

KANSAS FARMER



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Established 1863. \$1 a Year

THE 'FARMERS' COOPERATIVE BUSINESS CONGRESS.'

A meeting of delegates from several States was held in Topeka under the name the "Farmers' Cooperative Business Congress." The call was issued by James Butler, of Topeka. The representation was chiefly from the South and consisted in a large measure of officers and members of "The Farmers' Educational and Cooperative Union." The proceedings were most harmonious. The speechmaking was of congratulatory character. The action taken was practically unanimous. Little if any discussion preceded any action taken. The positions of the meeting may be understood from the following statements which were adopted unanimously:

"The fundamental purpose of cooperation is to bring about more just relations between people in the same and different callings and to protect those who are now exploited through the existing industrial system against the extortion now imposed on them by great capitalistic aggregations. Though cooperation is young in its present form, it is simply fraternity applied to the business relations of life. It has already been demonstrated by the Rochdale cooperative stores, the cooperative and mutual insurance companies, the farmers' grain and elevator companies, the cooperative creameries, the cooperative warehouses of the South, the cooperative produce clearing houses, the rural cooperative telephone companies, and other cooperative organizations that cooperation is not a mere dream of the idealist, but suggests the system which will make general brotherhood a living fact.

"The struggle to effect cooperative combination and displace capitalistic and competitive business methods has developed the difficulties to be overcome and also indicated the fundamental principles which must be observed in order to bring success. First and foremost, there must be the sincere desire for mutual benefits as distinguished from mere individual profits, and those who combine in a common enterprise must be educated to be just and mutually helpful. Second, there must be a clearly defined business scheme thoroughly thought out and outlined before any attempt is made to put it into execution. Third, there must be a combination of sufficient numbers having common interests to make it practicable. Fourth, adequate capital must be contributed to carry out the enterprise. Fifth and most difficult of all, the enterprise must be placed in the hands of men devoted to its success and having the requisite

knowledge of the particular business to be carried on to compete under the conditions with which they are confronted with those conducting similar business under the old capitalistic methods. Sixth, there must be some effective means of intercommunication between the members of any cooperative organization so that they can be kept constantly informed as to what is being done and as to the purposes of those directing the enterprises.

"The farmers are badly in need of information regarding the method used in conducting trade relations and all matters that pertain to the sale of their products and of the merchandise which they buy. It is necessary for them to

ment of our great industry, and to put into practise the equitable principles of cooperation in all business associations.

"Recognizing the fact that 'the hand that rocks the cradle is the hand that rules the world,' we are keenly alive to the wholesome influence exerted by women upon any organization, and believing that our wives, mothers, sisters, and daughters have a particular sphere of usefulness in connection with our work, we therefore urge that special effort be made to get them to take action in all our cooperative organizations. We hereby endorse and recommend the organization of a ladies' auxiliary, to operate under such technical

of iron, cloth, or any other manufactured product has to put a price on his output."

"We recommend the development of a system of direct exchange of the different products of agriculture and the manufacturing of the raw products into finished products ready for the consumer as rapidly as practical methods accomplishing those results can be devised."

IT PAYS TO DO RIGHT.

The much-heralded interference with our foreign trade in dressed meats on account of the strenuousness of the efforts put forward to make sure that these meats are properly prepared has not materialized. The official reports show that while the value of exports of meat and dairy products was \$12,799,892 for September, 1905, it was \$16,008,270 for September, 1906.

For the nine months ending with September, the value of meat and dairy products exported was \$147,795,647, against \$122,544,314 in the corresponding months of 1905, and \$109,369,576 in the corresponding period of 1904.

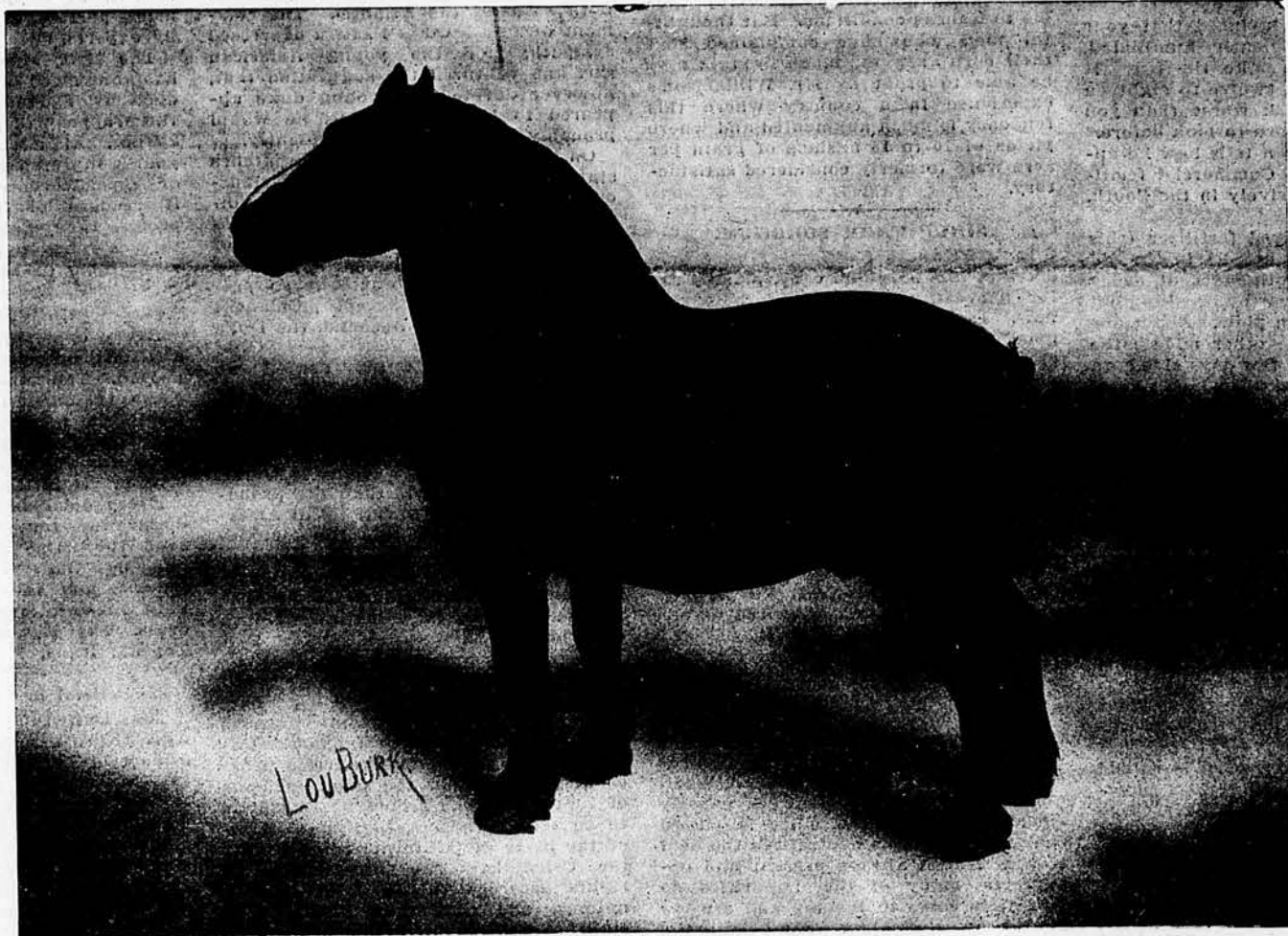
The only class of meat products showing a marked decline in exports is canned beef, of which the exportations for the nine months of the present year are 31 million pounds, against 52 1/2 millions in the corresponding months of last year, a part of this decline being due to a large reduction in the demands from Japan, to which the exports of canned beef were 14 1/2 million pounds in

the eight months ending with August, 1905, and but 99 thousand pounds in the eight months ending with August, 1906.

In most other classes of meats the figures of 1906 show an increase over those for the corresponding period of 1905. Fresh beef exports amount to 302 million pounds, against 185 millions in the corresponding months of last year; salted beef, 56 1/2 million pounds, against 48 million pounds in the corresponding period of the preceding year; bacon, 291 million pounds, against 207 1/2 millions in the same months of 1905; fresh pork, 112 million pounds, against 106 millions in the corresponding period of the preceding year; and lard, 526 1/2 million pounds, against 485 1/2 millions in the corresponding months of 1905.

These facts furnish another illustration of Ben Franklin's proverb, "Honesty is the best policy." Moreover, the shake up has given valuable assurance as to the meats we eat.

By nature all men are similar, but by education widely different.



Iams' Pruso-de-Liroux (29344), Royal Belgian, Black, 4 Years Old, Weight 2210 Pounds. First Winner at Nebraska State Fair and Winner at Iowa and Illinois Fairs.

organize and act in unison to secure the information which will enable them to protect their interests. We earnestly recommend The Farmers' Educational and Cooperative Union of America as the most practical farmer organization through which to conduct this organization and education. We, therefore, pledge ourselves to aid in extending The Farmers' Union into all unorganized territory, and urge and request the assistance of all who see the necessity of a farmers' organization and cooperative business action to join this union and aid in solving the problems which confront the producers. The Farmers' Union is now the greatest business organization in point of numbers and the most powerful body of organized farmers for business purposes in the world. We, therefore, request and urge that all farmers' organizations now operating on similar lines and for similar purposes, consolidate all their farmer membership into the Farmers' Union at the earliest possible date in order that we make present a solid front in one powerful organization, one powerful union for the protection and advance-

title as may hereafter be decided upon, the general nature of its business being the shipping and selling of eggs, poultry, butter, fruit, vegetables, and other farm produce.

"We recommend to the people of the different States that they procure the enactment of a uniform law authorizing and regulating the organization of cooperative companies in accordance with advanced ideas and in such form as to facilitate the purposes of this Congress.

"We heartily recommend the efforts of the special commission appointed under the LaFollette resolution to investigate and expose the discriminations and combinations by the grain trust, which have almost paralyzed productive industries in the West. We recommend that grain be inspected under Government supervision.

"We heartily endorse the principles contended for by The Farmers' Union, that the producers of cotton, the producers of grain, or the producers of any other farm products have equal rights to name and establish the price of their products that the manufacturer

BIG CORN, LITTLE CORN-STALKS.

