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KANSAS FARMER.

Established in 1863.

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The Shawnee County Horticultural Society will hold its regular monthly meeting on August 6 next at the home of J. S. Jordan, Wakarusa. Owing to the flood in June the meeting for that month was necessarily dispensed with, as it had been appointed for Mr. Cecil's place north of the river. The July meeting was also called off because of the fact that the Vinewood Park Railroad was not in shape to carry the members to the meeting point along its line. The August meeting then will be the first in three months and it is hoped that there will be a full turnout.

BLOCKS OF TWO.

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

MAY A FARMER CROP THE RAILROAD RIGHT-OF-WAY THROUGH HIS LAND?

EDITOR KANSAS FARMER:—I have a farm which is crossed by the Union Pacific Railway, making one-half mile right-of-way. I wish to know after I have farmed said right-of-way for years to keep weeds down and incidentally for what crops I could take off, can the section boss crop said land to potatoes, and order me not to plow across the line? Does not the same law govern in both railroad and wagon-roads? The right-of-way is fenced. Marshall County. THOS. WILLIAMS.

1. Investigation would probably show that the section boss acts in this matter with the authority of his employer so that his order is substantially that of the railroad company.

2. The question of the right of the section boss to crop the right-of-way is a difficult one. Neither he nor the railroad company probably has such right; but who has any authority to interfere, if the railroad company consent, unless his cropping shall interfere with somebody's use of the railroad as such for purposes of passage?

3. Railroad companies are held to a rigid accountability as common carriers for the safe and speedy transit of persons and property over their lines. This accountability warrants the railroads in insisting upon such control of their rights-of-way as shall enable them to perform their duty to the public. The courts are liberal in conceding this control to the extent of sanctioning their rights to exclude all use of the right-of-way for other than purposes directly connected with the use of the railroad as a common carrier, except such crossings as may be needed for public highways or for other common carriers.

Nearly all railroad rights-of-way are easements much like the easements enjoyed by the public in the common highways, except that in the case of the railroad the easement is to the specified company, while in the case of the common road the easement is to all the people. In either case abandonment of the right-of-way causes the land to revert to the abutting owners. Railroad companies are apt to treat their rights-of-way as their own property in fee simple. The Union Pacific Railroad right-of-way was granted by act of Congress while the land belonged to the Government and the company sometimes makes strong claims on this account. It is probable that its right to exclude farmers from cultivating the right-of-way rests more securely on the company's obligations to furnish safe and speedy transportation and whatever increase there may be of dangers of accidents from the use of the ground for agricultural purposes rather than on any priority or right of exclusion gained from acts of Congress.

These points are discussed with a full-realization of the fact that there are people who expect the editor of an agricultural paper to "give it to the railroads right or wrong." But this correspondent asks for sound advice with a view of ascertaining his rights and those of his neighbor, the railroad. If he had wanted a fight, regardless of consequences, he would have gone to town and hired the most belligerent attorney he could find and demanded that this lawyer fight the railroad at his expense. He would probably have lost, besides spending more money than the use of the land would be worth in a lifetime. The KANSAS FARMER is hot conducting a legal bureau, but when a reader asks for advice the editor tries to give him such as he would act upon in like circumstances.

A GOOD APPOINTMENT.

The Kansas Commission for the World's Fair in 1904 have appointed W. F. Schell, Wichita, proprietor of the Wichita nurseries, as manager of the Kansas horticultural exhibit. Mr. Schell is a practical man who has long been one of the most active members of the State Horticultural Society and is in every way fitted for this position. Indeed we regard him as one of the best-equipped men that could have been found in the State. It is with regret that we notice the following from Wm. H. Barnes, secretary of the State Horticultural Society, who in a recent letter to the Kansas Commission says:

"The society has but one choice, which it indicated to your commission at its meeting June 25. Missouri and other States put this in the hands of the secretary of the State Horticultural Society. The Kansas Society has indicated that it expected the same treatment. Any other will displease and disappoint. The appointment of Mr. Schell, who is practically unknown to our members, will antagonize the great majority, and they will never get over it. The society made its choice long ago. Further than this it is indelicate for me to say."

Mr. Barnes as secretary of the State

Society has ample work to do and could not very well fill both positions, and the KANSAS FARMER trusts that in view of his official position and loyalty to Kansas he will most heartily cooperate with Mr. Schell in getting up a creditable horticultural display for Kansas at the World's Fair at St. Louis in 1904.

PLOWING AFTER HARVEST.

During the present season when the rainfall has been so abundant it will doubtless be true that many grain fields will be found to be well stocked with weeds which will develop rapidly after harvest and mature their seeds early. When such a condition exists it is impossible to get the plow in the field too soon, as it will be necessary to turn these weeds under before the seed has sufficiently matured to admit of their germination. On the other hand, where the stubble-field is comparatively free from weeds it will be found to be a very good plan to disk the field and thus allow the shattered grain and weed seeds to germinate and furnish pasture until time for plowing for the next season. This plan also has the merit of protecting the soil against washing in heavy rainfalls and leaching its substance and thus injuring its fertility. In all such matters the farmer will be guided by circumstances. It may be sufficient to mow the field and so destroy the seed crop of the weeds and at the same time preserve a stand of stubble and second growth that will protect the land against washing. In the great wheat regions of the State it will be found generally true that the man who plows immediately after harvest will succeed in destroying the next crop of weeds, will green-manure his land, and will have better returns the next season.

THE FARMER AND STOCKMAN.

The Live Stock Indicator, which for the past ten years has been owned and published by the Iowa Homestead Company, Des Moines, Iowa, announces a change in name. The Indicator was originally established in Kansas City about twenty-six years ago, but was sold in 1893 to the Iowa Homestead Company. The new name of the Indicator will be the Farmer and Stockman, but the publishers promise no other change either in form or management. It is proposed to open an office in Kansas City for the newly named paper with Theodore W. Morse in charge. Mr. Morse is a graduate of the State Agricultural College of Kansas who received his preliminary knowledge of agricultural matter under the tuition of his father on the home farm near Pleasanton, Kans. His wife is also a graduate of the State Agricultural College where she later held a position as instructor in one of its departments. 'We wish for Mr. Morse and wife a prosperous sojourn in their new home in Kansas City. The Farmer and Stockman will continue to be published at Des Moines as was the Indicator.

The number of homesteads entered in British Columbia during April was 4,675, or 600 more than double the number entered in the corresponding month of last year.

Agricultural Matters.

REPLIES FROM THE AGRICULTURIST AT KANSAS EXPERIMENT STATION.

Bacteria-Infected Soil.

I would like to inquire about what I will call seeding the soil with earth taken from infected fields for the benefit of alfalfa and leguminous plants. What time of the year should it be applied? Do you furnish it to applicants and what will be the cost of same?

J. W. JOHNSON.

Leavenworth County.

We can supply you with a limited quantity of soil which is infected with alfalfa bacteria, and also with the soil which is infected with the soy-bean bacteria, at the rate of 50 cents per hundred pounds f. o. b., Manhattan. You may be able to secure infected soil nearer home. The soil from almost any old alfalfa field which has produced profitable crops and which is still in thrifty condition is almost certain to be infected with the alfalfa bacteria. In order to prove that the soil contains the alfalfa bacteria a careful examination of the roots of the plants growing on the field may be made. If the roots which grow near the ground are covered with little warts or tubercles the bacteria are present. The presence of the tubercles on the roots of any leguminous plants is sufficient proof that the soil is infected with the particular bacteria which that crop requires.

Recent investigations seem to prove that each species of leguminous plants require a particular bacterium which works upon its roots. That is, the bacteria which work upon alfalfa will not work upon clover or cow-peas, and vice versa.

The infected soil may be applied at the time of planting, in the furrows with the soy-beans or scattered over the ground broadcast when the alfalfa is sown. As to the time of year at which the soil should be applied the springtime is best, although in the case of fall-seeding of alfalfa the infected soil may be applied at that time. In case the alfalfa is already sown the soil may be scattered over the field early in the spring and by disking or harrowing, thoroughly mixed with the soil of the field. I have usually recommended sowing three or four hundred pounds of infected soil per acre for thorough inoculation; for partial inoculation, 100 pounds of soil per acre. Recent experiments in other States have demonstrated that small amounts of the infected soil carefully sprinkled over the land will in a very short time inoculate all of the plants growing upon the field. In case this does not occur in a year or so after sowing the infected soil, and the alfalfa dies out or does not thrive, the land may be plowed and thoroughly cultivated thus distributing the bacteria, when the field may be reseeded to alfalfa and the second crop will usually be very thoroughly infected.

A. M. TENEYCK.

Alfalfa and Other Grasses in South-eastern Kansas.

Will you please tell me if you can supply alfalfa inoculated soil for alfalfa seeding?

My experiments with alfalfa on my ranch in Coffey County have not been very successful and I would like to try inoculation on about twelve acres this fall. I notice considerable Oxalis (both yellow and blue) in one of the alfalfa-fields that has done practically nothing. Is this an indication of undue acidity of the soil? I shall be very glad for any pointers you can give me in growing alfalfa in the neighborhood of Coffey County and also for information regarding other crops that will prove good for either temporary or permanent hog-pasture in this locality. Information regarding English blue-grass (meadow fescue) and Bromus inermis will be appreciated also. I am recently from Iowa and think you can likely aid me in these respects, perhaps saving me some costly errors.

Allen County. J. H. BROWN.

We can supply you with a limited quantity of soil infected with the al-

alfa bacteria, for 50 cents per hundred pounds f. o. b., Manhattan. Perhaps you may be able to get infected soil nearer home.

The presence of a small amount of Oxalis in your alfalfa-field does not necessarily indicate that the soil is acid. If the weed is very abundant and luxuriant in growth it may indicate an acid soil. As an experiment try liming a small area of your alfalfa-field and note results.

Under separate cover, bulletin No. 114 has been mailed you in which you will find information relative to the growing of alfalfa. In case you are not able to discover tubercles upon the roots of the alfalfa plants I think it worth while for you to try the infected soil on part of your field.

If you can get alfalfa to grow well there is no better pasture for hogs. You ought to be able to grow clover in your locality, and next to alfalfa clover makes the best hog pasture. A mixture of fifteen pounds of orchard-grass and fifteen pounds of English blue-grass with three or four pounds of red clover per acre has made a good pasture at this station and ought to do well in Coffey County. Bromus inermis has proven to be an excellent pasture-grass at this station so far as it has been tested. The Bromus inermis might be seeded with alfalfa or clover for a hog pasture.

For annual pasture for the early part of the season you might have sown a mixture of barley and oats, for fall pasture sow rape. This crop furnishes an abundance of feed, and hogs soon learn to like it and do well when pastured upon it. Rape may be sown for fall pasture as late as August 1, although earlier sowing would be better. By sowing rape at intervals during the season, beginning in April, you would by a succession of crops be able to have a continuous pasture from the middle of June until the ground freezes in the winter. Cow-peas and soy-beans sown in June or July will also make an excellent fall pasture for hogs and cattle.

I refer you to press bulletin No. 125, just issued by this station, giving information regarding meadow fescue and Bromus inermis.

A. M. TENEYCK.

Soy-beans in Corn-rows for Pasture.

Do you think it would pay at the present price of seed to drill soy-beans or cow-peas between the corn rows to pasture with corn-stalks? I want them as a fertilizer more than anything else and thought perhaps I could get enough pasture from them to pay for the seed. Which would you advise to plant, cow-peas or soy-beans, say about July 10 to 15 when corn is cultivated the last time? Thought I would drill the peas between the rows with the corn-drill, and next spring when I list, plant between the corn rows or where the beans would be this season. I thought I would try a few acres if you do not think it too late, and if they are a good fertilizer and increase the corn crop would drill them in all of my corn hereafter when it is plowed the last time.

If you have any bulletins on cow-peas or soy-beans please send me one and oblige,

S. T. MARSHALL.

Cowley County.

I am not sure that it would be a profitable investment to plant any large area of cow-peas or soy-beans in the corn at the last cultivation this season, considering the high price you will be obliged to pay for the seed. As a general proposition I think the practice would be an excellent and profitable one to follow and it will be a good plan for you to begin the practice on a small scale this season. There is little doubt but that the pasture which you would be able to get from the crop in a favorable season would pay for the seed and your land would receive the benefit of an increased store of nitrogen from the growing of the cow-peas or soy-beans upon it.

Cow-peas are considered better for pasturing and forage than soy-beans, although the latter are used perhaps fully as much for this purpose. I would recommend to plant whichever one you can secure seed of the most cheaply and conveniently. The peas or beans may be planted in the corn even

later than July 15 although the earlier the planting the surer will be the germination and the larger the growth. I think that after pasturing the peas and stalks in the fall you will find little hindrance to listing the corn in the spring in the manner you have suggested. If you can try a small field in this way the present season and it proves to be successful, you may plant larger fields another year.

Under separate cover I have mailed you bulletin on soy-beans.

A. M. TENEYCK.

Clover in Corn.

I have read a great deal about sowing clover in corn, at the last cultivation. Will you please give me your idea in the KANSAS FARMER whether it would be advisable to try sowing some in this part of the State (Crawford County)? The soil is of a light sandy character but considerably packed from the rains. What kind of clover would be the best? Would the common red clover do as well as the mammoth or alsike? When would it be best to sow, and how much seed does it require to the acre? I have tried alfalfa now for several years without success but will sow some this fall if weather permits, inoculating the soil with the alfalfa bacteria, and will call it the final test. I have examined the roots of my alfalfa and find only very small whitish specks on them and it looks very sickly from the start, hardly ever lives over one year, then dies out. Those little specks do not resemble the wart-like lumps that are found on clover (which some people call seeds) which I suppose enclose bacteria. Alfalfa is not raised in this part of the State.

Please find enclosed an alfalfa root-let for inspection and report whether it contains the bacteria or not, and oblige,

H. C. COESTER.

Crawford County.

Your letter to the KANSAS FARMER has been referred to me. The experiments in sowing clover in the corn at the last cultivation at this station have not given good results. It is my judgment that such a method is likely to be unsuccessful in almost any locality in the ordinary season. At this station we have had the best success in seeding clover early in the spring. Clover, like alfalfa, is more likely to make a good catch when seeded without a nurse-crop. In your part of the State fall seeding is more likely to succeed than at this station. I would recommend that you prepare a piece of ground the latter part of the summer and by harrowing and disking put the soil in good condition to seed about the first part of September. You may prepare a seed-bed by early plowing of wheat stubble or other ground which has produced some grain or forage crop, or in case corn or some cultivated crop is taken off early enough, such ground may be prepared by thorough disking and harrowing.

It is preferable for you to practice spring sowing rather than fall sowing. Clover will often make a good catch when sown with some grain as a nurse-crop. In Iowa it is quite a common practice to seed the clover on the winter wheat fields early in the spring and harrow to cover the seed. Clover may also be seeded with oats or barley. If seeded with oats it is safest to cut it early for hay. From my experience however I recommend seeding without a nurse-crop. In your locality a little timothy mixed with the clover would not be a bad practice.

If you sow clover alone common red clover is perhaps one of the best varieties to grow, sowing with timothy, mammoth or alsike are often preferred because they mature with the timothy and hence cut better for hay. Alsike clover is also best adapted to lands which are inclined to be wet. When clover is sown alone, seed red and mammoth clover at the rate of about 12 pounds per acre, and Alsike 6 pounds acre.

I can discover no tubercles on the small sample of root which you sent. However the sample is not large enough to furnish a good test. If you will take up several plants with the spade and carefully wash the roots out with water you will doubtless discover



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the little nodules on the fibrous roots near the surface if they are present. Since you have been so unsuccessful in getting a stand of alfalfa, try inoculating a small field by using the soil from an old alfalfa field in which the bacteria are known to be present. Also, try liming a small area, it is possible that your soil is inclined to be acid; alfalfa does best upon a soil which is slightly alkaline. If you take up some of the roots in the manner mentioned I shall be glad to examine them and report as to the presence of bacteria.

A. M. TENEYCK.

Macaroni Wheat for Fall Seeding.

Would you advise sowing macaroni wheat in this locality, at what time should it be sown, and where can I expect to find a market for it? I suppose seed can be purchased from seed-dealers.

C. N. CENTER.

Oklahoma Territory.

Your letter to the KANSAS FARMER has been referred to me. We are growing a couple of varieties of macaroni wheat at this station this year. The plots were harvested yesterday with a prospect of a good yield. These were spring wheats and were sown the first part of April. It is recommended also to plant this variety of wheat in the fall but we have not experimented in fall seeding of macaroni wheat at this station and I can find no reports as to the success of fall seeding in the State. I would recommend that you write to M. A. Carlton, Cerealist, U. S. Dept. of Agri., Washington, D. C., for information regarding varieties to plant in the fall.

F. Barteldes & Co., Lawrence, Kans., advertises the Aranautka macaroni wheat which is really a spring wheat but is recommended also for fall seeding. You would better experiment in seeding the wheat in a small way at first and thus learn whether the variety is adapted to your soil or climate either as a fall or spring wheat.

I do not think you will find a local market for the macaroni wheat, but in car-load lots you will be able to dispose of it in some of the general markets. The only market I know of in which the macaroni wheat is quoted and bought is Minneapolis, Minn. The Van Dusen Harrington Co. advertised in 1902 to take all the macaroni wheat the farmers of North Dakota could grow. There are several mills in the Northwest which Mr. Carlton will be able to refer you to.

A. M. TENEYCK.

Cow-peas as a Kansas Crop.

Having noticed by several of the agricultural papers that cow-peas are a profitable crop for Kansas and being interested in progressive farming I would like to get your opinion on the subject, with regard to the vitality of the plant, price of seed, where seed could be obtained, the amount to sow per acre, and time for sowing. If you will kindly give me the above information you will greatly oblige,

Ottawa County. R. B. MILLER.

Cow-peas have made a profitable crop at this station, both for forage and for seed. The crop is perhaps better adapted for forage purposes than soy-beans, but for the production of seed we prefer soy-beans to cow-peas. The plant grows very rank and seems to be well adapted to the soil and climate. Cow-peas must not be planted until the ground is warm, usually about the first part of June, or they may be planted later if the crop is for the production of forage only. Almost any local dealer will be able to supply you with seed on short notice.

Cow-peas sown broadcast or in close drills will require one and one-half to two bushels per acre; if they are plant-

ed in rows three feet apart about three pecks of seed per acre will be sufficient. The main objection in planting cow-peas at the present time is the price of seed which is quoted by seedmen at \$2.50 to \$3 per bushel. This makes their use for a forage crop expensive. The high price of seed is due to the small supply and great demand. The peas are productive and usually yield at the rate of fifteen to twenty bushels per acre in those localities where they are successfully grown. We may expect a considerable reduction in the prices as the crop is more extensively grown as it doubtless will be in the near future, not only because of its value as a forage and grain crop but because of its beneficial effect on the land. Cow-peas belong to the family of legumes, plants which have the power of taking their nitrogen from the air by means of the bacteria growing upon their roots. Thus a rotation with these crops tends to keep up the supply of nitrogen in the soil.

A. M. TENEYOK.

Pasture for Horses and Cattle.

I have a piece of plowed land which I desire to convert into pasture for both horses and cattle. What kind of grass would be best for permanent pasture?

J. G. MOODY.

Geary County.

At this station a mixture of fifteen pounds of English blue-grass, fifteen pounds of orchard-grass, and three or four pounds of red clover per acre has been sown for pasture with fairly good results. The orchard-grass stands better and produces more pasture than the English blue-grass, but the two sown together are preferable to orchard-grass alone. It is my opinion, however, that you will not be able to make a "permanent" pasture from the above grasses, nor from any other cultivated grass except perhaps the Kentucky blue-grass which is now becoming established in this locality and throughout the eastern portion of the State. If you desire a permanent pasture I would recommend that you sow with the orchard-grass and English blue-grass a small amount of Kentucky blue-grass, three or four pounds of good seed per acre. The blue-grass will make a slow start but will gradually replace the other grasses and after several years you may have a blue-grass pasture if you can succeed in getting the seed to germinate at the first sowing.

It may be advisable also to mix in a little white clover seed, one-half pound or so per acre. White clover is condemned by some for horses, but to keep a permanent blue-grass pasture productive a little white clover is very necessary. The clover is a biennial; that is, the plants die after two years' growth and the accumulation of nitrogen which has been made by the roots of the clover supplies the nitrogen which is necessary to maintain the profitable growth of the blue-grass. New clover plants start from the seed of old plants, and thus the supply is kept up from year to year. Clover acts as a host-plant to other grasses. Wherever clover can be grown a little seed should be sown in every pasture and meadow.

Austrian brome grass, *Bromus inermis*, has been grown in this State for several years and has been given extensive trials in Nebraska and the Dakotas and has everywhere proven to be an excellent pasture grass. We are pasturing the grass this season and find it far more productive than orchard-grass or English blue-grass. *Bromus inermis* is especially adapted to the dryer parts of our country but is not unfavorably affected by the wet weather as is shown by the trial during the present season. I am recommending the planting of this grass for pasture and meadow but it should be used in rotation with other crops, rather than as a permanent pasture or meadow. The grass will not kill out but as it becomes old after four or five years the field becomes sod-bound so that the growth of the grass is very greatly reduced. By disking and killing part of the sod it is perhaps possible to continue the profitable use of a brome-grass pasture for many years. A little red clover seeded with this

grass would be beneficial in the manner mentioned above.

A. M. TENEYOK.

The Commerce of the United States.

The commerce of the United States with its noncontiguous territory will amount to nearly 100 million dollars in the fiscal year just ended. The figures for eleven months ending with May, 1903, as announced by the Department of Commerce through its Bureau of Statistics, amount to \$86,581,026, and as those for the single month of May amount to nearly 9 million dollars, it is apparent that the total for the full year will fall but little below 100 million dollars. Of this grand total of nearly 100 millions of commerce with the noncontiguous territory, more than one-third is merchandise shipped to that territory.

Of the grand total of \$86,581,026 in the eleven months ending with May, \$33,080,779 was merchandise shipped to Porto Rico, Hawaiian Islands, Philippines, Guam, Tutuila, and Alaska. Of this total of practically 33 millions of merchandise shipped to noncontiguous territory in the eleven months ending with May, a little over 11 millions went to Porto Rico, 10 millions to the Hawaiian Islands, 8 millions to Alaska, a little over 3 1/2 millions to the Philippines, and nearly 100 thousand dollars worth to Guam and Tutuila. Of the 53 millions of merchandise received from the noncontiguous territory during the eleven months, nearly 22 million dollars worth came from the Hawaiian Islands, 11 millions from the Philippines, 10 1/2 millions from Porto Rico, and 10 millions from Alaska. This 10 millions from Alaska is merchandise and does not include the gold received from that territory, which amounted in the eleven months to \$4,540,677. Adding these shipments of gold Alaska sent us to the grand total of merchandise above mentioned, and estimating the month of June, the grand total will probably reach the round sum of 100 million dollars.

Taking up the details of this commerce of 100 million dollars between the United States and its noncontiguous territory, it may be said that the principal articles received from that territory, during the eleven months for which the detailed figures are given, are as follows: From the Hawaiian Islands, sugar amounted to 21 million dollars in value, coffee \$225,929, hides and skins \$69,171, and fruits and nuts \$67,510. From Porto Rico, sugar \$6,997,644, tobacco and manufactures thereof \$1,813,642 (of which \$1,681,608 is cigars), coffee \$712,990, and fruits and nuts \$231,842. From the Philippine Islands, manila hemp \$10,668,657, sugar \$270,729, tobacco and cigars \$56,732. From Alaska the principal shipments were canned salmon \$8,401,124, other fish \$753,412, furs and fur skins \$395,793, whalebone \$115,994, and copper \$100,553.

The shipments to the territory in question include a much wider range of articles. To the Hawaiian Islands the total for the eleven months amounted to over 10 million dollars, of which \$1,361,306 was breadstuffs, a little over 1 million manufactures of iron and steel, another million manufactures of cotton, 1/4 of a million manufactures of wood, a half million provisions, nearly another half million mineral oils and a like value in fertilizers. To Porto Rico the principal shipments were cotton manufactures about 2 million dollars, manufactures of iron and steel over a million and a quarter, provisions over a million and a quarter, breadstuffs over a million, manufactures of wood a half million. To the Philippines the principal items of exports were iron and steel manufactures over half a million, spirits, wines, and malt liquors over \$400,000, cotton manufactures over \$300,000, mineral oils nearly \$300,000, and breadstuffs about a quarter of a million. To Alaska the largest item was iron and steel manufactures nearly 2 million dollars, provisions nearly a million, breadstuffs nearly half a million, manufactures of tin nearly half a million, manufactures of wool over a quarter of a million, vegetables over a quarter of a million, and tobacco and manufactures thereof nearly a quarter of a million. To Guam

Griswold Square Mesh Field Fence.

The best of all Lawn and Field Fences. Is hog proof. Manufactured in 18, 24, 33, 39, 50 and 56 inch heights; in 20 and 40 rod rolls. The narrow widths can be supplemented to any height desired by Barbed or Plain wire, or two strand twisted Cable wire. Manufacturers of Diamond Mesh Fence, Plain, Galvanized, Barbed or Telephone Wire. Wire Nails and Hay Bale Ties. Write for illustrated catalogues and price lists. Dillon-Griswold Wire Co., Sterling, Ill.

and Tutuila the total shipments for the eleven months were \$96,812, of which \$20,579 was manufactures of wood, \$13,067 manufactures of iron and steel, \$9,524 fish, \$9,308 manufactures of cotton, and breadstuffs \$8,337.

An Agricultural Correspondence School.

Resolutions were recently adopted by the Executive Committee of the Illinois Farmers' Institute relating to the establishment of a correspondence school in the Illinois College of Agriculture at Urbana. It is proposed that this department shall be under the management of a skilled educator with the cooperation of the college faculty, and the Illinois Farmers' Institute urges that not less than \$3,000 per year of the \$50,000 recently appropriated for the extension of the College of Agriculture "be used in employing a thoroughly qualified educator and clerical help to inaugurate and conduct the correspondence school." It is asserted in the resolutions that such an educational feature "would make it possible for young practical farmers while living on their farms to acquire and put into practice scientific methods." Moreover, it would be "an efficient means of giving instruction to a large number of persons who from necessity can not attend an agricultural college." Another reason advanced in favor of this innovation is that it would enable "hundreds of school teachers who would otherwise remain unqualified to fit themselves more intelligently to teach the principles of agriculture in the public schools, thereby interesting thousands of children more fully in farm life and directing them toward the College of Agriculture as the channel through which they can become educated for the highest success in life through agricultural pursuits."

There is much to commend the plan outlined and if the school were established on the basis proposed and properly conducted it would no doubt prove a helpful adjunct to the forces of agricultural education in Illinois. In theory, instruction by correspondence is alluring and withal effective in the case of those industrious individuals who master whatever they undertake regardless of obstacles, but in actual practice a great many difficulties are encountered which make the correspondence school proposition one of two sides. Whether its inherent possibilities outweigh its shortcomings in operation is a theme which invites discussion. We do not know what relation the proposed school would sustain to the college-extension department of the Illinois College of Agriculture. It would seem that the two should be merged or that the correspondence department should be affiliated with the college-extension scheme. Our columns are open to a discussion of the subject. —Brederers Gazette.

Equality in Taxation.

In a recent issue of the KANSAS FARMER, the following communication from "Farmer" appears: "A buys a farm and gives a mortgage for \$3,000 in part payment, the farm being worth \$5,000. If A pays taxes on the whole farm, and the owner of the mortgage pays taxes on it, that is double taxation. Is that right?"

Certainly that is not right. As A would have only two-fifths interest in the farm, he should pay but two-fifths of the taxes. Following is the usual mode of taxation, which "Farmer" has doubtless noted times without number: A mortgage and loan company or a land-shark located in New York or

London owns 100 acres of unimproved land which could readily be sold for \$1,000. A working farmer owns 100 acres adjoining, of equal fertility, etc., but highly improved. The improvements are worth \$2,000 and the personal property—live stock, implements, etc.—\$2,000 more, or \$5,000 in all. Such a farm is usually assessed at 60 per cent, or \$3,000, while the assessor reasons that the speculator who owns the adjoining 100 acres of unimproved land derives no income from it and should therefore be let off lightly. He accordingly assesses the property at 15 per cent, or \$150. Thus the farmer, who has made two blades of grass to grow where only one grew before, is fined twenty times as heavily by society as the dog-in-the-manger who will neither eat the hay nor let the ox eat it—who, in effect, makes the world smaller to that extent, thus exercising the power of restricting human life on this planet which he did not make. If any favoritism should be shown, should not the farmer, rather than the speculator, be the beneficiary? Would not the better plan be to assess both the farmer and the speculator on the full unimproved value of their land—\$1,000? A 1 per cent rate on the farmer's \$3,000 assessment would yield \$30, while the speculator would pay but \$1.50. His taxes being nominal, he could hold the land idle indefinitely. If both tracts were assessed equally—at \$1,000, and the rate doubled, a 2 per cent tax would yield \$40. Thus the State and county would have 20 per cent more revenue to make needed public improvements, while the farmer's burden would be lightened one-third, and the speculator would hasten to make use of his land or dispose of it to some one who would, thus tending to build up the community. All special licenses and taxes, such as poll- and road-taxes, etc., could be dispensed with.

Taking the United States as a whole, only one-fifth of the land is cultivated. The bulk of the remainder is in the hands of forestallers and speculators.

The tax here proposed would have the effect of providing homes for millions of tenant farmers and others, thus relieving the glut in the labor market and raising wages in the industrial centers, which in turn would cause an active demand for the farmers' products. But the average farmer would hold up his hands in holy horror and declare that such shifting of the burden of taxation from his back to that of the speculator would be the "single tax"—that it would ruin the farmer, rob him of his lands, etc. He believes it because the plutocrats have repeatedly told him so.

A. FREELAND.

Mt. Pleasant, Tenn.

The largest tree in Oregon was felled recently to be sent as a curiosity to the World's Fair. It is the Aberdeen spruce, and nearly 300 feet high, 40 feet around and 118 feet from the ground to the first limb. Its age is calculated at 440 years, being a good sized tree when Columbus discovered the land that was afterward called America.

Business Opportunities For All.

Locations in Iowa, Illinois, Minnesota, and Missouri on the Chicago Great Western Railway; the very best agricultural section of the United States where farmers are prosperous and business men successful. We have a demand for competent men with the necessary capital for all branches of business. Some special opportunities for creamery men and millers. Good locations for general merchandise, hardware, harness, hotels, banks, and stock-buyers. Correspondence solicited. Write for maps and Maple leaflets. W. J. Reed, Industrial Agent, 604 Endicott Building, St. Paul, Minn.

