What profiteth it a man though he gain the whole world and lose his own soul," is a text that must often recur to some of the notorious money kings whose methods of gain have recently been aired in the public press. The man who has a farm, a little business of his own, or a profession in which he employs his time with pleasure and sufficient profit to enable him to rear and educate his family, and accumulate a little competency that he may spend his declining years in comfort and peace, enjoying the respect and esteem of the community in which he lives, is greatly to be envied by the millionaires whose only reward for their years of scheming to get the best of their neighbors and their fellowmen generally, is a more or less guilty conscience and the contempt of all right-minded people.—The Farmers' Wife.



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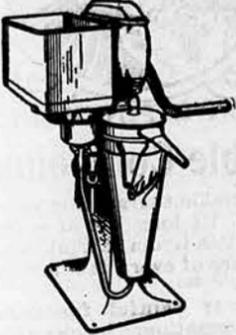
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ly this is a natural growth, the result of finding a money-making system of dairying.

By the use of the hand separator a farmer can reduce the milk from his herd to cream and skim-milk in a few minutes. The cream can be churned at home, sold to a nearby creamery, or shipped to a central churning plant. It is a condensed form of product and in demand everywhere. The hand-separator system has found a favorable location in Nebraska, not through fad or introduction by agents, but because of a natural environment. The farms in the State are large and houses far apart, requiring that a milk creamery system draw on a large territory. The hand separator, therefore, has been received gladly by Western dairymen, and it is estimated that hand separator skim-milk, fresh and still warm from the cow, is worth double that produced by the old method. The expense of transporting the cream to the railroad station or collecting point is very small. A light buggy can haul the cream produced from two wagon-loads of milk, and everyday delivery is not necessary. A small amount of cream can be cared for easily and kept cool until time for shipment, when it can be sent in a light rig by a boy or girl to the station. Farmers living along the same road can easily cooperate and haul each other's cream, thus making the expense of transportation a mere trifle.

There is also a good demand for butter made on the farm, and the cities and towns of the State offer a market of the very best.

The demand for dairy stock of pure breeding is far beyond the supply of the State, and here offers an opportunity for many to take advantage and prosper by so doing.

It may be said that Nebraska offers splendid opportunities for men desiring to engage in the dairy business.

In former years the natural environment of the country has tended to turn farmers' attention more toward stock-raising and grain-growing, but during the past few years the rapid settling up of the country and advance in land values has necessitated more intensive methods of farming. The man having some knowledge of the business will be especially favored by coming to Nebraska and taking up dairying as a business. Many thousands of acres of land are still unclaimed and offer splendid opportunities for Eastern immigrants, especially farmers having some knowledge of dairying. The old farm in the East may be sold and with the same money a much larger farm purchased, with inexhaustible fertility and opportunities to greatly advance the annual net earnings of the farmer.

A GOOD OPENING FOR GOOD STOCK.

The Middle West offers a fine opportunity for farmers wishing to engage in the blooded stock business, as the demand for such animals is far beyond the supply. For example, the average

# IMPORTANT CROP FACTS

Farmers generally are very "blue" over the unfavorable rain crop outlook at this time, but there is one crop that they need not feel doubtful about and which becomes of more than usual importance to them by reason of the uncertain outlook as to other crops, and this is the MILK CROP, which continues month in and month out and of which it has well been said "the harvest never ends."

There is nothing doubtful about the outlook for the MILK CROP. Dairy product prices have been high and promise to continue so. The uncertainty about other crops makes it all the more important to make the most of the one that is sure. There is only one way to make the most of it, to be certain of recovering all the butter-fat with the least effort and under the most favorable conditions, and that is with the help of

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## Dairy Interests

### The Dairy Industry.

FROM "DAIRYING IN NEBRASKA," A U. P. R. R. CIRCULAR.

The success of an industry in any country depends first on the economic production of the raw material, and second on the getting of this produce to market.

The proof as to whether or not the industry is succeeding may be found by comparing the growth of this industry from year to year. What, then, can we say of the dairy business of Nebraska, and what does it offer?

In the first place, the cost of butter production is determined by the cost of food for cattle, and this in Nebraska is as cheap or cheaper than in any State of the Union. Grasses, such as alfalfa, clover, millet, timothy, cowpeas, and prairie grasses, thrive in the State and can be purchased at a lower price than in any other State. Corn, sorghum, and the grains reach their highest perfection, while sugarbeets, mangels, and similar roots do well and produce immense crops. Corn, one of the most important plants known for feeding cattle, is, in Nebraska, at its perfection, and can be grown or purchased to better advantage than in any market east or west. The crop may be turned into silage or fed as fodder or stover. The grain makes a perfect balance for alfalfa, and when so fed is especially conducive to milk flow. In plain words, it costs less to feed dairy cows in Nebraska than in any other State of the Union.

The growth of the dairy industry in Nebraska during the past ten years has been very marked, and the State has gone from twentieth place in the Union to ninth as based on the amount of butter produced.

#### HAND SEPARATORS.

The hand separator has effected a revolution in Nebraska dairying as marked as that by the self-binder in Western grain-growing. The number has increased during the past ten years at a wonderful rate, as the following table will show:

Year.	Number of Separators on Farms in State.
1897.	550
1898.	600
1899.	1,000
1900.	3,000
1901.	4,960
1902.	10,200
1903.	18,400
1904.	22,000
1905.	30,690
1906.	33,500

No State in the Union has experienced such development, and certain-

cow kept in Nebraska for dairy purposes produces about one hundred pounds of butter per year. While this low average offers a profit, it could be greatly increased by improving the stock.

It has not been many years since the cattle kept in the State were herded on the open range, where their natural environment developed a short milking period, they being required to rear their calves only. From such ancestors we have the stock of to-day, improved in beef-producing qualities by the use of Hereford, Angus, and Short-horn bulls, but still lacking in dairy qualities.

The time has now come when better milking stock is greatly needed. With the breaking up of the large ranges into smaller farms more intensified farming is necessary. The day is about passed when a common cow can be kept one year for one calf. This may be seen from the fact that farmers generally over the State are milking their cows, instead of allowing them to run with their calves. With the low cost of feed it is possible to get a profit from the common cows,

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Send to us right away and get posted on this valuable information so that you can begin shipping cream to us and get your dairy department on the best paying basis.

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but a much better return could be had by improving the stock. That improved stock do well in the West and can make good records may be seen from the following herd record taken from the results of the dairy department of the Nebraska Experiment Station:

DAIRY HERD RECORD FOR 1906.

Name of cow.	Lbs. milk.	Lbs. butter.
1 Karen.....	17,810.9	702.18
2 Katy.....	18,573.4	723.85
3 Spot.....	10,815.3	475.19
4 Florence.....	10,483.1	409.69
5 Ruth.....	7,931.8	424.77
6 Hane.....	9,426.3	490.21
7 Beauty.....	11,895.9	431.00
8 Baroness.....	10,773.0	457.67
9 Belle.....	5,659.0	359.34
10 Bess.....	13,118.1	474.65
11 Daisy Lincoln.....	10,373.8	458.72
12 Edith.....	3,814.2	254.77
13 Ellen.....	6,600.8	316.81
14 Ida.....	10,220.9	463.82
15 Lincoln B.....	5,686.8	340.98
16 Mable.....	7,686.0	380.62
17 Marie.....	9,701.6	370.08
18 Mermald.....	8,847.4	318.93
19 Pansy.....	6,779.9	362.67
20 Roxanna.....	11,771.1	465.43
21 Santoy.....	12,295.8	461.75

DAIRY HERD RECORD FOR 1906.  
The twenty-one cows in this herd were composed of ten Holsteins, six Jerseys, two Shorthorns, and three grades. They were all fed Nebraska grown products and received good but not expensive care.

Their average milk production was 10,012.1 lbs. and butter, 435.28 lbs. per cow. While this is more than three times the average production for cows of the State, it is what any dairyman can do by using well-selected animals and giving them good care.

The cost of the average ration for these cows was about \$35, which includes all feeds at full market value. Corn silage and alfalfa hay made up the roughage and bulk of ration, while corn, bran, and oats was the principal grains given.

THE MILKING-MACHINE A FACTOR.  
The milking-machine is now deemed a success, and all it requires is a little time to place it in general use. There are, at the present time, over 1,300 milking-machines in operation in the United States, and from reports by the users, there is good evidence that they are meeting demands.

With this machine, the labor problem, which is one of the vexing features of dairying, will be greatly improved. A steam boiler may be used to produce power for the machines, and the steam that is used for making the suction may be also used for heating water, thus causing no waste. With the use of such machines the dairy business may be carried on with large herds without much labor.