The tendency of corn to grow larger stalks and to yield less grain in the southern than in the northern portions of the country has been noted by many observers. A farmer in South Carolina claims to have found a method of changing this tendency and securing yields of grain such as would satisfy his brethren in the northern corn-belt. After describing methods of preparing the soil, methods which would probably be unsuitable in this part of the corn-belt, this farmer, E. M. Williamson, says:

"Run corn-planter, dropping one grain every five or six inches. Plant early, as soon as frost danger is past, say first reasonable spell after March 15, in this section. Especially is early planting necessary on very rich lands where stalks can not otherwise be prevented from growing too large. Give first working with harrow or any plow that will not cover the plant. For second working, use ten- or twelve-inch sweep on both sides of corn, which should now be about eight inches high. Thin after this working. It is not necessary that the plants should be left all the same distance apart, if the right number remain to each yard of row.

"Corn should not be worked again until the growth has been so retarded and the stalk so hardened that it will never grow too large. This is the most difficult point in the whole process. Experience and judgment are required to know just how much the stalk should be stunted, and plenty of nerve is required to hold back your corn when your neighbors, who fertilized at planting time and cultivated rapidly, have corn twice the size of yours. (They are having their fun now. Yours will come at harvest time.) The richer the land the more necessary it is that the stunting process should be thoroughly done.

"When you are convinced that your corn has been sufficiently humiliated, you may begin to make the ear. It should now be from twelve to eighteen inches high, and look worse than you have ever had any corn to look before."

Mr. Williamson then tells how he applies his fertilizers. Commercial fertilizers are used extensively in the South. He says:

"Put half your mixed fertilizer (this being the first used at all) in the old sweep furrow on both sides of every other middle, and cover by breaking out this middle with turn plow. About one week later treat the other middle the same way. Within a few days side corn in first middle with sixteen-inch sweep. Put all your nitrate of soda in this furrow, if less than 150 pounds. If more, use one-half of it now. Cover with one furrow of turn plow, then sow peas in this middle broadcast at the rate of at least one bushel to the acre, and finish breaking out.

"In a few days side corn in other middle with same sweep, put balance of nitrate of soda in this furrow if it has been divided, cover with turn plow, sow peas, and break out. This lays by your crop with a good bed and plenty of dirt around your stalk. This should be from June 10 to 20, unless season is very late, and corn should be hardly bunching for tassel.

"Lay by early. More corn is ruined by late plowing than by lack of plowing. This is when the ear is hurt. Two good rains after laying by should make you a good crop of corn, and it will certainly make with much less rain than if pushed and fertilized in the old way.

"The stalks thus raised are very small, and do not require anything like the moisture even in proportion to size, that is necessary for large sappy stalks. They may, therefore, be left much thicker in the row. This is no new process. It has long been a custom to cut back vines and trees in order to increase the yield and quality of fruit, and so long as you do not hold back your corn, it will go, like mine so long went, all to stalk.

"Do not be discouraged by the looks of your corn during the process of cultivation. It will yield out of all proportion to its appearance. Large stalks can not make large yields, except with extremely favorable seasons, for they can not stand a lack of moisture. Early applications of manure go to make large stalks, which you do not want, and the plant-food is all thus used up before the ear, which you do want, is made. Tall stalks not only will not produce well themselves, but will not allow you to make the pea-vines, so necessary to the improvement of land. Corn raised by this method should never grow over seven and a half feet high, and the ear should be near to the ground.

"I consider the final application of ni-

trate of soda an essential point in this ear-making process. It should always be applied at last plowing and unmixed with other fertilizers.

"I am satisfied with one ear to the stalk, unless a prolific variety is planted, and leave a hundred stalks for every bushel that I expect to make. I find the six-foot row easiest to cultivate without injuring the corn. For fifty bushels to the acre, I leave it sixteen inches apart; for seventy-five bushels to the acre, twelve inches apart, and for one hundred bushels eight inches apart. Corn should be planted from four to six inches below the level, and laid by from four to six inches above. No hoeing should be necessary, and middles may be kept clean until time to break out, by using harrow or by running one-shovel furrow in center of middle and bedding on that, with one or more rounds of turn plow."

Speaking of the yield produced by this method, Mr. Williamson says:

"This method steadily increased the yield, until year before last (1904) with corn eleven inches apart in six-foot rows and \$11 worth of fertilizer to the acre, I made 84 bushels average to the acre, several of my best acres making as much as 125 bushels.

"Last year (1905) I followed the same method, planting the first week in April 70 acres which had produced the year before 1,000 pounds seed-cotton per acre. This land is sandy upland, somewhat rolling. Seasons were very unfavorable, owing to the tremendous rains in May, and the dry and extremely hot weather later. From June 12 to July 12, the time when it most needed moisture, there was only five-eighths of an inch of rainfall here; yet with \$7.01, cost of fertilizer, my yield was 52 bushels per acre. Rows were six feet and corn sixteen inches in drill."

It is not suggested that this method without modification would be applicable to Kansas conditions. But thoughtful men who have complained that their corn grew too much to stalk may be able to profit by Mr. Williamson's experience in a country where this tendency is much augmented and where yields of 10 to 15 bushels of grain per acre were formerly considered satisfactory.

SIRUP FROM SORGHUM.

EDITOR KANSAS FARMER:—I have four acres of late sorghum cane, planted after harvest, which is only half ripe now. Do you think it would make as good sorghum molasses as an early crop? I have never made any. Can you give me some good pointers in next week's issue of THE KANSAS FARMER? Can the juice be clarified to make the sirup better and save time in boiling?
J. H. BELMEAR.

Medford, Okla.

To make good sirup, sorghum should be fairly ripe. There are in your part of the country, doubtless, some persons who have had experience in making sorghum molasses. It will be well to find such and talk over the details of the process.

The juice is obtained from the cane by crushing between rollers. It is usually strained to remove bits of cane that may have passed into the juice. On the farm, the juice is evaporated in shallow pans fitted to a furnace constructed for the purpose. A small quantity of milk of lime is usually added just after the juice is placed over the fire. This neutralizes the acid that is almost always present and coagulates many of the impurities so that they come to the top and are removed by skimming. Some add the lime in a rather deep pan. Portions of the coagulated impurities settle to the bottom and are separated by drawing off the clarified juice above the settlings. The quality of the product depends largely upon the thoroughness with which the impurities are removed. The addition of lime or any other clarifying agent does not save time in boiling.

When sorghum was first introduced into this country, many fondly hoped that it would enable the farmer to make his own sugar. Two advantages from this were expected; first, that a considerable outlay would be saved; second, that the use of a product of slave labor would be avoided. Sorghum served a good purpose in supplying sweets during the great war. Later much practical and scientific work was given to the perfecting of processes for the making of sugar. When sugar was selling at 10 cents a pound, there was bright prospect of success for the sorghum-sugar industry. When the price declined to 7 cents, those who were striving to establish the industry struggled on. When the sugar trust got control of the market and was able to dictate to dealers that they must buy all of their sugar or none from

the trust, the result was only one buyer for sorghum sugar and that buyer the trust. No margin of profit was left to the sugar-maker, and what had promised to become a thriving industry failed.

The extension of the beet-sugar industry in Europe and the development of the tropical cane industry in Cuba and other warm countries further reduced the price of sweets to such an extent that even for making sirup the farmer found it cheaper to buy sugar and reduce it to sirup by boiling with water than to make molasses from sorghum grown on his own farm. It is, therefore, doubtful whether our correspondent will not find it profitable to feed his sorghum, converting it into beef, pork, and butter, and with the price received for these to buy his sweetening. Sorghum sirup is a far less important subject than when sugar commanded two or three times present prices.

THE MARLBOROUGHS.

A few years ago the head of the Vanderbilt family bought for his daughter, Consuela, an English title free from all encumbrance except a male person in the line of descent of an honorable English family. Vanderbilt paid ten millions and some more of good American money. The bargain was considered a fair one. On the American side it included a young woman of comely appearance, fair education, vivacity, and ambition, as well as the money. On the English side it included the great name of Marlborough, some estates needing money for maintenance, the right to sit next the reigning sovereign at great dinners, and a young man of uncertain future—except as to his "rank"—the Duke of Marlborough.

At the time of the marriage there was much felicitation in the press on both sides of the Atlantic. The comment of THE KANSAS FARMER expressed sympathy for the young American girl and ventured the suggestion that, however devoted the young duke appeared to be to his bride, he would probably break her heart presently.

On last Friday the London dispatches stated that the Duchess of Marlborough had determined to sue for divorce; that her father had strenuously opposed this course on account of the prominence that would be given to scandals, and had, it was believed, prevailed upon her to accept permanent separation from her husband, the Duke of Marlborough.

THE KANSAS FARMER needed no prophet to enable it to predict a broken heart for the rich American girl. Will rich people never learn that a man—a real, true man, of right principles, a clean heart, a robust physique, is more to be desired than the proudest title in all the world? Will Americans not remember that the fortune-hunting "nobility" has little conception of purity of life and believes itself under no obligations to practise self-denial, but is essentially selfish and rotten?

JAPANESE MUDDLE AT SAN FRANCISCO.

The Japanese Government protests against the exclusion of Japanese children residing in San Francisco from equal privileges in the public schools of that city. The school board claims to be acting under authority of a law of the State of California in excluding the Orientals. The Japs claim all rights accorded to the most favored nations, and that these include the right to attend the public schools as accorded to children of European parentage, and that these rights are guaranteed by treaty with the United States. The question has assumed such gravity that the President has sent a member of his cabinet, Secretary Metcalf, to San Francisco to see about it. International complications, even, are hinted at.

There is no doubt in anybody's mind about the ability of the Japanese Government to insist strenuously upon the treaty rights of her people. Strong nations like the United States may treat lightly the claims of inferior powers, but Japan is not in the class of inferior powers. However, the right course has been taken, if reports be true, and the question will come regularly before the courts for settlement.

If there is any thought that the State laws of California on this subject are paramount, such thought should be dissipated on reading the second clause of article 6, of the Constitution of the United States, which says:

"This Constitution, and the laws of the United States which shall be made in pursuance thereof; and all treaties made, or which shall be made, under

authority of the United States, shall be the supreme law of the land; and the judges in every State shall be bound thereby, anything in the constitution or laws of any State to the contrary notwithstanding."

These provisions are so plain that the wonder is that anybody thinks they can be disregarded. If a treaty with Japan has been violated, the best thing for the violators to do is to cease their violations. If they fail to do this willingly, the courts will probably take a hand in the matter and teach some people a little wholesome respect for "the supreme law of the land."