The Stock Interest.

THOROUGHBRED STOCK SALES.

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

July 28, 29, 1903—Geo. H. Adams, Linwood, Hereford.
 September 1, 1903—Horses and jacks, L. M. Mon sees & Son, Smithton, Mo.
 September 1 and 2, 1903—100 head of Herefords, at Hamline, Minn. C. R. Thomas, Secretary.
 September 3, 1903—Central Missouri Hereford Breeders' Association, Macon, Mo.
 October 2, 1903—Poland-Chinas, J. R. Killough & Sons, Ottawa, Kans.
 October 6, 1903—A. E. Burielgh, Kansas City, dispersion sale Polled Durham.
 October 7 and 8, 1903—Combination sale of Poland-Chinas and Shorthorns. Poland-Chinas on the 7th, Shorthorns on the 8th. James P. Lahr, Sabetha, Kans., Manager.
 October 9, 1903—Sabetha Combination Sale Co., Sabetha, Duroc-Jerseys.
 October 9, 1903—John Cameron, Lebanon, Kans., Poland-China swine.
 October 12, 1903—C. O. Hoag, Centerville, Kans., Poland-China hogs.
 October 14, 1903—A. G. Lamb, Eldorado, Poland-Chinas.
 October 15, 1903—Central Missouri Hereford Breeders' Association.
 October 16, 1903—W. S. Wilson, Manager, Shorthorns and Herefords, at Monroe City, Mo.
 October 19, 1903—Oak Grove, Mo., Poland-Chinas. E. E. Axline.
 October 19-24, 1903—American Royal, Kansas City, sale by Galwey Breeders' Association.
 October 22, 1903—100 head of Herefords, at Kansas City, Mo. C. R. Thomas, Secretary.
 October 24, 1903—Newton Bros. Whiting, Kans., Duroc-Jersey swine.
 October 27, 1903—Duroc-Jerseys, Peter Blocher, Richland, Kans.
 November 3, 1903—O. B. Smith & Son, Cuba, Kans., Poland-Chinas.
 November 10-11, 1903—Marshall County Hereford breeders' annual sale at Blue Rapids, Kans.
 November 13, 1903—Central Missouri Hereford Breeders' Association, animal sale; S. L. Brock, Macon, Mo., Secretary.
 November 17, 18, 19, 1903—Armour Fankhouser, Herefords, at Kansas City, Mo.
 December 3, 1903—100 head of Herefords, at Chicago, Ill. C. R. Thomas, Secretary.
 February 4, 5, 6, 7, 1904—Percherons, Shorthorns, Herefords, and Poland-Chinas, at Wichita, Kans., J. C. Robison, Towanda, Kans., Manager.

Fall Pigs—High Prices.

During nearly a quarter of a century spent in breeding thoroughbred Poland-China hogs the writer has uniformly had better success with pigs farrowed in the fall than with those farrowed in the spring, and the finest individuals we have ever produced in our herd have been out of fall litters. We think this can be intelligently accounted for from the different conditions which obtain during the period of gestation and while the pigs are nursing their dam. When sows are bred for spring litters they have to carry their young through the severe winter months, and in the main have to develop them while subsisting on dry and concentrated food and during a period of inactivity, as they spend most of this period lying in their beds, and when the pigs are farrowed in the spring the grass is tender and washy and often creates a flow of milk that will, assisted by the damp, chilly weather, produce disorders among the pigs; while on the other hand, when sows are bred for fall litters they carry their young during the summer months, when their feed consists almost exclusively of the grasses, which necessitates their constant exercise in order that they may obtain a sufficient amount to satisfy their appetites. This is conducive of strong, robust, healthy pigs. The weather during the fall months is usually ideal for sows to farrow in and a much larger per cent of pigs can be saved at this season of the year than in the spring. Here in western Missouri and close to Kansas City, we feel sure that fall pigs can be grown just as successfully and profitably as can spring pigs. The writer aims to have plenty of range for his sows over pastures of blue-grass, clover, and timothy, accessible to them the year round, and a rye-field to furnish green food during the fall, winter, and early spring, and in this locality there is scarcely ever more than a month or six weeks during the winter that hogs can not graze on it. And when spring opens the fall pigs are just at the right age to begin feeding strong and the pastures and feed combined make a very rapid growth. We are fitting up two show herds of last October pigs that will weigh about 250 pounds each, and we never bred any spring pigs quite so nice.

We notice in the papers an account of a hog sale recently held at Macy, Ind., in which ninety-six head sold for over \$60,000, and in which one hog sold at the rate of \$17,957 (papers didn't state whether there were any odd cents or not) that is, seven-tenths of the hog sold for \$12,500. We have attended some pretty windy hog sales, but we can not call to mind at this

time any in which the attendants carried in their breeches \$60,000, but we have been noticing during the last year or two that the Illinois and Indiana breeders were getting rich pretty fast by buying from and selling to another. And we suppose that when they got to Macy they run up against the strongest proposition they had ever faced as there confronted them this Ideal Sunrise. Other great hogs had preceded him. The great Look Me Over, in his day and generation was so valuable that it was necessary to organize a stock company, known as the Look Me Over Breeding Association, in order that capital enough might be secured to pay for him. Then there was Klever's Model that was sold (either dead or alive) for \$5,100. It required a syndicate to buy him—no one hogman had enough money to tackle him—he, too, in his day and generation created a great sensation, but the ending of Klever's Model fame was so sudden and so dramatic that we were fearful that the hog syndicate and hog-breeding associations would go into "inocuous desuetude," but, Phoenix-like, they have risen from the buried ashes of those that went down in former days in disaster and ignominy and at one tremendous bound and with renewed energy and a halo of glory about the Sunrise, another syndicate has been formed, but the stock raised was not sufficient to buy a whole hog, only seven-tenths. We would suggest that J. Pierpont Morgan be commissioned to float the remainder. Sunrise must be a great hog; his greatness must not consist alone of "things said or written about him, but of the arduous greatness of things done." We would very much like to enter into immediate contract with some one of the syndicate for seven-tenths of a pig sired by Ideal Sunrise. We have several neighbor breeders and we think that we, too, can form a syndicate and buy that much of a pig, especially if the seller will take our paper at long range.

We believe that it was the immortal Lincoln who said that "you could fool all the people part of the time and a part of the people all the time, but you could not fool all the people all the time."—W. A. Hill, Belton, Mo., in American Swineherd.

Sunstroke of Horses.

During the periods of excessive heat when work horses in the fields or upon the streets are liable to suffer from sunstroke or "overheating" much may be done by the owner to lessen the likelihood of an attack. Seeing that affected horses are usually those that are sick or "soft," every possible means should be taken to prevent indigestion and fit the animal to withstand labor in hot weather. Horses under 5 years of age are more apt to suffer than seasoned, adult animals; hence should be worked lightly during hot weather, as should new purchases and horses being acclimated in a new location. Indigestion, the common forerunner of sunstroke, is indicated by dullness, sluggishness, thick urine, panting at light labor, sweating in stable and the changeable character of the manure which is normal some days and again clay-colored, mucous-covered or an undigested, offensive mass. When so affected it is extremely dangerous to work the animal in extra hot weather. Slight change of food, more care in feeding, rest and simple correctives are required in such cases and preventive measures may be adapted as follows: Feed hay night and morning only; give drinking water before meals and in small sips often when at work; prefer clean, soft water to that rendered "hard" by the presence of lime salts, which tend to derange the stomach; remove harness at noon and allow sufficient time for rest and mastication of food; groom skin thoroughly once daily; feed sound food; avoid corn in summer as it is heating; prefer sound old oats, which repair waste of tissue and promote vim and endurance; avoid sudden changes of food and do not feed heated, green grass or clover; cleanse stable daily, ventilate perfectly, screen doors and

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And Quickly Heals the Wounds.

"I have used **Cremoline** at my home, stables and ranch and after thorough tests, I feel perfectly safe in saying that I not only find it to be all that is claimed for it as a disinfectant, germicide and insecticide, but in my opinion it has no equal as a sure and speedy cure for Screw Worms. **JAMES M. WALTERS, Mayor, Temple, Texas.**"

"**Cremoline** has proven to be what it is made for; I have used it successfully on a horse that was cut by a wire fence. It not only kills Screw Worms, but also greatly helps to heal the wounds. The sale has increased greatly, as it gives satisfaction in every instance. **G. KLEYPAS, Westphalia, Texas.**"

For Sale by General Dealers, in 25c bottles and 1, 5, and 10 gallon cans; but if not kept in stock by your storekeeper, we will ship promptly on direct orders.
 Made only by: **The Cremoline Mfg. Co., 1729-31 Olive st., St. Louis.**

Government Dip Order Issued.

Covers all territory west of the Mississippi river. Recognizes only LIME AND SULPHUR DIP. It reads "Lime and Sulphur Dip properly prepared shall be used for dipping cattle." We guarantee **Rex Official Lime and Sulphur Dip** to be Perfectly Prepared, exactly as per Gov't instructions and FREE FROM SEDIMENT. One gal. makes 20 gal. ready for use. 48 gal. 10 gal. \$18; 20 gal. \$4.50; 5 gal. \$2.50; 1 gal. 65 cts. Write today for FREE copy of "VITAL POINTS OF DIPPING."
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windows, remove manure piles from vicinity of stable; feed fresh food each meal. Shade horse's head when at work; avoid heavy, wet sponge; if possible, do not work three horses abreast as the middle horse suffers thereby and is the most liable to sunstroke; where such combination cannot be avoided, change horses often to afford as much relief as possible. Choose coolest hours for work and change teams often during sultry, moist weather when thunder storms are prevalent.

SYMPTOMS OF OVERHEATING.

Horse lags, requires urging, may pass soft manure and gas, sweat but dries off suddenly, becomes weak, staggers, pants, has dilated nostrils, red eyelids and lining of nostrils, anxious countenance, weak, rapid pulse, high fever, falls. In sudden attack may fall at once, show above symptoms and die in a few minutes or hours after period of madness or unconsciousness and loud snoring. Following bad attacks brain becomes softened and animal stands with head jammed in corner, is blind, forgets to chew food and remains a "dummy," i. e., stupid, weak, and useless in hot weather. Less severe attacks recovered from unfit horse for work in warm weather.

TREATMENT.

Do not bleed or allow bleeding to be done. Do not give aconite, belladonna, acetanilid—they are highly dangerous in amateur hands. Do not put ice-pack on the head—it tends to produce softening of the brain. Stop work immediately, remove harness, get horse into a shady place, under a tree where there is a breeze or a draft of air. Administer half a pint of whisky in equal quantity of water, or two ounces of alcohol (not wood alcohol), well diluted with water, or two ounces of sweet spirits of nitre and one ounce of aromatic spirits of ammonia in one quart of water. Repeat in half above doses hourly until horse revives. Add four ounces of granulated hyposulfite of soda if he is bloated; tap with trocar and canula high in right flank if bloating is excessive; and in bloated cases gives rectal injections of soapy warm water hourly. High fever may be detected by hand in horse's mouth or use of thermometer in rectum. If it is 108° F. or over, give one ounce saltpeter dissolved in pint water, in addition to stimulants prescribed above, and repeat in six hours. From start of treatment keep cool, wet packs to poll of head and sprinkle entire body with cold water from a sprinkling can held a foot above body. A piece of ice may be placed in water thus used. If pressure water is at hand, tie hose to browband of bridle and allow gentle stream of cold water to flow constantly over patient's head. On recovery feed lightly upon bran mash and a little grain; and allow rest for two weeks; do not work again in hot weather during season of attack. Where symptoms of brain-softening remain after attack, give one dram iodide of potash three or four times daily in a little water according to severity of symptoms and

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The Original Hog Dip.

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Kills lice and fever germs, removes worms, cures mange, canker and cough; aids digestion, promotes healthy growth, and Prevents Disease, at Small Cost.

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Just the information that you must have to successfully treat Fistula, Poll Evil, Sweeney, Knee-Sprung, Curb, Spavin, Spavin, Ringbone and all blemishes hard or soft, also Lump Jaw in cattle.

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Certain and inexpensive methods fully described in our two big booklets, which we send free if you have a case to treat. Over 140,000 farmers rely upon these same methods. Write for the books.

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LUMP JAW

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

Chas. E. Bartlett, Columbus, Kans.

NO HUMBAG. Three in One.

Swine Y, Stock Marker and Oalf Dehorner. Gives swine from rooting. Makes 50 different ear marks. Extracts Horns. Price \$1.00. Send \$1 for trial. If it fails, send back. Free! May 4, 1903. Hog and Oalf Marker only 75c.

WADSWORTH PATENT, WADSWORTH, IOWA.

NO MORE BLIND HORSES.
 For Specific Ophthalmia, Moon Blindness, and other Sore Eyes, Barry Co., Iowa City, Ia., have a sure cure

continue cold, wet packs to head. Feed soft, light, easily digested food.
A. S. ALEXANDER, Veterinarian.
 Wisconsin Agricultural Experiment Station, Madison, Wis.

Hot Weather Care of Hogs.

Keep the pigs growing. Don't permit them to be checked up in their growth because of the inattention during the busy season. If the pastures become dried and scorched during hot weather, supply them with other green feed. The early sweet-corn patch ought to be ready for use in this month, to be followed with other later planting next month. This is not only a sure method of furnishing wholesome, succulent food, but it is profitable and relished by the pigs.

Don't confine a lot of pigs in a bare yard where the sun beams down upon them and they swelter alongside of the fence, panting and worrying from the heat. Furnish the shade.

Don't overlook the necessity of plen-

ty of pure water. It is essential to the growth of the pig. If the pastures become dry and the water is limited, constipation is sure to follow and all other kinds of complications will be the result.

Don't drive the pigs with a dog to worry them this hot weather. Instead of putting on a pound they will have two pounds taken off a day.

In hot weather a very little worrying persisted in will be followed with fatal results. A boar fight this time of year ends in the death of one and sometimes both of the fighters.

The cheapness of food to supply to hogs for growth and health is some kind of pasture. This is something that every farm can supply. It is a balancer of the grain ration and cuts down the cost of producing pork.

The Small Breeders of Stock.

I have such a man in mind. He owns a hilly blue-grass farm with some rich bottom-land on it. He breeds registered Shorthorn cattle. Formerly he milked many of them and made butter, raising the calves by hand. Lately he does not find as many good milkers among his cows as he did before he used the Scotch cross. He now allows most of the calves to run with their mothers. During the flush of early grass nothing is fed; when hotter and drier days come he drives the cows and calves to the sheds and feeds them all in the cool, dark shelter. The cows get some sowed green crop, as oats, corn-fodder, or sorghum and lately cut alfalfa. The calves get the same and beside that go through a creep to eat shelled corn and oats with a few handfuls of oil-meal thrown in. When it is cooler they go out to graze again. There is no herdsman; one of the brothers looks after the cattle and it takes him about three hours a day during summer to clean the stables and feed.

The yearling bulls are kept up in a cool, airy shed and at night are allowed the run of a four-acre lot well-fenced. The herd-bull is kept in all the time except that he runs at night in a well-fenced yard of perhaps 120 feet square. Water for all these cattle is pumped by wind-power and distributed fresh and pure to all the lots. When fall comes and pastures get bad corn-fodder is hauled out with some nubbins left on and fed on the grass. When the snow begins to fly all are brought to yards and not let out any more unless on dry days; great feed-racks are in the yards and the cattle are fed corn-fodder from which the ears have been husked and racks are piled with clover and alfalfa hay. More grain is fed in winter than in summer but never a very large amount. There is a new silo, the contents of which goes mostly to the cows giving milk; some wheat bran is bought and a few tons of oil-meal, but the main dependence is on the farm-grown stuffs, corn, corn-stalks, corn silage, clover hay, and constantly increasing amounts of alfalfa hay.

This man keeps about twenty breeding females. He attends the shows and studies form and fashion assiduously. He used to be a stickler for reds, but now he would as soon have a roan. He thinks for months about where to get a new herd-bull and generally buys about three calves, the most promising he can find; as they develop under his care he keeps the one that suits him best and consigns the others to some public sale.

His surplus bulls and heifers he sells, some near home (not many, I regret to say), some at auction sales, and he has sold a part of several car-loads of good bulls to go to Western buyers. I do not think he is amassing a fortune but he is making some money and of such as him is the backbone of the breeding world.—Joseph E. Wing, in Breeder's Gazette.

What Causes Thumps?

The latest theory regarding thumps in young pigs is that the disease is due to spasms of the diaphragm, probably due to pressure. The symptom is a sudden jerking movement in the flank. When a pig is standing quietly the jerk is very noticeable and may be of such violence as to move the whole

body backward and forward. It may be accompanied by a sound that can be heard some distance. These contractions are not rythmical, but may be much more frequent at one time than at another. After exercise the jerking is more violent. The jerking is also more pronounced after a full meal than when the stomach is empty. The causes are probably a full stomach and lack of exercise. The disease occurs mostly in litters from mothers that are exceptionally heavy milkers and always takes the fattest pigs in the bunch. Treatment requires increase in exercise and the pigs should be turned out into alfalfa pasture. If they are kept in a pen give salts or castor oil. Fifteen or twenty drops of each tincture of laudanum and digitalis every two hours until the animal is relieved is recommended.—Field and Farm.

Kansas State Fair.

The Kansas State Fair, which will be held at Topeka, Kans., September 14-19, 1903, has declared the following stake-races to be filled and closed:

STAKE NO. 1-2.40 Trot, \$1,000.

1. Miss Ratchliffe, b. m. by Happy Heir, dam by Bay Wilkes; Jesse L. Porter, Kansas City, Mo.
2. Sir Guilford, b. g. by Alcryone; D. J. Small, Topeka, Kans.
3. Alcarino, b. h. by Alcarino, dam by Hinder Wilkes; C. C. D., b. m. by Tacconnet, dam by Dr. Franklin, Jr.; P. B. Haight, Omaha, Neb.
4. Amarea, b. m. by Jackdaw, dam by Erelong; M. A. Low, Topeka, Kans.
5. Emma McGregor, by Ben McGregor; E. Knell, Carthage, Mo.
6. Payton Lockheart, b. s. by Lockheart, dam by Ramona; W. W. Towle, Lincoln, Neb.
7. Wilkhurst, b. s. by Wilkes Boy, dam by Nuthurst; J. W. Creech, Herington, Kans.
8. Lockul c, by Oh So; F. S. Kirk, Enid, Okla.
9. Jim Ackerson, by Alcryon; M. E. Hough, Enid, Okla.
10. The Crescent, b. s. by Retrieve, dam by Robt. McGregor; Heirion, by Happy Heir, dam by Rounds Sprague; Chas. Tapp, St. Joe, Mo.
11. Mable Heir by Happy Heir, dam by Allen St. Joe; John Hinnen, Jr., Holton, Kans.
12. Minnie Wilkes, b. m. by Honor, dam by Coleman Sprague; R. E. Cowdrey, Topeka, Kans.
13. Heirsburg, b. s. by Happy Heir, dam by Ione; O. Robertson, Leavenworth, Kans.
14. Fantiers, b. m. by Happy Heir; John McGuire, Leavenworth, Kans.
15. Governor Rex, b. g. by Galileo Rex; Harry D. Train, Kansas City, Mo.
16. Old Shave, br. g. by Bonnie Bell, dam by Treasure; Kendall Stock Farm, Valley Falls, Kans.
17. Lieutenant, b. g. by Little Corporal, dam by Zest; A. Churohman, Kansas City, Mo.
18. Ellinwood, b. s. by Jackdaw, dam by Fergus McGregor; Wm. Bradbury, Topeka, Kans.
19. Joe Wheeler, b. h. by King Rene; P. H. Donley, Wichita, Kans.
20. Frank A, b. g. by Conrad, dam by Chas. Caffery; Paul L, b. g. by Conrad, dam by Chas. Caffery; Lamb & Aukney, Clinton, Iowa.

STAKE NO. 6-2:16 Trot, \$1,000.

1. Spotty M, b. m. by Mandarin, dam by Baywood; Lady Downing, b. m. by Hershon, dam by Pico; P. B. Haight, Omaha, Neb.
2. The Airship, by Barada; F. S. Kirk, Enid, Okla.
3. Jim Underwood, b. g.; M. L. Campbell, Topeka, Kans.
4. Senator W, b. s. by Senator A, dam by Fortunatus; W. O. Woods, Malcolm, Iowa.
5. Red Roy, b. h. by Red Heart, dam by Combination; Peter Vredenburg, Springfield, Ill.
6. Artols, b. m. by Geneva, dam by Strathmore; Luzon, by Stet Brno, dam by Gen. Knox; Dr. G. W. Fisher, La Porte, Iowa.
7. Vanity S; L. S. Skelton, Fredonia, Kans.

STAKE NO. 8-3-year-old Trot, \$600.

1. Wilbar, br. c. by Escobar, dam by Ashland Wilkes, D. Bell, Lincoln, Neb.
2. Ashlander, br. g. by Ashland W, dam by Joe Young; M. A. Low, Topeka, Kans.
3. Watson, by Hinder Wilkes, J. T. Wickersham, Enid, Okla.
4. Glory Quayle, b. m. by Jackdaw, dam by Robt. McGregor; Geo. Burghart, Topeka, Kans.
5. Ota Lou, br. m. by Pico, dam by Nelly Grove; C. V. Townley, Olathe, Kans.
6. Duke Russell, 2d ch. h. by Duke Russell, dam by Simcoe Wilkes; G. W. Suttler, Atchison, Kans.
7. Sugar Foot, b. m.; C. L. Garrison, Wichita, Kans.
8. Wilctor, b. h. by Cutting; Peter Vredenburg, Springfield, Ill.
9. Non Parole, b. s. by Parole, 2:16, dam by Fairy Gift; Ruberto, roan g. by Parole, 2:16, dam by Jay Bird; Matt L. Williams, Davenport, Iowa.
10. Red Major, b. s. by Nut Gregor, dam by Shadeland Onward; J. A. Daly, Nevada, Mo.
11. Chloe, br. m. by Pelliteer, dam by Ozark; B. J. Higby, Coyle, Okla.

STAKE NO. 9-2-year-old Trot, \$600.

1. Russell D, ch. g. by Duke Russell, dam by Van Guard; Wm. Douglass, Atchison, Kans.
2. Ashland M, b. c. by Ashland Wilkes, dam by Norman Medium; D. Bell, Lincoln, Neb.
3. Allertonlan, b. c. by Allerton, dam by Bow Bells; M. A. Low, Topeka, Kans.
4. Baby Thelma, by Heirloom, dam by Robt. McGregor; Miss Tena Lehr, Eldorado, Kans.
5. Orgress, b. f. by Woodbine, dam by Alcolite; Chas. Tapp, St. Joe, Mo.
6. Our Lilly, b. f. by Jackdaw, dam by

- Happy Heir; John Hinnen, Jr., Holton, Kans.
7. Kansas Russell, c. h. by Duke Russell, dam by Barney Ouden; G. W. Suttler, Atchison, Kans.
8. Vincentia, by St. Vincent, dam by Pilot Medium; R. Williams, Marion, Kans.
9. Duroc Morgan, blk. h. by Pilgrim, dam by Stillson; Lady Sims, b. m. by Pilgrim; W. A. McCarter, Topeka, Kans.
10. Roy McGregor, b. s. by Fergus McGregor, dam by Roywood; E. M. Reckards, Meriden, Kans.
11. Kastle, b. m. by Chauncey Wells, dam by Looking Forward; Cyrus Roberts, Kinsley, Kans.
12. Lexington King, blk. h. by Patchen Wilkes, dam by Belmont; Dr. J. P. Kaster, Topeka, Kans.
13. Cricelle, b. f. by Parole, 2:16, dam by Rinaldo; Ludwig, b. s. by Parole, 2:16, dam by Baron Wilkes; L. E. Brown, Delavan, Ill.

STAKE NO. 11-2:27 Pace, \$1,000.

1. Ada P, b. m. by Cleg Wright, dam by Jeddo; Powell & Imlrie, Red Oak, Iowa.
2. Simandle, ch. h. by Simmicolon, dam by Baron Wilkes; J. S. Harrod, Burchar, Neb.
3. Tony W, br. h. by E. W. M., dam by Young Princeps; Broadway Belle, blk. m. by Tacconnet, dam Lucia Belle; P. B. Haight, Omaha, Neb.
4. Mattie Morley, gr. m. by Happy Heir, dam by Allen St. Joe; Dan Anderson, Shawnee, Okla.
5. Jim Duval, by Col. Lillard; M. E. Hough, Enid, Okla.
6. The Seventh Son, by Strathward O; E. Jewett, Wellington, Kans.
7. Chestnut Girl, ch. m. by Chestnut Bird; S. Thompson, Leonardville, Kans.
8. Yankee Boy, blk. c. by Walnut Boy, dam by Mitchell; W. K. Yankee, Lee Summit, Mo.
9. Fanny Wilkes, b. m. by Wick Spence; James A. Sprague, Selden, Kans.
10. Sunny Slope, b. m. by Happy Heir, dam by Col. West; Axley & Shire, Kansas City, Mo.
11. Red Bird, b. h. by Chestnut Bird, dam by Longley; W. B. McCormick, Manhattan, Kans.
12. Belle Hanon, b. m. by Chauncey F, dam by Karatas; John Hanon, Leavenworth, Kans.
13. Alice L, s. m. by Hershon, dam by Col. West; J. L. Wyatt, Kansas City, Mo.
14. Egolear, br. g. by Egoyle, dam by Norval; Miss Sherbet, b. m. by Sherbet, dam by Ben Lightfoot; J. A. Daly, Nevada, Mo.
15. Baron Election blk. s. by Baron Rex, dam by Baron Wilkes; Dr. Albert Smith, Parsons, Kans.
16. Evans McGregor, b. g. by Genl. Evans, dam by Robt. McGregor; M. W. James, Willard, Kans.
17. Knox Walnut, by Walnut Boy, dam by Woodford Knox; A. D. Cottingham, Kansas City, Mo.

STAKE NO. 14-2:13 Pace, \$1,000.

1. Pilotelle, b. m. by Sphinxstella, dam by Pilot Medium; R. J. Flick, Lincoln, Neb.
2. Lady Herod, s. m. by King Herod; John Harrison, Marshall, Mo.
3. Kitty Kester, by Canadian Wilkes; J. T. Wickersham, Enid, Okla.
4. King Walnut, br. g. by Walnut Boy; Moore Bros., Clinton, Mo.
5. Bernie Wilkes, roan s. by Roy Wilkes (dam by Locomotive; J. H. Sheen, Lincoln, Neb.
6. Barney L, b. b. by Billy Bixby, dam by Ashland Wilkes; Mrs. A. M. Donley, Wichita, Kans.
7. Phyllis S, b. m. by Look; B. C. Vandenburg, Kansas City, Kans.
8. Frederick McGregor, s. s. by Fergus McGregor, dam by Corlander; Wm. Bradbury, Topeka, Kans.

STAKE NO. 15-3-year-old Pack, \$600.

1. Billy Bryan, b. s. by Cecilian Prince; C. G. Duckworth, Martinsville, Ind.
2. Bee Gee, b. s. by Symbol Hall; W. Stron, Shawnee, Okla.
3. Caw Chief, ch. h. by Looking Forward, dam by Wondermaker; B. F. Hanna, Kinsley, Kans.
4. Anglebar, b. s. by Escobar, dam Lady Nottingham; J. W. Creech, Herington, Kans.
5. Golden Bow, by Col. Loomis; R. A. Lehr, Eldorado, Kans.
6. Conspirito, blk. c. by Star Wilkes, dam by Almont Pilot; N. Todhunter, Higginsville, Mo.
7. Doctor Munn, blk. g. by Orphan Knight, dam by Echo Chief; C. H. Samson, Topeka, Kans.
8. Jennie Brown, by Argot Wilkes, dam by Spanish Cavalier; J. F. McCormick, Charleston, Ill.
9. Donny Brook, ch. s. by Ashbrook, dam by Symboleer; T. S. Brown, Winfield, Kans.
10. Walda, b. f. by Winslow Wilkes, 2:09 1/2, dam by Adrian Wilkes; Matt L. Williams, Davenport, Iowa.
11. Miss Sherbet, b. m. by Sherbet, dam by Ben Lightfoot; J. A. Daly, Nevada, Mo.

Remember the following purses close September 5. Trotting: 2:30, 2:27, 2:23, 2:20, 2:13, all \$500 each. Pacing: 2:35, 2:22, 2:18, all \$500 each.

If you wish, ship your stuff in our care, and we will look after it. We will have drays hired to unload you for what it is worth, a feed office on the ground to sell feed at the market price.

Paid judges will say who wins, and a runner can't win money from a trotter. C. H. Samson, Secretary.

Suggestions to Hay-Raisers.

The season is close at hand when you should consider the matter of providing the necessary tools for handling your hay crop. The matter of securing new tools is frequently delayed until the work is absolutely needed, the purchaser not considering the fact that it takes some time to get delivery from the manufacturer, and loss of time means loss of money.

In the past it was considered that baling hay was only profitable where the crop was large, and with the intention of shipping. It has come to be a recognized fact, however, that there is economy, and consequent profit in baling hay, whether the crop is to be shipped or used for feeding purposes. For shipment, baling is an absolute necessity. The economical points of having the crop baled for feeding or storage purposes, are readily admitted, viz—ease of handling, no loss from exposure or transportin, saving of space, destruction by fire almost an impossibility.



When Sandow poses and the muscles ridge his back and knot his arms, we think we have before us the very secret of strength in those magnificent muscles. But we haven't. Starve Sandow, or what is practically the same thing, let him be dyspeptic, and his muscle would soon fail. Strength is made from food properly digested and assimilated, and no man is stronger than his stomach, because when the stomach is diseased digestion and assimilation are imperfect.

Dr. Pierce's Golden Medical Discovery cures diseases of the stomach and other organs of digestion and nutrition. It enables the perfect digestion and assimilation of food so that the body is nourished into perfect health and strength.

"I had what my physician called indigestion. He gave me medicine for the trouble but it did me no good," writes Mr. W. H. Wells, of Willard, N. C. "I wrote to Dr. Pierce and stated my case. He sent me a descriptive list and hygienic rules. I carried out these as best I could, bought six bottles of his 'Golden Medical Discovery' and commenced taking it. A few days later I noticed a great change. Felt like a new man. Before I began the use of the 'Golden Medical Discovery' I suffered greatly with pain in stomach, my nerves seemed all 'run-down,' I was very thin in flesh, but now can eat heartily and sleep good at night."