HOGS, POULTRY, FRUITS, AND BEES.  
Alfalfa and corn are the main crops of the State, and with these cattle and hogs can be fed at a very low cost. The by-products of the dairy can be most profitably used in economic pork production and thus prevent any waste. This method will condense the raw material of the farm into products which are always in demand and will bring a high cash price on the market, at the same time the land will grow richer and more valuable as fertility will be added and not sold away.

Other industries may also be carried on with dairying and hog-raising, as poultry-raising, fruit-growing, and bee-keeping. These will not interfere with the main industries and will be a source of profit.

Dairying.  
PROF. OSCAR ERF, KANSAS AGRICULTURAL COLLEGE.

The wealth of Kansas lies in her soil, and in order to maintain the prosperous condition of the past it is necessary to maintain the fertility of the soil. The prosperity of a community depends largely if not wholly upon the amount of fertility in the soil. It is therefore essential to introduce a system of farming that will maintain these prosperous conditions. We know well that by growing crops the fertility of the soil is removed according to the quantity and the kinds of crops raised. For illustration, the most important crop of Kansas is wheat. We understand from practical experience, as well as from chemical determinations, that a ton of wheat removes about \$8.35 worth of fertility

from the soil. In the same way \$6.50 worth of fertility is removed by growing a ton of corn.

And so we follow the category of the different systems of farming until we reach the practise of dairying, where we find that it requires the removal of but 36 cents' worth of fertility from the soil to produce \$5.00 worth of butter at 25 cents per pound, which proves the value of this system of farming to conserve fertility. In the Eastern States there are good illustrations of this fact. We find that the extensive systems of grain-farming have been carried on in certain localities until the land has become worthless and farms have been abandoned. It is found that those farms upon which dairying has been carried on have remained rich in soil fertility. Abandoned farms are now being taken up and the system of dairy farming is practised upon them. Large quantities of feeds are bought and consumed by the cows and the manure is then transferred to the soil and the fertility is again restored.

It is quite essential that the farmer of Kansas should begin to realize the importance of the dairy business from the standpoint of preserving soil fertility and to avoid the extreme waste that comes about by extensive crop-raising. For this reason, largely, dairying has become an adjunct to every class of crop-raising and horticultural work in Eastern countries.

Dairying, however, also plays a very important part in other classes of farming, such as poultry-raising and swine-raising. It is being realized that the best egg-laying feeds for hens are milk feeds, and furthermore it is found that the most economical and best feed for swine is milk. Hence, dairying can not only be considered as a profitable independent business, but it becomes one of the most valuable adjuncts to practically all of the important systems of farming. Kansas is fortunately situated to make dairying profitable, because alfalfa and corn, the best two milk-producing feeds known, can be grown abundantly within its borders at a small cost. The farmers are furthermore fortunately situated because they can readily reach the Missouri River markets, which are fast becoming the best markets of the United States, as well as those of other Western States where dairy products now command, and always will, the highest market price.

Kansas has to-day within her borders 711,152 milch cows, which produce annually 71,115,200 pounds of butter, which for the past year has been worth \$17,778,800. They have produced skim-milk which is worth approximately \$4,600,000. The calves at time of birth are worth \$1,422,000. Dairying has, therefore, an aggregate value of \$23,800,800. This is not figuring the value of the \$10,000,000 worth of hay that these cows have consumed on the farm, for which they have returned an equivalent of \$8,800,000 worth of fertility.

Gradually as the years pass on dairying will be steadily on the increase. The new year of 1907 shows an approximate increase of 20 per cent over the same time last year.

NEED OF INSTRUCTION IN DAIRYING.  
According to statistics we find that the average cow of Kansas produces approximately 100 pounds of butter-fat per year. This is far from the average attained in some of our Eastern States, where dairying has been practised for a longer period of time. It is indeed a small capacity for a cow when we realize that there are many good herds which average from 300 to 400 pounds of butter-fat per cow per year.

There is a great opportunity for increasing the capacity of cows of this State when we have such records placed before us as that made by Yeksa Sunbeam, the famous Guernsey cow, which in 365 consecutive days produced nearly 1,000 pounds of standard commercial butter, and Colantha, the famous Holstein-Friesian cow, which made the marvelous record of producing 5.13 pounds of butter in one day. It seems, therefore, very essential that instructions are necessary in selecting and breeding dairy cows and

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ALFALFA SEED Kansas grown. Highest award at St. Louis for best alfalfa seed in world. Crop of 1906. Also Cans and Millet. Macaroni Wheat and other Field Seeds in carload lots. Garden City, Kans. Write for prices. MCKENZIE & KINISON.

to improve the methods of feeding and general care, in order to develop animals of greater milk-producing capacities. It is also necessary that instructions be given in the manufacturing of dairy products for the market in order that Kansas products may stand higher in merit. An improvement which would mean two cents increase in the price of dairy products in Kansas would add annually \$1,500,000 to the wealth of the State.

**The Poultry Yard**

CONDUCTED BY THOMAS OWEN.

**Poultry Pointers.**

During the past four weeks poultry foods of all kinds have advanced fully 50 per cent, and for those persons who are forced to buy all their chicken feed, the problem of the cheapest feed is now agitating their minds. Wheat is out of the question, and corn must be relied upon as the main stay. In order to lighten the burden of expense, all surplus hens that have quit laying should be disposed of to the butcher as soon as possible. Owing to the advanced price of meats, poultry now brings a good price and should be marketable before they eat their heads off, with high-priced grains.

The chicks must have shade these hot days. If you have no natural shade in the shape of trees, artificial shade should be provided. A stout frame covered with cloth or canvas makes a serviceable shade.

When you mow the lawn, give the poultry which are closely confined, all the green grass. They will greedily devour it and repay you a hundred fold for your thoughtfulness.

Goslings need less care than any other poultry. Keep them dry the first few days, and use every precaution to keep them from getting chilled. By the time they are a week old they need no artificial heat. Confine them to small pens moved each day to fresh grass. Provide shelter from sun and storm and keep their roosting places clean. Goslings of the larger breeds should weigh nine to twelve pounds each at 10 weeks of age. As a rule it pays better to market them than to wait till they are older. It is claimed that turnips chopped and fed in water will fatten geese very quickly. Geese can be raised cheaper than any other kind of poultry because they can forage and get most of their living for eight months out of the year from the pastures.

A subscriber wishes to learn how to caponize his roosters and the proper age. The right age is when the cockerels are about 3 months old, but it is impossible to tell him how to do it on paper. He must consult an expert in this line and see the operation performed before he can be successful.

We have written before of the value of alfalfa as a chicken food, but we can not praise it too often or too highly, and now that all manner of grain feed is so high, is a very good time to feed more alfalfa. It can be cut green and fed to the chickens in that state or it can be cured, then run through a clover-cutter, and fed to them in small pieces. It has been proved that there is as much protein and other food substances in it as there is in the best of wheat bran, and the cost of it is not a fourth of the price of bran, even if you have to buy it at retail. But if you grow it yourself it is the cheapest feed that can be fed to poultry. A little cornmeal added to cut alfalfa will make a perfect ration for all kinds of chickens.

**Boiled Wheat for Chicks.**

I have been feeding my chickens boiled wheat this year. It agrees with them better than anything I ever fed them. I put one-half teaspoonful of lye to two gallons of wheat, and boil it until it cracks open. The lye keeps

them from having scours. They are very fond of it. I have 500 chickens and never had such good luck before. I give them all they want of it.

Brown County. Mrs. R. EVANS.

[We are glad to receive such communications as the above from our readers, especially when they tell of a new and successful method of feeding chicks. We have no doubt that the boiling of wheat would make it more digestible for the young chicks, as well as more palatable, especially if a little salt was placed in the water. We have never fed any boiled wheat, though we have fed boiled oats to laying hens and found it an extra good egg-producer. We know of some poultry-breeders who have roasted the grains for their chicks and they report good success. The roasting and the boiling will both help the digestibility of the grains and therefore assist the digestive organs of the young chicks to assimilate the good more quickly than if fed in the raw state.—EDITOR POULTRY DEPARTMENT.]

**Poultry Notes.**

N. J. SHEPHERD, ELDON, MO.

One reason why poultry manure is rich, concentrated, and active is because fowls feed principally on seeds and insects all of which are rich in fertilizing matter.

Legitimately the fowl has four well-defined uses, as an egg-producer, for its flesh, for its feathers, and in exterminating pests, and to these might be added, saving waste.

It is all right to pick the breeding ducks during the summer weather after the breeding season is over. They will shed or molt their feathers at any rate and it is well to pick and save them.