ALCOHOL FROM APPLES.

A subscriber would like to make alcohol of the cull apples. The process is, theoretically, simple. The first step taken is to make cider, then cause the cider to undergo alcoholic fermentation by the addition of yeast. A very dilute alcohol will be obtained. To concentrate this it must be distilled. A still is not necessarily a complicated apparatus. It consists essentially of a closed retort or boiler to the canopy of which is attached a coil of pipes. These pipes are cooled by inclosing them in a vessel through which cold water is kept circulating. The alcohol is more volatile than the water and other constituents of the fermented cider, so that when heat is applied to the boiler the alcohol is first to pass over into the coil where the cool pipes condense it to liquid form. By properly regulating the heat and attending to the several details, a fairly concentrated grade of alcohol may be obtained.

It is doubtful, however, whether in a small way and without many re-nements of the apparatus, alcohol can be thus produced at as low a cost as it will be supplied from larger and more perfect establishments operated by experts.

The U. S. Department of Agriculture has announced bulletin two on the production of denatured alcohol. When these appear they may be had for the asking. Application should be made to your Congressman or to the Secretary of Agriculture, Washington, D. C. Or if readers of THE KANSAS FARMER prefer, they may send their requests to this office and the editor will forward them to Washington.

BLOCKS OF TWO.

Every opportunity to do a favor to a friend or neighbor should be improved. The subscription price of THE KANSAS FARMER is \$1 per year. It is worth the money. But the publishers are extending the circulation rapidly by means of their blocks of two proposition. It is this:

Every old subscriber on sending his dollar for renewal is authorized to send the name and address of some one not now taking THE KANSAS FARMER and the dollar will pay for both subscriptions for one year. Address, The Kansas Farmer Company, Topeka, Kans.

Industrial or Denatured Alcohol.

The United States Department of Agriculture has in press and will soon issue two Farmers' Bulletins, Nos. 268 and 269, relating to industrial alcohol, the former treating of its sources and manufacture and the latter of its uses and statistics. These bulletins have been prepared by Dr. H. W. Wiley, Chief of the Bureau of Chemistry, and are designed to meet the popular demand for information in regard to denatured alcohol, relating to which a law (Public No. 201) was passed by Congress on June 7, 1903. These bulletins define in a proper way what denatured alcohol is, the sources from which it is obtained, the processes and appliances used in its manufacture, the cost of manufacturing, the uses to which it may be applied, and the officials of the Government charged with the enforcement of the law.

The bulletins are illustrated and are for free distribution. Application should be made to Members of Congress or to the United States Department of Agriculture.

"How to Make Good Roads"

is the title of a pamphlet distributed free by the Union Pacific on the proper building and maintenance of country roads. It describes at length the split log drag for grading and surfacing, and points out the remarkable results and benefits which will accrue to the farmer who uses it. Inquire of E. L. Lomax, General Passenger Agent Union Pacific R. R. Co., Omaha, Neb.

We judge ourselves by what we feel capable of doing, while others judge us by what we have done.—Longfellow.

Agriculture

Specifications for Cattle Barn.

O. J. OLSEN, WILLIS, BROWN COUNTY, KANS.

This barn is designed for the cattleman, its main purpose being to shelter a large number of cattle and at the same time protect a large amount of forage for winter use.

This barn, as designed, will shelter 125 tons of common hay, and contains feed-racks extensive enough to supply feed for 265 head of full-grown cattle and room enough to shelter half a hundred more if necessary.

It also contains five stalls which may be used for milch-cows or other purposes, and two bins for grain. The center is for hay which is filled in from the ground line up.

The space extending around the hay center is for the cattle. It is divided into five sections, separated by swinging gates so that stock may be separated when necessary.

This space is large enough for the admittance of a wagon or rack, it being wide enough so one can drive through it with a load. This makes it convenient to bed the cattle and to remove the manure. These two important factors are often neglected by cattle-raisers, with the result of much sickness and dissatisfaction among the stock.

The ventilation system, as shown, will supply enough fresh air for all the stock that can be put in the barn without producing any dangerous drafts.

SPECIFICATIONS.

This barn is to be built for O. J. Olsen by J. A. Smith (contractor), who is to oversee the work. No material is to be furnished by him. He is to hire his own help, assistants to be experienced men. Time for completion shall be one month.

Dimensions.—The drawings and details must be accurately followed according to their scale, and in all cases preference must be given to figure dimensions over scale. The building is to be in size as shown on plans.

Mason Work.—Do all necessary excavating, to a depth so that the foundation will be clear of frost. Build the foundation of good, flat building stone on a firm bed. Lay up in a clean, sharp sand, lime, and cement mortar in parts of one of cement to two of lime. This foundation is to extend around the outside wall and also around the inside enclosure, as follows: Walls are to be 16 inches thick, flush and point at completion. Fill the inside with earth to a level with the wall except under bins. A rock pillar must be placed on a firm bed for every timber that does not come on the foundation. All studding and posts are to be set in cement on the foundation.

CARPENTRY WORK.

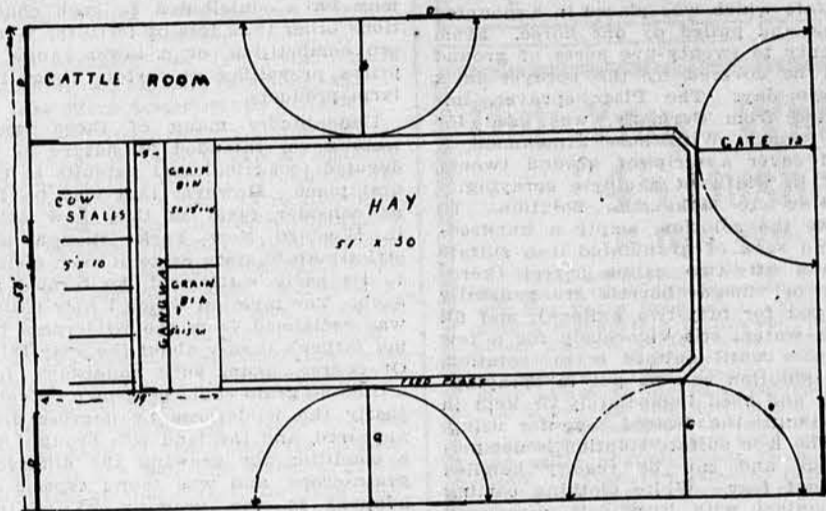
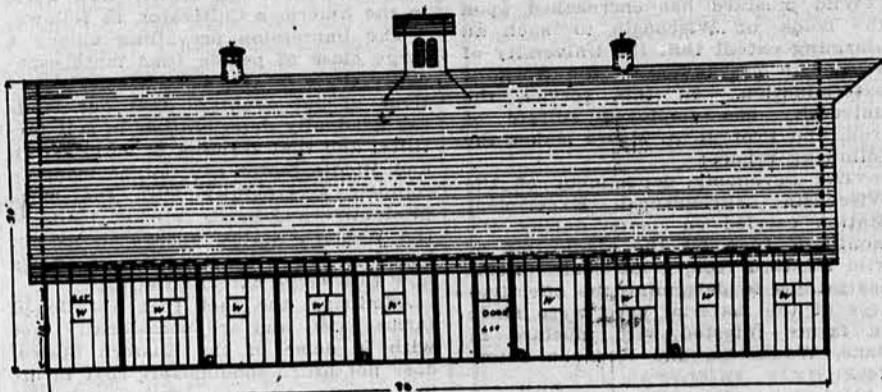
All material used for the frame shall be of yellow pine. The upright posts are made of three 2 in. by 8 in. with short pieces of same material nailed between, making 6 in. by 8 in. posts. Sills are to be made of same material and size. Girders are made up of two 2 in. by 6 in. All braces are same size as girders. Plates are 2 in. by 6 in. laid double and well spiked into ends of studding. Rafters are 2 in. by 6 in. set 2 ft. apart. Stringers are to be of 2 in. by 6 in. Studding is to be 2 in. by 6 in. set 2 ft. apart and double at doors and windows. All joists are to be 2 in. by 6 in. The frame is to be put together as shown in the drawings. Drop siding of white pine is to be used on all sides of the barn. Roof is to be covered with 18-inch sawed pine shingles. Metal gutters of No. 28 sheet iron are placed at lower end of roof.

The hanging doors, 3 in number, 10 ft. by 10 ft., hang on roller tracks. The other 3 doors are hung on hinges. There are 9 windows on each side, 2 ft. by 2 ft., every other one put in a frame 2 ft. by 4 ft. so that it can be pushed open horizontally. There are 2 windows on each end. The walls are reinforced from the

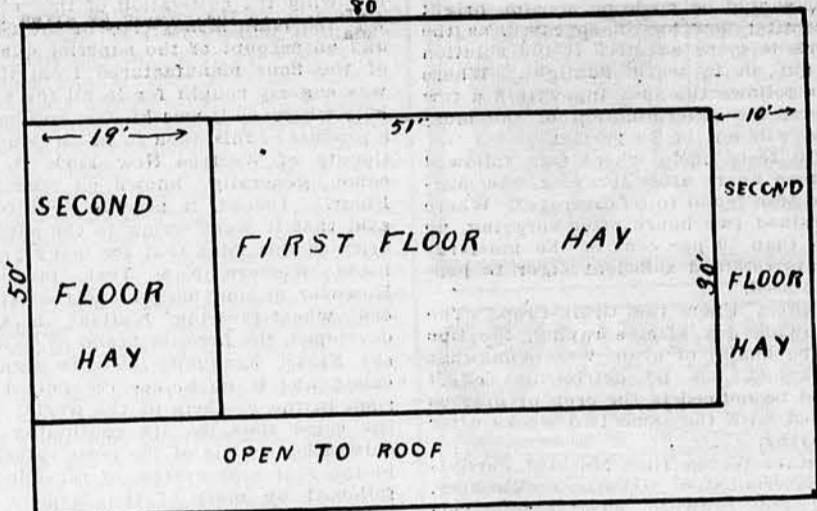
ground to 5 feet above with 1 in. by 12 in. material on the inside to protect the outer wall. Ten holes are left on the outside wall and made so as to open near roof. Each hole is 1 1/2 ft. by 1 1/2 ft. Two ventilators, 3 ft. by 3 ft., are placed over the ridge-pole. The cupola also furnishes outlet. There is one hay door 7 ft. by 10 ft. working on balanced weights up and down. The hay-fork is placed on track, made of iron, suspended under

the ridge-pole and projecting 6 ft. out of the door. The stalls are 5 in number, 5 ft. by 10 ft., made of yellow pine. The chain tie is to be used. The floor is to be cemented. On first floor the only place where flooring is used is under the bins. On second floor the space over the stalls and bins is covered and also the whole north end over the cattle-way, 12 ft. by 50 ft. The feed-rack extends around the hay center. This rack is supported by hollow posts,

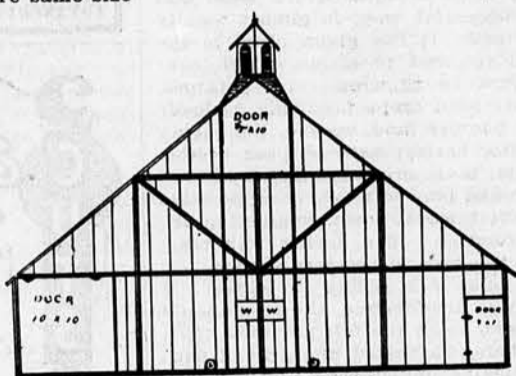
PLANS FOR CATTLE BARN. Scale 1 In. to 20 Ft.