Dr. Pierce's Common Sense Medical Adviser is sent free on receipt of stamps to pay expense of mailing only. Send twenty-one one-cent stamps for the paper-covered book, or thirty-one stamps for the cloth-bound volume. Address Dr. R. V. Pierce, Buffalo, N. Y.

According to the statistics of the United States Department of Agriculture, the hay crop is the most valuable crop raised in this country. Under these circumstances, modern methods should be employed in handling it. Do not wait for your neighbor to get a press, get one yourself.

The Kansas City Hay Press Company, of Kansas City, Mo., have been for twenty years leaders in the manufacture of hay-baling machinery. Their line is very extensive, presses being offered for hand-, horse-, or steam-power. From these numerous styles the purchaser has no difficulty in selecting a machine to suit his needs. Every press they make is absolutely guaranteed, and each in its class is unexcelled by anything on the market. It will pay the reader to send for their catalogue.

This company also makes a line of standard scales, of guaranteed accuracy and durability.

Their gasoline engine made in different sizes is adapted to all farm purposes, and has become very popular in the last few years owing to its economical and durable features. Write them for prices, terms, and further particulars.

Refer to this paper when making inquiries.

Our Great Cook Book Offer.



The White House Cook Book, 590 pages, comprehensive treatise on carving. All kinds of cooking and baking. Everything from soup to nuts. Cooking for the sick. Health suggestions. Kitchen utensils. Family recipes. Toilet items. Dyeing and coloring. Measures and weights, etc. Prepared by the former chef of the Hotel Splendide, Paris. Regular price \$2. Our price with the KANSAS FARMER for one year \$2. The two for the price of one, delivered to you.

Address, Kansas Farmer Company, Topeka, Kans.

Gossip About Stock.

Dr. D. C. Snoddy, the manufacturer of Snoddy's hog-cholera specific, who has moved his business from McKenzie to Nashville, Tenn., has placed a new announcement in this week's paper.

On June 25, D. C. Flatt & Son, Hamilton, Ont., held the most successful hog sale ever held in the Dominion. The offering consisted of imported Large English Berkshires and is considered to have been one of the best sales of the breed ever made in America. The top of the sale was an imported sow which brought \$400 and went to Minnesota. Seventy head of hogs were sold at a general average of \$116.

In the latter part of June, Mr. Roy Hagler, Washington Court House, Ohio, sold forty-seven head of Aberdeen-Angus cattle for \$6,560, average \$139.55. Forty-four females sold for \$6,115, average \$138.95. Three bulls sold for \$445, average \$148.35. On the same day Howard Hagler sold thirty head of Shorthorns at the same place for \$3,570, average \$119. Twenty-six females brought \$2,825, average \$109.05, four bulls brought \$735, average \$183.75.

Referring to the present hog situation, one of the head men for a leading packing concern said: "The apparently demoralized condition of the hog market now is hard to understand, in the face of Chicago receipts growing lighter, the marked deterioration in the quality of the hogs the past two weeks and the present splendid cash demand for meats from the south; this demand for meats is starting a little earlier than usual, and with the three best distributing months of the year ahead of us, it would look as if prices on both hogs and provisions had gone about low enough."

The Baltimore and Ohio railroad has set an example to other railroads in the development of its tributary territory by entering into an arrangement by which it will furnish pure-bred bulls to the farmers of certain sections of West Virginia through which it passes. Generally speaking our great western roads like the Santa Fe and the Rock Island do not need to adopt this measure in their territory. At the same time it seems a wise step to take on the part of those

possible time and meet the enormous demand which comes to them for the Car-Sul cattle dip.

With the magnificent crop of wheat that is now being cared for in Kansas still in sight, the incentive to increase the acreage this fall will be a strong one. At this season, one of the things most prominent in the minds of the wheat-railers is the question of seed wheat. This question is easily answered by referring to the advertising card of Mr. Louis Duehn, Clements, Kans., on page 782. Mr. Duehn offers two varieties of beardless winter wheat which have the strong merits of being beardless, hardy, good yielders, and of not lodging. These are the May King and the Red Amber, which Mr. Duehn has raised on his own farm in the Cottonwood Valley for some time past. Beardless wheat has many advantages provided the yield is a good one and we are assured by Mr. Duehn that these wheats not only yield well but have the other good qualities mentioned above. This is a good opportunity to get this wheat while the supply lasts and should be taken advantage of.

Breeders of Poland-Chinas will remember that some time since a young fellow of wonderful good humor and equally wonderful hustling abilities, broke into the Poland-China ranks from Pleasanton, Kans., with a showing of surprisingly good swine, which included the best blood lines he could secure for money. This young breeder may a conspicuous success from the beginning, first, because he had the good animals, and second, because he used the Kansas Farmer in which to advertise them. It was therefore with sincere regret that we learned last spring that Harry Evans was closing out his herd of Poland-Chinas. The good of the breed, the good of the man, and the good of the live-stock interests in general demanded that he remain in the breeders' rank. This was impossible, however, and he has sold off everything now with the exception of one Shorthorn bull calf. This bull is Aberdeen Knight 165294 by Orange King 136731, out of Mary Aberdeen by Harris' great bull, Victor Knight 110515. He is now 2 years old and is a great husky fellow with a phenomenal record as a sire. A full sister of his sold recently at the Wilson sale at Oma-

it lodge badly, it is valuable for a fertilizing crop on thin soil, but as before stated, where a hay crop is the object sought the red clover is better.

"We are now using Zenoleum, and find it one of the very best preparations we have ever used. It is extra strong and very effective in its work. It is applied with extreme ease and it dilutes readily with water. It is non-poisonous and non-explosive, and is therefore a very safe and reliable preparation. Every farmer and live-stock breeder in the country should keep a supply on hand and use it freely on swine, sheep and poultry, and in a kitchen sink, and every other place where disease germs may find a hiding place, and it will destroy all microbes and vermin. A solution made of one part Zenoleum and thirty parts water will destroy hog lice. A solution made of one part Zenoleum and one hundred parts of water will destroy mites and chicken lice, and render the poultry-house clean and pure. To use it in the poultry-house, spray all over the inside. It is a good idea to dip the poultry. Follow this idea each week during the summer, and you will have no mites or lice to destroy the poultry. Every time the pig-pen is cleaned out take a bucket and make a solution of one part Zenoleum to fifty parts of water, and spray all over the pigs and the house. Also disinfect the swill barrel, trough and the places where the pigs are fed. If every farmer and breeder in the United States would use this disinfectant freely and give up trying to drug hogs with cholera remedies, we would stamp out the dreaded swine plague and hog cholera. The germ of swine plague is very easily destroyed by Zenoleum, but it is impossible to destroy the germ after it enters the circulation; therefore, the preventive idea is the best policy."—The late James Riley, of Thornton, Ind.

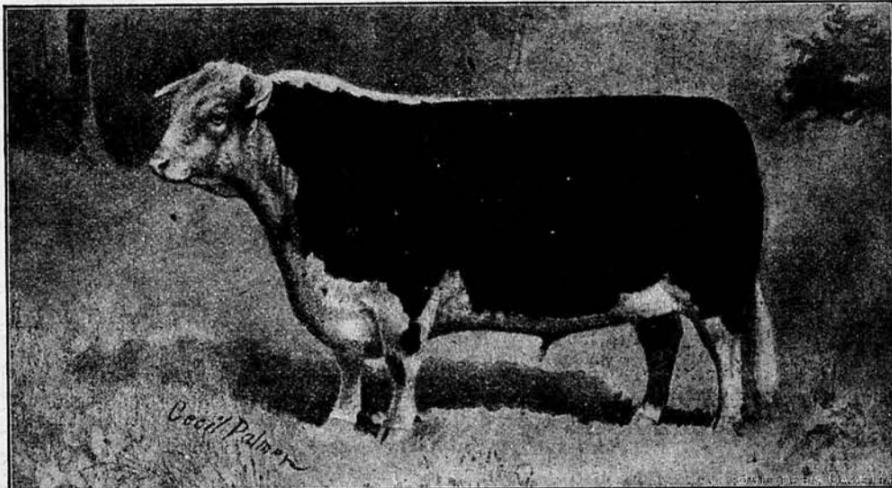
The Kansas Farmer has frequent calls for men who are capable of feeding show animals and fitting them for exhibition at the fairs and live-stock shows. This is a field of usefulness that is open to young men who have received their training in the agricultural college or elsewhere. We doubt if there is a position now open to the college student who has trained himself along these lines that is at once so

said that they do not mature as early as some of the other breeds. His idea that the bacon type is not desired in the American markets may be due solely to the fact that the bacon hog has not been properly exploited and its merits are not thoroughly understood. The American farmer shows his good sense when he breeds and sticks to the type that brings the most money most of the time. The wonderful vitality and reproductive powers of the Tamworths will not only increase their present value for cash, but will firmly establish a new field of breeding them for their own sake.

Not long since we had the pleasure of visiting the Poland-China herd of H. G. Sims, Smith Center, Kans. When we say that we had the pleasure of visiting this herd we mean that it was a pleasure, because we found here some of the best-blooded swine that are known in the herd-book and found them represented by individuals whose quality will undoubtedly make trouble in the show-ring this fall. We also had the satisfaction of seeing in this herd what can be and is being accomplished by such expert breeders in raising the best quality of Poland-Chinas with plenty of bone and size in a country where corn is not the only reliance for feed. In fact there are many breeders who now raise what might be termed alfalfa hogs, as it is well known there is no single food that is so nearly suited to the development of the bone and flesh of young swine as is alfalfa. Those breeders who are fortunate enough to be able to have this crop in abundance find that they need corn only for finishing the animals. Mr. Sims is the owner of a fine young herd which he is now fitting for the show-ring and which includes a strong infusion of Missouri Black Chief blood. The grandsire of these pigs won first in 1895 and later sold for \$500. Missouri Black Chief 2d won second in his yearling form and third in his 2-year-old form at the Nebraska State Fair in 1900 and 1901 respectively. The present herd-boar is Black Chief 26646 by Missouri Black Chief 2d 24661, out of Kitty Osgood 2d 59931. This is a grand young animal who proved itself a good sire as will be shown by the string of youngsters now being fitted for the Nebraska and Kansas State fairs. This herd has no Tecumseh blood in it. It is remarkable in that it has no wrinkles in it. From the herd-boar to the youngest pig, the writer does not remember to have seen so smooth and uniform a lot of pigs of so great a number as may now be found on the Sims Farm. We are satisfied that any visitor who makes a study of these animals, their breeding and the methods of feeding, will come away convinced that a combination of good blood and alfalfa is mighty hard to beat. Last year the Nebraska State Fair had a very large exhibit of swine and we now feel that the contest will be all the warmer this year by reason of the showing which Mr. Sims will make from his Missouri Black Chief herd.

On the near approach of the fair season the Kansas Farmer desires again to suggest to the officers of the various agricultural societies the advisability of securing trained judges from the agricultural colleges. Heretofore the system of selecting judges has been open to two serious objections. One is that the judge selected is a breeder of the breed that he is called upon to judge and is therefore placed in the position of judging the animals of his competitors. The other objection is that the judge selected is a breeder of some other breed and is open to the criticism of not having sufficient familiarity with the standard of the breed which he passes upon. Both these objections would be removed by the selection of judges from the students trained in the animal-husbandry department of the State Agricultural College. For the most part, these young men have been raised upon the farm and have been familiar with the handling of live stock all their lives. Their native, keen observation has been trained at the agricultural college by a course which makes them experts to a greater or less degree on all the breeds. During the fair season last fall the writer attended a successful county fair in which the judge selected to pass upon the beef breeds was one of the best known and experienced breeders of Shorthorns in the State. He knew how to produce good animals on the farm and knew how to care for and feed them so that they were winners in the fairs and the sale-rings, yet when his decisions were rendered it was patent to all breeders present that he had given credit for some important points and entirely overlooked others equally important to the extent of rendering his decision unsatisfactory. This man derived his training from the school of experience and his long years of familiarity with one breed had enabled him to achieve success as a breeder, but had not made him a success as a judge where other breeds were shown. Had he obtained his training in an agricultural college the probabilities are that his decisions would have given greater satisfaction because of his better understanding of the requirements made upon him by the different breeds. A young man who is thoroughly trained will probably be as effective and as thoroughly qualified as an older man who has gained his knowledge by years of practical experience confined to one breed.

In this issue will be found the annual advertisement of J. Clarence Norton of Moran, Kans. He owns two of the largest and richest-bred Poland-China boars in the world. Black Missouri Chief is a son of the \$1,000 Missouri's Black Chief, and weighed 907 pounds at 3 years of age. He has not a wrinkle on him, is in fine shape as when he won the grand sweepstakes last fall at the Allen County Fair, and easily walks his two or three miles every day. His dam is out of Chief Tecumseh 2d and a Klever's Model sow, giving blood lines identical with the boar whose nine pigs recently sold for \$4,990 at 7 months of age. He was mated to daughters of Hadley U. S. and Unique, the Kansas City Royal winners, Anderson's Model, Chief Tecumseh 3d, and many other noted hogs. They have been raised section 2d, the 700-lb. 2-year-old son of the with great care and bred to Proud Perfection 2d, the 700th 2-year-old son of the great sweepstakes Proud Perfection. The great sow Darkness was bred to Chief Perfection 2d and a gilt from the mating was bred to Perfect I Know and a gilt from this mating bred to Proud Perfection and the best pig in the litter is this



ORPHEUS, BY WILD TOM.

At the head of Geo. H. Adams' Linwood Herd. Bred by the late C. S. Cross, of Emporia, and to be offered in the Linwood dispersion sale, July 28-29.

roads who penetrate territory that has not yet received the advancement which always comes with good cattle.

The recent agitation in Hereford circles has resulted in the organization of a new breeders' association which has been incorporated under the laws of the State of Illinois by members of the present organization. The object of the new association is announced to be the purchase of the records of the present Hereford association in the event of its dissolution by the courts, and continuance of the records for the Hereford breeders of the United States. Should the old association fail to maintain its existence and the new one becomes successful, it is the intention of the organizers to assume the name of the old organization, or one very similar to it, and continue the business for which it was organized.

Hon. John C. Simpson, secretary of the Iowa State Fair association at Des Moines announces that the prospects for the fair are very bright, and that there will be a very large showing in all departments of pure-bred live stock and in machinery. This will be especially true in pure-bred cattle, horses and sheep. He also desires us to call attention to the fact that in order to have time in which to issue their catalogue they are obliged to close all entries in the cattle and horse departments on August 5, 1903. Honors won at the Iowa State Fair are to be prized because it is one of the greatest live-stock exhibitions that are held in the United States, and we hope our Kansas breeders will take notice of the entry dates and get in on time.

Dr. N. S. Mayo, State veterinarian, with headquarters at the State Agricultural College at Manhattan, is now touring the western part of Kansas for the purpose of investigating the Texas itch in cattle. Some weeks ago the Live Stock Sanitary Board quarantined several counties on account of the itch and required that the cattle-men should dip their cattle. Dr. Mayo reports that this order is being generally observed and that before cold weather sets in practically all of the cattle in this section will have been dipped. This order is in part responsible for the tremendous energy which has been displayed by the Moore Chemical Company of Kansas City in getting rid of the effects of the flood at their factory so that they could have their manufacturing plant in working order in the shortest

ha for a long price. Harry Evans' advertising card is on page 783. Write him at Pleasanton, Kans.

A recent writer in the Drover's Journal finds that his own practice of breeding young sows only and marketing them after their first or second litters, is being followed by an increasing number in the corn-belt States. He says he likes this way best because he can produce more stock at less expense than he can where the sows are kept for several years. The young sows produce strong and healthy pigs at their first litter, and while the litters may not be as large as those from older sows, he considers that the extra strength and activity more than makes up for the difference. As soon as they have been weaned, he immediately begins to fatten the dams for market. In this way he gets one good litter from each sow and is able to market her at an age and of a quality to meet the demands of the present market. This practice may be well worthy of consideration by farmers who handle bred and cross-bred stock. Of course no breeders of pure-bred hogs would think of adopting it, but the farmer who raises hogs for market only may find something in this practice that is worthy of note, or at least for modification.

Our subscriber, Mr. H. S. Hall, Pauline, Kans., sends in a sample of clover which he finds scattered sparsely about his own and his neighbors' fields with the request that it be identified and its value, if any, indicated. The specimen in question is trifolium medium, sometimes called the pea-vine clover or English cow-grass. It is a valuable plant for many purposes, although it has a coarser and more woody stem and fewer and smaller leaves than the common red clover. These facts, together with its habit of spreading close to the ground, making it difficult to mow, have given it a place of less importance in the estimation of the farmer than has the common red clover. While not good for hay as red clover, it is a better seed-producer and on farms where the main object in growing clover is to increase the fertility of the land and where it is desired to secure a reasonably certain crop of seed as a money-crop this clover is perhaps more valuable than the red clover. If a crop of hay is the object, then the red is to be preferred. The pea-vine clover may be used to advantage on thin soil especially for a first crop. With its peculiar habit of growth, which makes

remunerative financially and so profitable otherwise as the position of fitter for a show herd. At this season of the year when breeders of all classes of live stock are fitting their herds for the fall exhibitions the demand for capable men is always considerable, but just now on the eve of the great Louisiana Exposition when breeders all over the Union are fitting for that show the opportunities for the young man who has trained himself for this work are exceptionally good. Very many college students, the world over, find themselves in a position to need remunerative employment at the end of their college course or in order to enable them to complete it, and no place that is open to them could be more acceptable than a position which would enable them at once to earn a good salary and at the same time continue their education along live-stock and breeding lines. The financial prosperity of the country rests upon its live stock, and the young man who desires to engage in this business could have no better preliminary training than that of fitter and feeder for a show herd. This week Mr. H. C. Young, an expert breeder of swine, Lincoln, Neb., advertises for a man to fit his show herd for him. His card is on page 783.

A writer announces that an outbreak of the bacon-hog fever is likely to follow the present conditions of trade. The conditions of late have been such that a premium has been placed on the light or rather lean hogs. He calls attention to the fact that the fat hog has been the market-topper for some time past, and that owing to the present scarcity of light weights the breeders of these fat hogs will have an opportunity to draw some morals from the market quotations. Very few pigs and light weights are appearing. The average weight of all at the hog market at Chicago of late has been above the extreme top weight of the bacon hog. The writer argues that this is the reason why the light weights are so high in price, but he also argues that the producer should not change his type as this is merely a transient condition. He thinks that next fall or winter the fat hog will resume its place at the top, and that the breeding hog market will return to its normal condition. The writer appears to make a mistake in classing the bacon hog with the light weights as both the Tamworths and the Yorkshires in this country can hardly be classed with the light weights, although it may be

700-lb. Proud Perfection 2d. Thus he carries 50 per cent of the blood of Proud Perfection, the hog that has sired more show-winners than any other hog; 25 per cent blood of Perfect I Know, the second greatest sire of show hogs; 12 1/2 per cent blood of Old Darkness, the greatest producing sow the world has ever seen. This same mating produced Heart's Delight, Mischief Molson, and Fortune Teller, sweepstakes State Fair winners. Mr. Norton has as richly bred hogs as any one and he understands how to raise them for the best results. He will not sell you a gob of fat or animated lard, but a pig fed from conception to shipping on the foods best adapted for a large growth and grand development. Many breeders all over this State have boars in service that were bred by Mr. Norton. In thirty years' breeding, only one pig was ever returned, and the same pig was sent to another party and was said to be the best pig ever shipped into that vicinity. Mr. Norton guarantees every pig to be exactly as described by him and always ships on this guarantee. His advertisement in this paper last year sold all he had to sell and he returned over sixty orders for boars. Only one gilt sent out failed to produce, and she was rebred and shipped free of expense to the buyer.

The horse-show at the Iowa State Fair at Des Moines this year, from August 21 to 29, will be the best ever held in the State. There will be an exceptionally strong showing of heavy horses and it is predicted it will be the best ever seen in Iowa. Professor C. F. Curtiss, of the Iowa State College, has been selected to judge the horses, this arrangement giving general satisfaction to the exhibitors.

This world is but a small place after all. In a recent trip in western Kansas the writer had occasion to employ a livery team the driver of which informed him that his son was employed on an ostrich farm at Nice, France. It will be remembered that some time since an ostrich ranch was established at Manitou, Col., but the climate proved unsatisfactory and the venture unprofitable except as a visiting place for tourists at so much per head.

The Geo. H. Adams Herefords.

On page 770 we give a handsome cut of the Hereford bull Orpheus, a son of Wild Tom, and bred by the late C. H. Cross, of Sunny Slope Farm. He is now one of the heads of the Linwood Herd and will be offered in the sale to be held at Linwood on July 25th and 29th.

Wild Tom is one of the greatest sires that has appeared in the west and this sale will include a number of his daughters as well. Among these are Belle Monde 10th out of Belle Monde 8th who is the dam of Abercrombie by Climax who now stands second to Orpheus in the herd. Miranda, Elvira and others of Wild Tom's daughters now in the herd have made their records in the show-ring at the Pan-American, the American Royal and elsewhere.

On account of the declining health of Mr. Adams, everything in the herd will be offered. There will be no reservations and prize-winners will stand alongside of those who have not yet been shown. All will go at the breeders' prices.

With characteristic liberality Mr. Adams has provided for the comfort of the buyers by furnishing a free train on the Union Pacific from Kansas City to Linwood and return on each day of the sale. Visitors will be met at the train with carriages and conveyed to the Linwood farm, where the sale will be held. Catalogues may be had of T. F. B. Sotham, Chillicothe, Mo.

Standard Poland-China Record.

We are in receipt of communication from the secretary of the Standard Poland-China Record Association, Maryville, Mo., which shows a slight indication of an awakening. It is gratifying to note that the spanking administered by the Kansas Farmer is having some effect on the powers that be and a disposition on their part to heed the good advice offered by the best friends of the association. The communication received is as follows: "The directors of the Standard Poland-China Record Association of Maryville, Mo., composed of the following gentlemen, W. T. Garrett, E. R. Woodford, B. F. Gilmore, E. E. Axline, H. M. Kirkpatrick and S. McKelvie, at their meeting held July 16, passed a resolution, proposing to the stockholders to change the place of the annual meeting of association to either St. Joseph or Kansas City, Mo., and to meet the increased demand for stock in the association, an additional 500 shares were ordered by the unanimous vote of the directors, and the books were opened for subscriptions to the same. The board found the association in the most prosperous condition it has been since its organization in 1886."

Noted Hogs Dead.

Ideal Sunshine, the popular and famous black United States boar that has been one of the great hogs of the day for a considerable length of time, died at the home of J. M. Klever, Bloomingburg, Ohio, recently.

The Poland-China boar Foster's Perfection, a full brother to Proud Perfection and the sire of Perfection E. L., one of the high-priced hogs, was killed in a duel with another hog recently.

The death of these two hogs is an important loss to the breeding fraternity.

Big Money for Range Horses.

A very successful sale of range horses was held at Grand Island, Neb., last week, at which 700 very choice range horses were sold. The prices for carload lots were very satisfactory, the top load bringing \$46. Included were many branded range horses that were thoroughly broken and which sold as fast as they could be brought into the ring at an average of \$235 a span. Five good drafters sold together at an average of \$117.50, and one saddle-horse brought \$165. Every animal sold was a range horse and the prices paid plainly show the big demand for good bred range horses at this time. The sale was held under the management of Ingerson & West, of Sioux City, Iowa.

Live Stock Advertising.

In spite of the fact that breeders of live stock are prospering, and are getting a good price for a good animal, every one of them who studies the situation as it really is will admit that he has not spent his entire advertising appropriation—if we may apply the term to money spent in so haphazard a manner—to the best advantage.

Live-stock raisers are good buyers. In the first place they are an intelligent class of farmers, and in the second place they usually have ready money. They are progressive; the man with a good, live-stock specialty usually finds a ready sale for it.

Reports of live-stock men are to the effect that horses are everywhere extremely scarce. In consequence they are bringing prices that days of prosperity alone could hardly reach, and in many localities the figures are beyond anything that a few years ago the horsemen would hardly have dreamed of. In this way he participates in the good things of life. Getting good prices, he is able and willing to pay liberally for those things he wants around his house, or for use on his farm or by members of his family.

Good stock makes good farmers. Scrub men do not breed registered animals and scrub animals are not maintained by the better class of American farmers. Agriculture can never attain its proper rank as a dignified profession except through the breeding of pure-bred stock on every farm.

If I were a breeder of registered live stock and desired, as all should desire, to get maximum results from advertising, I would select my medium judiciously, change my ad weekly if possible, quote prices when it seemed expedient, make my ad as attractive, bright and unique as I could, let my rivals do all the knocking and never let up in reminding the public with all the force and logic at my command that I had what it ought to have. I would not run a "card" simply to "keep my name before the public."

Thus far I have found more to criticize than commend in live-stock advertisements. How they may be improved is now to be considered.

In the first place they should be better worded. In the second place they should be changed at least twice a month and oftener would be better. Thirdly they should have life and originality in them—anything to eliminate the dullness that sticks to an ad which runs unchanged for six months or a year.

If ads were changed weekly there would be small need of "field notes" in live-stock publications. Every advertiser might write his own "field note."

Judicious advertising is just as important as good breeding and feeding. Show-ring advertising is good when a breeder has the skill to put his animals in good form to win but quite often a good breeder does not quite reach the standard of good careful feeding that makes winners; but even if successful in the show ring, unless printer's ink heralds his success, but few outside of a circle of friends ever become aware of what he has produced.

It is useless to advertise choice, gilt-edged animals to a lot of politicians, or even to a lot of farmers who will only pay 25 cents per year for an agricultural paper. A breeder who is satisfied with a middle grade of stock can sell cheap and can get something out of advertising in the cheap papers, but the breeder of high-class animals can only hope to get his money back by finding a market for his plainer animals. The breeder who is producing a high class of animals finds the best returns from the best mediums because they bring him customers willing to pay for his choicest animals and these go forth as a living advertisement of his herds or flocks.

Some breeders do not seek the farmer's patronage. They want better prices

WE GUARANTEE that under the same conditions speed applied, condition of corn, etc.,

The Appleton Corn Husker

will do more and better work than any other machine of like character and corresponding size on the market; that it is simpler in construction; easier in every way to operate; easier and safer to feed and to require less power for successful operation. The proof of these claims is sent for the asking. We make also a complete line of sweep and tread horse powers, shellers, ensilage and fodder cutters, feed grinders, wood saws, windmills, etc. Remember that Appleton quality is the standard of excellence.

**2-Roll,
4-Roll,
and
6-Roll,
Down or Mounted.**

*Write to-day for
free Catalogue.*



APPLETON MFG. CO., 19 Fargo St., Batavia, Ills.

than farmers incline to pay for their breeding stock, and depend upon other professional breeders only. Such men say that the paper devoted to their line of business only is the best-paying advertising medium, and the statement is easily credited. Concerning their business I know nothing. But where the average stockman and farmer are concerned, the advertising that pays is in the paper he takes, and that is not a journal devoted to a special class of live stock.

I confess to skepticism concerning the big value of a breeder's card that is so small there is little room for his name. Such a card is ahead of none—I made a small purchase this year on the strength of an address so gotten—but a little more space would destroy the "directory effect" of such columns of advertising, and give a greater impression that business was good.

The aim of a live-stock advertisement is to secure inquiries that will bring sales. The transient breeder is served by transient advertising, but the man who has come to stay, and has brought something good with him, needs an attractive advertisement standing each week ready to catch the eye of the man who is ready finally to write for what he needs.

A producer of breeding stock, it always has appeared to me, should advertise himself fully as much as his herd or flock. While most prospective buyers will walk around an animal several times and try to look wise, yet the majority, when they come right down to buying, do so on the pedigree of the owner. They would not admit the truth, least of all to themselves, but they are not expert judges, and the fact that the particular breeder has a reputation and, presumably, skill goes a long way with them. It is the man that counts with a long line of buyers. In view of them, acquaintance of the right sort is essential, and for very many people the acquaintance can be no closer than that obtained by reading a breeder's name in the farm and live-stock paper that comes to the home each week. In some instances, possibly, any closer acquaintance would not be an advantage, but acquaintance and confidence cut a big figure in influencing buyers of breeding stock and are promoted by the use of printer's ink.

The show ring advertises, but it is for a limited class. The average breeder can not afford to exhibit against a few who carry an aggregation of prize-winners from show to show. He must reach his public in another way. An occasional small breeder says that his sales advertise him sufficiently. He asks little and receives it with exactness. But the breeder whose name appears clearly in the columns of a farmers' paper each week is the one who will make the most sales to farmers.—Agricultural Advertising.

Why Buy a Corn-binder?

Advertised on page 782 in this issue is an article which will pay any farmer to investigate, for it is without doubt the best device for the money invested for cutting and gathering corn, cane, Kafir-corn, or anything of the kind which is planted in rows or hills. It slides on the ground on wood runners which extend about two-thirds its length, and one horse can pull it easily all day, with a man riding. Although this tool does not bind it does everything else that a binder does and does them better, as it will pick up all stalks except those that lie very flat on the ground, and in the same direction in which you are going, the arm bends the stalk forward just enough to cause a tension, and when the knife strikes it it is very easy to cut it and let it fall forward into the rack which holds

TELEGRAPHY.

We wish to secure young men to learn telegraphy and railroad business. Write
J. P. TIGHE,
Care Santa Fe Ry., Arkansas City, Kansas.

WARM YOUR HOUSE

at low cost by using the LEADER Steel Furnace. Saves coal, time, trouble. Send for free booklet No. 22 Home Warming and Ventilating Co., Chicago, Ill.

it up from the sled, and is easy to get hold of in lifting off. One man and one horse can easily cut from sixty to seventy shocks per day with one of these cutters. In ordinary corn, and for cutting Kafir-corn and cane they can't be beaten.

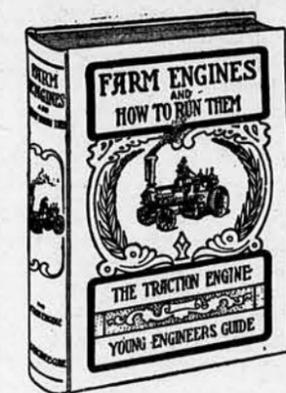
Better to be Safe Than Sorry.