No fowl over 2 years old should be kept in the poultry yard except for some special reason. An extra good mother or a finely feathered bird that is desirable as a breeder may be kept longer. But ordinary hens and cocks should be fattened for market at the end of the second year.

No amount of persuasion or tempting high prices should induce the breeder to part with his best birds, for if he desires to steadily improve his flock no matter whether it is of so-called common birds or pure-breds he must take his pick first of the very cream of the flock.

In selecting a site for the poultry-house the one thing to be avoided is dampness. Damp houses and swampy yards are responsible for a goodly share of the ills that afflict poultry. South hill sides are capital places for poultry-houses as usually good sunlight and good drainage can be readily provided.

Poultry generally suffers from preventible ills. Naturally they are subject to very few diseases. If kept clean, not overfed, not cooped up close, fed pure food, supplied with clean water regularly, and have an abundance of pure air in their roosting places they will live and thrive without any trouble except in rare cases.

The principal objection to hatching poultry during the next two months is on account of the hot, dry weather. It is much more difficult to maintain a thrifty growth. The late-hatched pullets will not lay until the next spring and unless there is some special reason usually the best plan is not to attempt to hatch chickens during July and August.

In very many cases it will be best to sell all of the young fowls, except what is needed for breeding, as soon as they will average two pounds each. Select a sufficient number of the best pullets to keep over for winter layers and fatten and market the balance. Generally at this time good prices can be realized for fat, plump, young fowls, and a better profit made than to keep until fall or early winter.

The sayings and doings of my children afford me all the amusement I want," said a happy Quaker mother. "While seeing them to bed, I have them tell me what they have said and done through the day. I commend the

**White Plymouth Rocks**  
STOCK AND EGGS FOR SALE.  
My first range consists of 100 large white hens weighing from 8 1/2 to 10 1/2 pounds, headed by eight large, white cockerels from my first pen. Stock—100 eggs \$10; 15 eggs \$2. Second range—200 eggs \$5; 15 eggs \$1. First pen—100 eggs \$25; 15 eggs \$5. Second pen—100 eggs \$15; 15 eggs \$3. You run no risk when you buy eggs of me. Satisfaction guaranteed.  
**G. R. Davis,**  
VALLEY CENTER, - - - KANSAS

**The Talbott Poultry Farm**  
Breeder of the best in the world. Strain of Buff, Brown and White Leghorns, Barred Rocks and White Wyandottes. My birds have won at Chicago, Galveston, Moline, Illinois, Fremont, Hebron and other Poultry Shows of Nebraska, and they will win for you. 500 old birds for sale at \$1.50 each; also 1,000 youngsters at \$1.00 and up.  
**W. R. TALBOTT, Prop.** - - - Hebron, Nebr.

**BUFF ORPINGTONS.**  
BUFF ORPINGTONS—State show first prize winners. Breeders, eggs and baby chicks. 32 page illustrated catalog free. Prices for June, July and August reduced one-half. S. C. BUFF LEGHORNS. Eggs now, \$4 per 100. Scotch Collie and Fox Terrier dogs. W. H. Maxwell, 1996 McVicar Ave, Topeka, Kans.  
S. C. BUFF ORPINGTON EGGS—Extra fine flock, headed by an 11-pound cockerel. 15 eggs \$1.25. C. B. Owen, Lawrence, Kans.  
CHOICE Buff Orpington and B. P. Rock cockerels, Collie pups and bred bitches. Send for circular. W. B. Williams, Stella, Nebr.

**LEGHORNS.**  
PURE SINGLE COMB BROWN LEGHORN eggs, 30 for \$1; 100 for \$3. Jos. Caudwell, Wakefield, Kans., successor to F. P. Flower.  
FOR SALE—Single Comb White Leghorn cockerels, Wyckoff laying strain. Price, 75 cents and \$1. Henry Martin, Newton, Kans.  
ROSE COMB BROWN LEGHORN EGGS—15 for \$1.50, 30 for \$2.50, 100 for \$4. Mrs. John Holshey, Bendena, Kans.

NOT TWO LATE to get a start of Hastings Heavy Laying Strain of S. C. Brown Leghorns. Best of season, eggs 75c per 15; 2 sittings \$1.25; or \$3 for 100. L. H. Hastings Quincy, Kans.  
STANDARD BRED SINGLE COMB BUFF LEGHORNS—Headed by first prize pen, Chicago show 1903 and took six first prizes and first pen at Newton 1904. Eggs \$3 for 15. S. Perkins, 501 East First Street, Newton, Kans.

**White Leghorn Hens**  
I have a few good R. O. and S. C. White Leghorn hens one year old. Will close them out at \$9 per dozen. W. S. YOUNG, Larned, Kans.

**VARICOCELE**  
A Safe, Painless, Permanent Cure GUARANTEED. 30 years' experience. No money accepted until patient is well. CONSULTATION and valuable BOOK FREE, by mail or at office.  
**DR. C. M. COE, 915 Walnut St. Kansas City, Mo.**

good and correct that which is not. Then they say their prayers, and kiss me 'Good-night.'  
"One night Willie told me that he had 'muttered at grandpa.' I said, 'that was not right, Willie. Grandpa is not well. Run down to the library, tell him what thee did, and kiss him. He will forgive thee.'  
"The little fellow toddled off in his night-clothes to do as I had told him. 'Grandpa,' he said, nestling up to him as he was reading, 'I have come to kiss thee good-night.'  
"Good-night, dear,' said his grandfather, laying down his paper and kissing him.  
"And,' continued Willie, 'I want thee to forgive me.'  
"What for, Willie?" asked his grandfather, surprised and puzzled.  
"Why, I muttered at thee when I was going out the door, when thee sent me out of the room because I didn't stop making too much noise.'  
"What did thee say?" His grandfather had forgotten the circumstance.  
"Say? Well, I called thee a villain, and, I think I called thee a cock-eye."

**Nature Study.**  
At one end or other of every animal lies a danger which make the closest investigation impossible. To study the mule we must hold him by the head, but to study the bull we must have a tall hold as a vantage point.—St. Louis Globe-Democrat.  
Enjoy the little you have while the fool is hunting for more.—Spanish.

**PLYMOUTH ROCKS.**  
WHITE PLYMOUTH ROCKS—Exclusively pure white birds, farm range. Eggs \$1 per 15, \$1.75 per 30. R. J. Yust, Route 2, Sylvia, Kans.  
BARRED AND W. P. ROCK EGGS—Hawkins and Bradley strains; 15 for \$2, 45 for \$5. Chris Bearman, Route 9, Ottawa, Kans.

**White Plymouth Rocks EXCLUSIVELY**  
Good for Eggs. Good to Eat. Good to Look At  
W. P. Rocks hold the record for egg laying over every other variety of fowls; eight pullets averaging 230 eggs each in one year. I have bred them exclusively for twelve years and have them scoring 94 to 96%, and as good as can be found anywhere. Eggs only \$2 per 15; \$5 per 45, and I prepay expressage to any express office in the United States. Yards at residence, adjoining Washburn College. Address  
**THOMAS OWEN, Sta. B. Topeka, Kans.**

**BLACK LANGSHANS.**  
**American Central Poultry Plant**  
BUFF, BLACK AND WHITE LANGSHANS, SILVER SPANGLED HAMBURGS, SILVER LACED, BUFF AND WHITE WYANDOTTES, SINGLE COMB, ROSE COMB AND BUFF LEGHORNS, BLACK MINORCAS BUFF AND WHITE ROCKS, S. C. RHODE ISLAND REDS, BARRED ROCKS, BUFF ORPINGTONS AND LIGHT BRAHMAS.  
Also Bronze Turkeys, small Pekin ducks, Rouan ducks, Toulouse geese and peacocks. Each variety kept on separate tract of farm. Write for free twenty-page catalogue giving prices on stock and eggs. Address  
**J. A. LOVETTE, Prop., MULLINVILLE, KANS.**

PURE-BRED WHITE LANGSHANS for sale. Hens \$1.25, pullets \$1 each; also a few Silver Spangled Hamburg cockerels. Mrs. John Cooke, Greeley, Kas

**WYANDOTTES.**  
INCUBATOR EGGS from prize-winning White Rocks and White Wyandottes at \$5 per 100. W. L. Bates, Topeka, Kans.

BROWN'S WHITE WYANDOTTES—Ahead of everything; stock for sale; eggs in season. I have the English Fox Terrier dogs. Write me for prices and particulars. J. H. Brown, Clay Center, Kans.