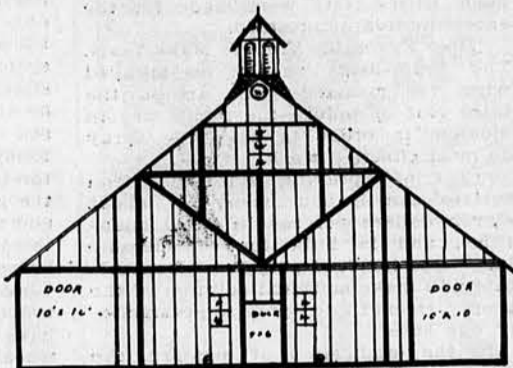
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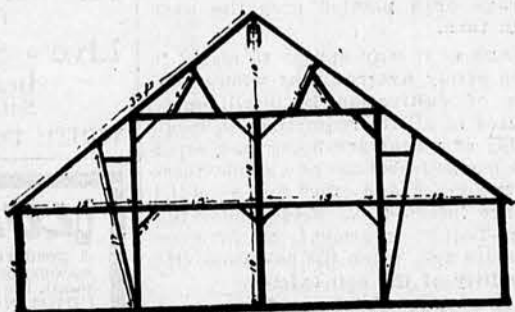
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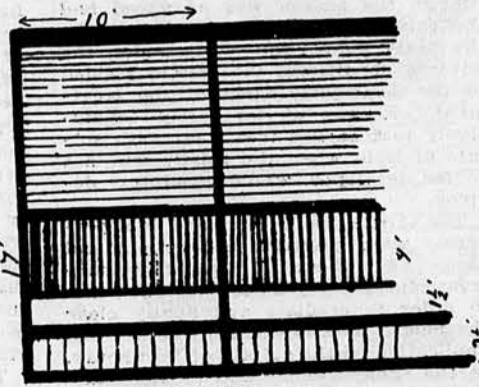
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SOUTH ELEVATION.



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Don't break your back and kill your horses with a high wheel wagon. For comfort's sake get an **Electric Handy Wagon.** It will save you time and money. A set of Electric Steel Wheels will make your old wagon new at small cost. Write for catalogue. It is free. **ELECTRIC WHEEL CO., Box 48, Quincy, Ill.**

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(Sold with or without elevator.) **Crush ear corn (with or without shucks) and grind all kinds of small grain, and head cut.** Use Conical Shape Grinders. Different from all others. **LIGHTEST RUNNING.** Handy to Operate. 7 Sizes—2 to 25 h. p. One size for wind-wheel use. Also Make Sweep Grinders, both Geared and Plain. **G. N. P. Bowsheer Co., South Bend, Ind.**

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 A hand mill for country, village and city housekeepers. Fresh corn meal, graham, rye flour, etc. Fast, easy grinder made to last. Weight 17 lbs. **\$3.00. EXPRESS PAID.** Soon pays for itself. You'll find a dozen uses for it. Grinds corn, wheat, rye, rice, spices, coffee, etc. fine or coarse. Just the thing for cracking grain for poultry. Black Hawk book FREE. **A. H. PATCH,** Mfr. of Hand Mills and Corn Shellers exclusively. Agents Wanted. **Clarksville, Tennessee.**



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6 in. by 4 in., extending from the roof to the rock foundation at an angle of 18° so that hay can be thrown off of top into it and it will fall to the bottom where the stock can reach it. The whole outside, excepting shingles, is to be painted with three coats of the best white lead and raw linseed-oil. Color of barn is red trimmed in white.

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Paint, 200 lbs. white lead, 60 gal. linseed-oil.....	40
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Lime, 3 bbls.....	3
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Labor.....	200

Total cost.....\$1,194

Conserving Soil Moisture.

A. M. TENEYCK.

So far as cultivation is concerned, there are three principal steps in the conservation of soil moisture:

1. The soil must be loosened to a considerable depth in order to prepare a reservoir to receive the rain and carry the water downward into the soil. This may be accomplished by deep plowing, by listing, or by disking unplowed lands.

2. The water which is carried down into the subsoil must be brought back again into the surface soil where the seed is germinating and the young roots are growing, and to accomplish this a good connection must be made between the furrow slice and the subsoil, and this is the purpose of the use of the subsurface packer immediately after plowing.

3. Finally, in order that the water which is drawn up again towards the surface may not reach the air and be wasted by evaporation, the upper two or three inches of the soil must be kept mellow in the form of a soil mulch, and this is accomplished in the growing of crops by frequent cultivation, which is not so practicable with wheat as with corn and similar crops. However, the harrow may often be successfully used in preserving the soil mulch in the wheat-field.

Harrowing Wheat.

A. M. TENEYCK.

The principle of loosening the surface of the soil and keeping a mulch of mellow soil in order to break the capillary movement of water and prevent its evaporation is well recognized by farmers generally, and is practised to a greater or less extent in the cultivation of all kinds of crops. In the growing of wheat the preparation of a favorable seed-bed should leave the soil mellow at the surface. Usually, the rains in the fall after seeding are not heavy enough to pack the soil. Often the wheat makes considerable growth and covers the ground during the winter. There are usually no heavy showers early in the spring, and the wheat starts quickly and by stooling soon covers the ground and protects the soil from the beating of heavy rains. Thus, wheat needs perhaps less cultivation after planting to retain the soil mulch than is required by corn and other cultivated crops.

However, if the soil becomes packed by heavy rain, the soil mulch may be restored by harrowing the wheat. The weed-harrow or weeder is probably better adapted for harrowing wheat and other grain than the common straight-tooth harrow or slanting-tooth harrow. The weeder is, however, somewhat objectionable on account of the wheels. When the ground is reasonably firm the common harrow may be used without injuring the grain.

Our plan has been to harrow once or twice in the spring after the wheat has started well. It is not usually advisable to harrow wheat in the fall, and it is best not to harrow too early in the spring, but when the grain has made some start and the roots of the plants are well established wheat may be harrowed without injury and often with much benefit. The harrowing will not only loosen the soil, producing the mulch which conserves the soil moisture and preparing a favorable surface to receive the rain, but the harrowing also destroys the young weeds and gives a cleaner crop of wheat than may be secured without harrowing.

I question whether it is necessary to continue the harrowing after the wheat covers the ground well, unless very heavy rains firm and puddle the soil, destroying the mulch of mellow earth. Usually this will not occur. I have

harrowed wheat when it stood five or six inches high and had stooled so as to about cover the ground, and the soil mulch thus produced was still in evidence at harvest time. Experiments in the harrowing of wheat and other methods of wheat-culture are being undertaken at the Fort Hays Branch Station and also at the Experiment Station at Manhattan. These experiments have not yet been continued long enough to give definite results.

Destruction of Wild Mustard—Canada Thistle.

Wild mustard has encroached upon the fields of Wisconsin to such an alarming extent that the University of Wisconsin has taken up the work of extermination. In this service the university has employed sulfate of iron, and Prof. R. A. Moore makes the following report:

"The agronomy department of the Wisconsin Agricultural Experiment Station carried on tests during the month of June for the eradication of wild mustard from grain-fields. Demonstrations to determine the effectiveness of the material used were made on farms infested with mustard in Dane, Waukesha, and Kenosha Counties.

"Material to Use. The material used was a 20-per-cent solution of iron sulfate which was placed in a mounted tank and pulled by one horse. From twenty to twenty-five acres of ground can be covered by the sprayer in a single day. The Platz sprayer, imported from Germany, was used for the work. With hose attachment it will cover a strip of ground twenty feet in width at a single spraying.

"How to Make the Solution. To make the solution, empty a hundred-pound sack of granulated iron sulfate into a fifty-two gallon barrel (kerosene or vinegar barrels are generally gauged for fifty-two gallons), and fill with water; stir vigorously for a few minutes until sulfate is in solution. The solution can be put in spraying-tank and used immediately or kept in cask until the desired time for using.

"The iron sulfate solution is not poisonous and can be readily handled without fear. White clothing coming in contact with it will be discolored but not burned.

"When Tests Should Be Made. The test should be made on a calm, bright day after dew has disappeared, as the work is more effective if the solution is put on in warm sunlight. Where rain follows the spraying within a few hours, the extermination of the mustard will not be so perfect.

"In tests made where rain followed sixteen hours after spraying, the mustard was found to be destroyed. Where it rained two hours after spraying, no less than 50 per cent of the mustard-plants retained sufficient vigor to produce seed.

"Effect Upon the Grain-Crop. The following day after spraying, the tips of the blades of grain were somewhat blackened, but no detrimental effect could be noticed to the crop or grasses seeded with the same two weeks after spraying.

"Other Weeds Than Mustard Partially Exterminated. Daisies, cockle-burr, bindweed, ragweed, sheep-sorrel, yellow-dock, and many other weeds were partially or wholly eradicated from the fields where tests were made for the extermination of mustard.

"Most Favorable Time to Make Tests. The grain-fields should be sprayed when the mustard-plants are in the third leaf or before the plants are in blossom in order to have the spray do most effective work.