"When in doubt take the safe side," has been an axiom since human beings developed reasoning powers and holds as true to-day as ever. Absolute safety is always better than taking needless risks and this is why it is so strongly recommended to keep a supply of Cremoline constantly on hand. It is a highly concentrated liquid and is to be diluted so as to afford any desired strength, making its value as a liniment unexcelled, as a disinfectant, no other preparation approaches it in effectiveness; it enters into the entire line of remedies made by the proprietors of Cremoline, as the principal ingredient and no single compound has so wide a scope of usefulness about the farm, workshop, factory, etc. Note the advertisement, elsewhere, and ask for circulars covering all the ground of the full line of Cremoline preparations.

FARM ENGINES AND HOW TO RUN THEM.

The Young Engineer's Guide.

By Stephenson, Maggard & Cody, Expert Engineers. Fully illustrated with about seventy-five beautiful woodcuts. A complete instructor for the operator or amateur.



The book first gives a simple description of every part of a boiler and traction or simple stationary engine, with definitions of all the technical terms commonly used. This is followed by over 80 test questions cover-

ing every point that precedes. Then come simple and plain directions to the young engineer as to how to set up and operate his engine and boiler, followed by questions and answers to what should be done in every conceivable difficulty that may arise, covering such subjects as scale in the boiler, economical firing, sparks, pressure, low water and danger of explosions, lining and gearing the engine, setting the valves, oiling, working injector and pump, lacing and putting on belts, etc. There are two chapters on farm engine economy, giving the theory of the steam engine, especially in its practical applications to securing economy of operation. Chapter XII describes "Different Types of Engines," including stationary, compound, Corliss and high speed engines, and all the leading makes of traction engines with an illustration of each. Also chapter on gasoline engines and how to run them, and another on how to run a thrashing-machine. The book closes with a variety of useful recipes and practical suggestions and tables, and 175 questions and answers often given in examinations for engineer's license. Beautifully illustrated with plans, etc 12mo cloth. Price \$1.

Given with one year's subscription to the KANSAS FARMER for \$1.50, postage prepaid. Address, Kansas Farmer Company, Topeka, Kans.

When writing advertisers please mention this paper.

The Young Folks.

Conducted by Ruth Cowgill.

THE FALLS OF THE MONGAUP.

Struggling along the mountain path,
We hear amid the gloom,
Like a roused giant's voice of wrath
A deep-toned, sullen boom:
Emerging on the platform high,
Burst sudden to the startled eye
Rocks, woods, and waters, wild and
rude—
A scene of savage solitude.

Swift as an arrow from the bow,
Headlong the torrent leaps,
Then tumbling round, in dazzling snow
And dizzy whirls it sweeps;
Then, shooting through the narrow aisle
Of this sublime cathedral pile,
Amidst its vastness, dark and grim,
It peals its everlasting hymn.

Pyramid on pyramid of rock
Towers upward, wild and riven,
As piled by Titan hand to mock
The distant smiling heaven.
And where its blue streak is displayed,
Branches their emerald net-work braid
So high the eagle in his flight
Seems but a dot upon the sight.

Here column'd hemlocks point in air
Their cone-like fringes green;
Their trunks hang knotted, black and
bare,
Like specters o'er the scene;
Here lofty crag and deep abyss,
And awe-inspiring precipice;
There grottoes bright in wave-worn gloss,
And carpeted with velvet moss.

No wandering ray e'er kissed with light
This rock-walled sable pool,
Spangled with foam-gems thick and
white.

And slumbering deep and cool;
But when yon cataract roars down,
Set by the sun, a rainbow crown
Is dancing o'er the dashing strife—
Hope glittering o'er the storm of life.

Beyond the smooth and mirror'd sheet
So gently steals along,
The very ripples, murmuring sweet,
Scarcely drown the wild bee's song;
The violet from the grassy side
Dips its blue chalice in the tide;
And, gliding o'er the leafy brink,
The deer, unfringed, stoops to drink.

Myriads of man's time-measured race
Have vanished from the earth,
Nor left a memory of their trace,
Since first this scene had birth;
These waters, thundering now along,
Joined in Creation's matin-song;
And only by their dial-trees
Have known the lapse of centuries!

Our Pilgrimage.

One day late in June, two bachelor maids, of whom one was the editor of the Y. F. Department started upon a pilgrimage to the Shrine of Knowledge and the Hub of the Universe, Boston, the exclusive and super-refined. Their experiences thus far have been varied, and interesting at least to themselves. From week to week the editor will send sketches of her observations and experiences both in Boston and at Harvard College where she will study for the next six weeks.

Chicago, the first point of interest upon our journey, is the most disgustingly dirty city in the world—at least I hope there is no other so dirty. The train pulled in screeching and puffing blackest smoke into an air already heavy with soot and foul odors. We dragged past dingy factories and soot-laden chimneys and smoke-stacks. The railroad is elevated here, so that we were on a level with the second stories of the foul tenement houses, where we could look down into rooms sickening in their filth and untidiness; where children, unspeakably dirty, played upon the rickety stairs and porches, and slouchy women plodded bare-footed about their toil, and low-browed, evil-looking men stared sullenly. A little way from the tracks, we could look across a field, barren of all except billboards, to long rows of small cheap-looking houses, exactly alike in every detail. I think I never saw anything so depressing as the exact likeness among those hideous rows and rows of thickly stationed houses. Once we saw a discouraged-looking cow standing staked out in a mud-puddle, with no sign of grass or weeds to nibble. Indeed, we were thankful when our great iron horse pulled us away from all the degraded and ill-smelling places, and green fields and trees and grazing cattle once more met our eyes. The city may have its charms, but give me the sweet, pure country air and clean country roads, thus I thought as I pulled out of Chicago.

I hesitate, as I come, in my revelations, to Niagara, for no pen is worthy to attempt a description of that most marvelous of Nature's works. One feels that the only thing to say is, "You must go and see for yourself." Words

are an impertinence in the face of such grandeur. You have all seen pictures of the Falls, doubtless—your first feeling will be one of surprise that the real thing look so much like its picture. But when you have been there for but a moment, you will at once realize that there is an influence here that no picture can ever catch, a depth of color and a changefulness of beauty that fascinates and holds you dumb. You have heard of the roar of the Falls, and you have thought of it as a noise. It is no noise—it is music with a theme too grand for any other instrument than the mighty rocks and the rushing waters. Perhaps no one has thought to tell you of the odor. I went sniffing along, wishing I could bottle up some of that elusive fragrance. The fragrance of pine and cedar and all the wild woods mingles with the peculiar freshness of the water, and it all makes you think of everybody you know and care for, and wish they could smell it, too. Surely there is nowhere else such beauty and such power. The torrents rush, in such desperate haste, to the precipice, and leap over into the whirlpool below. They lash upon the rocks, and rebound, sending a white spray into the air far higher than their source. A rainbow lies upon the spray, perfect in color and shape. The Maid of the Mist, a little steamer which has plied these mad waters for many a year, sails hesitatingly toward it, and rocks and sways and quivers as it approaches the very edge of the rapids. Beautiful beyond expression is the scene, and never can it be forgotten—a constant, daily witness to a Power above and beyond the puny might of man.

Our route took us into Canada for a little distance, and Canada, even as far as we saw it, deserves more than a passing word. In the first place, Canada is clean, thrifty and well kept. The farm-houses along the way are attractive, substantial-looking places, the fields are well cultivated and flourishing. The railroad is level and smooth and its embankments are covered with great white daisies, while weeds are kept down along all the public ways. We were in Toronto for some five hours, and were charmed with the city. The people were charming here and took great interest in making the strangers see the beauties of their city. I remember one street-car conductor who amused me greatly by his enthusiasm in her behalf. We wished to see a certain part of the city and asked him how to get there. He thought seriously for a moment, then suggested a plan, then another, and another, himself rejecting each one as not the best. Then suddenly an idea dawned upon him, and he fairly beamed as he waved his handful of transfer tickets toward the car we were to take. He helped us off and headed us in the right direction, with affectionate interest. At another time, a gentleman sitting opposite took us under his wing. He was a man of most charming manner, and, as one of our party remarked, "must have been somebody." He heard us wondering about some building, and informed us with a deferential courtesy that was very soothing to our feelings. Later he pointed out many places of interest. I think one reason why we have such an affection for Toronto is because of a café we happened upon. It is true that one should not base his opinions of his host upon the things he gives him to eat, but nevertheless it is true that we can live without pictures and books, "but civilized man can not live without cooks!" We were tired—oh, so tired!—and hungry, and when a good, substantial meal was served us daintily, we vowed Toronto was an ideal city. In truth, Toronto is remarkable in more ways than one. She has done many things that more insignificant towns have feared to do. For instance, she, at one time, enforced to the letter, the law of the fourth commandment, "Remember the Sabbath day to keep it holy." She closed all her stores and stopped her street-cars and all traffic, for one day in the week. I know of no other city in the world which has dared to do such a thing. For another thing, Toronto is clean! And there are flowers everywhere in

the public parks, in windows, upon private lawns. These things, with the beautiful public buildings and residences, all combine to make a most attractive city.

After Toronto came a day altogether delightful—a day on shipboard, upon the St. Lawrence river. It was almost my first experience upon a boat and I looked about with great interest. It was a great white clean thing, that sailed the smooth waters as gently as a hawk floats in the air. We went up to an upper deck and sat well toward the front, where we had a perfect view of all the beautiful river, with its Thousand Islands. It was the Glorious Fourth in the United States, but there was little to remind us of that fact. The fresh, cold breeze set our hearts a-dancing and our blood a-tingling. Our eyes were gladdened with beauty fit for fairyland, in sky, in water and upon land. Little islands dotted the river and floated past us in a constant succession. Here and there a broad expanse of land varied the scene. The islands were beautifully green, with trees and grass. Some of them had steep, rocky banks and some were flat and marshy. Many of them are owned by wealthy men, who have built cottages upon them and live there in the hot summer months. Such was the first part of our journey, upon the wide placid St. Lawrence. But after four or five hours, we were transferred to two smaller boats, for we were approaching the rapids, whose narrow navigable channel made passing dangerous to larger vessels. The boat had a capacity of six hundred, which on this occasion, it being an excursion day, was augmented to seven hundred, a very dangerous piece of business, had we only known it. But most of us were ignorant of the real nature of our voyage, considering it merely an interesting diversion. The rapids are a wild, unruly piece of water. You think the river was going mad as you watch it dashing this way and that in futile rage, lashing the great rocks—which you can see through its clear depths—until it foams and froths. It never seems to be getting anywhere, it has no definite plan of action, like our own smooth flowing rivers. It is water gone crazy. It hates itself and its restraining banks, and the insolent little boats which pass it with their noses in the air. The Lachine Rapids are the most terrific, and only in the narrow place can they be navigated. Here, so we were told, the slightest deviation in our course would have thrown us helpless upon the rocks. I stood at the door of the pilot's cabin and watched with great interest. For ordinary smooth sailing one man manipulates the great pilot wheel which steers the course of the vessel. As the rapids approached, another pilot appeared, and then another, till there were five. And each of those men felt the responsibility for seven hundred lives, and how they worked! They strained every nerve, they concentrated all their minds, their senses, their will, upon the task before them. We could see the strain of it all in their faces—eyes narrowed, lips drawn tight over set teeth. And how they whirled that wheel around, sometimes even using their feet to help, under the terrible strain. When it was over, they mopped their faces and lighted their pipes and sank into chairs wearily. And all the while, down below, the green waters were raging and lashing at us, while on board the people were laughing and jesting! The Rapids past, the river became tranquil and calm again, and we sailed slowly on toward the many-towered city ahead of us, under the great Victoria bridge and around to the wharf, when, with state grace, the little boat pulled up and we disembarked at Montreal, bidding farewell to the Union Jack which had been our banner floating at the head of our boat.

At Montreal we had some funny experiences. We noticed that we were always recognized as Americans and occasioned some interest among our neighbors. This amused me and I felt called upon to act in the manner commonly ascribed to visiting Americans, affecting a breezy free-and-easy man-

ner, a nasal twang, and an obtrusive curiosity of every thing British. But I was promptly "sat upon" by my friends, who insisted in impressing upon me the necessity of behaving myself in a becoming manner, lest the reputation of my country suffer. Feeling duly impressed, I subsided into a depressed consciousness of my responsibility, until suddenly a distant band struck up a familiar air. "Listen," I exclaimed, in pleased surprise, "the Canadians are playing America!" I did not understand the derision this remark excited, until I was kindly reminded that the National hymn of all the countries is sung to the same tune, and that to the Canadians it said, "God Save the King!"

We were tired when we once more got into the little berths which by this time had come to feel like home, and soon we were asleep. Presently we were aroused by a voice outside the curtain saying, "Where's your baggage?" "Oh, I don't know—it's under the bed somewhere," answered a distressed and sleepy voice. "Well, did you buy anything in Canada?" "Why, I bought a cotton collar that I have been wearing ever since—" "And I," chimed in Miss Honesty, across the way, "bought some postal cards and some stamps." Such accuracy was too much for the customs inspector, and he sailed out of the rear end of the car to hide his laughter.

At last we reached Boston! We were put upon a swiftly running elevated car, then transferred to an equally swift underground car, and finally turned out at our destination. Boston is too long a story to be told in our small remaining space, so it must be reserved for next week and later. Meanwhile, we will be having our experiences which we will faithfully detail, even when, as often, the joke is on us.

A Few of the Habits of Bob-White.

I have always been a close observer and lover of quail and partridge-shooting, having been reared in the country where we always have them plentifully. My father was a fine wing shot and took great pride in instructing your humble servant, who became quite as expert as he. I have always been a close observer of the habits of the quail, and for the benefit of the many lovers of the same sport I well endeavor to give them my observation of how the quail live and move about during the year.

They are a very innocent, cheerful, and military bird in their tactics, and rear their young at a tender age to fall in ranks, etc. In early spring the first move is to pair, two and two, from the bevy. Just how this pairing is conducted I can not say, but it is done in the quail's military movements, and I suppose they have a great feast and drawing day, perhaps called parting or pairing day. After that day each pair starts out for building nests and hatching the young, and I believe in many cases never meet the old home folks again. They always go far apart and take up their home in some grass-field; they never build nests in swamps or woods, but always in the open field and on high ground. This takes place from April 15 to the 1st of May. After this you never see but the two birds together, male and female, no matter how many birds were in the bevy. You may have fed and cared for all during the cold winter months, as so many farmers do; but after pairing or parting day you will never see the beautiful little bunch you were so proud of. You may find a new field (not the same haunts they kept all winter) where they start out anew; and when cold weather comes again you will find you have another covey of birds that will occupy the same haunts that your last winter's covey did.

The bob-white, or the male bird, has a white ring about the head, and a little topknot, while the female has a smooth, brown head almost the same color as her body. They change their call three times a year. In spring it is "bob-white" until the young are out, after that "wollkee," and always repeat each call three times. In the fall

during shooting season they change again to a "cheerup," always repeating three times.

They build a nest a few days before beginning to lay. The eggs are white, and range in number from twelve to twenty-eight, the latter being the largest number I have found in one nest. The male bird does almost the entire hatching, except at night time when the female will take the nest, and the male will sit two or three feet from her all night. It requires from twenty-five to twenty-eight days to hatch the eggs.

The young birds are shy when first hatched and show lots of game from the very start in life. As soon as they get the shell parted they come out and often are seen running around with part of the shell hanging to them, and until they can fly well they have a funny way of hiding when frightened. They will run and stick the whole head into a hole in the ground or under some cover, thus becoming an easy prey to the enemy. But after they can fly well then they hide well. Without a good bird-dog you can get no quail. Another thing, your dog can not follow them for five or ten minutes after they first alight. A real old sport will never follow a bunch of birds as soon as he marks them drop down, but will wait for five or ten minutes till they are settled, they the dog will have no trouble in standing the game. Again when a pair gets an open shot, no matter if you don't see a feather fly, mark the bird. They often fly quite a distance and fall dead. Again if the bird starts to fly straight upward, you have fixed him, he will die in the air and drop stone dead.

From pairing time until real cold rough weather sets in the quail or partridge seem to have no particular home; any place within their territory, which is from one to one and a half miles square, they seem to wander during nice weather, and they always keep near to roads. They sit on the fences and call "Bob-white," and usually repeat three times. They do not have any particular camping place, but settle anywhere night catches them, sometimes on the bare ground. They don't seem to care or cover, any place suits them. They keep this up until cold weather comes when they take to cover and usually have two abodes, one in open cover, and the other in mountains, swamps, or woods. After this time you can always find them in one of the places in the morning or late evening. During the day in fine weather they roam a great deal. In cold, windy weather you find them in the sheltered hollows or on the mountain-sides or in the woods. At that season of the year they seem to have a certain time to call a halt for camping at night. I have known them to camp on bare ground or very light cover when by moving fifty or even ten yards they could strike good heavy cover. They camp at about sunset or before if not disturbed. They camp with their tails all together, and form a circle with their heads all on the outside, and look exceedingly pretty. This position is taken to insure a quick start in case of alarm. One bird is always left out of the circle for the night, by some preliminary partridge tactics, and he is termed the "picket bird," and a new one is appointed every night. This picket is stationed three feet from the camp and usually on the east side, toward sunrise to mark the first peep of day. They are as quiet as possible all night, but at the first dawn of day this picket bird will begin to call and continue until answered by his brother picket from another bunch. Out in a great field away from all artificial sounds this picket can be heard for miles around. One picket answers the other, and as soon as the picket bird is answered by brother pickets he is off duty, and the entire covey is at large each to do as he pleases for the day. In real rough weather they do not move until the middle of the morning but they never neglect the morning call. When imprisoned in a dark room, or in a light one, or when shipping them in a closed baggage coach, if lighted at daybreak they will call, if alone, if not, all talk to

themselves in quail Dutch for a while, then quiet down.

Another strange thing about the pairing or parting days is that one pair of birds is always appointed to stay and take up their abode on old last year's territory while the others must hunt a new place for their camping grounds. You always find birds in the same localities each year, though they often change from one field to another. As the farmer plows up their last year's cover, they move to another field, but on that farm they will make their camp, or one of their camps, as they always have two. Often the bunches are in neighboring fields though some wander off and even get out of the home country altogether. Sometimes but not often there will be two bunches in one field.

They become very cunning after being shot at and will try to deceive you. They will fly to a cover and you think you have got them, but they will keep right on through the cover and lay low to the ground for a while then go in any direction. Or they will go through a thick cover and drop on a grain or corn-field and lay very low.

If any of my readers know of other habits of the quail I would be pleased to hear from them.

JAMES F. HICKER.

Wagerstown, Md.

Translations from the Birds.

As we listen to the song of the birds in the springtime we very often find ourselves trying to translate their notes into corresponding words and phrases in our own familiar Anglo-Saxon. Perhaps in most cases our imagination leads us to fancy certain resemblances to English words; but, at all events, bird-lovers have always found it difficult to agree in their interpretation of the various songs. In some few cases, however, translations have been so apt that they have at once obtained a general acceptance and have become almost inseparably associated with the name of the bird. Who that thinks of the ovenbird, for example, does not at the same time call to mind the vigorous crescendo, "Teacher, Teacher, TEACHER, TEACHER," which so aptly describes his song? The song sparrow will repeat for a whole summer morning long his sole and single article of faith, "Pres, pres, preby-tee-rian, ian." As you sit, on an early June morning, under an elm close to the nest of the wood thrush you feel that his message is meant for you and you only. "Dear me!" he says, "Really! Ha, ha, you're a tease! Dear me!" In the meanwhile the little "preacher," the red-eyed vireo, is earnestly exhorting from a tall tree near by, "You see it! You know it! Do you hear it? Do you believe it?" To Thoreau planting corn, the brown thrasher from the tree-top near by, cried "Drop it, drop it! Cover it up, cover it up! Pull it up, pull it up, pull it up!" Translations of a similar nature might be multiplied; but, after all, the comment must be the same in the end—that, however apt the interpretation, it must, in the majority of cases, fail to convey an adequate idea of the quality and character of the bird's song.—Orlando J. Stevenson, St. Thomas, Canada, in Literary World.

An Entertainment With Silhouettes.

In the August Delineator Janet Brewster offers a number of practical suggestions for utilizing the popular silhouette portrait as a basis for afternoon or evening entertainments. After the portrait-making, various modes of procedure are suggested. The silhouettes may be upheld before the guests for the purpose of guessing the original, or they may be exhibited as a group and a vote taken as to the most attractive specimens. As a variation, voting as to the handsomest, most finely shaped and modelled chins and noses may be indulged in, and laughing or other fanciful portraits may be voted upon as well. In any case, much fun and merriment is sure to result from the entertainment. The paper is illustrated with silhouette portraits of ladies prominent in Chicago society.

When does a farmer double up a sheep without hurting it? When he folds it.

For the Little Ones

THE CLEVER KITTENS.

"My cat speaks French," said little Jeanne.
"As plainly as can be;
Says 's'il vous plait' (that's 'if you please'),
And thanks me with 'merci!'
I know, because I understand
Each word she says to me."

"And mine speaks German," with a nod,
Said Lisa from the Rhine;
"Says 'bitte' when she wants a drink,
And 'ja' of course, and 'nein';
I wouldn't have a cat that spoke,
A different tongue from mine!"

"That's throe for you!" sweet Nora said,
With merry look demure;
"Me own shpakes Irish! Whin I set
A saucer on the flure
An' ask her would she like some milk,
The darlint tells me 'Shure!'"

I met those kittens afterward,
No matter where nor how;
I listened well to what they said—
Would you believe it now,
They spoke in English, every one,
And all they said was "Malow!"
—Woman's Home Companion.

BE KIND.

"Be kind and gentle
To those who are old
For dearer is kindness
And better than gold."

"Kind hearts are the gardens,
Kind thoughts are the roots,
Kind words are the flowers,
Kind deeds are the fruits."

Peter's Strange Dream.

II.

Peter must have slept a long time, for he dreamed such a long dream. He thought he flew away from the bottle, and the old firefly with the cracked lantern, and flew around alone for a while until he saw a bright light shining.

"Perhaps that is my lantern," said he to himself, and flew off toward it. He flew straight into an open door, and there before him was a table spread with all kinds of good things—cakes and jams and candy and butter.

"I believe I'm hungry," said Peter, in his dream, and flew straight into the jam. You may fancy how he screamed when he got into the jam! His little feet stuck fast and he pulled and pulled before he could get loose.

When at last he did get loose, he said, "I guess I am not hungry, after all."

Then he began to look around for something to do. He remembered what his friend the old firefly had told him about teasing people, so he looked around for some one to tease. A man sat nodding a chair.

"That looks like my papa," said Peter, the firefly. "I'll just tickle his nose and see what happens."

So he walked across the man's nose, and stood on the end of it and kicked. The man jerked his head suddenly, so that Peter almost fell off; but he quickly got his balance again, and walked over onto the man's cheek. There was a resounding smack, and the man opened his eyes, and said, "The flies are very troublesome tonight;" and went to sleep again.

Peter dreamed that he kept right on teasing the poor man until he grew tired of it, and flew away to the window. Looking out, he saw the fireflies dancing among the grass.

"Oh, I wish I had my lantern!" he cried, and sank down upon a cushion,

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trying hard to cry. But flies can not cry!

Presently he dreamed he felt a queer tickling and itching on his nose. He tried to rub it out, but he could not. He tried and tried again. At last he gave a great big sneeze, and opened his eyes, and there sat a fly on his nose, and then he found he was really Peter, and not a naughty little fly, at all. And there his papa sat nodding in a chair.

"Do the flies bother you badly tonight, papa?" he asked.

"Yes, they are dreadful," said papa. "But little boys should be asleep at this time of night. So close your eyes, like a good boy."

So Peter closed his eyes, and went to sleep, and dreamed no more of the firefly. But the next evening he found it very pleasant to watch them flitting gaily about in the dark, with their bright little lights, and he felt very sorry for the houseflies, but wondered much why they liked to be so mean. (The end.)

Conundrums.

When did Moses sleep with five in the bed? When he slept with his forefathers.

Why are the pages of a book like the days of a man? Because they are all numbered.

Why is an acquitted prisoner like a gun? Because he has been charged, taken up and then let off.

Why is a horse more clever than a fox? Because a horse can run when he is in a trap and a fox can't.

Why is a policeman on his beat like an Irishman rolling down a hill. Because he's patrolling (Pat-rolling.)

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THOROUGH PREPARATION

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Conducted by Ruth Cowgill.

OH, FOR WINGS TO BE FLYING!

Oh, dove! down on my window-ledge flying,
With wistful, sad eyes and wild throbbing breast,
Of what are you dreaming and sighing?
Are you tired of beating the air with strong wings?
Are you longing to cuddle,—
Cuddle and coo close to the down of a mother?
Somewhere or other a mother?
Say, dove! is it an old barn, I wonder,
With lopsided door and low-drooping eaves,
And June hay bulging in under?
Hay so sweet!—and a swing there fast to the beams.
Dangling and sweeping
A path through the chaff?—Yes, and dark swallows diving and winging.—
Everlastingly singing and singing?
And dove, clinging to cross-bar and rafter,
Did you say was a boy with a glad, happy face,
Filling the place with his laughter?
Hide and seek round the old red fanning mill there,
Somersaults in the clover,
Hands, eager, hot, in the cool grain plunging and dipping
Elbow-deep dipping and dripping?
List, dove! and a path through the grasses and posies,
Black-bent by feet, and a house 'mongst the trees,
With its hand-breadth of porch strewn with roses?
And a woman—Oh, dove! did you say that you saw?
Patient and smiling,
There in the dusk? Oh, begone from my ledge! Cease your sighing!
You with wings and not flying?—Not flying?
—Maude Morrison Huey, in April National.

A KANSAS FARMER IN THE OLD COUNTRY.

III. The Mediterranean Sea.

From Gibraltar to Naples the distance is somewhat over one thousand miles, or one-quarter of the extent of the whole voyage from New York. The Mediterranean was mild and our vessel moved smoothly along.

After leaving Gibraltar it was too dark for any sight-seeing, so, for amusement, a party of cabin passengers went down into the steerage to see a dance which was in progress at that point, the participants being entirely Italians. Our vessel bound for an Italian port is carrying back some 200 Italian natives who have made their fortunes of a few hundred dollars in America, and are now going home to enjoy it for a few months among their former friends. Our captain informed us that on his last trip from Genoa to New York he had 1,600 steerage passengers for America, and that on every western trip he takes a great many who hope to make their fortunes in free America.

We found the dancers were a few Neapolitans, around whom the others were gathered, and the active ones were dancing the "Tarantella," which they said was the National dance of Italy. The music was supplied by a "sailor's piano," an accordeon. It was a very jolly dance, and when finished all hands gave signal of appreciation by spitting quite vigorously, while the Americans had the pleasure of donating some small coin for their benefit.

Our direction during the night was north of east, and in the morning we were sailing along the south coast of Spain, about five to ten miles from the shore. Two snow-covered peaks of Sierra Nevada mountains appeared, and only the long range of the lower mountains was the land we could see. It was only rocks and cliffs that were visible, with an occasional lighthouse, and the prospect from our vessel was not very inviting. The plains of Kansas would be an elysian in comparison.

Our experience on the Mediterranean Sea extended over three days and nights; on the third morning the southern shore of the island Sardinia appeared, along which coast we sailed for four hours or more, then the ship was pointed directly east for Naples where we arrived at 2 a. m., June 27, having been thirteen and one-half days on our 4,200-mile voyage, thus making a little more than 300 miles each twenty-four hours; not swift traveling, but continually moving, no stops at "way stations."

The one pleasing peculiarity of the

trip was the entire lack of wind and waves. The whole distance traveled was over comparatively smooth water, and the weather was the most pleasing the whole year could afford.

IV. Vesuvius.

To one arriving at Naples, whether in daytime or at night, the great object desired for inspection is the famous mountain, which has occupied itself for so many of the past hundreds of years in sending out fire, smoke and melted lava.

Ten of the passengers from the steamer Weimar, including the KANSAS FARMER man, hastened to the office of Thomas Cook & Son, at 8 o'clock in the morning, to arrange for transportation to the top of the volcano. So much has been written and printed about Vesuvius in late years, that a description of it might not be interesting for many KANSAS FARMER readers, but possibly the manner of getting to the top might claim the attention of a few.

From the center of the city of Naples, or rather from the steamer landing, to the summit of Vesuvius is about ten miles by the road which has to be traveled in order to reach that point, though in a straight line not more than five miles.

The firm of Thomas Cook & Son does not "own the earth," but it seems to be able to take a stranger and show him nearly every locality in it; its offices are to be found in every large city of Europe, and in many American towns. This firm seems to have a first right to the road up Vesuvius, and it does own the inclined railway which reaches nearly to the top of the mountain.

Our party of ten were soon seated in three carriages which were provided, and at 9 o'clock we started on our journey. Our way for the first two miles was within the city limits, though the city is built upon the rise of the mountain, and many fine houses are high upon Vesuvius. The lava of former eruptions has flowed a long way below the houses which are up the slope.

Vesuvius is not a high mountain in comparison with such American heights as Pike's Peak. If three mountains as high as Vesuvius were piled on top of each other, it would not make "a rise of land" so high as the top of Pike's Peak. But Vesuvius begins at sea level, and while it reaches up only 4,700 feet, Pike's Peak begins to rise from Manitou, we might say, and that place is over 7,000 feet above the level of the sea.

Our road has many windings and curves, and after the first two miles we had to travel at least three miles in order to get one mile nearer the top. We would not expect to see any fruit-trees on Pike's Peak, higher than 9,000 feet from its summit, but strange to say, Vesuvius has many thousands of fruit-trees and many acres of grape-vines growing, which extend to within 800 feet below the mouth of the volcano.

The soil on the mountain side seems to be extremely fertile, and where lava in past times has not covered it there are now many trees loaded with ripening fruit. We saw peach, plum, apricots, figs, olives, oranges and lemons ripening on the mountain side, and the grape-vines were loaded with large clusters of green fruit. The oranges and peaches we tried, and found them of the finest flavor.

When we reached the limit of the fruit belt, we were where the mountain becomes too steep for a wagon road, and at this elevation Thomas Cook & Son have built a railway which seems to go straight up the mountain, and the rails are perfectly smooth, but the carriages are drawn up by cables. The road is not over a half-mile in length, and its top is 450 feet still below the mouth of the crater, and the distance we had to walk was a half mile through a bed of lava, which is a material like fine, black sand and it was very warm.

Guides are provided for each party of four persons, as no one is allowed to go alone. A couple of uniformed soldiers of the Italian army are kept stationed at the top of the railway to see that no one approaches the edge

of the volcano except under charge of a guide.