**RHODE ISLAND REDS.**  
LAYING STRAIN S. C. REDS—Old and young stock for sale. Eggs, one-half price after June 15. R. B. Steele, Sta. B, Topeka, Kans.

RHODE ISLAND REDS—Cockerels, S. C. R. I. Reds from prize winners. Red to the skin. Eggs in season. Good Hope Fruit & Poultry Farm, Troy, Kas

ONE DOLLAR buys 15 eggs of either Rose Comb R. I. Reds or Barred Rocks from prize-winning stock at the College show. Mrs. A. J. Nicholson, Manhattan, Kans.

Rose Comb Rhode Island Red eggs for sale. Circular free. G. D. Williams, Inman, Kans.

**BRAHMAS.**  
**Light Brahma Chickens**  
Choice pure bred cockerels for sale. Write or call on **Chas. Foster & Son, Eldorado, Kas., Route 4**

**Minorcas.**  
Exhibition S. C. Minorcas, the world's greatest laying strain. Beautiful in plumage, tall and comb. Eggs \$1.50 per 15; baby chicks, \$1; hens, \$2 illustrated circulars 5c. Address George Kern, 817 Osage St., Leavenworth, Kans.

**MISCELLANEOUS.**  
TYPEWRITER FOR HENS—Fine No 4 Jewett typewriter, cost new \$100; in first-class condition, with complete outfit, to trade for 60 hens. J. K. Cottingham, Randolph, Mo.

AGENTS—To sell and advertise our Poultry Compound; \$35 weekly; rig furnished. Franklin Manufacturing Company, Norwalk, Ohio.  
FOR SALE—White Plymouth Rock eggs. Stock from top excellent strains, careful selection for years. 1907 eggs hatching as high as 95 per cent strong chicks. After May 10th, \$3 per hundred, \$1.75 for 50. Address Elizabeth M. Willett, Lawrence, Kans., Route 1.

When writing advertisers please mention this paper.

Miscellany

Uncle Sam Makes Farms for American Farmers.

The farmers of the United States will be interested in an article lately published over the signature of C. J. Blanchard, Statistician of the United States Reclamation Service, showing the vastness of the Government irrigation projects now being built under the provisions of the National Reclamation Act for the purpose of making new farms for the rapidly growing number of American farmers.

Mr. Blanchard in his article enumerates a long list of projects actually under construction, and another list held in abeyance awaiting the time when the condition of the reclamation fund will permit their construction. He shows that the twenty-five projects now under construction, when fully developed, will add to the crop-producing area of the United States 3,198,000 acres, or a cultivated area equal to the total acreage devoted to agricultural crops in Connecticut, New Hampshire, Massachusetts, and Florida.

Three of these twenty-five projects are practically completed; six more will be in service this summer. Work is progressing on all of them, and their early completion may be considered absolutely sure.

Thirteen additional projects held in abeyance have an even greater area than those now under construction, and there are in the West many more millions of acres with water available for irrigation—a great field for further agricultural development, comprising one of our most valuable resources in view of the rapid increase in population and the necessity of continued increase of agricultural production.

The National Reclamation Act provides that moneys received from sales of public lands in certain Western States and Territories shall be placed in a revolving fund that is being used to build irrigation systems in the State which provide it. The law wisely provides for the return of the money to the National Treasury by the lands benefited when it becomes available for use in further irrigation construction.

The addition of these millions of acres to the agricultural lands of the country is of interest not alone to the

West, but to the entire United States, because of the importance of continued agricultural expansion. It is of interest to the farmers because it gives to their sons an opportunity of obtaining new lands; it is of interest to the business men because it means opportunities for new business; it is of interest to manufacturers because it means a new demand for their products.

The enactment of the law under which this great reclamation work is going on is very largely due to the National Irrigation Congress, the fifteenth session of which will be held in Sacramento, California, September 2-7 next. This promises to be one of the most widely represented Congresses ever held in this country both because of the widespread interest in this new National irrigation policy, and because of the widespread interest in National forestry, which takes equal prominence in the annual meeting of this body.

Is This Soldier Pensionable?

An interesting and important inquiry from an old soldier, directed to THE KANSAS FARMER, was referred to Capt. P. H. Coney, of Topeka, past commander of the G. A. R., Kansas Department. Captain Coney is a lawyer of ability; is especially strong on all laws affecting soldiers' rights; has clear views of justice; and buttons his vest over a heart big enough to find a place for every man who ever wore the blue. He summarized the inquiry and makes answer as follows:

"C" having been originally regularly enlisted and mustered into the service, and subsequently after two years' service, deliberately left it and returned to his home, when he again, under an assumed name, enlisted in another regiment and served to the close of the war, and was honorably discharged. On his return home he found an honorable discharge issued to him from his first service awaiting him. Is he eligible to the pension rolls?

"Answer: He could not have rendered service in both regiments at the same time. On his application for a pension, his service in both regiments will be disclosed, as he will be called upon to make a statement of his entire service under his proper name, and his assumed name. This will raise the question as to whether his reenlistment was for bounty, and how much he got. He would be called upon to make explanation. He having

been honorably discharged from both services, the War Department would determine on his explanation as to whether he was a deserter or not, regardless of his discharges, because he could not have served in both regiments at the same time. This will necessitate his application for a correction of the records of his military service, which will drop him from one service and leave his honorable discharge from the other, after which he will be eligible to the pension rolls, and without which he will not be.

"I advise him to make application for a pension, to raise the question and determine it, and when adjusted, he will land on the pension roll.

Rich Men Whose Fathers Were Poor.

The father of W. S. Stratton, the Colorado gold king, was a small boat-builder at Jeffersonville, Ind., with so many children and a purse so ill-filled that he was compelled to take his son away from school at fourteen and apprentice him to a carpenter.

Commodore Vanderbilt, founder of one of the wealthiest families in the world, was cradled in direst poverty, and between the age of six and sixteen earned his own living by performing any old job that came his way, from selling newspapers and holding horses to farm labor and porter's work; and Jay Gould, who accumulated a fortune of \$60,000,000 before he died at the age of fifty-eight, was the son of a struggling farmer, who found so much use for his son's services that he practically received no schooling at all.

Sir Hiram Maxim, the millionaire inventor, had for father a small miller, whose business was so unprofitable that his son had to eke out the family income by farm work and woodturning before, at the age of fourteen years, he was apprenticed to a coach-builder at East Corinth.

George Westinghouse, whose air brake has yielded such a golden harvest, was the son of a mechanical engineer in a small way of business.

John W. Mackay, the "silver king," was the son of a destitute Irishman, who emigrated to America with his family in search of fortune, and after two years of terrible struggle died, leaving a penniless widow to support herself and her young children as best she could.

Russell Sage, who left a fortune of over \$30,000,000, was the youngest of the six children of very poor parents, and was toiling on a farm before he was ten years old.

The parents of Mr. Pillsbury, the flour king of America, "were in poor circumstances, and his boyhood was passed in a very humble home," and Mr. Gates, Mr. Leiter, and Potter Palmer were all sons of small farmers, and served their apprenticeship to work as farm laborers.

The Hon. John Wanamaker, whose stores and riches are famous the world over, is the son and grandson of brick-makers, and the father of Mr. Heinz, who has made millions out of his condiments, made a modest income as brickmaker and market gardener.—London Tid-Bits.

Hix—Why couldn't the business and professional men finish their ball game?

Hax—The scorekeeper got writer's cramp.

Dew—I see there is a new merger of ice companies.

Telle—Well?

Dew—Do you suppose they'll freeze out competition?

New Advertisers.

- E. F. Murray, Percherons and Hereford sale.
- I. W. Poulton, Duroc-Jerseys.
- I. W. Poulton, Duroc-Jersey boars.
- W. T. Hammond, Poland-Chinas.
- J. W. Reid, Crimson Herd of Durocs.
- S. B. Rohrer, 400 acre farm.
- Mrs. Rose Snowden, Western land.
- Gem City Business College, college.
- Joseph M. Baier, Poland-Chinas.
- Peoria Drill & Seeder Co., \$1.00 wheat.
- Garrison & Studebaker, Kansas Farms.
- Crude Oil Power Co., Good investment.
- Jas. S. Taylor, Jersey bull.
- C. E. Romary, Poland-China gilts.
- J. K. Cottingham, Typewriter for hens.
- Mrs. Mary Potter, Everything for babies.
- Locust Pub. Co., Wanted.



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Moderate priced game loads of the highest quality. Any standard Smokeless Powder—any standard load. Consult the most experienced sportsman you know and buy of your home dealer.

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DR. COE'S SANITARIUM.



LOCATED AT 26TH AND WYANDOTTE

BEST INVALID'S HOME IN THE WEST.