"Cost of Spraying Material. Iron sulfate can be purchased for about eleven dollars per ton in small quantities, and in bulk for considerable less. One hundred pounds of iron sulfate will make sufficient solution of the proper strength to spray approximately one acre."

In the eradication of mustard, the treatment of the Canada thistle by similar process was also included, although the season was advanced and the thistle too far developed to make the tests final. But even under the adverse conditions, the thistle yielded to the destroying effect of the treatment. It was shown fairly conclusively that earlier treatment with sulfate of iron, when the thistle was not so far developed, would absolutely destroy.

The thistle, unlike mustard, is a perennial weed propagated by roots and seeds and therefore would require treatment every year for several years in order to eradicate and finally clear the fields. But it was shown that one application of the sulfate of iron spray, in the same manner and at the same time as applied to wild mustard, would kill the Canada thistle for the season,

thus preventing its further drawing upon the soil, seeding and consequent distribution to other fields.

Sulfate of iron is a by-product of the manufacture of wire. Its use for the destruction of weeds is being advocated by the American Steel and Wire Co. The material is cheap.

Maintaining Fertility.

The question of the fertility of the soil, which has been longer under consideration in the older, settled portions of the country, is discussed by Irving D. Cook, of Genesee County, New York, in the American Cultivator, as follows:

The impression prevailing among a large class of people (and more especially those of the more Western portions of our country) that our lands are gradually deteriorating in soil fertility, and that farming in our Eastern and Middle States can not be made to compete successfully with the more productive and easily worked lands of the Western States, apparently is not based on the actual condition of affairs now to a large extent existing.

Admitting the fact that abandoned farms exist, and are occasionally met with in some of the Eastern States, does not prove conclusively that farming can not be successfully conducted in the localities referred to. Causes may have contributed to such conditions other than loss of fertility, Western competition, or a lower range of prices prevailing at certain times for farm products.

Undoubtedly many of those lands were never intended by nature to be devoted to agricultural pursuits in the first place. However that may be, let us consider facts as they now exist in Western New York; though not strictly an Eastern State, it may, owing to its early settlement, be termed as such. The farm on which I now reside was reclaimed from the wilderness by my father's family about the year 1812. Of course, under such conditions, for a time no grain could be grown. Eventually the wilderness by degrees disappeared, and the land was brought to a condition for growing the different grain-crops, and was found especially adapted to the growing of winter wheat, owing to the limestone soil, favorable climate, etc. For many years following the cultivation of this wheat was the main money-crop of the farm, and on account of the superior quality of the flour manufactured from it, it was eagerly sought for in all the markets wherever it was known, and being a product of this; then so called Genesee County of Western New York, it became generally known as "Genesee Flour." Indeed, it may be truthfully said that it was "owing to the superiority of this flour that for many years made Western New York famous." However, as time passed, and the Western wheat-growing sections became developed, the favorite brand of "Genesee Flour" gradually lost its significance, and is no longer recognized as such in the markets of the world. At the same time we are continuing its cultivation as one of the most valuable in the four-year system of rotation as followed by most of the farmers in this locality.

The old-time method of summer-fallowing, once considered the ideal and only successful way, is almost wholly abandoned. It has given place to the system referred to above, which consists first in growing corn, potatoes, or other hoed crops following a clover sod or pasture land; second, the spring following barley, oats or peas occupy the land; these crops are harvested and the ground plowed as early as possible and winter wheat sown, completing the third rotation. The spring following, before the ground becomes settled, our wheat-fields are seeded to clover; if timothy is also desired, the seed should have been sown the fall previous. The wheat being harvested, the ground usually remains undisturbed until after a crop of clover, or clover and timothy has been harvested the ensuing year, completing the fourth and last round of the rotation, when it is ready for pasturage or a planted crop the next year in turn.

Strange as it may appear to many, it may be safely averred that where this system of cultivation is intelligently conducted in all its requirements, larger yields of wheat are being harvested with a marked absence of Canada thistles, June grass, and other foul growths that once infested our fields under the summer-fallow treatment of fifty or more years ago, when the so-called virgin fertility of the soil existed. The same may also be said in regard to the favorable yields of corn, barley, oats, etc., conclusively proving that

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with the progress, being made in other branches of industry, agriculture also (as a rule) is keeping fully abreast where a painstaking and intelligent effort has been put forth, consisting mainly in the maintenance of soil fertility, a wise use of the varied implements now being manufactured for the preparation and cultivation of the soil, attention given to portions of the farm requiring tile drainage, a personal oversight of all the minor details of farm management, the care of animals, etc., by the farmer himself, which are factors that lead to success in our agricultural calling either here in Western New York, the more Eastern States, or the far West.

Enormous Rise in Farm-Land Values.

The National Department of Agriculture has put forth an explanation of the rise of value in farm-lands, based on 45,000 answers to its inquiries, and this is matter for a very interesting economic study. Throughout the whole country farm-land has increased in value more than 38 per cent since 1900, and this is so astonishing a fact as to make its explanation important. A long list of reasons are given for it, which may be divided into stable reasons and artificial or temporary reasons. Among the stable reasons are: (1) Rural free delivery, electric railways, and good roads; (2) the movement of townspeople to the country; (3) the pressure of population and the scarcity of free land; (4) better and cheaper transportation and market facilities; (5) better cultural methods, resulting in improvement of the soil itself by draining, fencing, better fertilization, etc.

The rise in value caused by these influences may be regarded as permanent, and to the extent to which they have raised values these values will endure. But other causes are assigned which may be temporary, such as: (1) a series of good crop years; (2) better prices for farm products; (3) decline in rate of interest in rural communities; (4) investments made in farm-land by persons who are not farmers—such as townspeople.

These causes all follow in the wake of the others. They are secondary causes, and they depend on the others. Insofar as values have risen because of speculative or semi-speculative purchases, because of a temporary plenty of money and a succession of good crop years, it may be a fictitious rise. If real and permanent values in five years have increased one-half of 38 per cent, the farmer has prospered to a remarkable degree and probably far beyond the increase in the prosperity of any other large class. If he be wise, he will reckon as a real increase of value only so much as has come from these permanent causes.

It is interesting to notice that the increase in farm-land values, by sections of the country, has in these five years been as follows:

The South Central States, 40 per cent; the Western States, 40 per cent; the South Atlantic States, 36 per cent; the North Atlantic States, 13 per cent.

Measured by the crops that the land produces, cotton-land showed the greatest increase—48 per cent; hay- and grain-land next—35 per cent; live stock farms, 34 per cent.

The farmer, therefore, is the man of us all who is now entitled to the sincerest felicitations. What orators and poets have said about him for a thousand years seems at last to be coming true.

Yet you would be mistaken to suppose that the farmer has yet an easy road to wealth, or in very many cases a road to wealth at all. For the labor

to \$15 a month and his board, but he now receives twice as much in most parts of the country. The same general influences of prosperity that have caused a great rise in land values have brought an even greater increase in the cost of labor.

The "common laborer" is in demand everywhere. While many are crying out for the restriction of immigration, there is such a demand for trustworthy workmen, even the unskilled, as has not before existed for a generation—alike in the Middle States, in the West, in the South, and in the Canadian Northwest. The American who once worked for a dollar a day has found a better job, and now almost all the common forms of manual work in the old free States, except on farms, is done by European peasants, and they do much farm work also. In the south there are not enough industrious negro laborers to supply the demand.

The farther down you go in the scale of work, therefore, the greater the relative increase of income during the prevailing prosperity. If we except the very rich, no other class has had its income doubled within the time that the wages for unskilled labor have risen from \$15 to \$20 a month to \$30 or \$40.—The World's Work.

Testing Winter Varieties for Western Kansas.

PRESS BULLETIN NO. 146, FORT HAYS BRANCH EXPERIMENT STATION, KANSAS STATE AGRICULTURAL COLLEGE.

The Fort Hays Branch of the Kansas State Agricultural College Experiment Station receives numerous inquiries regarding winter wheat. The thrashing of 300 acres has just been completed. This acreage includes "Rotation Experiments," "Time of Plowing," "Seed-bed Preparation," and "Cultivation" tests, and plats for seed increase. These plats range in size from only a few hills of newly selected types in the variety garden to forty-acre plats on the rotation field.

The comparatively large annual wheat sales of the West; the adaptability of the soil and climate to the growing of this cereal; the flour-milling industry and transportation facilities which are being developed in the State demand our attention toward the improvement of this crop.

The varieties and strains that will yield the greatest value per acre to the farmer and produce the best flour is perhaps a question of as much importance as the question of proper tillage, though the two should go hand in hand.

This station is experimenting with 380 different varieties and types of wheat, with the hope of establishing new ones that will prove to be more hardy and better adapted to the semi-arid portions of the West. Nearly one-half of these varieties were received from the United States Department of Agriculture, among them being thirty hybrids. In many cases an awnless variety has been crossed with a bearded sort, the offspring of which show all gradations from the awnless parent on the one extreme to the bearded variety on the other. These various gradations are separated into types, or races, from year to year, and grown on small plats for the purpose of originating new varieties that will produce better yields. The following table gives the yields of 26 varieties for 1903, 1904, and 1905, with the average for the three years. They were grown side by side on the same field, in one-acre plats. Each plat was given precisely the same treatment, and seeded in the same manner and at the same rate per acre, so that any variation in yield is due to the hardness of the variety:

No.	Variety	Yield, bushels per acre.			Average for 3 years
		1903.	1904	1905	
1.	Common Turkey.	38.75	10.23	4.30	17.76
3.	Imported Turkey.	39.10	10.13	5.80	18.34
4.	Kharkof.	40.90	11.75	4.70	19.11
5.	Beloglina.	38.24	9.16	5.23	17.54
6.	Ulta.	36.35	10.36	4.81	17.17
7.	Crimean.	40.61	10.23	4.00	18.28
8.	Ghirka.	35.68	8.40	3.35	15.81
9.	Padul.	19.88	3.04	2.21	8.37
10.	Yaroslaw.	6.44	2.48	3.91	4.27
11.	Crimean.	29.20	4.46	4.93	12.86
16.	Crimean.	37.09	10.59	5.53	17.73
28.	Crimean.	36.18	8.53	4.97	16.56
29.	Crimean.	33.15	10.73	5.94	16.60
30.	Ghirka.	28.44	9.00	5.60	14.34
31.	Ulta.	37.76	10.18	5.80	17.91
32.	Padl.	18.06	3.43	4.70	8.73
33.	Kharkof.	35.28	10.12	6.30	17.23
34.	Turkey.	34.34	9.56	5.49	16.63
35.	Crimean.	36.27	11.13	4.73	17.38
36.	Banat.	40.97	11.40	4.15	17.50
37.	Theiss.	36.94	9.16	4.50	18.21
38.	Bacska.	36.40	10.16	5.08	17.21
39.	Weissenberg.	39.52	11.02	7.02	19.18
40.	Pesterboden.	36.59	8.05	5.60	16.75
41.	Padl.	24.29	2.95	3.80	10.23
42.	Kharkof.	39.50	24.18	4.76	18.78

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The season of 1902-03 was an exceptional one for wheat. The winter was very mild and the spring moist, with



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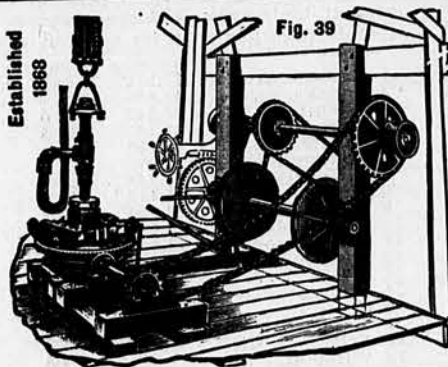
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no marked effects from rusts or smut. On the whole, the season was very favorable for large yields, but not typical of the conditions a profitable variety must be able to withstand in this section.