The effort to reach the top was one of great labor, and three of our party were unable to accomplish it and were obliged to turn back. The lava we walked through kept our feet hot and no one dared to stand still. From the top we could only look down and see the uprising of the smoke and flames, and the shooting up of huge masses of lava which mostly fell into the crater again, although much of it fell uncomfortably close to the spectators. We could not look long into the awful abyss, for the sulfurous smoke could not long be endured; we turned about and soon were down to the top of the railway line.

Here we stopped long enough to view the city and bay of Naples. Surely no other place in the world can present a more lovely appearance, and it is worth a journey across the Atlantic to have this view even if no other part of Europe were visited. We reached our hotel at 7.30 p. m. N.

All Around the House.

Put a light carpet of a warm tone of a room that is deficient in light, or that has a northern exposure. Do not select a pattern of huge roses or gigantic vines. It is poor taste to have flowers anywhere where they seem to be trampled upon. Carpets should harmonize with and should complete the color-scheme of the whole room.

If you have a white marble mantel have it painted to represent wood—that is, if you can not afford to take it out and put in a wooden one.

White marble is always suggestive of a graveyard, and a white marble mantel looks cold and spoils an otherwise tasteful room. If you can not have it painted, cover it with a lambrequin or a valance reaching to the floor.

Hang each picture from two hooks. It is stronger and more symmetrical than having one wire only. Keep the picture on a level with the eyes, which will bring the center about five and a half feet from the floor. Pictures lose their interest when you have to mount a step-ladder or crane your neck to look at them. Hang them where they will serve some artistic purpose and where the degree of light necessary to show them to advantage is obtainable.

This same rule of artistic effect should be observed with regard to furniture and bric-a-brac. Parlors loaded down with articles of value lose their

effect and present the appearance of a china shop. A few good articles placed in appropriate surroundings are far more effective and pleasing to the eye than a jumble of all sorts and kinds of bric-a-brac.

If you can not afford to have stained glass do not attempt a cheap imitation. Have plain glass and drape with the tasteful Madras and Turkish materials—that are so reasonable in price.

Make your hallway a part of your house and have it bright and inviting to a visitor.

An open fire in the hall or in a room will make it very cheerful. A picture or two, a chair or lounge in a hall presents a picture of comfort that is very home-like and pleasant.

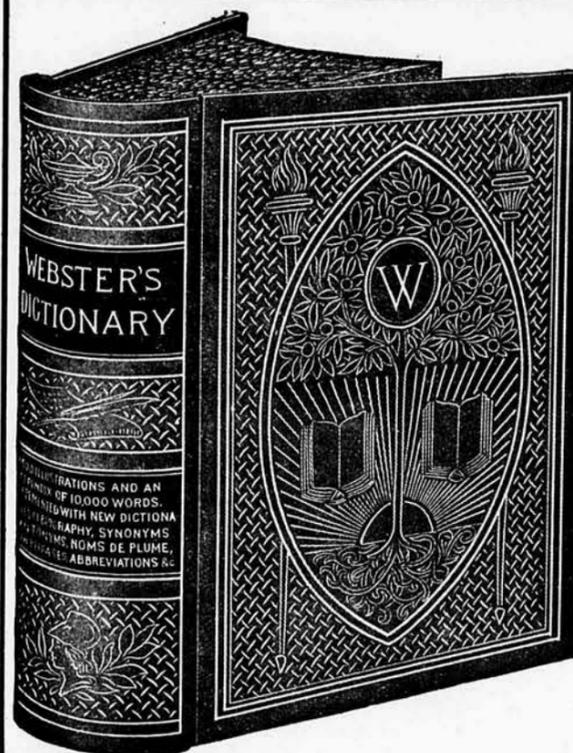
Nursery and play-rooms should have plenty of sunshine. The ancient Athenians attributed much of their beauty and health to sun-baths which were taken regularly. In some hospitals there is a uniform system of "sun cure," where the patient is subjected to the direct rays of the sun for different lengths of time. Little children should have plenty of sunshine. It is just as necessary in order to make them strong and healthy, as to insure the growth and strength of a plant.

We live too much in the dark. It is fashionable to have the shades drawn down, and so we draw them down regardless of the fact that we are shutting out health and freshness and sweetness, and inviting mustiness and gloom and disease to our homes.

See that your house is furnished so that every part can be used, and so that the children will feel at home and at liberty to play and enjoy themselves.

The happiest home I know is one that is comfortably and tastefully but not luxuriously furnished, where the boys have their corner and plenty of places to put things and where they can invite their friends. A part of their bed-room is fitted up in winter as a shop, where they can enjoy themselves without fear of spoiling or breaking things. They are the envy and their mother is the admiration of their boy friends, all of whom say they like to visit here better than any place else. The home is not as showy as many another, but from its door will issue men that will be nobler, gentler, better men, for the kindly interest and thoughtfulness of the mother's love that could make "a place for the boys." —George Egbert Symonds, in "Woman."

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Miscellany.

Labor Unions on Farms.

Organized labor now bestrides the labor market in the cities and the chief industrial centers, but hitherto has not invaded the country. Noting this fact the officers of the American Federation of Labor, Samuel Gompers, president, have sent organizers into the agricultural regions of Eastern States to organize the farm laborers into unions. Some success has been had with the propaganda in particular localities, and from the rules prescribed therein we can form some idea of what conditions would prevail if the movement became general.

The rules sought to be enforced constitute a most comprehensive code. It is provided that wages shall not be less than from \$2 to \$3 per day. The employing farmer, not permitted to be a member of the union, is forbidden to ride a reaper or to do any other work, under penalty of being boycotted as "unfair." The same prohibition applies to his wife and minor children. The work on the farm is stated "to belong to" the members of the union, and owners and members of their families are not to be allowed to touch it, just as employers of union labor in factories are not permitted personally to give one productive revolution to the machines which they own. It is the idea of the hired-hand union that the farm owner shall sit idle on the front porch with his family, while hired men at union wages do all the work. It is understood that if the mistress of the house even so much as feeds her chickens, she runs the risk of the product being followed into the distributing centers, with its purchase being forbidden to all members of organized labor and its sympathizers. The plan is to make a farm owner a gentleman of extreme leisure, his hands idle in his pockets, while even his rights of supervision are greatly restricted. Doubtless in time the union would insist that more corn and potatoes be planted and less small grain, because less labor is required for the latter.

Some proposals so far overshoot the mark as to become absurdly ridiculous, and such seems the aspect of this latest project of the labor federation. In the Middle West it is not an over-estimate to say that nine-tenths of the farm labor is done by men who either own or rent their farms, in either case being on the employing side. Unions may succeed where there are ten laborers to one employer, but hardly where there are ten employers to one laborer. The employers are not going to unite against their own interest, nor will they ever consent to a scheme which implies their own idleness and consequent starvation. At particular times, such as the wheat harvest, a union might succeed in enforcing unreasonable terms, but a way would be discovered to escape the disturbing tyranny. The conditions of farm life are such as not to offer soil for the growth of unionism. There is too large a proportion of owners and renters to allow the creation of a labor monopoly, and the work varies too much at different seasons of the year to permit of the establishment of ironclad rules concerning the hours of labor. Early in June this year, when the excessive rains had ceased, and the weeds were threatening to take the corn, it was not an unusual thing to see, throughout the West, farmers plowing by moonlight. It was simply a case of must. Every additional hour put in the fields before the damage became irreparable meant more bushels of corn at gathering time. The fixing of limited hours for work is absolutely impossible under such conditions.

As to the wage rate, with \$100 land on which to earn interest, not a few farmers are of the opinion that they are as high now as can be paid. Mr. Gompers' scheme might possess some merit if our land were farmed in immense estates, but it will not work where the land is subdivided, and that it may continue to be sub-divided is the ardent wish of every lover of his country. The hired-hand union, however attractive on paper, can not stand the bump of actual conditions. Doubtless

THE BEST REASON

FOR BELIEF IN DR. WILLIAMS' PINK PILLS FOR PALE PEOPLE.

Mrs. Gosney Tells Why She Has Such Great Confidence in This Famous Remedy.

"For the best reason in the world," answered Mrs. J. O. Gosney, of Pullman, Wash., when asked why she praised Dr. Williams' Pink Pills so highly.

"They cured me after three doctors and all sorts of remedies had failed," she continued. "I suffered horribly with what the doctors called neuralgia of the stomach, and I also was troubled to an unusual extent with the ills which only women experience. Every month I had cramps which nearly drove me wild and they were so bad sometimes that my husband had to run for a doctor to give me something to relieve me. Often they would keep me in bed for days at a time and, just before I began taking Dr. Williams' Pink Pills for Pale People, my hands used to get numb when I had these spells. I can't tell half of what I went through. The natural functions of my sex ceased and the spells of cramps kept growing more frequent. Dr. Williams' Pink Pills helped me the first week I took them and after taking them faithfully awhile longer I became entirely cured."

Thousands of women have found relief from their sufferings in the same way that Mrs. Gosney did. No discovery of modern times has proved such a blessing to women as Dr. Williams' Pink Pills for Pale People. Acting directly on the blood and nerves, invigorating the body, regulating the functions, they restore the strength and health in the exhausted patient when every effort of the physician proves unavailing. They have been shown to be a positive and unfailing specific for all diseases arising from disorders of the blood or nerves and have cured locomotor ataxia, partial paralysis, St. Vitus' dance, sciatica, neuralgia, rheumatism, nervous headache, the after-effects of the grip, palpitation of the heart, pale and sallow complexions and all forms of weakness either in male or female. Dr. Williams' Pink Pills for Pale People are sold by all dealers, or will be sent postpaid on receipt of price, 50 cents a box; six boxes for \$2.50, by addressing Dr. Williams Medicine Co., Schenectady, N. Y.

in many cases the hired hand is not now fairly treated, but for correction he must rely on the operation of natural laws, and not on artificial organizations.—Homestead.

Hold Flood Waters.

EDITOR KANSAS FARMER:—In your issue of July 9, Mr. Cowles says floods in the prairie region can be prevented by damming the draws. It is doubtful, though it would help. While not a get-rich-quick scheme it would pay every farmer to do this. It would beautify the country, furnish water for stock, irrigate garden and alfalfa and artichoke-patch (the latter being a preventive of hog-cholera), and would furnish fish for the table, fun for the boys, as well as boating and swimming.

Why do we not get reports of experimental work from our fish commissioners? The writer visited some years ago the Missouri hatcheries at St. Joe. They were experimenting with some forty foreign kinds of fish, ring-streaked, spotted, or speckled—bass that would jump two feet out of the water to catch a minnow thrown to them. Our agricultural papers should furnish us with information as to best varieties to stock with, how to feed, and how to exterminate enemies, or where to obtain a practical treatise on fish-culture.

The flood question now being before the house, I move that the people organize and build a canal from the Gulf to the Dakotas, with laterals and reservoirs, using thousands of catch-basins like that at Great Bend, which would have been a success long ago if titles

National Encampment

G. A. R. San Francisco

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THERE AND BACK.



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Special train for California, stopping at Santa Fe, Laguna, Grand Canyon of Arizona, (\$6.50 additional for side-ride, Williams to Grand Canyon and return,) and many other points of interest en route, will leave Kansas August 11, 1903.

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The A., T. & S. F. Ry. Co.,
TOPEKA, KANS.

to lands were not in litigation. What say you, Mr. Editor, why pay the long haul to filter our wealth through Chicago and New York instead of building up the west?

A MUCH-PLEASED SUBSCRIBER.
Woodson County.

Topeka is the headquarters of what is probably the greatest creamery company on earth and the resident of Kansas hardly realizes its magnitude until his travels carry him into many and widely separated sections of the State. The Continental Creamery Company is just about completing its contract for this year with the United States Government for 400,000 pounds of butter, and its present output for the filling of this contract and the caring for its regular business is about 75,000 pounds of butter per day. Wherever the traveler may go, especially in the Sixth and Seventh Congressional Districts of Kansas, he is almost certain to find a Continental Creamery station in every town and frequently where there are no towns. An experience of this sort will give the traveler a better idea of the wonderful resources of this great company and the sources from which come the raw material which enables them to turn out the stupendous amount of 75,000 pounds of butter per day.

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are everywhere noted for shedding strong, clear, white light. Hand lanterns, street and driving lamps, etc., many sizes and styles for all purposes. Send for free illustrated catalogue. R. E. DIETZ COMPANY, 65 Light St., NEW YORK. Established 1846.

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JOHN Y. CALAHAN, Gen. Agt.,
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THOMAS COUNTY, KANSAS:

The history of Kansas is written in capitals. Its description needs no adjectives but the superlatives. Its aspirations are the unattainable and its accomplishment the impossible. The every-day events of Kansas would be marvels in another State. Her dry statistics are more eloquent than poetry, notwithstanding the occasional mishaps in weather. Her historians must be economical of the truth in order that they may be re-

isted here is now found rye, wheat, barley, oats, alfalfa, and all the other good things that go to make farm life successful. Not only do these things exist but they are found in the most bountiful supply, and a view from any slight eminence shows fields of waving grain and crops which hide the fence-posts.

Realizing that "seeing is believing," the writer made collections of samples from fields which were intended to be representative. He secured rye

ty-five miles in each direction the writer is convinced that the present crops in Thomas County, Kansas, are the best that he has ever seen in any country. He is also convinced that he saw fields of wheat that would yield fifty bushels to the acre, while those that would yield thirty bushels or more are on every hand.

THE REASONS OR IT.

Thomas County may be described as a body of rich agricultural land with a comparatively level surface whose

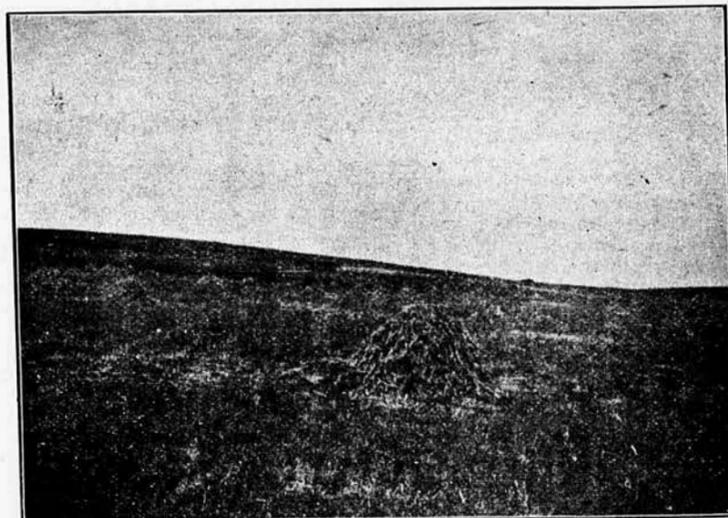
A few farms are yet equipped with the home-made Jumbo windmill, which is set in motion and allowed to run continuously.

THE LIVE STOCK.

Like all new counties Thomas County has been engaged in its pioneer work of a contest with nature, the development of its resources, and the discovery of the agriculture which is best suited to it. These points being settled in some degree the attention of her citizens as been turned in part to



MR. COUCHMAN'S 560 ACRES OF WHEAT NEAR REXFORD.



W. TILDEN'S ALFALFA-FIELD, SOWN LAST SPRING.

ceived with credence outside her borders. The stories of her wheat-fields and her corn crop are printed in capitals in the press of the world and these great treeless plains, which a few years ago were conceded to the prairie-dog and the cactus, were also credited with the largest walnut logs shown at the World's Columbian Exposition and have since that time annually surprised humanity with a miraculous stream of cereal products which has flowed eastward from its unwatered wastes.

In order to be able from personal knowledge to answer the many inquiries which come to the KANSAS FARMER office in regard to the wheat region and its desirability as a location for the man who would better his circumstances and in order that a county might be selected which would be typical of the region—which would be far enough west to be acknowledged as belonging to the short-grass country,



MR. CHILD'S 320-ACRE WHEAT-FIELD NEAR REXFORD.

the development of her live-stock interests.

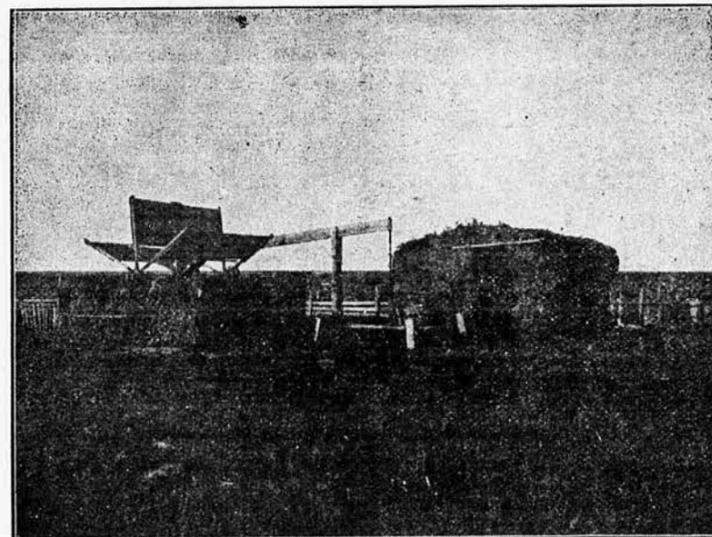
In many sections of the county may be found large herds of cattle grazing upon the rougher land which is not available for small grains. We were glad to note that many of these herds showed evidences of good blood. Indeed the specific markings of the scrub were conspicuous by their absence. It was also noticeable that the rich and nutritive grasses served to keep the cattle in fine condition, by comparison much finer than that realized in the eastern part of the State this season.

THE PEOPLE.

Like all Kansas this county is inhabited by aggressive, energetic, and intelligent men and women, who, because of their natural inclination as well as of their necessities are students of nature and the adaptation of her laws to their own purposes. They are a reading people who not only keep



F. O. WILLIAM'S BARLEY NEAR REXFORD.



JUMBO WINDMILL, NEAR REXFORD.

the KANSAS FARMER representative recently made a journey of inquiry to Thomas County, Kansas.

This county is the second from the Colorado line and also from the Nebraska line. Originally it was in the short-grass country yet it differed from most sections of that region in having no alkali, no sage-brush, and no gumbo. With the new town of Rexford as a base of operations, excursions into the surrounding country were made in all directions. Instead of the short grass that the Eastern man would be led to expect, there now exists miles of waving grain extending to the limits of vision. Instead of the buffalo-grass and cactus which formerly ex-

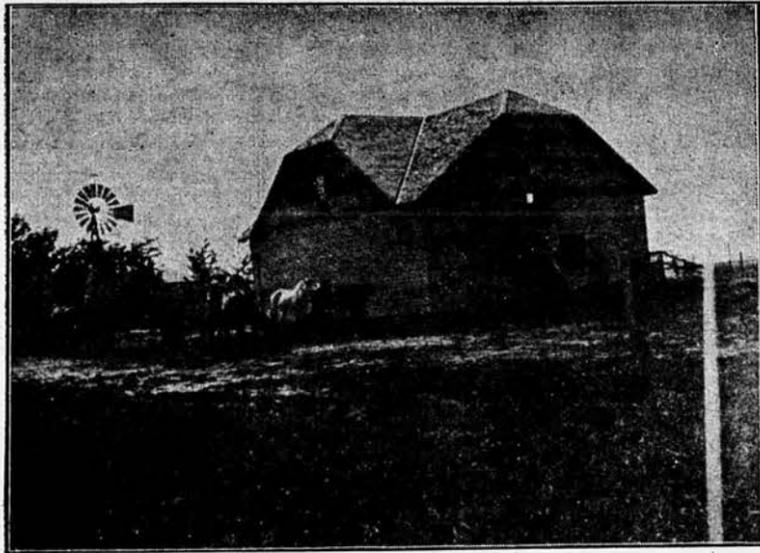
that measured six feet in height from a field which would average nearly that; wheat measuring 5½ feet; barley 4 feet; oats 3½ feet, and alfalfa which was sown last spring, 3 feet, while the millet, corn, Kafir-corn, and other crops were growing to the limit of their capacity. The samples collected were in every case taken as representatives of the fields in which they grew, and were taken of such crops as were near their maturity at the time of the visit on July 4. The photographs shown herewith will serve to convey to the eye some idea of the crops which can be but poorly described in words. From observations extending over an area of some twen-

native fertility has not yet been tested. The soil is very deep and very rich. It is rather light colored with a texture which admits of irrigation, should this become desirable. It is easily cultivated and wonderfully productive.

THE WATER.

The whole of the region visited is underlaid by a great reservoir of water of great purity and good flavor. This may be reached at depths varying from 10 to 100 feet according to the surface of the land. It seems to be of inexhaustible quantity and without a taint of alkali or other minerals. It is easily raised by any form of pump, though the windmill has the preference.

well posted on the events of the day but who are liberal patrons of agricultural and live-stock papers whose columns furnish them with the information so necessary in the successful pursuit of their daily business. They are an agricultural people whose study of scientific facts and their application have compelled the success which they now enjoy in the most bountiful crop that it has ever been the pleasure of the writer to see. They have a keen appreciation of the good fortune which came to them in this magnificent return from their fields, and their exuberance of spirits finds outlet even in the busy harvest season in anecdotes, which, though exaggerations,



W. TILDEN'S BARN, NEAR REXFORD.

are but little in excess of the facts. One farmer in Rexford stated that his dog chased a jack rabbit into his wheat-field which was so dense that both animals were obliged to back out because they could not penetrate it. Another one stated that he had a similar experience but that the rabbit escaped by running on top of the wheat. A third said his wheat was so high that a rabbit could not reach the top of it, while a fourth was obliged to buy another quarter section of land in order to have room to stack his wheat. As seen by the photographs herewith these stories are not much in excess of the facts.

THE LAND.

As before mentioned, the land is level, rich, easily cultivated, and cheap. The writer was shown a quarter section of land which was offered for sale by its Eastern owner at \$1,250, and feels safe in asserting that there stood upon this land on July 4, at a conservative estimate, \$1,500 worth of wheat. Land varies in price from \$7 to \$15 per acre, and the instances are numerous where this year's crop will more than pay for the cost of the land on which it stands.

Perhaps the largest land-owner in

rolled on their books, an increase of seven per cent as compared with the previous year. The increase is entirely due to the larger numbers who are taking the full four-year courses, these having increased by twenty-six per cent. During the past two years the various States have spent over \$2,000,000 in new buildings in connection with these colleges.

The Gospel of Grass.

We flatter ourselves that we have made wonderful discoveries about grasses and clovers, but the half has not yet been told, and not half of the farmers seem to have any realizing sense of the value of grass. There are yet thousands of well-meaning men who spend money freely for fine-blooded animals and yet do not provide them with all the succulent feed they need for health and thrift. These same men work hard to tear up the well-set sod to make place for more corn and oats, or other salable grains.

The true gospel of grass and of wisdom calls for more acres for grass and fewer for the plow.

I am glad that several of our experiment stations are proclaiming this gospel, and even appealing to the selfish

nostrums, made to catch suckers, they would have handsomer farms, handsomer hogs, and bigger bank accounts. They could grow hogs at less cost and less risk. Grass or clover is the essential for highest health, greatest prolificacy and profit. The man who feeds in dry lots, which means in mud or dust, can never grow hogs as cheaply or successfully as he whose hogs always have all the grass or clover they want to mix with the corn and other dry feeds given them.

If one has no blue-grass- or clover-field he can, in thirty days' time, have a growth of oats, barley, wheat, or rye, that are good substitutes but not so lasting. Or he may grow rape on a small lot that will furnish succulent feed for a large herd and be worth as a saver of grain \$11.90 per acre. Alfalfa will save at the rate of \$24.10 per acre. Clover and blue-grass will save as much.

In the face of the facts it is the strangest thing in the hog business that men will go on from year to year raising more corn to feed more hogs and neglect to save corn and improve

Is it any use to preach the gospel of grass? Lest some forget, we may exhort.—P. C. Holme, in Exchange.

KANSAS FARMER'S NEW WALL ATLAS.

The KANSAS FARMER has arranged with the leading publisher of maps and atlases to prepare especially for us a New Wall Atlas, showing colored reference maps of Kansas, Oklahoma, Indian Territory, the United States, and the world, with the census of 1900. The size of the New Wall Atlas is 22 by 28 inches and it is decorated on the outer cover with a handsome design composed of the flags of all Nations.

Tables showing products of the United States and the world, with their values, the growth of our country for the last three decades and a complete map of the greater United States are given. This is an excellent educational work and should be in every home. The retail price of this New Wall Atlas is \$1.

Every one of our old subscribers who will send us \$1 for two new trial sub-



J. H. WILLIAM'S WHEAT, NEAR REXFORD.

hogs by providing them with all of the cheapest, healthiest feed the good Creator has made—green grass. This gospel of grass calls for green grass—not dry hay or dried-up pastures. Blue-grass is wont to be short in the hot, dry months, but in the early spring and fall, and even in the open winter, it is tender, rich, succulent and inviting, and has no equal for young things, as well as old. To do the best and produce the cheapest feed and the hogs at least cost, we must supplement this permanent pasture with clover, rape, rye, barley, peas, oats, or such quick-growing grass as Italian rye, grass, or millet.

A mixture of oats, barley, rye, wheat, rape and millet, or any other such odds or ends the farm may have, pays better than corn or potatoes, and costs so little. This sucotash is a good substitute for grass or clover, and can be planted any time from March to August and be ready to graze in six weeks or less.

And yet there are men who call themselves breeders, and successful, who never provide grass, clover, or grazing for their sows and pigs or hogs.

scriptions for one year will receive as a present a copy of this splendid New Wall Atlas postpaid, free.

Any one not now a subscriber who will send us 50 cents at once will receive the KANSAS FARMER for five months and will be given a copy of our New Wall Atlas free and postpaid.

Saved Her Many a Time.

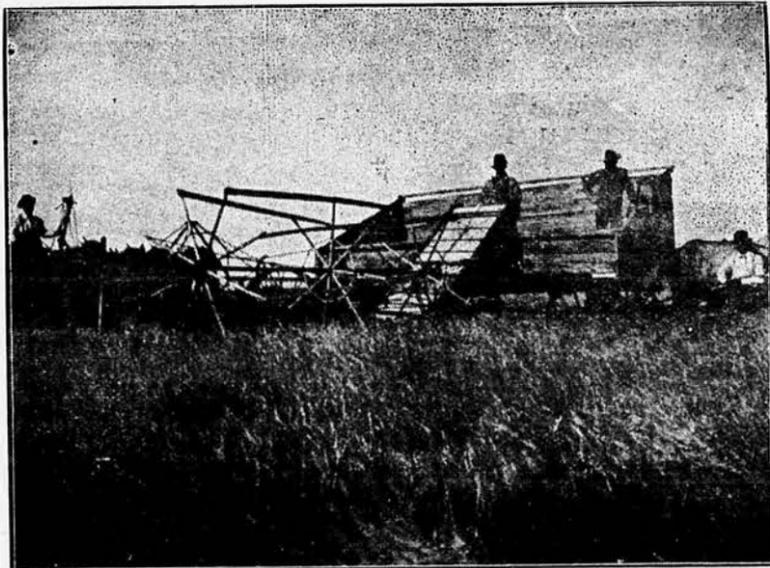
Hensel, N. D., May 7, 1902. We use all of Watkin's Remedies with gratifying results. Whenever I have no Cough Cure on hand I do not feel safe. Our baby girl takes bronchitis and Watkin's Cough Cure has saved her many a time.—Mrs. Carrie E. Onstad.

We're From Missouri—Show Us?

That's just what we want to do—show you. Our pamphlet on the apple industry of Missouri is clear and convincing, and tends to convey to you how great a region is the section along the line of the Katy in its apple-bearing proclivities. Write for one as well as other pamphlets, both attractive and instructive. Address "KATY," 602 Walnwright Bldg., St. Louis, Mo.

Low Rates West.

The Chicago Great Western Railway will on August 1st to 14th, inclusive, sell tickets to Seattle, Wash at greatly reduced rates. For full information apply to Geo. W. Lincoln, T. P. A., 7 West 9th St., Kansas City, Mo.



W. J. BARTLETT'S HEADER, NEAR REXFORD.

Thomas County is Mr. Hiland P. Lockwood, Room 103 Bryant Building, Kansas City, Mo., who has about 40,000 acres of this land now for sale and who maintains an office at Rexford. The young men shown in the photographs herewith are Mr. F. C. Barry and Mr. B. C. Blair, two of his hustling representatives, the latter of whom is in charge of the Rexford office and who is prepared to show every courtesy to visitors who desire to select land in this wonderful county of Thomas.

Rexford and the other stations in Thomas County are on the main line of the great Rock Island system and are easily reached over this system and its many connections.

Agricultural colleges are growing popular. An official report on them just to hand shows that last year no fewer than 42,000 students were en-

or greedy nature of man, by a showing of greater profit in feeding where grasses and clovers are made a part of the ration for hogs, both for growing and fattening.

The Illinois station has shown that hogs fed in a grassless lot required 629 pounds of corn to make 100 pounds of growth. Hogs fed corn on blue-grass required only 441 pounds of corn to make 100 pounds of growth.

The Kansas Station showed that pigs on alfalfa made 100 pounds of gain from 300 pounds of corn. Coburn years ago helped to preach the gospel of grass and showed that pigs on clover were more healthy and made more pounds of gain per bushel of corn than was possible by mixing corn and any or all other dry or commercial feeds that money can buy. If hogmen would spend half as much for seeds of grasses and clovers as they do for condimental feeds and cholera-cures and



one of cheap cement. The finishing layer is made of two parts of coarse, clean, sharp, sand to one of good cement. It is laid on about two inches thick and the work must be done before the foundation becomes dry. Just after the cement begins to set, a board trowel is used to roughen the surface where roughness is desired.

Consumers look for perfect sanitary conditions surrounding the production of their goods. The unwholesomeness of an unlighted stable floored with decaying plank, never benefited cow nor product; never paid. Better fix things.

The Poultry Yard.

Poultry at the State Fair.

The Kansas State Exposition Company has placed the management of the poultry department at the fair in the hands of the Kansas State Poultry Association, and they have appointed Mr. Thomas Owen, their State treasurer, to take charge of the exhibit.

The display of poultry at the fair last year was a very creditable one, considering the short time in which it was gotten up. This year it will be much larger. Several extensive poultry breeders have already promised to exhibit new stock. The premiums offered this year will be fully twice as large as those offered last year, besides several valuable special premiums. For instance, the Sure Hatch Incubator Company has offered a 100-egg incubator for the largest display of White Leghorns, and other manufacturers offer specials on other varieties of fowls.

The premiums this year will be placed on pens, consisting of one male and four females of old and young birds, excepting turkeys, ducks, and geese, on which awards will be made for best pair of each variety.