Organized with a full staff of physicians and surgeons for treatment of all Chronic Diseases. THIRTY ROOMS for accommodation of patients.

Difficult Surgical Operations Performed with Skill and Success when Surgery is Necessary.

DISEASES OF WOMEN Well equipped to treat diseases of women. Many who have suffered for years cured at home. Special book for women FREE

PILE'S PERMANENT CURE POSITIVELY GUARANTEED Without knife, ligature or caustic. No money accepted until patient is well. Special Book FREE.

VARICOCELE Radically Cured in Ten Days, under a Positive Guarantee. Send for Special FREE Book. New restorative treatment for loss of Vital Power, Hydrocele, Rupture, Stricture, etc.

CRIPPLED CHILDREN CURED by improved methods. Trained attendants.

WRITE FOR FREE BOOK ON Club Feet, Curvature of Spine, Hare Lip, Epilepsy, Catarrh, Stomach Troubles, Lung, Eye, Skin, Kidney, Bladder, Blood and Nervous Diseases. Patients successfully treated at home by mail. Consultation Free and confidential, at office or by letter. Thirty years' experience.

170 page Illustrated Book Free, giving much valuable information. Call at office or write to DR. C. M. COE, OFFICE, 915 WALNUT ST., KANSAS CITY, MO.

Worms all Over the Ground

Drexel, Mo., R. D. 2, Jan. 24, 1907. F. J. TAYLOR CO. Bag of Tonic received and I put it in box as directed. My hogs eat it fine and I think it has done them good from the worms I see scattered over the feedlot. I believe it is all right, especially for hogs. Will let you hear from me when it is all gone. I remain yours for a fair trial. W. G. BINKLEY.



Taylor's Stock Tonic does more than drive out the worms. It puts your hogs, cattle and horses in the pink of condition, makes them grow faster and stronger, prevents cholera, blackleg and all diseases arising from imperfect digestion.

We want you to know all about our Stock Tonic so we will send you 50 pounds on trial if you will send us this advertisement.

In 80 days you will send us \$2 for the tonic, or return the empty bag if it is not satisfactory, and there is no charge.

We are sending out thousands of bags on this basis and practically every one is paid for. It shows the merit of the goods and the honesty of the farmer. Cut out this ad today and send it to us.

F. J. TAYLOR CO., 561 Live Stock Bldg., Kansas City, Mo.

Scotch Collies.

Fifty-seven Collie puppies just old enough to ship. Place your orders early, so you can get one of the choicest ones. Walnut Grove Farm, Emporia, Kans.



SPECIAL LOW RATES

- \$17.50 To Colorado and Return Every day to September 30, 1907.
- \$30.50 To Ogden or Salt Lake City and Return Every day to September 30, 1907.
- \$42.50 To Spokane and Return June 20 to July 12, 1907.
- \$50.00 To Portland, Seattle Tacoma, Everett, Bellingham, Vancouver, Victoria or New Westminster and Return June 20 to July 12.
- \$50.00 To San Francisco or Los Angeles and Return June 8 to 15 and 22 to July 5.
- \$55.00 To Yellowstone Park and Return Including rail and stage, June 7 to Sept. 12.
- \$60.00 To Portland, Tacoma, Seattle, San Francisco, Los Angeles or San Diego and Return Daily to Sept. 15, 1907.
- \$62.50 Circuit Tour via San Francisco, Los Angeles and Portland June 8 to 15 and 20 to July 12, 1907.
- \$73.50 Circuit Tour via San Francisco, Los Angeles and Portland Every day to Sept. 15, 1907.
- \$80.50 To Yellowstone Park and Return Including rail, stage and hotels in Park for regular tour, June 7 to Sept. 12.

Also very low round-trip rates, June 1 to September 15, to many other Oregon, Washington, Montana, Idaho and British Columbia Points.

VIA

Union Pacific

Inquire of

F. A. LEWIS, City Ticket Agent, 525 Kansas Ave. J. C. FULTON, Depot Agent.

Weather Bulletin

Following is the weekly weather bulletin for the Kansas Weather Service for the week ending June 18, 1907, prepared by T. B. Jennings, Station Director.

DATA FOR THE WEEK.

Table with columns: Maximum, Minimum, Mean, Departure from normal, Total, Departure from normal, Per cent of sunshine. Rows include Western Division (Ashland, Colby, Coolidge, Dodge City, Dresden, Farnsworth, Goodland, Lakin, Liberal, Norton, Scott, Ulysses, Wakeeney, Wallace, Division) and Middle Division (Alton, Anthony, Clay Center, Concordia, Cunningham, Eldorado, Ellinwood, Ellsworth, Greensburg, Hanover, Harrison, Hays, Hutchinson, Larned, Macksville, McPherson, Minneapolis, Norwich, Phillipsburg, Pratt, Republic, Russell, Salina, Wichita, Division).

Table with columns: Maximum, Minimum, Mean, Departure from normal, Total, Departure from normal, Per cent of sunshine. Rows include Eastern Division (Baker, Burlington, Cottonwood Falls, Emporia, Eskridge, Eureka, Fall River, Fort Scott, Frankfort, Garnett, Grenola, Horton, Independence, Iola, Kansas City, Madison, Manhattan, Olathe, Osage City, Oswego, Ottawa, Paola, Pleasanton, Sedan, Topeka, Toronto, Valley Falls, Division, State).

DATA FOR STATE BY WEEKS.

Table with columns: Week ending, Maximum, Minimum, Mean, Departure from normal, Total, Departure from normal, Per cent of sunshine. Rows: April 6, April 13, April 20, April 27, May 4, May 11, May 18, May 25, June 1, June 8, June 15.

GENERAL SUMMARY.

The improvement which has characterized the weather since the last of May continued during the past week. It was the warmest this season, and with one exception, the wettest. The maximum temperatures, with few exceptions, occurred on the 14th. In the western half of the State they ranged from 98° to 103°, and in the eastern half of the State from 87° to 99°. The minimum temperatures generally occurred on the 10th and ranged from 41° in the central western to 59° in the southeastern counties. Showers occurred on two days in the western and three days in the eastern counties with generally four clear days.

EASTERN DIVISION.

Allen.—The mean temperature was 2° above the normal. Thundershowers occurred on the 9th, 12th, and 14th. The total rainfall was 1.50 inches, of which 1.45 inches fell on the 9th. There was much sunshine.

Anderson.—The week began with fine rains and temperature about normal. It ended much warmer, with clear weather.

Bourbon.—Over an inch of rain fell on the 9th and was succeeded by seasonable temperatures which lasted till the week closed.

Brown.—Good rains on the 9th and 10th and seasonable temperatures on every day made this a very favorable week.

Chase.—The weather has been very favorable to crops. A quarter of an inch of rain on the 9th helped some. Temperatures rose to or above 90° on the last five days.

Chautauqua.—A good rain the first of the week, followed by rising temperatures, was beneficial to all growing crops.

Coffey.—This has been a fine week. Five days were clear, one partly cloudy, and one cloudy.

Elk.—The weather conditions have been the best of the season for growing crops.

Franklin.—Good rains, seasonable temperatures, and abundance of sunshine were experienced.

Greenwood.—Good rains fell over the county the first of the week and temperatures above 90° occurred the last three days.

Jefferson.—Moderate rains fell on the 9th and 10th and were followed by seasonable temperatures till the week closed.

Johnson.—Two inches of rain the first part, and warm weather the latter part, greatly accelerated the growth of crops.

Labette.—Seasonable temperatures and a good rain occurred the first of the week, warmer weather and an abundance of sunshine the latter part.

Linn.—Good showers fell on the 9th, 10th, and 12th and seasonable temperatures prevailed.

Lyon.—Nearly an inch of rain fell on the 9th. The maximum was above 90° on the last three days.

Marshall.—Temperatures rose steadily as the week progressed, a maximum of 97° being attained on the 15th. Good rains fell on the 9th and 10th.

Miami.—Heavy rains again occurred this week, but were followed by much clear and warm weather.

Montgomery.—The week began with a good rain followed by seasonable temperatures and sunshine.

Osage.—Rains on the 10th, 12th, and 13th aggregated 1.76 inches. Temperatures were seasonable.

Riley.—Heavy rains fell on the 10th and 12th. Temperatures were above 91° on the last four days.

10th in the southern part of the county, but rather light in the northern part. A temperature of 100° occurred at Cunningham on the 14th.

Kiowa.—The rainfall, 0.96 of an inch on the 9th, was rather light, but high temperatures were favorable to growing crops.

McPherson.—Hot, growing weather prevailed, with rains on the 9th and 10th that amounted to 0.67 of an inch.