In 1903-04 the season was not so favorable as the preceding one, the rust cutting the yield at least 40 to 50 per cent.

Extreme dryness of the entire season of 1904-05, and the continuous high, dry winds just at the time the grain was filling, accounts for the low yields. And further, in 1902-03 the trial was conducted on bottom-land, while in the two succeeding seasons it was on the highest of the station upland.

The Russian varieties—Kharkof, Beloglina, Ulta, Yaroslav, Ghirka, and Padl—present a great variation in yield. The Kharkof varieties gave the best yields, while the Padl and Yaroslav the poorest, and the quality of the latter was much inferior to all other varieties. Of these varieties named, the Kharkof seems best adapted to this section of country, our No. 4 Kharkof being one of the best yielders.

The Hungarian varieties—Banat, Theiss, Weissenberg, and Pesterboden—are quite promising. They yield well and the quality of grain is good.

The Crimean varieties, whose original source is nearly the same as the Turkey wheats, are not quite equal to the latter in the West. The Turkey takes the lead both in yield and quality of grain.

The accompanying table gives data for 1905, of the varieties that have proved promising in the variety garden, and are being increased for field tests:

Table with columns: No., Variety, Area acres, Date Planted, Germination, Date ripe, Yield bu. per a. Includes varieties like Native awnless wheat, From U. S. Dept. Agr., etc.

Considering the lateness of planting and the unfavorable season, the above yields are good. In this test the hybrids certainly made an excellent showing. A study of the table reveals the fact that in every case, without a single exception, the crossed wheats yielded more than any of the other varieties. No. 46 yielded more than double the amount produced by No. 100-04, which is one of our best Turkey wheats (improved since 1902). These results certainly encourage further investigation along this line in the future.

History will undoubtedly repeat itself, and the farmers will be forced to engage in a more general system of farming. Stock-raising and the practice of crop-rotation will become a necessity in order to retain the fertility of the soil, which will, to some extent, replace wheat-farming alone. Such a change should not be considered any disadvantage, for with it would come the best soil conditions for growing wheat, and the crop will continue to be of greatest importance to the Western farmer.

It is needless to say that the average yield of wheat is much lower than it should be. Farmers have been accustomed so long to have rich soil at their disposal almost constantly, that they pay comparatively little attention to systematically increasing the yield by proper methods of tillage. Especially is this true in the hard-wheat region of the Northwest. The average yield of wheat for the United States is about 13 bushels per acre, while in Germany and the United Kingdom under high tillage it is 26 and 31 bushels, respectively. With proper attention to the right kind of cultivation of land, the cultivation at proper times, more caution in selecting seed, and better methods of seeding, a fair average increase of two to three bushels would not be unreasonable to expect. This would mean about a 100,000,000-bushel increase for the entire country.

Kansas Cities and Towns. Kansas has 128 cities and towns with 1,000 inhabitants or more in 1906, as against 120 belonging to such a list one year ago, according to the sworn returns of assessors sent to the State Board of Agriculture by the county clerks. The compilation of statistics now going on under the supervision of Secretary Coburn reveals that 99 municipalities show an aggregate gain

of 53,365, and 27 show an aggregate decrease of 3,322. Oakland enters the list this year as a newly incorporated town, and last year's figures of population are used for Atchison, owing to the failure of the county clerk to make any returns.

Kansas City shows the largest increase, 10,298, followed by Wichita with a gain of 4,431, Topeka 4,245, Parsons 3,693, Coffeyville 3,271, and Independence 2,298. Winfield shows the smallest increase—4. The largest decrease is 484, in Weir.

The net increase for these 128 towns and cities this year is 49,543, or 74.5 per cent of the increase (66,492) for the entire State. Their aggregate population is 37.4 per cent of the population of the State in 1906.

There are thirteen cities having 10,000 or more inhabitants, and their combined population represents 18.9 per cent of the population of the State.

Every city or town in the list, with the exception of eighteen, has changed rank this year. Eleven new towns appear in the 1,000-or-over class. They are: Solomon, which enters the list with an increase of 92; Plainville, which gained 204; Wilson, with 87 more inhabitants; Jewell 262; Mound Valley 464; Oakland, newly incorporated, and Altoona with an increase of 462. Three towns, Oskaloosa, Scranton, and Strong City, have fallen below the 1,000-mark.

The rank of the fifteen leading cities is the same, with some few exceptions. Kansas City, Topeka, Wichita, Leavenworth, and Atchison, as named, rank the same as last year. Coffeyville, which was 7th last year, is now 6th, changing places with Pittsburg,

Table with columns: No., Variety, Area acres, Date Planted, Germination, Date ripe, Yield bu. per a. Includes varieties like Native awnless wheat, From U. S. Dept. Agr., etc.

which was 6th last year. Parsons and Fort Scott have also changed places, Parsons, which was 9th last year, advancing to 8th place. Independence, which was 12th last year, has changed places with Lawrence, which was 10th. Emporia and Chanute have changed places, Chanute this year being 15th and Emporia 14th.

Some of the changes in rank most worthy of note are shown in Garden City, which has jumped from 100th place in 1905 to 56th in 1906; Norton, which has advanced from 85th to 59th place; Goodland from 83th to 63d place; Beloit from 58th to 46th place; and Smith Center from 95th to 85th place. Weir has dropped from 48th place to 67th, Oswego from 56th to 71st, Sedan from 57th to 70th, Chetopa from 70th to 86th, and Lincoln from 92d to 119th.

While statements in regard to the relative rank of the various municipalities convey some idea of the notable gains, it is in percentage of increase that the changes are most remarkable. For example: Garden City gained 77 per cent, Mound Valley entered the list with a 70-per-cent gain, as did Colby with an increase of 46 per cent and Altoona with 53 per cent. Norton and Goodland each gained 52 per cent, and thirty-five other cities each show increases ranging from 10 to 35 per cent.

The following table gives the cities and towns in Kansas having 1,000 or more inhabitants March 1, 1906, in the order of their rank, and the population of each, together with its gain or loss:

Table with columns: Rank, City, Population, Gain, Loss. Lists cities from 1 (Kansas City) to 31 (Eldorado).

Table with columns: City, Population, Gain, Loss. Lists cities from 32 (Osawatomie) to 128 (Solomon).

The "Farmers' National Congress." The Farmers' Congress which met recently at Rock Island, Ill., expressed its views on several matters affecting the interests of farmers. This expression took the form of resolutions as follows:

"Resolved, That the Farmers' National Convention reaffirms itself in favor of the establishment of a system of United States postal savings banks. "Resolved, That we are opposed to the system of seed distribution as now conducted by the Federal Government, but we believe in the work of exploring foreign countries for such seeds and plants as may be profitably introduced into this country, and we recommend that the money expended for seed distribution as now conducted be added to the fund for maintaining American seed and plant explorers in other countries, under direction of the United States Department of Agriculture; we recommend the distribution of promising new seeds and plants among the agricultural experiment stations of this country for practical test.

"Whereas, The transportation question is the most important one to-day before the American people, and it is the sense of this congress that the proper development and improvement of our waterways would regulate and settle that question more effectually, as water transportation is much cheaper than any other; therefore, be it "Resolved, That we hereby memorialize the Congress of the United States to adopt at once a broad and liberal policy in this respect, so that every meritorious river and harbor in the country may be developed to its utmost capacity. "Resolved, That we hereby call upon each and every member of the Senate and House of Representatives

FOX OTTER BEAVER BADGER MUSK RAT OF ALL KINDS. TO GET THE HIGHEST CASH PRICES SHIP TO THE OLD RELIABLE NORTHWESTERN HIDE & FUR CO. MINNEAPOLIS MINN.

Well Drills and Drillers' Supplies. The best on the market. Manufactured by THATCHER & SONS, Stillwater, Oklahoma. Write for circulars and prices.

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\$10.00 Sweep Feed Grinder. \$14.00 Galvanized Steel Wind Mill. We manufacture all sizes and styles. It will pay you to investigate. Write for catalogue and price list. GURRIE WIND MILL CO., Topeka, Kansas.

Don't Eat Glucose. Use our Percolator (the family give) and with the simple use of granulated sugar and cold water, make the purest and best syrup in the world, at a much less cost than you are paying for glucose or corn syrup. Operation perfectly automatic. Syrup cannot sour or crystallize. No waste. Price \$2.50. Write for full information. Ever-Ready Syrup Percolator Co., 188 C. Monroe St. Chicago. Agents wanted.

FOR SALE. At a bargain, a complete outfit for making concrete posts, hitching posts, and six sizes of building blocks. Brand new. N. J. Shepherd, Eldon, Missouri.

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

The Kansas State Agricultural College. OFFERS courses in Agriculture, Domestic Science, General Science, Mechanical Engineering, Electrical Engineering, Architecture, and Veterinary Science. Also short courses in Agriculture, Dairying, and Domestic Science. Admission direct from the country schools. A preparatory department is maintained for persons over eighteen. Necessary expenses low. Catalogue free. Address PRES. E. R. NICHOLS, BOX 50, MANHATTAN, KANS.

of the United States to do his utmost to secure this legislation.