Extra inducements will be made to get out a large display of what are called the utility breed, the farmers' fowls. There will be no expense connected with exhibiting fowls at the State Fair, no entrance fees or anything of the kind. Farmers can send their fowls and have their merits passed on by a competent judge without any expense whatever, with an equal chance of winning some good hard cash into the bargain.

The fowls will be judged by comparison as they will not be feathered sufficiently to be judged by score-card. Last year the management paid all their premiums in full and paid them before the exhibitors left the grounds. This greatly pleased the winners, who will undoubtedly be there again this year, with a host of new exhibitors.

Last year there were no agricultural or horticultural displays, but this year there will be immense displays in both these departments. It behooves the poultrymen, therefore, to be on their mettle and determine to have as good a display of poultry as possible so as to be in touch with the other displays at the fair.

The premium lists will be out in a few days and a request for a copy sent to either the secretary of the exposition, Mr. C. H. Samson, or to Mr. Thos. Owen, Superintendent of poultry department, will be attended to without delay.

Above all, make up your mind at once to send some chickens to the fair, either young or old ones, and take a vacation yourself for a week and attend the fair in person. If that is impossible, send your chickens anyway. They will be well taken care of, fed and watered regularly and sent home in good condition after the fair is over. And as for the premiums that they may win, you may be certain that they will be paid in full for there is sufficient money now in the treasury to pay all premiums, should no more money come in. But the fair will be a bigger success than last year and we hope a sufficient sum will be left in the treasury to put up permanent buildings for all displays in the future.

Poultry on the Farm.

The United States is fast becoming a Nation of poultry- and egg-eaters, because of the wholesomeness of poultry and the relative cheapness of eggs



as compared with meats. With markets always ready, with cash returns every week in the month and every month in the year for poultry and eggs, the farmer who expands his operations in poultry-raising and expends his energies in caring for this very profitable side issue to farming, will find therein a source of revenue that in the aggregate, according to statistics, nearly equals our enormous wheat crop. Because a farmer does not get a great big sum of money, all in a lump, for his poultry and eggs, he is apt to think that the poultry business does not amount to much. But \$5 per week, week in and week out, for the year for poultry and eggs, will as surely pay the grocery bill as \$250 for a lot of hogs on a bunch of cattle obtained at one time. In fact it is much better to have the money to pay the groceryman as you go, rather than to run up a big bill and have to pay it at the end of the year. One reason why a farmer can not make money as rapidly as others can in other line of business, is because he can not turn his money over quickly enough. Poultry-keeping will help the farmer in this respect by giving him steady cash returns.

As in all lines of business, to obtain the greatest profit on an investment one must try common-sense methods. Too many people have raised fowls without regard to the use of pure breeds and have made no effort to attain a higher standard of excellence in their domestic poultry. For the same investment of capital and labor, no other department of the farm will yield such generous returns. Dollars and cents are what all of us are striving for in this business, so this is a most potent argument in its favor. Waste products of other departments may many times be utilized by the poultry and instead of being a waste it becomes a source of profit. Think of the bushels and bushels of corn and wheat that would be absolutely wasted around the corncribs and granaries were it not for the thrifty chicken that is on hand to turn this product into a thing of beauty and utility in the shape of an egg. A flock of fowls on a farm are a flock of scavengers that gather up many a golden dollar in the course of a year. Dairying and poultry-culture go hand in hand. When butter is made or cream is sold the skim-milk is left at home and what better feed for poultry than skim-milk, mixed with a little corn-chop or bran? The milk will give far better results financially, fed to poultry, than when given entirely to hogs, as is so commonly done.

Fruit and poultry make a good combination. The fowls aid you in a fight against insect pests and also much fruit that would be otherwise wasted is made to be of value to the chickens.

But we do not believe there is an enlightened farmer anywhere that needs an argument to tell him that poultry-raising is profitable, but there might be some that think the labor connected therewith is greater than the compensation. If they would only think, however, that the profit, though slight, is nearly all clear gain, and that though it comes in very small quantities, it comes very regularly, every day, every week, and every month of the year, and that in the aggregate it amounts to a large sum of money, enough in fact to pay the grocery bill of the ordinary farm. Raise better poultry and more of it.

Water-Glass for Preserving Eggs.

Mr. D. T. Schmidt, of Harvey County, inquires about the use of water-glass for preserving eggs. To a similar inquiry in March, 1902, the KANSAS FARMER made answer as follows:

In the last three or four years the method of preserving eggs with a solution of water-glass has been often tested both in a practical way and in laboratories. The North Dakota Experiment Station has been especially interested in the problem. In these ex-

periments, a 10 per cent solution of water-glass preserved eggs so effectually that "at the end of three and one-half months eggs that were preserved the first part of August still appeared to be perfectly fresh. In most packed eggs, after a little time, the yolk settles to one side, and the egg is then inferior in quality. In eggs preserved for three and one-half months in water-glass, the yolk retained its normal position in the egg, and in taste they were not to be distinguished from fresh store eggs. Again, most packed eggs will not beat up well for cake-making or frosting, while eggs from a water-glass solution seemed quite equal to the average fresh eggs of the market."

Water-glass, or soluble glass, is the popular name for potassium silicate or for sodium silicate, the commercial article often being a mixture of the two. The commercial water-glass is used for preserving eggs, as it is much cheaper than the chemically pure article which is required for many scientific purposes. Water-glass is commonly sold in two forms, a sirup-thick liquid, about the consistency of molasses, and a powder. The thick sirup, the form perhaps most usually seen, is sometimes sold wholesale as low as 1 1/2 cents per pound in carboy lots. The retail price varies, though 10 cents per pound, according to the North Dakota Experiment Station, seems to be the price commonly asked. According to the results obtained at this station a solution of the desired strength for preserving eggs may be made by dissolving one part of the sirup-thick water-glass in ten parts, by measure, of water. If the water-glass powder is used, less is required for a given quantity of water. Much of the water-glass offered for sale is very alkaline. Such material should not be used, as the eggs preserved in it will not keep well. Only pure water should be used in making the solution, and it is best to boil it and cool it before mixing with the water-glass. The solution should be carefully poured over the eggs packed in a suitable vessel, which must be clean and sweet, and if wooden kegs or barrels are used they should be thoroughly scalded before packing the eggs in them. The packed eggs should be stored in a cool place. If they are placed where it is too warm silicate deposits on the shell and the eggs do not keep well. The North Dakota Experiment Station found it best not to wash the eggs before packing, as this removes the natural mucilaginous coating on the outside of the shell. The station states that one gallon of the solution is sufficient for fifty dozen eggs if they are properly packed.

It is, perhaps, too much to expect that eggs packed in any way will be just as satisfactory for table use as the fresh article. The opinion seems to be, however, that those preserved with water-glass are superior to most of those preserved otherwise. The shells of eggs preserved in water-glass are apt to crack in boiling. It is stated that this may be prevented by puncturing the blunt end of the egg with a pin before putting it into water.

Early Maturity Has More to Do With Success in Poultry-raising Than Anything Else.

The time at which a fowl will mature has much to do with the question of profit from that fowl. In every line of live-stock effort the late maturing has been voted unprofitable, with the possible exception of the horse. The beef, the sheep, the hog and the cow are all more valuable if they mature early. Among fowls, the distinctively egg breeds are considered to be very early maturing, yet the writer has known Plymouth Rock pullets born in September to begin laying in 5 1/2 months. There are many advantages in early maturity. One of the most important is the acquiring of the ability to produce eggs early in life. This is the key to winter-egg production;

POULTRY BREEDERS' DIRECTORY.

BLACK MINORCAS—World's greatest laying strain, beautiful in shape, color, and comb, grand winter layers. Eggs \$1 per 15, \$4.50 per 100. George Kern, 817 Osage st., Leavenworth, Kans.

BLACK LANGSHAN EGGS for sale, 5 cents a piece. Minnie M. Steel, Gridley, Kans.

BARRED ROCKS ONLY—Heavy, vigorous stock, unlimited range. Eggs carefully and securely packed. \$1.15, \$1.15, \$1.15. Adam A. Wier, Clay Center, Neb.

SUNNY NOOK POULTRY YARDS—S. C. B. Leghorn eggs, from vigorous, good layers, \$1 per 15. John Black, Barnard, Kans.

PURE S. C. B. Leghorn eggs, 20 for \$1; \$8 per 100; entire new blood. Orders promptly filled. F. F. Flower, Wakefield, Kans.

FOR SALE CHEAP—Pedigreed Scotch Collie pups. W. H. Richards, V. S., Emporia, Kans.

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getting the fowl to a certain state of maturity at a certain time. If properly fed, a hen can not help producing eggs when she reaches maturity. For this reason, therefore, chicks should be fed on nutritious and very digestible food, of which meat in some form should constitute a very considerable part. The time between birth of the chick and the development of its ability to produce eggs can thus be shortened from a month to six weeks, which often means several dozen more of winter eggs than would otherwise be the case. Another reason for desiring early maturity is that the chick may as soon as possible get beyond the period of danger in its development. Before feathering and during that process, the mortality among chicks is great. After feathering the young fowl is more able to endure changes of temperature, and is apparently more able to throw off disease. Previous to feathering and while that process is going on the constitution of the chick is weak. It is, therefore, desirable to get the young fowl beyond that period as quickly as possible. The young of slowly maturing fowls draw out this critical period till heat is intense and lice and mites excessively abundant. The chicks have the best chance for development during the late months of early spring. The early maturing breeds take advantage of this favorable weather and are in a condition to stand the hot weather when it comes. Early maturity is a characteristic that should be fixed in all the breeds, whether they be for egg- or meat-production. This can be done by judicious selection of the early maturing fowls and breeding with the above-named object in view.—Farmers' Review.

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Miscellany.

Secondary Education in Agriculture.

Excerpts from paper by A. C. True, director of the office of experiment stations, in Year-book of the U. S. Department of Agriculture.

STATUS OF THE HIGH SCHOOLS.

At this juncture it is very important that our farmers should understand the existing status of the high schools as regards industrial education—should appreciate what a forceful factor these schools have become in shaping the life work of intelligent and progressive young people—and should see what are both the advantages and the limitations of the education given in the schools of this grade. When they have some understanding of these general matters relating to the high schools they will have an intelligent basis for determining what place the teaching of agriculture should take in these schools.

Summing up this brief review of the development of the high schools in this country, it may be said that they are public institutions in which, along with ancient and modern languages, mathematics, history and other so-called culture studies and the elements or natural sciences, the theory and practice of various industrial arts are being taught, especially those arts practiced in villages and cities. The instruction given in these schools goes far enough to make their graduates intelligent and progressive citizens and largely the leaders in industrial and political life in the local communities. They are not, however, fitted by the high schools for professional life, for careers as experts in the higher walks of technical, scientific, or artistic pursuits or for the broader achievements in the social or political world. For success in these higher walks of life most young people will need to go on to the college, technical school, and university. If agriculture is introduced into the high schools, it must not be expected that the graduates from such courses will ordinarily become agricultural experts in the highest sense. To achieve this they will need to attend the long courses in the agricultural colleges. As a result of pursuing agricultural courses in the high schools, they should, however, have an intelligent appreciation of the relation of science to agriculture; they should know something of the recent advancement in agricultural practice, and they should be able to take advantage of the information which the Department of Agriculture, the experiment stations, the agricultural press, and other agencies are constantly bringing to their attention. They should also have sufficient general culture to make good home-makers and progressive citizens. And above all, they should have an intelligent appreciation of the advantages of country life.

AGRICULTURAL HIGH SCHOOLS AND SECONDARY COURSES IN AGRICULTURE.

It is believed that already enough successful experiments in the establishment of agricultural high schools and secondary courses have been made to demonstrate the feasibility and value of such schools and courses. The agencies for this work are of several different kinds, as follows: (1) High schools connected with agricultural colleges, as in Minnesota and Nebraska; (2) separate agricultural high schools endowed by the State, as in Wisconsin, Alabama, and California; (3) private agricultural schools, as in New York, New Jersey, Pennsylvania, and Indiana; (4) agricultural courses in normal schools, as in Missouri; (5) agricultural courses in public high schools.

SCHOOLS OF AGRICULTURE OF UNIVERSITIES OF MINNESOTA AND NEBRASKA.

The school of agriculture of the University of Minnesota was established in 1888. It is located at St. Anthony Park, between the cities of Minneapolis and St. Paul, on the grounds of the College of Agriculture of the same university. The equipments of the college is used by the school as far as its needs require. The university farm contains 250 acres of land, of which 140 acres are used for instruction and experiments in field, garden, orchard, and forest crops, and 50 acres are devoted to pasture. The buildings in-

clude those containing offices, library, and lecture rooms, dairy hall, chemical laboratory, veterinary building, horticulture building, drill hall, forge shop, power house, meat laboratory, barns for beef and dairy cattle and sheep, poultry, and swine buildings, dormitories, girls' home buildings, and dining hall. There is a good equipment of apparatus and illustrative material. The agricultural library contains 6,000 books and about 6,000 pamphlets. The bulletins of the experiment stations and agricultural societies and a large number of technical and agricultural journals are regularly received. The faculty consists of about thirty-five men and women, including professors of the college and special instructors, among whom are experts in agronomy (plant production), animal husbandry, dairying, rural engineering, horticulture, forestry, dressing and curing meats, veterinary science, and agricultural physics, chemistry, and botany.

Students of both sexes are admitted. Applicants for admission are examined in English grammar, arithmetic, history of the United States, and geography, unless they present certificates showing they have completed the eighth-grade work in these subjects. The school term opens October 1 and closes March 20. The course of study covers three years, and for the boys includes the following subjects:

COURSE OF STUDY IN SCHOOL OF AGRICULTURE OF UNIVERSITY OF MINNESOTA.

First Year.—Music, gymnastics, English, drawing, farm arithmetic, agricultural botany, comparative physiology, agronomy, carpentry, blacksmithing, military drill.

Second Year.—Music, gymnastics, algebra, agricultural physics, agricultural chemistry, agronomy, animal husbandry, dairying, horticulture, military drill.

Third Year.—Music, gymnastics, home economy, geometry or civics, entomology, zoology, agricultural chemistry, agronomy, poultry culture, animal husbandry, dressing and curing meats, forestry, veterinary science.

The girls substitute courses in domestic science and practice for the shopwork and a portion of the agriculture, but are required to take courses in field agriculture, horticulture, forestry, dairying, poultry culture, meats, and stock judging.

For young men, practical experience in field work at the university farm or elsewhere is among the requirements for graduation.

It is estimated that the total expenses of students for the school year need not exceed \$85, exclusive of board and personal expenses. Tuition is free, and text-books may be rented at \$1 per term.

The school has two distinct functions: "It offers a practical course of study designed to fit young men and young women for successful farm life and it serves as a preparatory school for the college of agriculture."

Regarding the success of this school, Prof. W. M. Hays, professor of agriculture in the University of Minnesota, writes as follows under the date of October 30, 1902:

At present there are 410 students in the agricultural high-school course, and this probably means that we will have about 500 in this course during the year and between 200 and 300 in other courses.

The agricultural high school takes the boys and girls from the rural schools of Minnesota, gives them three or four years of six months each of instruction and experience, which is rather intense in its nature and appears to be very interesting to the young people. They live in dormitories, and I feel very certain that the influence of the country-life atmosphere pervading this school community causes the percentage to be considerably increased of those who at the end of the course intend to return to farm life as compared with that at the beginning of the school course. The students in their own intercourse are constantly magnifying the industrial, business, social, and general opportunities of country life. The farm, the farm home, and the farm community are being greatly enlarged in the minds of these young people. The wonderful wealth of material now available for a strong faculty to select from in placing subjects before students in an agricultural high school makes even a secondary course like this very broad in its scope.

A course made up of one-third industrial, one-third scientific, and one-third academic studies may properly be claimed as the broadest kind of a course for nearly all young people. Such a course not only gives a broad view of life, but it teaches how to think and to do. The larger percentage of people thus trained are able to gain the necessary means and position to enable them to afford facilities for continuing their education throughout their lives, no matter what their vocation. This is not true of those being educated in the narrower, so-called academic or literary lines in our city high schools.

Nearly all the graduates of the school of agriculture not only return to the farm, but generally succeed. Many of the young men are growing into leadership in their respective communities and many more by their quiet example are bringing about a more hopeful view of country life and farming, and thus setting the pace for many neighbors. In some counties this influence is being clearly felt.

A school on essentially the same plan, but without the courses in domestic science, organized at the University of Nebraska, had an attendance of 118 boys in 1902.

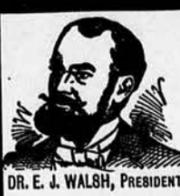
AGRICULTURAL HIGH SCHOOLS IN WISCONSIN.

With a view to bringing secondary education in agriculture closer home to the farmers of different localities a movement has been begun for the establishment of county or district agricultural high schools. In Wisconsin the first two county agricultural schools have recently opened their doors to students. These schools are the outcome of a report made by Hon. L. D. Harvey, State superintendent of public instruction in Wisconsin in 1900. From his studies of the rural schools in this country, as compared with those in Europe, Mr. Harvey became convinced that as regards "instruction in the principles of agriculture in grades of schools below the agricultural colleges" "we are far behind foreign countries both in the scope of the work attempted and in the extent to which it has been organized." It did not seem to him feasible to introduce the teaching of agriculture into the common rural schools at present, owing largely to the lack of trained teachers. "Whenever we have in our rural schools," he says, "a body of professionally trained teachers who have had specific instruction in this subject and modes of teaching it, we may then hope to make some progress in the rural schools, but until then we must look elsewhere for this instruction." He therefore recommended that the State Legislature should "provide for the establishment of county schools for instruction in agriculture and domestic economy." The Legislature adopted this suggestion at its session in 1901 and passed a law authorizing the county board of any county "to appropriate money for the organization, equipment, and maintenance of a county school of agriculture and domestic economy," or "the county boards of two or more counties may unite in establishing such a school." The character of these schools is shown in the following sections of this act:

Section 6. In all county schools of agriculture and domestic economy organized under the provisions of this act instruction shall be given in the elements of agriculture, including instruction concerning the soil, the plant life, and the animal life of the farm. A system of farm accounts shall also be taught. Instruction shall also be given in manual training and domestic economy and such other subjects as may be prescribed.

Sec. 7. Each such school shall have connected with it a tract of land suitable for purposes of experiment and demonstration, and not less than three acres in area.

Sec. 8. The schools organized under the provisions of this act shall be free to inhabitants of the county or counties contributing to their support who shall be qualified to pursue the course of study, provided they shall have at least the qualifications required for completion of the course of study for common schools. Whenever students



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of advanced age desire admission to the school during the winter months in sufficient number to warrant the organization of special classes for their instruction, such classes shall be organized and continued for such time as their attendance may make necessary.

These schools are by the law put under the general supervision of the State superintendent of public instruction, who, "with the advice of the dean of the College of Agriculture of the State University shall prescribe the courses of study to be pursued and determine the qualifications required of teachers employed in such schools. Upon the approval of the State superintendent the State will pay a share of "not to exceed one-half the amount actually expended for instruction in such school" in any county.

Two schools have already been established under this act.

The Marathon County School of Agriculture and Domestic Economy, located at Wausau, Wis., was opened October 6, 1902. The buildings and equipment provided for this school cost \$20,000. The school grounds cover 6 acres. The course of study for boys includes soils, plants, animal husbandry, rural architecture, blacksmithing, carpentry, and mechanical drawing. The course of study for girls includes cooking, laundering, sewing, floriculture, and home management and decoration. Both courses include English language and literature, United States history, civil government, and commercial arithmetic, with farm accounts.

Tuition is free to students living in Marathon County. The cost of board and rooms runs from \$2.50 to \$3 a week. On November 26, 1902, this school was reported to have 62 students—15 boys and 47 girls. The average age of the students was 16 years. The principal of the school is R. B. Johns, a graduate of the University of Wisconsin.

The other school is located at Menomonie and is known as the Dunn County School of Agriculture and Domestic Science. This school is centrally located in the county and is equipped with a fine brick main building erected by the county at a cost of \$16,000 for the joint use of this school and the county teachers' training school, and a frame building for shop-work, which, with the grounds surrounding the school, cost \$5,000. The farm work is done on the county asylum farm, one mile distant from the school.

The course of study for boys includes instruction regarding soils, fertilizers, plant life, horticulture, field crops, animal husbandry, dairying, poultry, economic insects, farm accounts, blacksmithing and other metal work, carpentry, and rural architecture.

The course of study for girls includes work in sewing, cooking, home economy and management, drawing and designing, domestic hygiene, chemistry of foods, poultry, farm accounts, and horticulture.

Both courses include studies in civil government, United States history, library readings, English, and elementary science.

Only two years will be required to complete the full course for either boys or girls, and shorter courses may be pursued.

Tuition is free to students living in Dunn County. Others will pay \$25 per year, except that the first 10 students from other counties will be admitted for the first year on the payment of only \$10 each.

Students may find board and room in private families in Menomonie at prices ranging from \$2.25 to \$3.75 per week. Students can board themselves for about \$2 per week.

The school opened October 20, 1902, and by December 44 students had registered (32 boys and 12 girls), of an average age of 18½ years. They are from the country schools with few exceptions. The principal of the school is Dr. K. C. Davis, a graduate of the Kansas Agricultural College, and recently horticulturist of the West Virginia Agricultural Experiment Station. He pursued post-graduate studies in agriculture at Cornell University, where he received the degree of doctor of philosophy.

It is interesting to observe that this county agricultural high school is joined to a school especially established for the training of teachers for the country schools. In this way many teachers will be brought into sympathy with the movement for the introduction of agriculture into the public-school system and many elementary country schools will be recruiting stations for the agricultural high schools.

AGRICULTURAL SCHOOLS IN ALABAMA, CALIFORNIA, AND MISSOURI.

In 1896 the legislature of Alabama provided for the establishment of agricultural schools in each of the nine Congressional districts of the State and appropriated 2,500 a year to each of these schools, which is supplemented by local funds. As actually established, these schools have been a combination of elementary and high schools in which a general education has been given with a limited amount of instruction in agriculture. Farms are connected with the schools, on which, in some cases, simple field experiments have been conducted. Over 2,000 boys and girls annually attend these schools, several hundred of whom receive some instruction in agriculture. These

schools have been largely under local control, with the result that there has been no well-defined plan for their development along agricultural lines. With a better understanding of the requirements and advantages of systematic instruction in agriculture they may easily be developed into efficient agricultural high schools.

In California a State appropriation has been made for a polytechnic school to be located at San Luis Obispo in which agricultural education of secondary grade will be a leading feature. Plans are being made for the opening of this school at an early day.

In order to prepare teachers to give instruction in agriculture in the public schools of the State, short courses in agriculture and horticulture have been given at summer schools held in connection with the University of Missouri. These courses were, however, necessarily too limited in extent to fully meet the requirements of such work, and courses in agriculture have therefore been established in the three normal schools of the State. At the normal school at Kirksville, Mo., the course in agriculture occupies one school year of nine and one-half months, five recitation periods a week being devoted to this subject. The topics included in the course are soils, fertilizers, rotation of crops, propagation of plants, plant breeding, pruning, grafting, insects and insecticides, spraying, and dairying, with brief consideration of matters relating to forestry. At the normal school at Warrensburg, Mo., only twenty weeks have been given to the agricultural course, but it will probably be lengthened in the future. One hundred and eighty-five students have completed this course and 104 are enrolled the current year.

At the normal school at Cape Girardeau, Mo., forty weeks are given to instruction in agriculture. King on the Soil and Goff's Principles of Plant Culture are used as text-books. These are supplemented by lectures on dairying, injurious insects, and plant diseases. Eighty students elected this agricultural course in 1902.

AGRICULTURAL SCHOOLS FOR NEGROES IN THE SOUTHERN STATES.

Courses in agriculture of approximately high-school grade are maintained in a number of schools for negroes in the Southern States. The Normal and Agricultural Institute, at Hampton, Va., has a well-organized course of this character. A considerable number of the students in the institute have previously attended the elementary school, known as the Whittier School, which is a public county school located on the grounds of the institute and furnished by it with teachers. It is a practice school for the normal students in the institute and includes a kindergarten and five grades. Its entire curriculum is adapted to industrial schemes followed in the institute. Even in the kindergarten the children not only have their games, songs, and paper cutting, but also learn to dust furniture, water plants, and do other useful tasks. All the boys and girls in this school, from the kindergarten up, have nature study, comprising elementary studies in plant life, soils, and insects, and work in a garden attached to the school during two forty-minute periods each week. There they learn to use hand tools and large farm implements, the preparation of the soil, and the planting, cultivation, and harvesting of vegetables, fruits, flowers, and farm crops.

At the institute the regular course, which is given in a day school, covers the studies ordinarily taught from the sixth to the ninth grades, inclusive, and occupies three years. Pupils who have no funds may attend a night school to prepare themselves for the day school, meanwhile earning money by farm work during the day. Instruction in agriculture is given in both the

day and night schools. Besides the grounds about the institute there is an estate of 600 acres, known as the Hemenway farm, five miles from Hampton, on which are maintained a herd of nearly a hundred dairy cows and large flocks of chickens, ducks, geese, and turkeys. The foreman's residence is the old plantation mansion dating back to the middle of the seventeenth century. In a new wing of this building there is a class room for the night students who work on the farm. A new dairy barn is now being erected. This farm is run on a practical basis, and, in addition to furnishing work to night students, supplies many things for the institute table and for the general market.

At the institute in Hampton twenty acres of land are devoted especially to the practice work of the agricultural students. Four acres of this have been laid out as a small model farm, ten acres have been planted with orchard fruits, and the remainder is used for experiments and demonstrations in growing farm truck and garden crops. In the new domestic-science building the department of agriculture has six large rooms—a museum and lecture room, laboratories for agriculture, chemistry, and physics, one for botany, horticulture, and entomology, a dairy, and a farm-engineering room. There are also two greenhouses. The dairy is well equipped for creamery work and farm dairying, and the farm-engineering room contains a collection of plows, harrows, drills, and other farm machinery.

The regular course includes instruction in soils, plant production, animal industry, dairying, drainage, and farm management. A supplementary course is offered to those intending to fit themselves to be agricultural teachers or farm superintendents. Mr. C. L. Goodrich is at the head of this department and the present year has the assistance of two graduates of Cornell University.

Agricultural courses on substantially the same plan are conducted at Booker Washington's Institute at Tuskegee, Ala., where the work is in charge of Mr. G. W. Carver, a graduate of the Iowa Agricultural College. Among the other schools for negroes where successful agricultural courses are maintained are the Agricultural and Mechanical College for Negroes, Normal, Ala.; State College for Colored Students, Dover, Del.; Florida State Normal and Industrial College, Tallahassee, Fla.; Georgia State Industrial College, College, Ga.; State Normal School for Colored Persons, Frankfort, Ky.; Southern University and Agricultural Mechanical College, New Orleans, La.; Alcorn Agricultural and Mechanical College, West Side, Miss.; Agricultural and Mechanical College for the Colored Race, Greensboro, N. C.; the Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina, Orangeburg West Virginia Colored Institute, Institute, W. Va.

CONCLUSION.

Now that a real beginning of secondary education in agriculture suited to American conditions has been made and some success has been attained, there is needed a considerable number of experiments in this direction before it will be possible to fix anything like a standard for schools of this class. One very important consideration is the nice adjustment of the culture and industrial studies so that the general education of the pupil will not be neglected while he is at the same time being trained for the successful practice of agriculture. In arranging such courses it must ever be kept in mind that as a man, citizen, and home-maker the farmer needs the same training as other men. To make narrowly educated money-makers in our public schools would be ruinous to the best interests of the country and mankind. All the objects of education, as defined by



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President Eliot of Harvard University, who is now president of the National Educational Association, must, if possible, be attained by the public high schools. That is, "we must learn to see straight and clear; to compare and infer; to make an accurate record; to remember; to express our thought with precision; and to hold fast on lofty ideals."

It is believed that the introduction of effective courses in agriculture into these schools will strengthen them in all these directions if the courses are properly arranged and taught.

At present the problem of obtaining properly qualified teachers is a serious one. Most of the teachers now employed in the public high schools have been trained in literary and scientific institutions or in technical schools where no agriculture has been taught. It is only now and then that a teacher is found who is in real sympathy with agricultural education. Attention must, therefore, be directed to the fitting of teachers for this work in the agricultural colleges. Text-books on agricultural subjects suitable for secondary schools are almost entirely lacking. These, however, will be supplied as fast as the demand for them arises, and they will be improved as experience shows their deficiencies. The friends of agricultural education should realize that we are in the period of experiment and missionary effort in this movement. What is especially needed now is an organized propaganda through the agricultural colleges, agricultural societies, boards of agriculture, farmers' institutes, the agricultural press, and other agencies with a view to impressing on school officers and teachers and on the agricultural masses the importance and desirability of giving serious and active attention to this matter. Every successful effort to maintain an agricultural high school or an agricultural course in a public high school will add great momentum to this movement.

A great gain has been made in that there is now seen the real nature of the problems to be solved in order to secure an efficient system of secondary courses in agriculture as a part of the public-school system. Active work along this line will now most surely bring valuable results. When the advantages to be derived from such courses in agriculture in the high schools are once clearly demonstrated in a few places it will not be difficult to persuade the taxpayers generally to contribute the necessary funds for their maintenance.

The writer went not long ago to a flourishing agricultural community, in the midst of which was a fine and wealthy city. On invitation of leading citizens he went to the splendid high-school building in that city and addressed the teachers and students. In that school were gathered some 600 active and intelligent American boys and girls. They were pursuing courses in

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English and other languages, mathematics, history, political economy, and a number of natural sciences. With much justifiable pride the principal showed his visitor the good equipment for work in carpentry and wood carving. There was also instruction in various forms of commercial business. But agriculture and horticulture were entirely neglected. The farms and horticultural plantations surrounding that city aggregated millions of dollars in value. The prosperity, if not the very existence, of the city depended on the success of the agriculture in its vicinity. Grave evils afflicted that agricultural region, the removal of which will require much intelligence and expert skill. Hundreds of the pupils attending that high school would naturally, if not necessarily, make agriculture in that region the business of their lives. And yet no pupil of that school was learning anything about the requirements of successful agriculture or the aid which science may give the farmer in his struggle with the forces of nature vitally affecting his business. The whole drift of the education given in that school was away from the farm. Could anything be more unwise? Is it not absolutely certain that, considered merely as a matter of business policy, the taxpayers of that city could well afford to pay all the additional expense which would be required to maintain courses in agriculture in that school? Undoubtedly the farmers of the vicinity ought to share in this expense, and there is good reason to expect they would do so.