Osborne.—Temperatures were abnormally high, a maximum of 103° occurring on the 14th and 101° on the 13th, with nights correspondingly warm. A moderate rain fell on the 9th.

Ottawa.—The latter days were very hot, the others about normal. An excessively heavy rain of 2.62 inches fell on Sunday night, the 9th.

Pawnee.—A good rain fell on the 9th. The fore part was warm, the latter part very hot, with a maximum temperature of 100° on the 14th.

Phillips.—Moderate rains fell on the 9th and 10th and were followed by rising temperatures, a maximum of 100° being attained on the 13th, 14th, and 15th.

Pratt.—Good rains fell on the 9th and 10th. Clear and much warmer weather followed.

Republic.—There was a steady rise in temperatures from the beginning to the end of the week. Rains, amounting to 0.42 of an inch, fell on the 9th, 10th, and 11th.

Saline.—A rain of 0.63 of an inch, accompanied by a hard wind storm, occurred on the evening of the 9th from 6.30 p. m. to 11 p. m. Temperatures were high the last five days.

Sedgewick.—A good rain on the 9th was followed by much sunshine and hot, seasonable weather the rest of the week.

Stafford.—A much-needed rain of 0.47 of an inch fell on the 10th, after which temperatures rose till a maximum of 100° occurred on the 15th.

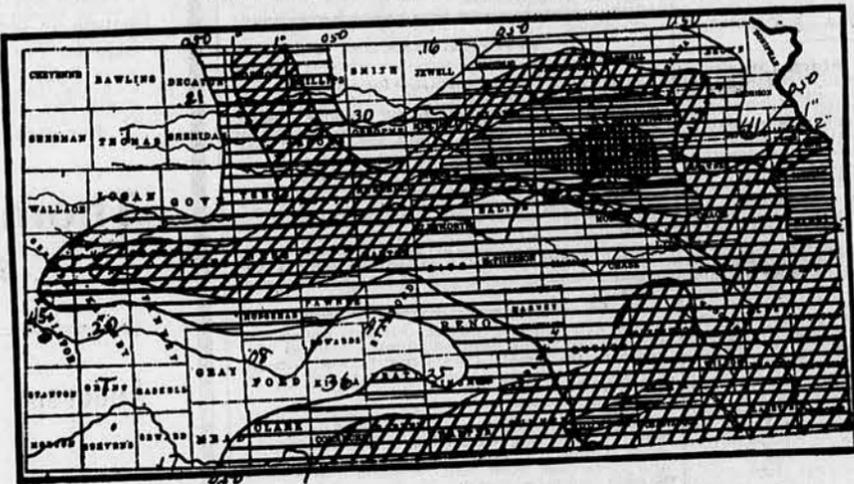
Washington.—The week was characterized by much warm, clear weather which was preceded by rains on the 9th and 10th.

WESTERN DIVISION.

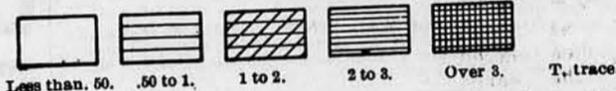
Clark.—A rain of 0.84 of an inch fell on the 9th, but clear and very warm weather followed.

Decatur.—Following a rain of 0.21 of an inch on

RAINFALL FOR WEEK ENDING JUNE 15, 1907.



SCALE IN INCHES:



Shawnee.—The warmest and best growing weather of the season prevailed this week. Good showers on the 9th, 10th, and 12th were followed by four days with the temperature from 3° to 7° above normal, and an abundance of sunshine. The rain on the 12th came with a violent thunderstorm and high wind.

Wabaunsee.—Clear days, warm weather, and good rains were the characteristics of this week.

Wyandotte.—Except on Sunday and Monday, the temperature was slightly above normal. Hail fell during a thunderstorm on the 13th. Ample sunshine and good rains occurred.

MIDDLE DIVISION.

Barton.—Showers, amounting to 0.93 of an inch, fell on the 9th and 10th. Temperatures rose steadily till a maximum of 100° was recorded on the 14th. High winds blew on five days.

Butler.—Good rains on the 9th and 10th were followed by rising temperatures till the week closed.

Clay.—Rains exceeding one inch, fell on the 10th and also on the 12th. The temperature rose to or above 90° on each of the last five days.

Cloud.—Temperatures rose steadily from 1° below normal on the 9th to 11° above normal on the 15th. A good rain fell on the 9th, but the sky was mostly clear the other days.

Ellis.—Warm winds and clear days followed a rain of 1.57 inches on the 9th.

Ellsworth.—On the 9th and 10th, 0.87 of an inch of rain fell. Abnormally high temperatures followed.

Harper.—A good rain of 1.15 inches on the 9th was followed by warm and very favorable weather the rest of the week.

Jewell.—This was a very warm week, a maximum of 93° occurring on the 14th. The rainfall was light and there was much sunshine.

Kingman.—The rainfall was heavy on the 9th and

the 10th, there was a steady rise in temperature till a maximum of 100° was reached on the 15th. After the 9th, every day was clear.

Ford.—The mean temperature, 76°, was 4° above the normal. The precipitation was but 0.08 of an inch.

Grant.—Much warm and favorable weather occurred, but only a trace of rain fell and the ground is getting quite dry.

Hamilton.—The nights were cool all week, the temperature reached or exceeded 90° every day. On the 9th, 0.45 of an inch of rain fell.

Kearny.—A light rain on the 9th was succeeded by hot, sunny weather till the week closed.

Lane.—The weather was hot, with a maximum of 101° on the 14th. A good rain fell on the 9th and the other days were clear and dry.

Norton.—Very favorable weather prevailed. Over an inch of rain was received on the 9th and 10th, temperatures were high and much sunshine occurred.

Scott.—A fine rain of 1.58 inches fell on the 9th, the first heavy rain since May 3. The days that followed were warm and clear and very favorable to crops.

Seward.—Temperatures ranged from a minimum of 45° on the 5th to a maximum of 98° on the 14th. The rainfall was light.

Sherman.—This has been a week of warm, clear days, ending with a quarter of an inch of rain on the 15th.

Thomas.—Temperatures averaged the highest of the season and were very favorable. Traces of rain fell on the 9th and 15th.

Trego.—Rains, amounting to 0.81 of an inch, fell on the 9th and 10th and were followed by five warm days, with southerly winds.

Wallace.—This was a hot, dry week, the rainfall being but 0.02 of an inch and the temperature reaching 99° on the 14th.

portunity knocks once at our door and departs never to return. Let every horse-owner who reads this take advantage of this opportunity and send at once for the book and box of Gall Cure.

Will Exhibit at Kansas City.

The Kansas State Agricultural College intends to have a large exhibit of various agricultural and horticultural products and a few head of fine stock at the Interstate Fair and Exposition at Elm Ridge track in Kansas City in September. Professor TenEyck has requested the management of the Interstate Fair to reserve fifty feet of wall space and table space the length of one side of the building for the Kansas Agricultural College exhibit.—Manhattan Mercury.

Kansas City Grain Market.

Receipts of wheat in Kansas City to-day were 115 cars; Saturday's inspections were 56 cars. Prices were 10c higher for hard and unchanged to 1c higher for soft wheat. The sales were: Hard Wheat—No. 2, 1 car 87 1/2c, 4 cars 88c, 4 cars 88 1/2c, 6 cars 88c, 1 car 87 1/2c, 6 cars 87 1/2c, 1 car 87c, 1 car 88c, 1 car 88c, 2 cars 88c, 2 cars 85 1/2c, 1 car 94c, 1 car 92c, 1 car 86c, 1 car 84c, 6 cars 83c, 6 cars 82c, 1 car 77c, 2 cars 76c, 1 car 76c, 1 car 76 1/2c, 3 cars 75c, 2 cars 73c. Soft Wheat—No. 2 red, 4 cars 90c; No. 3 red, 1 car 89c, 11 cars 88c, nominally 87@89c; No. 4 red, nominally 76@87c.

Mixed Wheat—No. 2, 2 cars 88 1/2c, 1 car 88c, 1 bulkhead car 81c, 1 car 77 1/2c. Durum Wheat—No. 2, 1 car 83c.

Receipts of corn were 51 cars; Saturday's inspections were 46 cars. Prices were 1/4@1 1/4c higher. The sales were: No. 2 white, 4 cars 50 1/2c; No. 3 white, 2 cars 50 1/2c, 2 cars 50c, 2 cars 49 1/2c; No. 2 mixed, 5 cars 50c, 13 cars 49 1/2c, 3 cars 49 1/4c; No. 3 mixed, 5 cars 49 1/2c, 14 cars 49c, 1 car 49 1/4c; No. 2 yellow, 4 cars 50c; No. 3 yellow, 1 car 49 1/2c, 1 car 49c; no grade mixed, 1 car 46 1/2c.