"Resolved, That we heartily endorse the work of the National Rivers and Harbor Association in its effort to obtain more generous appropriations for the Nation's waterways, and we urge every commercial body and interested person in the Union to join that association.

"Whereas, The Hon. James Wilson, Secretary of Agriculture of the United States, is recommending to Congress an appropriation of \$20,000 for the purpose of enabling him to carry out the requirements of the act of Congress which requires him to 'investigate and report upon the organization and progress of farmers' institutes and agricultural schools in the several States and Territories, and upon similar organizations in foreign countries with special suggestions and plans and methods for making such organizations more effective for the dissemination of the results of the work of the Department of Agriculture and the agricultural experiment stations and of the improved methods of agricultural practice;' therefore,

"Resolved, That the Farmers' National Congress heartily seconds this request of the honorable Secretary of Agriculture, and hereby instructs its legislative committee to see that the attention of the appropriations committees of both houses of the Congress of the United States is called to this action by sending to each member of these committees a copy of this resolution.

"Resolved, That the president of the Farmers' National Congress be requested to appoint a committee to consider whether the work of the congress can advantageously be broadened so as to include some of the features of a federation of all National agricultural organizations.

"Resolved, That we reaffirm our position, previously taken, and declare again with emphasis that we are in favor of the election of United States Senators by direct vote of the people.

"Resolved, That the Farmers' National Congress hereby renews its expression of recent years in favor of an extension of the parcels post, and urges Congress to take early action along that line. As a step in this direction we favor the consolidation of the third and fourth classes of mail matter, as recommended by the present Postmaster General and his predecessors. We also recommend that an appropriation be made by Congress at its next session for the establishment of an experimental local parcels post that shall cover general transportation within the limits of a rural delivery route.

"Resolved, That in the death of the Hon. H. C. Adams, of Madison, Wis., the world at large has lost an eminently useful man, his family a kind and most indulgent husband and member, agriculture one of its most ardent promoters, and the Farmers' National Congress one of its most liberal, hearty, and useful contributors and supporters.

"Resolved, That the Farmers' National Congress recommends a more liberal and extended privilege in the manufacture of denatured alcohol, which will thereby cheapen it to consumers.

"Whereas, The farm products of the United States are now far beyond our present needs for home consumption, and we must look to sister nations of America, Europe, and Asia, for a market for our surplus; now, therefore, be it

"Resolved, by the Farmers' National Congress, That we do most earnestly demand that the Congress of the United States of America, in conjunction with the President, secure the most liberal reciprocity treaties possible, looking to a greatly enlarged consumption of our farm products; to aid in securing these results, we urge that our consuls and ministers abroad be instructed to use their every influence to educate the peoples of those nations in the various ways of using said products, and the great advantages derived thereby.

"Resolved, That Congress is requested to greatly increase the appropriation for agricultural colleges, for the purpose of promoting practical, scientific farming.

"Resolved, That we recognize the great benefit which will result from teaching agriculture in the public schools; that we express our gratification at the progress already made in this direction in many States, and that we urge further extension and development along this line.

"Resolved, That the President and the Postmaster General be, and are hereby respectfully requested to offer to the countries of Europe reciprocal

postal conventions, similar to our present postal conventions with Mexico and Canada, the proposed conventions as to the interchange of international postal parcels to be as liberal as those of the most advanced nations of Europe.

"Resolved, That the members of this congress note with satisfaction the increased attention given to dairying by the National Department of Agriculture. Furthermore, we believe that the great dairy interests of the Nation are of sufficient importance to be represented by a bureau of the Agricultural Department. Therefore, we respectfully urge Congress to raise the rank of the dairy division to that of a bureau.

"Resolved, That we favor the plan of building good roads throughout the States, with the aid of the National Government, and ask Congress to pass the Brownlow bill, or enact other legislation of equal force that will insure a complete system of good roads in the shortest possible time.

"Resolved, That in the death of State Senator Harry S. Ambler, who was vice-president of the Congress for the State of New York, the agricultural interests of the United States have lost a steadfast and progressive friend and advocate, and that this congress record its sense of loss and its appreciation of his distinguished services.

"Resolved, That the Farmers' National Congress is in favor of teaching domestic science in the public schools in a practical, scientific manner, as fast as qualified instructors can be obtained.

"Whereas, In the opinion of this congress, the buying and selling of futures, and puts, and calls, and other fictitious transactions in farm products, is gambling of the most virulent type, fraught with danger and productive of evil only; therefore, be it

"Resolved, by this National Farmers' Congress, That we demand of the Congress of the United States the enactment of a law forbidding any person, firm, or corporation engaging in such fictitious and gambling transactions, that they be denied the use of the United States mails, and that telegraph companies be forbidden to transmit their messages.

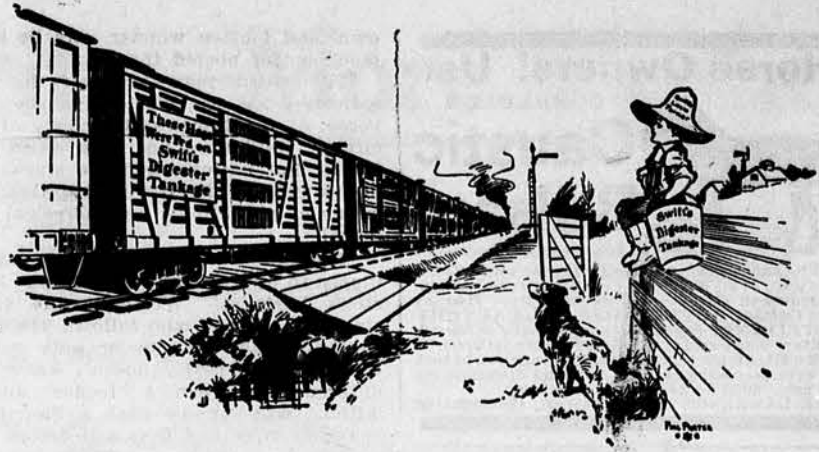
"Resolved, That railroad rates should be so low as to prevent paying dividends on fraudulent or watered stock representing no value, and that discrimination should be stopped by enforcement of the interstate commerce law and the Sherman and Elkin laws."

Stock Interests

Cottonseed-Meal as a Fattening Food.

I would like a little advice through THE KANSAS FARMER about the fattening qualities of cottonseed-meal and how to feed to get the best results. First, is there any difference in the quality or grade of the meal, and how can an inexperienced hand tell the best from the poorest? Second, how much would you feed and how feed it, if you were going to full feed, with straight corn and Kafir-corn and sorghum for roughage? Third, what is the cost per ton and where can I get it? Any information you can give will be thankfully received. A. L. BERTHOLF. Kingman County.

For this section of the country cottonseed-meal is classed with supplementary feeds. It is the richest of our feeds in protein and also contains relatively large quantities of carbohydrates and fats. It is too rich and concentrated to feed as the sole ration, and its most valuable place is as a supplement to a corn-ration. There is considerable difference in the quality of the meal furnished by different companies. The cottonseed as it comes from the gins is enveloped in a tough, leathery covering to which some lint adheres. In the process of making the highest-grade meals, the hulls are thoroughly removed, leaving the oily material comparatively free from particles of the hull. After the hull has been removed and the oil taken out, the residue is a yellowish, board-like cake which is broken and ground and forms the meal or cake of the market. The thoroughness with which the hulls are removed has considerable to do with the value of the meal. Good cottonseed-meal should be bright yellow in color, with a fresh, nutty taste and odor, and should be comparatively free from black particles of hulls and lint. A very good way to determine the relative value of meal furnished by different companies is to request them to send samples of their product so that



They ship well

Hogs weak in Bone and Muscle cannot reach market in good condition. They find slow sale. Hogs fed entirely on corn are usually poor shippers. Not so, hogs fed on Swift's Digester Tankage.

Swift's Digester Tankage



Arrive in Prime Condition

Hogs fed Swift's Digester Tankage (Protein 60%, Phosphates 6%) have dense hard bone and firm muscle which enables them to stand a long haul to market and arrive in prime condition. Write for literature, prices and a sample.

Swift & Company, U. S. A.

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you can make a close examination of it. We are receiving a number of inquiries which would indicate that a new process meal is being put on the market, and from what few samples have been sent, it would seem that these are meals which contain the hull, or in other words are undecorated meals. They are quoted lower on the market, and, of course, have less feeding value. Where corn and Kafir-corn with sorghum for roughness are the only available farm-grown feeds, it would be absolutely essential to feed some concentrate rich in protein to supplement the corn and Kafir-corn, and cottonseed-meal will undoubtedly furnish this more economically than any other feed on the market. Meal of highest quality should not cost over \$26 or \$27 a ton, and may be purchased for less. In feeding it care must be exercised in getting the animals accustomed to it, beginning with small quantities, say not over 1/4 to 1/2 pound per head, and increasing it very gradually until the full ration is reached. I would not advise feeding it to young cattle at a very long period, or to exceed 3 or 4 pounds daily to any kind of cattle unless for very short feeds. The various companies handling cottonseed-meal and by-products advertise in the various stock papers, and it probably would be well for you to get a list of names by looking over their columns. I note that the Chickasha Cotton Oil Co., Chickasha, I. T., is one company nearby which is advertising cottonseed-meal for sale. F. W. Brode & Co., Memphis, Tenn.; D. Humphreys, Godwin & Co., Memphis, Tenn.; and R. G. Hendley Cottonseed-Meal Co., Kansas City, Mo., are also advertising. G. C. WHEELER.

Millet for Roughage—Corn Question.

Kindly inform me if it is harmful to feed millet (German) as roughness to fattening steers. As I am short on alfalfa, I should like to feed millet at least once a day, providing it is not too injurious. I have a large supply of this. It yielded 4 or 5 tons an acre. Another question: Which is the better plan, to feed corn two or three times a day, or should the cattle have access to the corn all the time? W. O. PETERSON. Riley County.

Millet is not usually looked upon with very much favor by cattle-feeders. If fed very heavily it sometimes produces scours in animals, and when it is allowed to get too ripe before cutting, it becomes hard and woody, and is not very palatable. I would not advise feeding millet very heavily to fattening cattle, but if it is of good quality it may be used as part of the roughage ration. I would watch the results pretty closely, however, especially tak-

ing note of any tendency to produce scours.