There are hundreds of American communities where a similar state of things exists. It is not a matter of interest and concern to the farmers alone. The enduring prosperity of cities is inextricably bound up with the success of agriculture. Technical education has proved a sure road to commercial development and greatly increased wealth in connection with every industry which has received its benefits. It will prove equally so as regards agriculture. The tremendously productive results which have already come from the work of the agricultural colleges and experiment stations may be multiplied a hundredfold by the education of hundreds of thousands of the flower of rural youth in secondary schools in which there is definite and systematic teaching of the technique and scientific principles of agriculture.

WEEKLY WEATHER-CROP BULLETIN.

Weekly weather-crop bulletin for the Kansas Weather Service for the week ending July 21, 1903, prepared by T. B. Jennings, Station Director.

A warm week but with some cool nights. The maximum temperature ranged from 87 in Jefferson to 108 in Hodgeman and Clark. The rainfall has been ample over most of the State, except in the southwestern counties of the middle division and the southeastern counties of the western, with heavy rain in Republic and Washington thence southeastward into Shawnee, and in Mitchell and Lincoln and thence southeastward into Bourbon and Crawford.

RESULTS. EASTERN DIVISION.

Wheat harvest is over, and in the central and southern counties much has been stacked; thrashing is progressing, though in many counties it was interrupted by rains; Labette reports yields of 5 to 15 bushels, Montgomery 8 to 12, and Linn about 10 bushels per acre; while the yield is not large the quality is good. Oats harvest is over and thrashing begun; owing to much damage by rust, the yield does not come up to expectations. Corn is doing well; the early corn is tasseling and silking in the central counties; corn planted since the flood is growing rapidly and being cultivated. The early potato crop is disappointing in Atchison, Elk, Labette and Marshall, but is a good crop in Shawnee. Hay is progressing in several counties; timothy in the northeastern and prairie in the southern, with good results. Pastures are good. The second cutting of alfalfa is progressing in Shawnee and Chase and is ready in Marshall. A fair crop of flax is ready to cut in Chase, Coffey, and Greenwood. Apples are growing finely in the southern part of Shawnee. Fall plowing has begun in Montgomery.

Allen.—Excessive rains have delayed thrashing and all farmwork; crops are growing nicely but are weedy.
Anderson.—Haying and thrashing interrupted by rains; much damage by hail on the 15th; good week for corn, forage crops, and pastures.
Atchison.—Corn plowing and scarcity of help has delayed haying and much timothy is yet to cut; corn is thirty days behind the season but is growing well and has a good color; earliest planting is beginning to tassle; hay crop good; oats all cut; a poor crop, damaged by rust; early potato vines mostly dead; quality of potatoes poor.
Bourbon.—Corn is being well cultivated and growing well; wheat and oats crops saved in good condition; a fine growth of prairie hay is being cut; timothy crop good.
Brown.—Corn benefited by light rains; oats all cut; late sown were damaged considerably by rust; tame hay is being cut and is a good crop; late planted corn has not done well generally and is not very promising; more rain is needed.
Chase.—Very dry in western part, but good showers in east and south have greatly helped growing crops; corn is generally laid by; that

planted after the flood is growing very rapidly; second cutting of alfalfa is short, the first for seed promises well; flax fair; oats that are thrashed are very light in weight; Kafir-corn and cane fair.
Coffey.—Too much rain in central part, good showers in northwest part; corn doing well, is tasseling and beginning to silk; much damage to oats by rust; flax harvest will begin next week; a fair crop.
Crawford.—Oats badly damaged by rust; corn growing very rapidly; hay crop is promising.
Doniphan.—A fine growing week; wheat in the shock and thrashing begun; blackberries ripening and very plentiful.
Elk.—Corn growing rapidly; prospects very much improved; potatoes a light crop.
Franklin.—Another good week for the farmer; corn growing rapidly, about one-half of it laid by; much haying done; timothy a fine crop.
Greenwood.—A fine week for all crops; flax is beginning to ripen and is a good crop; corn is generally clean, and growing rapidly; early planted is tasseling; haying is in progress.
Jackson.—Corn doing very well; much early corn tasseling short; oats all in stack; no thrashing yet; having in progress; tame hay a good crop.
Jefferson.—Early corn laid by; corn is improving in condition and some of it looks well; tame hay not all cut yet, and second cutting of alfalfa ready; much of the newly sown alfalfa seems to be dying; prairie haying will begin at once; the crop is good; pastures fine.
Johnson.—Prospects for corn improving; early laid by and the late neglected for the present for the harvest and thrashing; getting too ripe for the grain; some fields will be cut for seed; oats and blue-grass all cut.
Labette.—Wheat all stacked or thrashed; yield from 5 to 15 bushels; oats all cut and some thrashed; yield from 10 to 20 bushels per acre and very light weight; corn very promising; early planting tasseling and some fields in roasting ears; later planting is clean and growing rapidly; early potatoes a failure; fruit good.
Leavenworth.—Wheat mostly in the shock; corn growing rapidly; oats are looking well; pastures fine and stock doing well; blackberries ripening.
Linn.—Considerable wheat stacked; thrashing progressing in the shock; average yield about 10 bushels per acre; corn very uneven but growing rapidly; small acreage of oats, but fair crop; hay crop good.
Marshall.—Wheat and oats about all cut and in good condition; both made a fair yield of good quality; thrashing has begun out of the shock, but much of the grain will be stacked; corn generally clean and growing well, and promises a fair to good crop; second crop of alfalfa good, and nearly ready to cut; potatoes a poor crop; very little fruit in this vicinity.
Montgomery.—All crops doing well; late corn growing rapidly; all the forage crops have

WHY BUY A CORN-BINDER

When You Can Purchase a Sled-Outlet for One-tenth the Price.

Runs easy, and cuts and gathers corn, cane, Kafir-corn, or anything which is planted in rows.



Ask your implement dealer for it, or send \$12.00

Green Corn Cutter Company, Topeka, Kansas.

SEED WHEAT FOR SALE.

Two varieties of Beardless Winter Wheat, "MAY KING" and "RED AMBER."

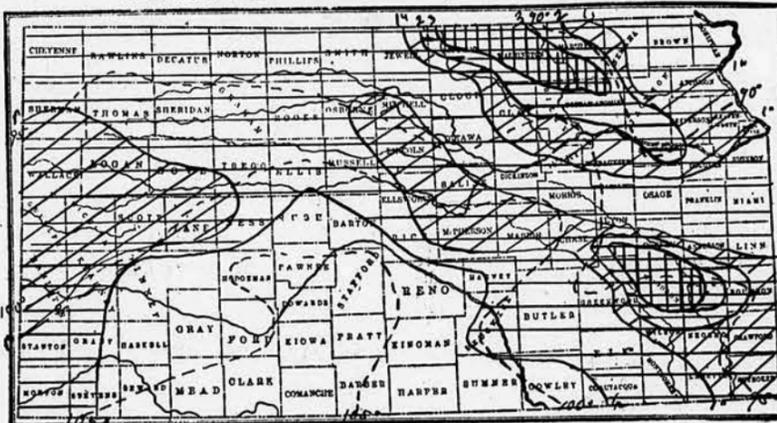
Both are hardy, yield well, have a stiff straw, and do not lodge or break down like bearded wheat.

Price \$1.00 per bushel. Send for samples. LOUIS DUEHN, Farm one mile south of Clements, Chase Co., Kans.

WESTERN DIVISION.

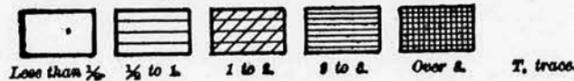
No reports received on spring wheat. Wheat harvest is ended in the southern counties and is progressing in the northern, a good yield of a good berry. Much wheat was damaged by hail in the northeast part of Decatur and by wind in the south, delayed by rains in the north. Rye harvest is finished. Barley harvest about finished south, ready to begin north. The second crop of alfalfa has been cut in the south and needs to be cut in the north, it is a good crop. The alfalfa seed crop is being damaged by grasshoppers in Ford. Corn is suffering for rain in Ford but is doing finely in the northern counties; the early corn is tasseling in Lane and Decatur; much corn was badly stripped by hail in southern part of Decatur. Range grass is fine, with much hay in sight, and cattle are in very good condition.
Clark.—Harvest just finished; season unusually favorable.
Decatur.—Rye all cut; wheat harvest well under way; much damage by hail in southern part; corn outside of hail belt is growing rapidly, beginning to tassle and promises a good crop; pastures are kept good by frequent showers and stock are in fine condition.
Finney.—Harvest about completed and thrashing will begin next week; a good supply of water in the ditches, and fair prospects for three and four good cuttings of alfalfa on irrigated land.
Ford.—Wheat, oats and barley nearly all harvested in good condition; crops unusually good; alfalfa continues to grow well, but grasshoppers are damaging the seed crop; corn, Kafir-corn and cane suffering from dry, hot weather.
Lane.—Good local rains have made this a fine week for all growing crops; early corn tasseling; wheat harvest progressing rapidly.
Morton.—A week of good weather for growing crops, grass, and cattle; many are dipping their cattle to cure and prevent mange, itch, etc.
Norton.—Harvest delayed by local rains; all grains ripe, no thrashing done; oats very good; some corn very weedy; ground sufficiently moist.
Thomas.—Wheat harvest about half done; shattered by high wind in northeast part; wheat of good quality and fair yield; barley harvest will begin next week; corn, Kafir-corn, and cane fine; buffalo-grass unusually good.
Trego.—Wheat is dead ripe, and harvest about one-half done; oats harvest is approaching; alfalfa needs cutting; help scarce; some damage by wind on the 14th.
Wallace.—Barley harvest progressing; second crop of alfalfa fine; corn growing well; wheat harvest about over; range-grass fine and cattle doing well; plenty of wild hay.

Rainfall for Week Ending July 18, 1903.



Maximum temperature shown by broken lines.

SCALE IN INCHES



been planted; thrashing in progress with a yield of 8 to 12 bushels per acre; plowing for fall wheat has begun with the soil in fine condition; some hay is being cut; grass good and stock in good condition.
Morris.—A fine growing week; early corn coming into tassle and silk; rowed Kafir-corn and cane being tended; sowed forage crops fine; early cut alfalfa is making a good third growth.
Pottawatomie.—The rains have benefited the late planted crops; corn is doing well; pastures and stock in good condition.
Riley.—Grain harvest finished; corn all laid by except the late planting; some early planting is tasseling and silking; the rains have started the pastures; all the late crops are growing well; the soil is in good condition.
Shawnee.—The rains have interfered with thrashing; wheat stacking is well under way; a fine crop of oats has been harvested; cultivation of corn is going on vigorously, and the corn growing well; second crop of alfalfa being cut; pastures and meadows are good and cattle doing well; potatoes are good; garden truck is abundant; apples growing fine.
Wabasha.—Cold warm weather and rains have produced a very rapid growth of corn this week; much is laid by and in tassle; wheat that is thrashed shows a yield of from 11 to 25 bushels per acre; third crop of alfalfa ready to cut; second crop was unusually good.
Woodson.—Plenty of rains; corn doing well; unfavorable week for haying; thrashing continues.

MIDDLE DIVISION.

Wheat harvest is finished in most of the counties, and thrashing is progressing, showing yields of from 10 to 40 bushels and testing fifty to sixty pounds. Oats harvest is finished in the central and southern counties and is ready to begin in the northern; owing to rust it fails to comply with expectations. Corn is needing rain in the southern counties while in the central and northern it is growing rapidly; the second crop of alfalfa has been cut in the south and is being cut in the central counties, it is generally reported a good crop, though in McPherson it is not as good as the first crop as the weather has been too dry. Apples are on the market in Barber, and promise a good crop in Sedgwick; Lincoln reports a few apples, and the crop is light in Kingman and Reno. Watermelons are being marketed in Barber. Potatoes are good in Lincoln. Haying is progressing in Cowley and has begun in Kingman.
Barber.—Wheat thrashing in progress; average yield from 10 to 15 bushels per acre, weighing from 50 to 60 pounds per bushel; oats cut and stacked; corn and forage crops need rain badly; second crop of alfalfa cut and stacked; cattle doing well; water plentiful; apples, peaches and watermelons on market.
Barton.—Wheat all harvested and thrashing begun; the yield is good and the grain plump, testing 61 and 62; corn tasseling and needs rain; second crop of alfalfa cut and some stacked.

some report 40 bushels per acre, testing 62 1/2 pounds.
Harper.—Thrashers report a yield of from 10 to 20 bushels of wheat per acre; oats poor; corn tasseling and doing well.
Jewell.—Plenty of rain; corn growing rapidly; wheat mostly harvested; oats harvest begun.
Kingman.—Harvesting nearly over; thrashing in progress; haying has begun; yield and quality good; very poor crop of apples and peaches.
Lincoln.—Fine growing weather; present prospects are for a good corn crop and plenty of feed; thrashing has begun; yield and quality of wheat fair; second crop of alfalfa is fine; potatoes good; only a few apples.
McPherson.—Corn is growing nicely; the wheat is being stacked and thrashed; quality good, yield from 8 to 15 bushels; second cutting of alfalfa in shock; not as good as the first cutting owing to dry weather.
Osborne.—The uncultivated grain in the northern part of the county was damaged by wind and hail on the 16th; corn is doing well; thrashing will begin next week.
Ottawa.—Wheat and oats harvest finished; thrashing begun; thus far the yield ranges from 14 to 37 bushels, averaging about 20; oats ripened too quickly, making the weight light and the yield unsatisfactory; corn is doing well and promises a fair crop; the second alfalfa crop is being cut and is good.
Phillips.—About two-thirds of the wheat is in shock; thrashing has begun; there is no spring wheat; oats are good; corn is improving rapidly; second crop of alfalfa is good and being cut.
Pratt.—Harvest is about done, and thrashing has begun showing a yield of from 16 to 35 bushels testing from 55 to 61 pounds; no rain for six weeks and the drought is telling on the corn and feed crops; pastures are getting dry.
Reno.—Another hot, dry week; thrashing is progressing rapidly; wheat yielding from 15 to 20 bushels per acre of fine quality; corn tasseling and badly in need of rain; a few early apples in market, light crop.
Republic.—Winter wheat all cut; oats are ready for harvest and look very promising; corn has grown rapidly.
Russell.—A fine week for harvesting; wheat harvest fully three-fourths done; all growing crops doing well.
Saline.—Splendid week for growing crops; corn making fine growth, early planting is in tassle; alfalfa blooming well.
Sedgwick.—Corn has a good color but the stalks are small and it will require rain very soon to make a good crop; wheat and oats all harvested; apples promise a good crop.
Smith.—Wheat harvest finished and thrashing begun; corn is making rapid growth and looks well.
Stafford.—A fine week for harvesting, which is about done; thrashing has begun with a good yield.
Washington.—A fine week for all growing crops; harvest is over and stacking has begun; small grain is very good; corn is making a rapid growth.

The Missouri State Fair.

The board of directors of the Missouri State Fair are now constructing a number of new buildings. These will be ready for use by the opening of the annual exhibition August 17, 1903. The management will then be able to take care of 400 head of cattle, 450 head of horses, and 1,200 sheep and swine. In addition to live-stock barns, a poultry palace, with coops for 4,000 birds, an agricultural hall with 15,000 feet of floor space, and a horticultural hall, 86 by 166 feet, all to be built of pressed brick and stone, metal roof and concrete floors, are in course of construction, and will be completed, ready for use at the coming fair. Many improvements are being made on the grounds. A complete system of sewerage is being put in, and connections made with all the buildings. Thousands of young trees planted are making a vigorous growth, and the management will undertake an elaborate system of landscape gardening in the near future. No other State Fair has grounds susceptible of being made more beautiful, nor has buildings better adapted to the purposes intended, more substantial, or a more beautiful style of architecture. In course of time, Missouri will lead all other States with the most beautiful and best equipped fair grounds and in the greatest display of live stock and agricultural products made in the world.

Kansas Wesleyan University.

About ten years ago a young man by the name of T. W. Roach went to Salina, Kans., to take charge of the business college department of Kansas Wesleyan University. When he began his work he had but two students and a world of competition. His only capital was brains and experience. His only building of three floors and has an annual enrollment of over 600 students. It has a record of having placed its graduates in good positions throughout the Union. Two years ago Prof. Roach was called upon by the church element and the best class of citizens to act as mayor to the city of Salina and the local press was filled with words of commendation for the reforms inaugurated and the clean administration supplied by Mayor Roach. At the last meeting of the board of trustees, Prof. Roach was elected president of the university and its further growth and continued usefulness is now regarded

as assured. This educational institution is a progressive one and its advertising card on page 773.

A Solar Plexus Blow.

The passing of the Kansas Mutual Life Insurance Company and its merger with the Illinois Life Insurance Company is now a matter of history, but it is the closing incident of the deal which has a peculiar significance. United States Judge Hook allowed the receivers \$15,000-\$5,000 each—and the law firm of Rossington, Smith & Dallas a fee of \$10,000 for their services and expenses in winding up the career of a solvent Kansas institution, the Kansas Mutual Life Insurance Company. Policyholders who will have this \$25,000 burden to bear will no doubt have a keen sense of admiration for all the parties actively concerned in this great financial deal which dismantled a Kansas insurance company. The old Kansas Mutual policies assumed by the Illinois Life Insurance Company are undoubtedly sound and safe from future harm but the policyholders will never be reconciled to the outrageous fee or forget those who were responsible for the wrecking of the Kansas Mutual. The twenty-five thousand dollars allowance for attorneys and receivers was a body blow and the "blow that almost killed father."

A New Grain Bureau.

The Santa Fe railroad has established a bureau in Kansas City known as the Kansas Wheat Bureau. This bureau, which will consist of seven men, will be in charge of J. W. Glasgow, one of the chief clerks in the office of W. J. Healy, freight auditor for the Santa Fe. Mr. Glasgow and the men under him will look after the movement of Kansas wheat over the Santa Fe. It is the purpose of the bureau to keep track of all wheat which is shipped over the Santa Fe, and to give it close attention during the time of shipment, even up to the time it is turned over to the elevators. The bureau will keep track of all the wheat cars, and also see that the shippers are supplied. In this way the Santa Fe railroad will be able to handle all of the wheat which will be harvested in the counties through which the line runs. Formerly the Santa Fe has had no such bureau, but this year's enormous wheat crop makes a bureau of this kind necessary.

UNIVERSAL DUST-SPRAYER.

The Latest and the Best.—The Haseltine Universal Dust-Sprayer.

It is light, only weighing six pounds; simple, has no machinery to get out of order or break; durable, if properly cared for will last for years, and it is



the easiest operated of any dust-sprayer made; it is operated under the arm, like a Scotch bag-pipe, and is the cheapest sprayer on the market for the amount of work it will do.

The Universal Sprayer will use any composition for insects or fungus, or will apply a mixture of both at one time.

The Universal Sprayer can be used as an all-purpose sprayer, for orchards, vineyards, gardens, flowers, cotton, tobacco, peas, potatoes, poultry, etc.

CONSTRUCTION THE SIMPLEST AND BEST.

Mr. S. A. Haseltine, the inventor, is one of the largest orchardists in the Ozarks, and has for twenty years practiced patent law, which has enabled him in this invention to apply the scientific principles of physics to get the greatest force and volume of spray from the least amount of labor exerted. He also utilizes the principle that the arm can operate a bellows easier than the hand, with less fatigue to the operator, and gives greater force.

ADJUSTMENT.

The Universal Sprayer can be adjusted to throw a mere trace, or a strong blast with a dense cloud of dust, as desired.

The Universal is the most economical sprayer, no waste of material, no lost motion, no cog wheels nor chains slow in getting started. No heavy machinery to be carried by the operator.

The Universal will hold enough material to spray across forty acres and back again, and not weigh as much as other machines do when empty. One man can spray ten or fifteen acres in three hours with the Universal Sprayer.

DIRECTIONS.

Full directions for compounds accompanying each sprayer, with directions for using the same.

EXPENSE.

The expense of spraying with the Universal Dust Sprayer is about one-eighth (1/8) of the expense of the liquid spray to apply the material, and uses less than half the material re-

quired for liquid spray to cover the same surface.

EFFECTUAL.

The Universal Dust Sprayer will supply the dust in a cloud under and above the leaves and fruit when covered with dew or rain, or when dry if no wind, and it sticks to the moisture and the plants and fruit hold the spray material, and it does not run off, as liquid spray. Also the surplus, after covering one tree, floats to another and will spray three or four rows at a time. It thus saves material that would be wasted in the liquid by falling on the ground.

MIXING.

The mixing of the compound for the Universal Dust Sprayer, under the directions given, is simple, easy, and most effective. Not strong enough to burn nor too weak to be of value. Try the Universal Dust Sprayer and be convinced.

OPERATION.

The Universal Dust Sprayer is alone in its ease and simplicity of operation, in that it utilizes the bag-pipe principles of placing the bellows under the arm, so it can be operated by the arm instead of by the hand, and reversed from one side to the other. The feed and stirring mechanism is operated automatically by the action of the bellows.

PRICES.

The Universal Dust Sprayer is intended for all purposes. Sent to any freight or express office in the United States prepaid for \$10.

Agents wanted everywhere. For agents' terms, etc., address S. A. Haseltine, Mfg., Springfield, Mo.. Send all orders for sprayers to Kansas Farmer Company, Topeka, Kans.

THE MARKETS.

Kansas City Live-stock and Grain Market.

Kansas City, Mo., July 20.

The week opened with a good supply of cattle at this market today, but with only moderate runs east. This had the effect of stimulating prices and the general cattle trade averaged 10c higher than Friday and as much as 20c above the dull opening had last week. Tops brought \$5, Jerry Hon, of Pleasant Hill, Mo., securing that price for a string of natives. Stockers and feeders opened 10@15c higher with the demand in excess of the supply. No fancy thin-fleshed cattle were on sale. The supply in the quarantine division was 2,300 head and grassers shared in the general betterment of the market. Hogs sold steady to weak with tops at \$5.45, and a bulk of heavy hogs bringing \$5.30@5.35. Pigs of choice quality are still outselling heavy swine, but the margin is not so great as a while back. Sheep were strong to 10c higher, the run aggregating 3,500 head. Arizona lambs sold up to \$5.60 and natives commanded as high as \$5.75, the best price for over a month. The horse and mule trade was steady today. A band of extra choice range mares brought \$100@125 per head, the highest price on record at this point for Western stock.

Cattle receipts here last week aggregated 31,400 head, the biggest supply since the flood. The increase was wholly in grassers, Panhandle and other Southwest stock. Corn cattle were in good supply, but the runs are hardly so large now as earlier in the season. The cattle market pursued a bearish course throughout the entire six-day period, but the close was a little firmer.

Among the good cattle shipped in last week were consignments made by the following: Irve Isaacson, Wetmore, Kans., \$5; Fred Arthur, Neodesha, Kans., \$4.95; H. J. Hazell, Sabetha, Kans., \$4.75; A. F. Vilander, Cleburne, Kans., \$5; Alfred Dornen, Lucas, Kans., \$5; H. J. Alderson, Everson, Mo., \$4.95; Ed Brining, Liberty, Mo., \$4.90; Harry Pigg, Orrick, Mo., \$5; E. M. Tucker, Michigan Valley, Kans., \$4.55; S. M. Knox, Humboldt, Kans., \$4.75; D. D. Pomeroy, Phillipsburg, Kans., \$5; W. B. Jones, Pawnee, Neb., \$4.90; T. T. Maxwell, Cleveland, Mo., \$4.75; and O. F. Brown, Newmarket, Mo., \$4.85.

Hog receipts for the week aggregated 45,400 head, a 50 per cent increase over the same time last year. Packers bore heavily on the market for the first few days of the week, but a sensational advance in provisions boomed the hog market toward the close, causing the loss to be regained. Traders profess to see a betterment ahead for swine, their hopes being buoyed up by restrictions in receipts the past few days.

Sheep receipts last week were about the smallest of the season, a total of only 6,800 head arriving, compared with 17,500 the same time last year. Offerings averaged rather poor in quality, there being a superabundance of bulky Southwestern lambs among the receipts. Steadiness characterized the market from day to day, the market bracing up towards the close and finishing strong. Mixed sheep brought \$3.50@3.65 for the best kinds, while top ewes commanded \$3.50. The highest price realized for lambs was \$5.50, with plain to good kinds bringing \$4.75@5.25.

Horses and mules were in pretty good supply, receipts totalling 850 head, about three times as heavy as arrivals the corresponding days last year. Among the offerings were four loads of range horses consigned by T. J. Turner. These were by far the best branded stock seen here this season. More drafters than were received could have been handled advantageously, but buyers hung back on plain drivers and little Southerners. The record price for first-hand mule sales was broken here Tuesday of last week when a load of north Missouri stock, strictly prime, and weighing 1,200 to 1,350 pounds, sold for \$200 per head. They belonged to

Special Want Column

"Wanted," "For Sale," "For Exchange," and smaller special advertisements for short time will be inserted in this column without display for 10 cents per line of seven words or less per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it.

CATTLE.

RED POLLED BULLS—Three nice fellows; one two years in August; one past a year, other younger. Will now also spare my herd bull. He is a fine one. H. L. Pellet, Eudora, Kans.

FOR SALE—Two double standard Polled Durham bulls, one my herd bull three years old, one yearling. A. L. West, Garnett, Kans.

FOR SALE—Five head of pure bred Hereford bulls of serviceable age. Address, A. Johnson, Clearwater, Kans., breeder of high-class Herefords.

FOR SALE—A few choice Shorthorn heifers and young bulls. M. C. Hemenway, Hope, Kans.

FOR SALE—Guernsey bulls from best registered stock. J. W. Perkins, 423 Altman Building, Kansas City, Mo.

SWINE.

FOR SALE—One October Poland-China boar, good individual weight 200 lbs., price \$15. A. M. Wright, Valley Center, Sedgwick Co., Kans.

FOR SALE—A choice Poland-China boar, 2 years old, Young Allerton, No. 2834, bred by W. T. Garrett & Sons, Maryville, Mo. Address, G. C. Edmonds, Topeka, Kans.

FOR SALE—Grandsons and granddaughters of Chief Tecumseh 2d, out of daughters of Ideal Sunshine, Chief Perfection 2d, Missouri's Black Chief, Perfect I Know or out of granddaughters of One Price Missouri's Black Chief and Chief Tecumseh 2d. Second dams by Ideal Sunshine, Chief I Know, Klever's Model U. S. Chief, Worlds Fair Hadley, Hadley Jr., and Chief Tecumseh 2d. Gilts, bred and unbred, weanling pigs, both sexes. Serviceable boars: a son of Perfect I Know out of a daughter of Ideal Sunshine; a grandson of Chief Tecumseh 2d out of a daughter of Anderson's Model by Klever's Model; a grandson of Chief Tecumseh 2d out of a granddaughter of One Price. Geo. W. Maffet, southeast suburbs, Lawrence, Kans.

FOR SALE—Pure bred Duroc-Jersey pigs, April farrow. Some very choice pigs of either sex. F. A. Hill, Durham, Kans.

FOR SALE—Duroc-Jersey boar, ready for service. He is from the famous Blocher-Burton stock. February pigs now ready for sale. J. P. Lucas, 118 West 23rd St., Topeka, Kans.

FOR SALE—A few nice young boars of October farrow, sired by Kansas Chief, a son of Chief Tecumseh 3d. C. M. Garver & Son, Abilene, Kansas.

WANTED, YOUNG MAN who

stands feeding hogs to fit a

Herd of Hogs for Show Ring.
Will give share of winnings and salary; write quick.
H. C. YOUNG,
Lincoln, Nebr.

HOG CHOLERA

Is making its appearance again.
Dr. Snoddy's Specific prevents, also cures it. Death to worms. Never fails. It is a success. Book and prices free.
DR. S. C. SNODDY,
Nashville, Tenn.

FOR SALE MY HERD BULL,
Aberdeen Knight 165297.
Got by Orange King 180731, out of Mary Aberdeen, tracing to imported Young Mary; 2 years old, deep red, a splendid breeder. A bargain for someone.
HARRY EVANS,
Pleasanton, Kans.

BIG MAGAZINE one year free to quickly introduce it. As good as Harper's, Munsey's, Ladies' Home Journal or McClure's. Send 10 cents to help pay postage.
AMERICAN STORIES, Dept. G. F., Grand Rapids, Mich.

Two Missouri Farm Bargains,
40 acres well improved. Fruit and water. Near Odessa, 30 miles of Kansas city, only \$35 per acre.
80 acres, fair house, two large barns, plenty water, fruit. Close independence, 10 miles east of Kansas City. Worth \$125, can sell it for \$90. Geo. W. Webb, Independence, Mo.

KANSAS CITY Business College
N.E. CORNER TENTH AND WALNUT STS.

Bookkeeping, Shorthand, Typewriting, Telegraphy, Penmanship and all English and Commercial branches thoroughly taught by experienced teachers. Highest endorsements. Elegant apartments. For illustrated catalogue and list showing hundreds of pupils in positions. Address C. T. SMITH, Principal.

Charles H. Drago. The general trade was steady.

The grain markets showed no material change, except that corn and wheat had a weaker tendency. Wheat receipts are running lighter than expected. This is due wholly to the fact that shippers are experiencing great difficulty in securing grain cars. Cash No. 2 wheat at Kansas City is worth 63 1/2@72c; No. 4, 63@68c; No. 2 corn 47@50c; No. 4, 44@45c; No. 2 oats, 34 1/2@40c; No. 4, 30@34c; rye, 50@51c; flaxseed, 68@71c; bran, 70@71c; chops, 93c; alfalfa hay, \$5@10; tame hay, \$7.50@12; prairie hay, \$4@11.

Country butter lost 1@2c per pound during the week on account of the warmer weather and accumulation of supplies. Eggs weakened and then closed steady. Loss on eggs the past week or so by reason of the heat has been heavy. Poultry sold about steady. Potatoes put on about 10c per bushel. Hens are worth 8 1/2c; springs, 12 1/2c; turkey hens, 9c; turkey gobblers, 8 1/2c; geese, 9c; ducks, 7 1/2c; eggs, 12c; potatoes, 55@60c; butter, 12 1/2@18 1/2c.
H. A. POWELL.

New York Butter Market.
Average for week, 20 1/2c.

FARMS AND RANCHES.

FREE Farm list, information; Sales, trades. State map 10c. Buckeye Agency, Agrícola, Kans.