Table with columns: Open, High, Low, to-day, Closed, Sat-day. Rows for WHEAT and CORN.

Kansas City Live Stock Market.

Kansas City, Mo., June 17, 1907. The supply of 12,000 cattle to-day is larger than was expected, but the increase is in the quarantine division, where 6,000 cattle are

KANSAS FARMER CROP REPORT.

EASTERN DIVISION.

Allen.—Good rains and warmer weather have improved all crops.

Anderson.—The fine rains on three days and the warm weather greatly improved corn and pasture.

Chase.—Showers Sunday and Monday followed by high temperature being favorable to crops in this county.

Coffey.—Fine showers with much clear, warm weather makes the corn crop.

Elk.—Best weather conditions of the season. Everything growing rapidly.

Montgomery.—The week came in with a good rain, followed by seasonable temperature and sunshine. Heavy dews at night. Crops have made rapid growth. Wheat harvest begun.

Phillips.—Good rain on 9th. Temperature up to 100° on 13th, 14th, 15th, with high south winds drying out the ground rapidly.

Sedgewick.—Good rain on 9th followed during the remainder of week by much sunshine and hot seasonable weather.

Washington.—Since the rains of last week wheat has improved wonderfully. Corn is also doing finely.

Grant.—Getting pretty dry.

Norton.—This has been a fine week for working corn and the weather has been very favorable for its growth, and for wheat and grasses of all kinds.

Horse-Owners, Don't Miss This.

Every one having the welfare of his beast at heart is anxious to make him as comfortable as possible both while in the harness and out of it. These patient servants of man amply repay the attention given them, and the more perfectly their needs are looked after the better service they will render. A copy of "The Horse Book" published by the Bickmore Gall Cure Co., of Old Town, Me., should be in the hands of every horse-owner. The response to their offer last year has induced the Bickmore Gall Cure Co. to repeat it again this season. To every reader of THE KANSAS FARMER sending name and address and 10 cents to cover cost of postage and mailing, a copy of "The Horse Book" and a sample box of Bickmore's Gall Cure will be sent free. It is said op-

yarded to-day. The movement of grassers from the South is on in fairly good force, but these cattle are of a class that do not compete with stuff in the native division very much. To-day the market on natives and on fed quarantines is strong to 10c higher, while grass cattle are weak to 10c lower. Last week steers closed 10@25c higher for the week, with heavy weights showing most strength, whereas light steers have had the call previously. To-day the situation is still further adjusting itself, heavy steers selling 10c higher, top price \$6.50, while light cattle are about steady. Cows and heifers met a decline of 10@25c late last week, and are steady to weak to-day. Too many cattle of this class are coming, and commissionmen are urging shippers to stand loyal in the fight that is being made against selling them subject to post mortem inspection. The big body of shippers are in full sympathy with this movement, and those who are slipping in a few cows and heifers to the packers now are, as a rule, speculators without any permanent standing, who see a present profit, but who care nothing for the ultimate outcome of the controversy. Of course, there are cases where she stuff is forced to come to market, but the outlet to independent buyers is ample for the supply from this source. Fair to good fed steers are selling at \$5.50@6.25, heifers \$4@5.25, cows \$3.25@4.55, bulls \$3.50@5.25, calves \$4.50@6.75, stock steers \$3.50@4.75, feeders \$4.25@5.00.

Buyers succeeded in breaking the hog market badly late last week, but this also had the effect of shutting off supplies to-day all around. Run is 6,000 to-day here, only half the supply on recent Mondays, market 5@10c higher, closing at the best point. Everything sold below \$6 on Friday, but to-day nearly everything sold above that figure, top \$6.10, bulk of sales \$5@6.05. Market is likely to be on the see-saw order for awhile, very sensitive to volume of supply.

The recent phenomenal prices paid for sheep and lambs resulted in shutting off a good portion of the consumptive demand for mutton, and the market broke badly in the East ten days ago. The decline reached this point early last week, and although the supply was small, prices declined 25c on sheep and 25@50c on lambs during the week. Run is 6,000 to-day, market weak to lower, lambs off 10@15c, top spring lambs around \$8, yearlings \$7, ewes \$5.65, wethers \$6.25. Texas muttons sold at \$5.75 to-day, goats \$4.50.

J. A. RICKART.

South St. Joseph Live Stock Market.

South St. Joseph, Mo., June 17, 1907.

A much lighter run of cattle at all points than was in sight a week ago was probably influenced to some extent by the extreme hot weather of the last few days. The demand for beef cattle, however, proved very strong and the lighter receipts resulted in a strong upward movement of prices. All classes of steers sold fully a dime higher, and they were taken as fast as they were yarded and ready for market. Very choice steers weighing slightly above 1,100 pounds sold up to \$6.30 which was the top price of the season at this point, although heavier cattle of the same quality would perhaps bring \$6.50 or over. Quite a number of medium strong weight steers sold at \$6@6.25 and just ordinary to good light to medium killers made \$5.25@5.75. Common light killers are quotable at \$4.50@5. Several bunches of Southern are on offer in the quarantine division and sold readily at the full strength of the market. The very few cows and heifers on offer sold strong but there is no call for liberal receipts as long as this fight on the post mortem inspection continues. Calves were a quarter lower; there was practically no stocker and feeder trade. Moderate supplies of thin steers fit for the pasture and feed lot would meet ready outlet here.

The falling off of more than one-third in the volume of hogs at all points compared with a week ago was responsible for a very sharp up turn in prices. Local prices ruled 10@12 1/2c higher and the supply was very quickly picked up. Tops sold up to \$6.07 1/2 with the bulk at \$5.95@6.05. It remains to be seen whether this is a beginning of a period of lighter receipts; should the volume of supplies return to the big figures of last week, there would perhaps be another reaction to lower prices.

The receipts of sheep and lambs continue very light, and the local market showed a little return to strength to-day. It is not likely that sheep will be liberal for another month at least.

WARRICK.

Special Want Column

"Wanted," "For Sale," "For Exchange," and small want or special advertisements for short time will be inserted in this column without display for 10 cents per line of seven words or less per week. Initials of a number counted as one word. No order accepted for less than \$1.00.

CATTLE.

FOR SALE—Good milch cow. E. B. Cowgill, 1325 Clay St. Topeka, Kans.

JERSEY BULL—Pedro and St. Lambert blood, fine individual; also a heifer and calf for sale. J. S. Taylor, Route 5, Lawrence, Kans.

FOR Red Polled bulls or heifers, write to Otto Young, Udca, Ness County, Kans.

DOUBLE-STANDARD POLLED DURHAM BULLS—Extra good quality, well bred, good color. Address C. M. Albright, Overbrook, Kans.

SPECIAL SALE—5 straight Crutchshank Short-horn bulls for sale at bargain prices for quality. H. W. McAfee, Topeka, Kans.

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

SEEDS AND PLANTS.

SEEDS FOR LATE SOWING.

FOR SALE—Cow-peas, Cane Millet, Buckwheat, Milo Maize, Kaffir corn, Rape, Turnip, and all other seeds. Ask for prices. Kansas Seed House, The Barteldes Seed Co., Lawrence, Kans.

SWEET POTATO PLANTS—8 varieties; also tomatoes and cabbage. \$1.75 per 1,000; less than thousand, 20 cents per hundred. All varieties. Have the famous Southern potato "Pumpkin Yam." Prompt shipment. W. A. Schreier & Son, Argonia, Kans.

PLANTS—Cabbage, Early Jersey Wakefield, Winnigstadt, Early Summer Flat Dutch and Succession 20 cents per hundred, \$1.50 per thousand. Sweet Potato, Yellow Jersey, and Yellow Nansmond 20 cents per hundred; \$1.50 per thousand; Red Jersey, Red Bermuda, Black Spanish Southern Queen, 25 cents per hundred, \$1.75 per thousand. F. P. Rude & Son, Ind. Phone 4003, North Topeka, Kansas.

Trees At bargain prices. List now ready tells all about our cleaning-up sale of choice trees. Send for it to-day. Easterly Nursery Co., Cleveland, Ohio.

SWINE.

FOR SALE—Thoroughbred Duroc Jersey boars large enough for service; also my herd boar. Prices right. Address I. W. Poulton, Medora, Reno Co., Kas.

POLAND CHINAS—A few extra fine gilts bred for September and October farrow; farm raised; prices right. C. E. Romary, Olivet, Kans.