FARMS IMPROVED and partly improved we have in northern counties of Wisconsin. Fine stock and dairy farms near good railroad towns. Clay and clay loam soil. No floods, no droughts, no crop failures. Cheap lands, fine crops. Write us for particulars. Hiles & Myers, A. 60 Matthews Building, Milwaukee Wis.

5,000 ACRES VIRGIN TIMBER LAND in Lamar county, Texas, in the Red River valley near the "Frisco System." Soil very rich and never overflows. Fine saw mill and the proposition. Black, White, Red and Post Oak, Ash, Hickory, Walnut and Bou D'Arc. Will sell in small tracts to suit purchaser. Address, Chas. Lee Requa, Eureka Springs, Ark.

DO YOU WANT THIS—820 acres; 120 acres cultivated, balance pasture in good condition, good unfalling water, nice improvements. Cost \$5,000, and they are in good condition. Price \$6,000, your own terms. Any sized farm cheap. Try us. Garrison & Studebaker, Florence, Kans.

RANCH FOR SALE—1960 acres, 1130 acres of creek bottom, with model improvements, 140 acres alfalfa, 600 acres pasture, balance number one farm land. For further information address G. L. Gregg, Real Estate Dealer and Auctioneer, Clyde, Kans.

SOME BARGAINS in farm lands in Anderson County, Kansas, in farms ranging from 40 acres up. S. B. Hamilton, Welda, Kans.

FOR SALE—Farms and ranches in central and western Kansas. We have some great bargains in western ranches. Write us. R. F. Meek, Hutchinson, Kans.

HORSES AND MULES.

WANTED—To buy or trade, a Clydesdale stallion for a span of good mules. H. W. McAfee, Topeka, Kans.

PROSPECT FARM—CLYDESDALE STALLIONS, SHORTHORN CATTLE and POLAND-CHINA HOGS. Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kans.

SEEDS AND PLANTS.

BLUE GRASS—If you mean to sow this fall, write to J. G. Hinsh, Eureka, Kans.

FOR SALE—Golden Yellow popcorn, very productive, excellent for popping, very tender. Packet 6 cents; 7 pounds 60 cents. J. P. Overlander, Highland, Kans.

200,000 FRUIT TREES! Wholesale prices; new catalogue. Baldwin, Nurseryman, Seneca, Kans.

MISCELLANEOUS.

SCOTCH COLLIES—3 fine mail pups three months old \$6.00 each. Satisfaction guaranteed. Try one, A. P. Chasey, Rural Route 1, Topeka, Kans.

FOR SALE—12-horse J. I. Case Center Crank traction engine, number one order. Price \$300. W. H. Waters, Berryton, Kans.

FOR SALE—Pure bred finely marked fox terrier pups. Every farmer and stockman should have one. R. J. Hill, Durham, Kans.

WANTED—Position as agriculturalist or farm foreman. 25 years experience. Address W. A. Kimble, 1019 Seward Ave., Topeka, Kans.

50,000 Choice White Oak Fence Posts for sale in car-lots only. Write for special price giving number desired. M. D. Henderson, Topeka, Kans.

AGENTS—One good, industrious man in each county to sell Medicines, Stock and Poultry remedies, Flavoring Extracts, Ground Spices, etc., to farmers for cash or credit. Pay for goods by sending us one-half of your cash collections each week. Can make from \$600 to \$1500 each year. This is the best season to commence work. Don't answer this unless you mean business and can give personal bond and reference. Marshall Medicine Co., Kansas City, Mo.

TWO more litters of those high-bred Scotch Collie pups, only one week old, but you will have to book your order quick if you want one. Walnut Grove Farm, H. D. Nutting, Propr., Emporia, Kans.

WANTED WOOL—Send us samples of your whole clip, we will pay market price. Topeka Woolen Mills, Topeka, Kans.

CREAM Separators Repaired at Gerdom's Machine Shop 820 Kansas Ave., Topeka, Kans.

WANTED—Money to get patent on a quick-selling toy. Will give 25 per cent of what it sells for. Henry Boite, Webster, S. Dakota.

PATENTS.

J. A. ROSEN, PATENT ATTORNEY
418 Kansas Avenue, Topeka, Kansas.

The Stray List

Week Ending July 9.

Cherokee County—W. H. Shaffer, Clerk.

HORSE—Taken up by Oliver McIntire, in Empire City, in Shawnee tp. June 15, 1903, one bay horse, 13 1/2 hands, weight about 850, flesh wire cut on left hind foot, a healed wire cut on front foot little white on both hind feet, shod all round small collar and hock brand marks; valued at \$35.

Week Ending July 16.

Trego County—J. W. Phares, Clerk

HORSES—Taken up by F. W. Bemis, in Riverside tp. April 10, 1903, one bay horse, white spot on nose also one brown horse, white spot on forehead.

Kearny County—J. C. Hart, Clerk
HORSES—Taken up by Benjamin Ferrell in Harland tp. June 18, 1903, one gray and one bay horse weight 1150 and 1200, brands O and AF, valued at \$80.

Crawford County—John Viets, Clerk
HORSE—Taken up by Jules Say, in Washington tp. June 18, 1903, one dark bay horse, about three years old, white spot on forehead; value about \$20; (P. O. address, Yale, Kans.)

Week Ending July 23.

Reno County—Wm. Newlin, Clerk.

PONY—Taken up by J. B. Dane, in Lincoln tp. June 23, 1903, one sorrel pony, 5 years old, three white feet, blaze in face, branded 75, valued at \$25.

Wandotte County
HORSE—Taken up by C. A. Hunt, in Kansas City, at 739 Barnett St., June 6, 1903, one dark brown horse, age 10 or 12 years, size 12 hands, star in forehead, left hind foot white, O brand on hip, valued at \$25.

Wallace County—O. N. Tharun, Clerk.
HORSE—Taken up by Alman Johnson, in Sharon Springs, in Sharon Springs tp., Oct. 30, 1902, one iron gray horse, weight about 900, indescribable brand; valued at \$25.

Horticulture.

Corn Bill-bug.—High-Priced Pear-trees.

EDITOR KANSAS FARMER:—I am enclosing a bug which I found on my corn. There were many others like it. Please give history and remedy.

Please give me any information you may have at hand regarding the "Sud-duth Pear" which is grown at Normal, Ill., and is being sold throughout the country by agents at \$1.50 to \$2.00 per tree.

Is old scrap-iron of any use to pear-trees when placed among the roots in keeping off blight and in making regular and full crops of pears? H.

Sedgwick County.

The specimen is one of the common corn bill-bugs, occurring throughout the eastern part of the State, and destructive to corn in low grounds, especially on sod lands recently broken.

Treatment is mainly cultural, the planting of crops is not attractive to the beetles, etc., and after a few years of cultivation the insects do not seem to infest corn even in fields once occupied by them. It is best not to plant corn the first two years on ground freshly broken, if the coarser slough grasses and sedges have been an important part of the grassy growth.

E. A. POPENOE.

Kansas Experiment Station.

The Sudduth pears in the Experiment Station orchard have not as yet borne fruit. Trees set in 1899 blossomed this spring but the fruit was killed by the late freeze. The growth compares favorably with standard varieties seeming about the same in vigor. At such prices it is a question of how much your subscriber is interested in testing new varieties.

The scrap-iron is worth more to the junk man than to the tree. It is believed that there is sufficient iron for plant needs in all soils.

ALBERT DICKENS.

Kansas Experiment Station.

Nut-trees for Timber.

To the average reader this subject may seem of small importance, or one that might be taken up for consideration by some succeeding generation. But to the thoughtful student of economic affairs it presents an important subject and one worthy of early and careful attention.

To the writer it seems that the time may not be very far distant when the penalty must be paid for the early devastation of Nature's provision of abundant and most valuable walnut and chestnut forests. This penalty will be paid in the high prices that lumber will command, and the necessity which will substitute metals for wood in many of its present uses.

Much is not being accomplished in educating the public to the importance of timber preservation and the rehabilitating of our forests, but something more seems necessary, as the preservation of what remains of our native forests only postpones the day of reckoning.

The especial value of hickory, chestnut and walnut lumber is our occasion for urging the consideration of the planting of nut-trees for their timber value, which will incidentally produce a valuable by-product in the nuts grown, thus making such a plantation a valuable property years before its maturity for lumber. This harvesting of annual crops also obviates, to a great extent, the chief impediment in the way of planting for lumber only by the long-time investment. By this plan the man who plants and cares for his nut grove is rewarded during his own day by the annual crops and his children have a valuable heritage in the lumber.

The present is none too soon to begin planting for such purposes. The consumption of lumber of all kinds is increasing much more rapidly than in proportion to the increase of population. In fifty years the United States may have double its present population, and who can predict what the demand for black walnut, chestnut or hickory lumber may be by that time? One thing is certain, if consumption continues as at present, there will be no lumber of these kinds on the mar-

ket unless the trees are planted by this generation.

Another feature of the situation is that the present increasing demand for lumber of all kinds find a diminishing supply of these most valuable woods, with corresponding increase in prices, while there is ample reason to suppose that these prices will continue to increase until they become prohibitive.

Then, the planting of large areas of timber for the beneficial effect upon climatic conditions is sure to become of increasing importance as the years go by, and the tree planter becomes an important factor in the public good.

In the hurry and bustle of to-day's enterprises the American people have but little thought for the future and its needs. We want quick returns and have no time to investigate or inclination to put money in long time investments and it is only to a limited class that this article will appeal forcibly.

For those engaged in, or those who contemplate nut-growing for profit, we have a strong, profitable and beneficial proposition, which is worthy of their careful consideration, wise planning and systematic execution not only in this southern section, but over all the country, as there is hardly any locality that can not grow some variety of nuts in which the lumber value of trees promises a sure return from lumber alone.

Besides this, there are great tracts of land in many sections which are not well adapted to ordinary agricultural operations which are peculiarly suited for growing timber. Our mountain ranges are the natural home of the chestnut. Bottom lands which overflow too frequently for farming are often well adapted for the rapid growth of hickory and walnut, so that the waste places seem to be intended for such beneficent uses as growing timber and food.

With such an opportunity to plant now, with every prospect of ultimate direct and indirect profit and assurance of large dividends from such trees during the waiting period for a lumber harvest, the subject seems worthy of such agitation as may be necessary to call public attention to the situation, to urge its careful study and encourage in all practical ways the early and rapid planting of nut-trees for the production of timber in the many suitable localities which are now unproductive. —The Nut Grower.

The Orchard.

Soon the orchardist can begin that most fascinating of horticultural employment—budding. The man who owns an orchard who does not delight in this pastime has not the enthusiastic interest in his business that brings success. The budding season begins in June or July, according to the locality, and will continue until September. Whenever the buds of the current year's growth are fairly plump and the bark separates freely from the stock, the proper time for this operation has arrived. Plums will be ready first, followed by cherries, peaches, apples, quinces and pears in the order named. The checking of the young growth of the blackberries should be done now if necessary and they should not be interfered with later than the last of June. The peaches and nectarines, if found growing too thickly, as they are in some of the peach-growing districts of the South where we have visited, should be thinned out. Where the fruit is too plentiful try to leave no two together. Plums are another fruit that will need attention at this time. No fruit is so neglected as this in the matter of relieving overburdened branches of their surplus fruit and allowing the remaining specimens to develop into superior fruit. Keep a strict watch for the black knot and apply the proper remedies when it appears. Apples are another fruit that disappoint the owner of the orchard by making their appearance in bloom and promising an abundance of good fruit, but develop into hard, knotty, tasteless specimens, fit neither for table nor market. Thinning apples is a tedious task, but the time devoted to it will be found to be well spent. Many farmers who should know better scoff at the idea of pulling off young fruit

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SEEDS

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Catalpa, Osage, and Russian Mulberry Seedlings, one year old for planting. The Catalpas are from seed selected from known Speciosa trees. Write for prices stating number wanted.

Peters & Skinner, North Topeka, Kansas.

and destroying it and can not be convinced that it will pay. Let these skeptical individuals this year select a tree well loaded with apples and thin one side and leave the other untouched, and observe the result. Or if they do not wish to risk the experiment on so large a scale as half the tree let them select one good-sized limb and thin it well and they will see that the practice is a good one. All that has been said of apples are just as applicable to pears, and a good crop of this popular fruit is an impossibility where the tree is overloaded. The season for spraying is not yet over, and, in fact, the warm days that are just beginning will bring to life the insect pests which have been kept in abeyance by cold weather and backward spring. While this has enabled some fruit to get beyond danger of harm from certain insects, yet it will pay to be vigilant and keep a watchful eye open for their appearance.—Cor. Drivers' Journal.

Reed Canary Grass.

H. F. ROBERTS, PROFESSOR OF BOTANY,
KANSAS STATE AGRICULTURAL COLLEGE.

The specimen of grass was sent by Mr. A. L. Weld for identification. It is Reed Canary grass and bears the scientific name of Phalaris arundinacea. It is a perennial grass common on wet ground from New England south to Tennessee and west to California and Washington. It is also native in Europe and northern Asia. It endures drouth and cold well and contrary to most grasses, grows well in the shade. Does best on stiff, wet soil and land liable to be flooded, but seems also to do well on sandy soil. It grows by extensive underground stems or rootstocks. If designed for a hay it should be cut before flowering. It is not at all nearly related to wheat, although in common with wheat and all the other cereals it belongs to the great grass family.

Western State Fairs for 1903.

Missouri State Fair, Sedalia, Aug. 17-22.
Iowa State Fair, Des Moines, Aug. 21-29.
Minnesota State Fair, Hamline, Aug. 31-Sept. 5.
Nebraska State Fair, Lincoln, Sept. 4-11.
Kansas State Fair, Topeka, Sept. 14-19.
Illinois State Fair, Sept. 25-Oct. 3.
Texas State Fair, San Antonio, Sept. 26-Oct. 11.
St. Louis Fair, Oct. 5-11.

Kansas Fairs for 1903.

Following is a list of fairs to be held in Kansas in 1903, their dates, locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary F. D. Coburn:

Allen County Agricultural Society: J. T. Tredway, Secretary, LaHarpe, September 22-25.
Barton County Fair Association: Jas. W. Clarke, Secretary, Great Bend; August 25-28.
Brown County—Hiawatha Fair Association: Elliott Irvin, Secretary, Hiawatha; September 8-11.
Butler County Fair Association: J. W. Robison, Secretary, El Dorado; October 5-9.
Chautauqua County—Hewins Park and Fair Association: P. N. Whitney, Secretary, Cedar Vale.
Coffey County Agricultural Fair Association: J. E. Woodford, Secretary, Burlington; September 8-11.
Cowley County—Eastern Cowley Fair

STARK TREES best by Test—78 Years
LARGEST NURSERY.
FRUIT BOOK free. W. PAY CASH
WANT MORE SALESMEN
STARK BROS., Louisiana, Mo.; Huntsville, Ala.; Etc

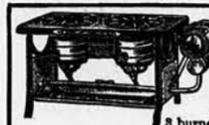
TREES kept dormant till May 1st. Peach trees one year from bud, 1 and 2 cts. each. Also pear, quince, Japan plums. Circular free. E. S. Johnston, Box 17, Stockley, Delaware.

Association: Ed. E. Reed, Secretary, Burden; September 16-18.
Cowley County Agricultural and Stock Show Association: W. J. Wilson, Secretary, Winfield; September 8-11.
Finney County Agricultural Society: A. H. Warner, Secretary, Garden City; August 5-7.
Franklin County Agricultural Society: Carey M. Porter, Secretary, Ottawa; September 15-18.
Harvey County Agricultural Society: J. C. Nicholson, Secretary, Newton; September 22-25.
Jackson County Agricultural and Fair Association: S. B. McGrew, Secretary, Holton; September 1-4.
Jefferson County Agricultural and Mechanical Association: Geo. A. Patterson, Secretary, Oskaloosa; September 1-4.
Jewell County Agricultural Association: H. R. Honey, Secretary, Mankato; September 14-17.
Marshall County—Frankfort Fair Association: J. D. Gregg, Secretary, Frankfort; September 8-11.
Marshall County Fair Association: E. L. Miller, Secretary, Marysville; September 15-18.
Miami County Agricultural and Mechanical Fair Association: W. H. Bradbury, Secretary, Paola; September 8-11.
Mitchell County Agricultural Association: H. A. Phelps, Secretary, Beloit; September 30-October 8.
Morris County Exposition Co.: M. F. Amrine, Secretary, Council Grove; September 22-25.
Nemaha County Fair Association: W. R. Graham, Secretary, Seneca; September 1-4.
Neosho County Fair Association: H. Lodge, Secretary, Erie; September 29 to October 2.
Neosho County—Chanute Agricultural Fair, Park and Driving Association: A. E. Timpane, Secretary, Chanute; September 1-4.
Ness County Agricultural Association: I. E. Pember, Secretary, Ness City; September 2-4.
Norton County Agricultural Association: C. J. Shimeall, Secretary, Norton; September 1-4.
Osage County Fair Association: E. T. Price, Secretary, Burlingame; September 1-4.
Reno County—Central Kansas Fair Association: Ed. M. Moore, Secretary, Hutchinson; September 14-19.
Rice Agricultural Fair and Live-Stock Association: W. T. Brown, Secretary, Sterling; September 1-4.
Riley County Agricultural Society: E. C. Newby, Secretary, Riley; September 1-4.
Rooks County Fair Association: Oliver Adams, Secretary, Stockton; September 8-11.
Saline County Agricultural, Horticultural and Mechanical Association: H. B. Wallace, Secretary, Salina; September 8-11.
Sedgwick County—Southern Kansas Fair: H. L. Resing, Secretary, Wichita.
Smith County Fair Association: E. S. Rice, Secretary, Smith Center; August 18-21.
Stafford County Fair Association: Geo. E. Moore, Secretary, St. John; August 19-21.
Sumner County—Mylvane Agricultural Association: Newton Shoup, Secretary, Mylvane.
Wilson County—Fredonia Agricultural Association: J. T. Cooper, Secretary, Fredonia; August 25-28.

Low Summer Tourist Rates Via Chicago Great Western Railway.

\$15 to St. Paul and Minneapolis and return; \$19 to Duluth, Superior, and Ashland; \$13 to Madison Lake, Waterville, Faribault, and other Minnesota resorts. Tickets on sale daily to September 30. Good to return October 31. For further information apply to any Great Western Agent, J. P. Elmer, Chicago, Ill.

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\$2.89. Kansas Galv. Iron Washer. Saves clothes and 1/2 of soap.

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Henry Rhoades..... Gardner
J. T. Lincoln..... Olpe
A. P. Beardon..... McLouth

The Grange and Politics.

No National organization commands a more respectful attention by the committees of Congress than is obtained by the National Grange through its legislative committee. The reasonable demands of the farmers, supported by facts and arguments by their own representatives, will always be considered by the law-making powers when they realize that the farmers know what they want and know how to obtain it.

As an example of this are given the following extracts from the last address of the Master of the State Grange of West Virginia, T. C. Atekeson, Professor of Agriculture in the West Virginia Agricultural College.

Well do I remember the dreary night in February, 1891, when the Legislative Committee of this Grange appeared before a joint meeting of the committees on agriculture and immigration, of the two Houses of the Legislature, which has consented to hear use on some pending matters of legislation, of importance to the farmers of this State. We went there to oppose some of these measures and to favor others. I have not yet forgotten how nervous I felt when called upon to discuss the "farmer side" of pending legislation before that room full of law-makers. I looked into the faces of the other members of our committee for inspiration, and with fear and trembling, began a discussion of the matters under consideration. When I got through, the law-makers took a vote, and by a large majority agreed with us, that the bill under consideration, should be reported adversely. Then Senator Parks, who was presiding, turned to me and asked, "What do you farmers want, any way?" Then and there I suggested a State Board of Agriculture, which might have charge of all matters pertaining to our agricultural interests. The committee agreed to our suggestion, and requested Senator Parks and our committee to prepare a bill providing for the creation of a Board of Agriculture, which we completed about three o'clock a. m., and was introduced in the Senate at the morning session by Senator Parks, as a substitute for the defeated measure. With the endorsement and support of the State Grange, in due time this bill became a law. The Board of Agriculture is clearly a child of the Grange, and Governor White has appointed seven competent and intelligent farmers upon the Board, who are doing what they can to advance the important interests committed to their care; and I have no doubt this Grange, and every member of the order in this State will do all they can to aid and assist the Board in its efforts to advance and improve our many agricultural, horticultural, and live-stock interests.

All of us rejoice that the Grange is absolutely non-political in any partisan sense, an view with pride and complacency its thirty-five years of uninterrupted freedom from partisan strife or political entanglements. Made up as it is of men and women with every shade of political belief; its perpetuity depends upon its freedom from partisan action. As good citizens it is our duty to do all we can to make every

State administration a blessing to our people, without regard to politics, and all patrons will rejoice at the success of the present administration and refrain from unjust criticism of public officials.

Experience has taught us that all virtue is not in one party any more than all vice is in the other, but dealing with humanity as it is, and with conditions as we find them, it is our manifest duty to welcome the good, regardless of the source from which it comes, and cultivate a spirit of confidence and faith in our laws and institutions which are so essential to our National life and individual happiness and prosperity.

In this closing hour of my third term as Master of the West Virginia State Grange, and at the end of more than twenty years of active service in the order, I want to say that the only compensation I have received has been "the answer of a good conscience," and I now feel that my reward has been abundant. To the best of my ability I have given freely of my time and means to help maintain this grand fraternity, which, in its importance to rural people is second only to the church. No one ever gives to the church with the expectation of receiving a ten-fold return in cash. We give to the church principally to maintain the moral machinery necessary to uphold the principles of Christianity, and for the betterment of mankind. While incidentally, the Grange may be made to pay handsomely in a financial way, I have found it a "good thing to put money into," just as we put money into the schools, the courts, the governments, and all the institutions calculated to benefit, elevate, and ennoble mankind; by making people happier, worthier, and morally better citizens, better neighbors, with a broader and truer view of life. Yes, I repeat, the Grange is a good thing to put money into, and the man or woman who really believes in the principles of our order will not begrudge the time and money he puts into it. Probably, the shortest sermon ever preached is said to have been delivered by Dean Swift, from the text, "He that giveth to the poor lendeth to the Lord." After quoting his text, he said, "Now, my hearers, if you like the security, down with the dust." I feel like saying to every Patron in West Virginia that if you believe in the teachings and principles of the Grange, as you profess to believe, that you should come "down with the dust." Not alone with your money, but with the "dust" of your influence, your work, your presence, your counsel, your thought, your efforts of every kind and character that may add strength, helpfulness, and usefulness to the grand humanitarian work the Grange is striving to accomplish.

If you are ambitious to hold office in your subordinate Grange, or higher up, "show your faith by your works." To hold office in any Grange, from the lowest to the highest, is a great honor, but is a labor of love, faith, and hope, with but one sustaining power—the power of a sincere desire to be of use to mankind and especially that part of mankind that lives and labors in the fields and on the farm, surrounded by the soul uplifting works of nature.

What better work can man find to do than that of inspiring the farmer, who provides the food for all mankind, with pride in himself; and in elevating to the honorable place it deserves to attain the only divinely established occupation of man? The Grange cause in this State is looking up, and every true Patron is thanking God for it, in his heart, if not in his prayers.

Let come what may, of good or evil report, the good Grange ship, with her cargo of faith, hope, charity, and fidelity, must keep steadily and bravely on her course of unselfish devotion to the welfare, prosperity, and happiness of the human race.

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\$15.00 Kansas City to St. Paul and Minneapolis and return; \$19.00 to Duluth, Superior and Ashland; \$13.00 to Madison Lake, Waterville, Faribault, and other Minnesota resorts. Tickets on sale daily to September 30. Good to return October 31. For further information apply to Geo. W. Lincoln, T. P. A., 7 West 9th St., Kansas City, Mo.

HORSES.

Percheron Horses

HENRY AVERY & SON, WAKEFIELD, KANSAS.

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15 HEAD AT SPECIAL PRICES CONSISTING OF

Five Percherons, 2 to 5 years old—all black but one, and that a black-grey; two black yearling Percherons; four Shires, 8 to 7 years old; three trotting-bred horses, 2- and 4-year-olds; one registered saddle stallion. All but two at prices from \$200 to \$1,000 each. Come at once for bargains. SNYDER BROS., WINFIELD, KANSAS.

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Percheron Herd headed by Casino (45462) 27880. Prize-winner Notional Show of France 1901. Winner of first prize at Missouri and Kansas State Fairs 1902. Shorthorn herd headed by Airdrie Viscount, a son of the great Lavender Viscount, champion of America in 1900 and 1901. Stock for sale. Address

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At the Great Annual Show of France, held at Evreux, June 10th, 1903, our stallions won EVERY FIRST, SECOND, THIRD AND FOURTH PRIZE in every Percheron Stallion class; also won FIRST as best collection. At the Show of the SOCIETE HIPPIQUE PERCHERONNE DE FRANCE, held at Nogent-le-Rotrou, from the 18th to the 21st of June, our Stallions won every First, Second, Third, and Fourth, except one second prize, over Forty Prizes in all. Two groups were made up of our exhibit on which we won First and Second. These Prize-winners will sail from France July 16, and should arrive in Columbus July 23.

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FOR SALE—Two Clydesdale Stallions, one 5 years old, weight 1,750 pounds, the other 2 years old, weight 1,400 pounds; registered and sound. Inspection and correspondence invited.

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DUROC-JERSEYS.

FAIRVIEW HERD DUROC-JERSEYS Combination Sale July 9. At Sabetha, Oct. 28, sale of males at the farm. February 5, 1904, bred sow sale at farm. **J. B. DAVIS, FAIRVIEW, KANS.**

DUROC-JERSEYS. Duroc-Jerseys for sale. Choice 1903 pigs, both sexes. Prices \$20 and \$25, 125 head in herd to select from. **NEWTON BROS., Whiting, Kans., and Goffs, Kans.**

DUCK CREEK HERD OF Duroc-Jersey Swine. 200 head to choose from. Write us your wants. **Mitchell Bros., Buxton, Wilson Co., Kans.**

ROCKDALE HERD OF Duroc - Jersey Swine. Everything is sold except a few pigs of September farrow. Am also offering one of my herd boar for sale. **J. F. Chandler, Frankfort, Kans.**

Maplewood Herd of... DUROC - JERSEYS HEADED BY OUR FINE HERD BOAR -- **MISSOURI CHAMPION 16349.** Have on hand some extra fine pigs of this spring's farrow, for which we are booking orders. Write for what you want. **J. M. IMHAUSER & CO.,** R. F. D. No. 4, Sedalia, Mo.

Standard Herd of Registered Duroc-Jersey Swine, Red Polled Cattle, and Angora Goats.

Swine herd headed by Big Joe 7883 and Ohio Chief. Cattle herd headed by Kansas 8808. All stock reserved for October sale. **PETER BLOCHER, Richland, Shawnee Co., Kas.**

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East Side Herd Poland-Chinas Combines the best strains of blood in the breed. 24 spring litters. Royal Blue 27642 by Big Chief Tecumseh 2d, first boar in service. Write for list of sires and dams in herd. **W. H. BARR, ELLIOTT, IOWA.**

Shady Lane Stock Farm **HARRY E. LUNT, Proprietor,** Burden, Cowley Co., Kans. A few choicely bred Poland-China Boars for sale; also fine B. P. Rock poultry.

Kansas Herd of Poland-Chinas Has some extra fine sills bred; also some fall boars. Will sell Sen. I Know, he by Perfect I Know. Address-- **F. P. MAGUIRE, - - HUTCHINSON, KANS.**

Elmdale Herd of High-Class POLAND-CHINAS Shawnee Chief 28602 at head of herd. A few choice fall boars for sale. **W. L. REID, Prop., R. R. 1, North Topeka, Kas.**

SHADY BROOK STOCK FARM POLAND-CHINAS. I keep constantly on hand all sizes and ages of high-class Poland-China pigs. Quality high, prices low. Write for description and price to **H. W. CHENBY, - - North Topeka, Kans.**

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Providence Farm Poland - Chinas. Correct by Corrector, Perfection Chief 2d by Chief Perfection 2d, Jewell's Silver Chief, and Kron Pring Wilhelm, herd boars. Up-to-date breeding, feeding qualities, and large, even litters in this herd. Young stock for sale. **J. L. STRATTON,** One - Mile - Southwest - of - Ottawa, Kans.

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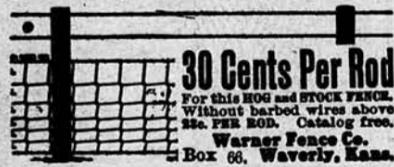
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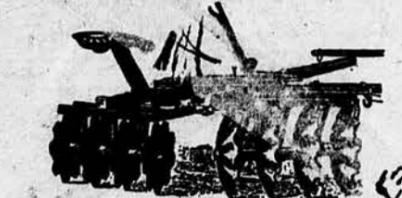
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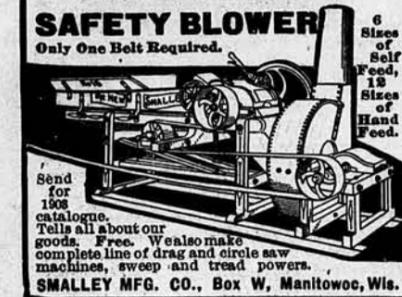
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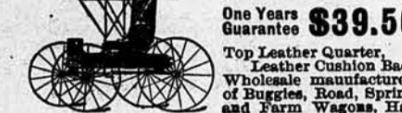
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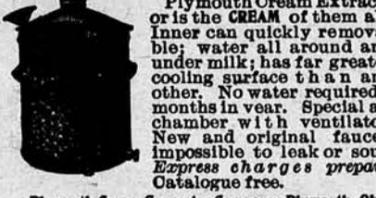
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A 12 year old boy can apply this paint successfully.
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stone and 2000 square feet of smooth surface such as
walls and ceilings. This paint will not wash, rub
or peel off and can be polished like hardwood finish.
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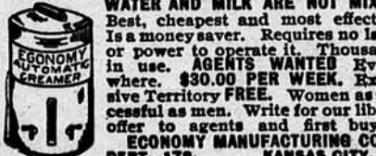
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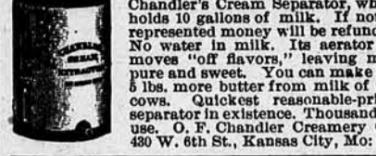
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Catalogue free.
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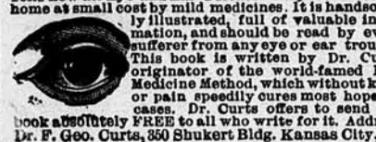
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