POLAND-CHINAS—A special lot of fall boars, smooth, stretchy kind, large bone, of approved breeding at bottom rock prices. 150 to 225 pounds. A. P. Wright, Valley Center, Kans.

FOR SALE—A fine Berkshire herd boar, 18 months old. Best breeding in the land. G. D. Williams, Route 3 Inman Kans.

FOR SALE—Forty registered Duroc sows and gilts bred for August and September farrow. Also a few unpedigreed sows, bred to fine boars. R. O. Stewart, Alden, Kans.

HORSES AND MULES.

FOR SALE—A Jack Daw stallion, dam Happy Heir; 4 years old, color dark brown and nicely marked. Good disposition, stylish driver, time 2:38. Can be seen for a short time at 523 Van Buren St., Topeka, or write F. R. Baker. A bargain.

PERCHERON STALLION FOR SALE—Owing to circumstances I am forced to sell my 7-year-old registered Percheron stallion. He is sound, kind, big; has fine action and is a perfect show horse. Will fully guarantee him. Terms: Cash, approved notes, or will trade for cattle. J. B. Weldon, Eureka, Kans.

TWO JACKS FOR SALE—3 and 4 years old, Missouri bred. Address S. C. Hedrick, Tecumseh, Kans.

FOR SALE—One black team, 6 and 7 years old weight 2800 pounds. Mr. and Mrs. Henry Schrader Wauneta, Kans.

FOR SALE—Registered Percheron stallion colt, yearling. Dapple black. American-born but has more style and action than his French ancestors. He will weigh 2,000 pounds when matured. Sidney S. Linscott, Holton, Kans.

MISCELLANEOUS.

FOR SALE CHEAP—Or trade for cattle, horses or hogs, \$1200 grinding outfit, in first class shape, consisting of a 10-horsepower Lewis gasoline engine, one No. 7 and one No. 3 Brown grinders, one sheller with all belts, elevators and attachments complete. Will sell for less than half the cost. Address C. R. Ryan, 400 S. Esplanade, Leavenworth, Kans.

FOR SALE—A complete threshing outfit. A bargain if sold soon. Address J. O. White, Sterling, Kans.

FOR SALE—One 14 horse-power Minneapolis Tractor Engine. Address, J. E. Kumlil, Marquette, Kans.

VISITING CARDS FREE.—Send six names and addresses of young people wanting a business education to the Omaha Commercial College, Omaha, Neb., and in return get your name elegantly written on six cards.

RUBAL BOOKS—Send for descriptive list of book for farmers, gardeners, florists, architects, stock raisers, fruit-growers, artisans, housekeepers and sportsmen. Sent free. Address The Kansas Farmer Company, Topeka, Kans.

DRUGS AND PHOTO SUPPLIES—Eastman's Kodak, Premo Cameras, Velox and Sollo paper. Films for all cameras and kodaks. Fred T. Walker, 825 Kansas Ave., Topeka, Kans.

FOR SALE—Special bargains in rebuilt engines and separators. They will make you money. Write us quick before they are all sold. The Gelsler Manufacturing Co., 1410 Union Ave., Kansas City, Mo.

WANTED—A secondhand traction engine, not less than 16 horse power. Dr. W. E. Barker Chouteau, Kans.

Stray List

Week Ending June 6.

Barton County—H. D. Ashpole, Clerk. STEER—Taken up by Andy Gell in Clarence tp., May 23, 1907, one black steer, about 18 months old, small cut on lower side right ear; valued at \$20.

Crawford County—Fred A. Gerken, Clerk. Pony—Taken up by John F. Ruby in Mc Cune tp., April 27, 1907, one 8-year-old bay pony, female, weight 800 pound, star in forehead.

Week Ending June 13.

Chautauqua County—L. G. Wells, Clerk. HORSE—Taken up by J. W. Ellis in Niota, Kansas, May 21, 1907, one light bay, 4 foot 11 inches high, weight 1,100 pounds, 9 or 10 years old, bald face, blind in left eye, left hind foot white, C brand on left jaw; valued at \$100.

Week Ending June 20.

DICKINSON COUNTY—H. W. King, Clerk. STEER—Taken up by Gustaf Albrecht, in Union tp., May 29, 1907, two 3-year-old steers; one brown, with half tail, branded V on left hip; the other red, white face and legs, branded A on left hip, and O on left hind leg. Valued at \$25 each.

BROWN COUNTY—Jessie Campbell, Clerk. Cow—Taken up by L. P. Larson, in Powhattan tp., May 25, 1907, one light red cow, notch on top of right ear, white bush on tail, dehorned, weight about 850 lbs; valued at \$20.

[First published in The Kansas Farmer, June 6, 1907.]

Publication Notice.

In the District Court of Shawnee County, Kansas.

Fannie E. Seymore, Plaintiff, vs. Edward J. Seymore, Defendant. No. 24447.

The State of Kansas to Edward J. Seymore: You will take notice that you have been sued by Fannie E. Seymore in the District Court of Shawnee County, Kansas, in the above entitled action and that you must answer the petition filed by said plaintiff in said cause on or before the 25th day of July, 1907, or said petition will be taken as true and judgment rendered accordingly against you in said action for divorce in favor of the plaintiff and for other and further relief as equity may require.

(Seal) R. L. THOMAS, Clerk of the District Court of Shawnee County, Kansas.

By JENNIE C. ROSEN, Deputy. A. B. JETMORE, Attorney for plaintiff.

LEGAL.

FRED C. SLATER, Lawyer, Topeka, Kansas.

Collections made in all parts of the country. Advice given on matters by mail. Inheritances collected and estates investigated in all parts of the world

SALE EXTRAORDINARY

REGISTERED

Aberdeen-Angus Cattle

ON WEDNESDAY, JULY 10, 1907, we will sell at PUBLIC AUCTION at our farm 57 HEAD of splendid young cows, many with calves at foot and in calf. These young cows are with two or three exceptions, of our own breeding, and the get of imported Erica, Pride and Blackbird bulls of unexcelled breeding and quality, from the herds of the late Queen Victoria, Ballindalloch, Aberlour, etc., and are mostly all in calf to bulls of that character. The cows are of the best families of the breed, Ericas, Coquettes, Queen Mother, Bloomers, Brucehill Violets, Lovelys, etc., and are in good, thrifty breeding condition. A few bulls may also be offered.

Don't miss this opportunity to get bargains, caused by the herd outgrowing the accommodations of the farm.

Sale at our Allendale Farm, 5 miles east two north of Iola, and 3 miles north one west of LaHarpe, in Allen County, Kansas—both points on the M. K. & T. Ry., the Missouri Pacific Ry., and the former also on the Southern Kansas branch of the Santa Fe Ry., and from both points the Electric Ry. runs quite close to the farm. Take Concrete car. Sale begins at 10 o'clock a. m.

For catalogues apply to

Thomas J. Anderson, Manager  
Gas, Allen County, Kansas

Anderson & Findlay, Proprietors, Lake Forest, Ill.

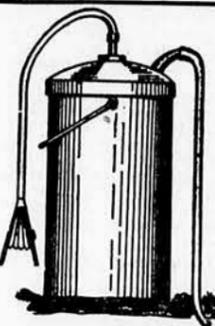
Col. L. Burber, Col. Silas Igo, Auctioneers.

PUBLIC SALE Registered Percherons Registered Herefords

14		5
Mares		Stal- lions
10		5
Cows		Bulls

Sale to be held at New Sale Pavilion, State Fair Grounds, Hutchinson, Kans., June 25, 1907, at 1:30 p. m.

For catalogue address, T. L. MURRAY, Hutchinson, Kans.



Destroy the Gophers In Your Alfalfa Fields by Using Saunder's Gopher Exterminator

This apparatus forces a deadly gas through their runways and is warranted to kill gophers within 100 feet of operation. With it a man can clear from five to six acres of gopher-infested land in a day at a cost of twenty cents per acre. The poison we use can be gotten at any drug store. Satisfaction guaranteed or money refunded. Complete outfit for \$5.

Flint Saunders, Lincoln, Kans. Mention the Kansas Farmer.

FOR \$10.00 PAID ON INSPECTION

You can secure a genuine JONES 5 Ton \$45.00 Wagon Scale, all steel trussed levers, brass complete beam without loose weights, beam box, platform 14 x 8, for pit or without. Warranted against all defects. I, EDWARD F. JONES, personally guarantee this scale. Pay balance when ship comes in. Send me a postal for my new plan. Address only JONES He Pays the Freight. Box 436 A, Binghamton, N. Y.