Cattle could probably be made to gain a little more rapidly if fed three times daily, but the gain would be so small as to hardly pay for the extra labor. It is almost never practised by feeders except in the preparation of cattle for show. Some feeders secure very satisfactory results with self-feeders, in which corn is before the cattle at all times. It is generally conceded, however, and the results of experiments have shown that cattle will gain more and at less cost where they are fed twice daily than where corn is before them constantly. The aim should be after they are on full feed to give just enough feed so it will be all cleaned up within a reasonable length of time after feeding. They will then come to the next feed with a good appetite. It is usually a matter of labor, and some feeders, feeding on a large scale, find it more profitable from their standpoint to use the self-feeders. G. C. WHEELER.


Kafir-Corn, Alfalfa, and Prairie Hay for Calves.

I would like to know if it will be profitable to feed calves a ration of Kafir-corn, alfalfa, and prairie hay for roughness to fatten them? GUS BRANDENBURG.

Riley County.

You could hardly ask for a better combination of feeds than Kafir-corn and corn with alfalfa and prairie hay for roughness in the fattening of cattle for market. Kafir-corn has been fed experimentally to both hogs and cattle at the experiment station. The question as to whether it would be profitable to feed calves these feeds would involve some other circumstances, such as the quality of calves, the kind of yards and quarters available, and the skill of the feeder. A few years ago 100 head of cattle, varying in age from calves to 3-year-olds, were fed at the station, the grain ration being ground Kafir-corn and corn in equal parts. The calves in this experiment were hand-raised and weighed an average of 353 pounds at the beginning of the experiment, November 10. At the end of the experiment the calves had made an average gain of 376 pounds and had consumed 554.6 pounds of grain for each 100 pounds of gain, making the gain cost at the rate of \$4 per hundred pounds. Some years previous to this, calves were fed at the experiment station on alfalfa hay and Kafir-corn alone, the average gain per head for a seven-months' feed being 379 pounds against 407 pounds where alfalfa hay and corn were fed. The amount of grain required for 100 pounds of gain was 524 pounds with the Kafir-corn and 470

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GOMBAULT'S
Caustic
Balsam
 A Safe, Speedy, and Positive Cure
 The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.
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pounds with the corn. This shows that very satisfactory gains may be made with Kafir-corn alone, or with Kafir-corn as a part of the ration, approaching very nearly the results where corn alone is fed. It is necessary, however, to grind the Kafir-corn, as the grains are small and hard and will pass through the animal without being properly digested where fed whole.

In feeding calves for baby beef more skill is required than where older cattle are fed. A little finer quality of roughage will be required, and closer watch must be kept of the animals to see that none get off feed. They are "babies" and must be treated as such.
 G. C. WHEELER.

International Live-Stock Exposition, Chicago, December 1 to 8, 1906.

When practical and successful men who have had all of the hardships of the frontier life-stock man's existence



The Burgess Prize-Winners as shown at the Kansas State Fair, Wichita, The American Royal, and elsewhere. Owned by Robert Burgess & Son, Wenona, Ill., and Wichita, Kans.

can view with interest the workings of a great show, such as the International, an expression from such a man is worth a lot to the industry. A man who devotes his time to the betterment of conditions for his fellow man can be heard on any topic to great advantage. Therefore, the following interview with that honest, industrious ranchman and leader among stockmen, Mr. Frank J. Hagenbarth, of Idaho, in which he shows his devotion to his favorite calling in the following comment on live-stock shows, is well worth a careful perusal:

"Some great philosopher of modern days has said that each individual is circumscribed by a circle, the boundaries of which are limited by his experience and knowledge of persons and things and of the world in general; thus, my circle is perhaps bounded by Sage Creek on the north, Red Butte on the south, the county seat on the east, and the impenetrable mountain fastnesses on the west. Within the boundaries thus described are passed the days, the months, the years of my existence, tilling my field, branding my calves, spanking my children, and attending to the ordinary routine labors of my circumscribed life. My neighbor's circle, living on the other side of the river, is perhaps larger. His horizon reaches to San Francisco on the west, British Columbia on the north, Mexico on the south, and the great and glorious Chicago on the east. He has bought yearlings in the south, grazed them in the north, and marketed them in the great Western metropolis. Occasionally in the winter months he takes his family down to the golden coast for recreation and information, and his knowledge of men and things is much broader than my

own, and I often wonder why he is so much better posted than I.

"The third man—yourself for instance—has the world, aye the universe, as the limitless boundary of his circle. He knows not only cities and States, but nations, and the stars, and has wandered in the speculative domains of philosophy, both physical and moral.

"The philosopher's idea seems particularly to apply to the men in the live-stock business. We have the three classes: the one who follows 'the path the calf made' and never gets out of the rut, who really doesn't know the difference between a 'feeder' and a 'killer,' who knows that a Shorthorn is red or roan and that a Hereford has a white face; the second fellow has perhaps seen enough of the business to know that a well-bred feeder or a well-finished steer will sell for more money than a scrub or half-fat animal—he has learned to keep good cows and buy good bulls; the third man goes farther, he has delved into the mysteries and intricacies of albumens, proteins, and nitrogens, and knows what a 'balanced ration' is; the conformation and poise of the animal immediately spells to him pounds of fat and lean properly distributed, and he knows how to most economically develop it by a proper system of feeding. The third man has evidently been a regular attendant of the National live-stock shows. Men, like monkeys and Japanese, are naturally imitative; when they see a good thing their first impulse is to annex it; that being oftentimes impracticable, they will attempt to reproduce it, and in so doing study out the object lessons set before them in the fat-stock shows.

There they see results, there they see dreams and theories realized.

"To-day, in our more advanced schools, the old system of teaching by A-B-C has been abolished, and in its place the young idea is taught by means of object lessons. After all, men are but grown-up children, and if the best method of teaching the young is by object lessons, why is it not the best method of teaching grown-up boys?

"What man, who for the first time has attended the International Live-Stock Exposition, were he a lover of animals, but was thrilled to the highest pitch of keen enjoyment by the magnificent results presented to him in the way of breeding and fattening the highest types of animals! Then what practical business man would refuse to carefully study and investigate the beautiful specimens set before him without having in view the utilization in his own business of what he has learned there? What made Overton Harris the greatest Hereford breeder if not his ambition and aim to out-class all others at the live-stock shows? Why is Dan Black one of our greatest feeders? Why did Captain Pabst and Nelson Morris scour the earth for the noblest and grandest teams of horses if not to carry off the trophy at the great International Fat-Stock Show?

"In the last final analysis all things are weighed by comparison. What greater scale was ever invented for weighing the whole animal kingdom in all its possibilities as to breeding, feeding, and food values than that afforded at the fat-stock shows? Where could a better school be developed? How else could so much knowledge be gained in so little time and at so little cost?

"In my opinion, the International

Live-Stock Show, followed in turn by the Royal in Kansas City, the Denver and St. Joseph, and other shows, will advance the cause of animal breeding and feeding at least fifty years within the next decade. The constantly increasing, higher type of animals being exhibited from year to year goes to prove this prophecy. The International and other live-stock shows are doing a work which should devolve upon Congress, and for which large annual appropriations should be made through the Department of Agriculture. The originators and executors of the idea deserve well indeed at the hands of the agricultural world. By virtue of the results achieved and the probabilities to come, they are certainly entitled to rank high among the benefactors of the Nation at large."

Frank Dawley's Great Sale.

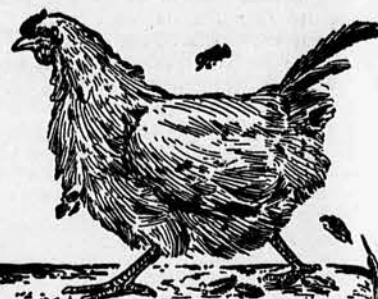
Frank Dawley's sale of Poland-China hogs at Osborne, Kans., October 24, was the greatest fall sale ever made by a Western breeder, and the great crowd of buyers present and the flood of bids sent by those who could not attend, was but a just appreciation of the kind of stuff offered by this young captain of the Poland-China hog industry. Col. Lafe Burger, who has made the great record-breaking sales of the West, was at his best, and when he took the block to start the sale he looked upon a crowd of people who came to buy the best and who were not afraid to pay what it was worth. The average of the entire offering of 45 head was nearly \$90 per head, the top of the sale being \$207.60 for Pansy I Know 1st, a yearling sow, bought by the veteran breeder, W. J. Honeyman, of Madison, Kans. The following is a complete list of buyers and prices:

SOWS.	
W. J. Honeyman, Madison, Kans.	\$207.50
Pansy I Know	75.00
Venus On	205.00
Tom Collins, Barnard, Kans.	200.00
Peek-a-Boo	200.00
S. A. Hicks, Beloit, Kans.	177.50
Beauty I Know	68.00
Stewart & Son, Portis, Kans.	165.00
Lady Alice	158.00
F. C. Streble, Alton, Kans.	40.00
Irene	155.00
Spring Gilt	130.00
Cotta & Mathis, Farmington, Ill.	147.50
Village Belle	57.50
M. O. Kilmer, McPherson, Kans.	100.00
G.'s Chiefess	87.00
Spring Gilt	100.00
W. H. Howe, Milo, Kans.	85.00
She's a Honey	80.00
Lail's Special	80.00
L. D. Arnold, Enterprise, Kans.	58.00
Lady Oakwood	44.00
Spring Gilt	45.00
H. A. Walker, McPherson, Kans.	40.00
Matchless	37.50
J. J. Ward, Belleville, Kans.	26.00
Cripple Belle	26.00
Meddler's Pet	37.50
Howard Reed, Frankfort, Kans.	32.00
Spring Gilt	32.00
J. H. Peden, Asherville, Kans.	32.00
Honeysuckle	32.00
F. Tanner, Beatrice, Neb.	32.00
Ruberta	32.00
Wiedman & Dresselman, Lincoln, Kans.	32.00
Dawley's Special	32.00
A. J. Hinkley, Milo, Kans.	32.00
Thistle Bloom	32.00
C. H. Harper, Benkelman, Neb.	32.00
Profits Lady	32.00
Jas. Holmes, Lensmore, Kans.	32.00
Louise	32.00
Total	\$2709.00
24 sows, average	\$112.875 per head.

BOARS.	
H. A. Walker, McPherson, Kans.	\$81.00
Aggressor	80.00
T. W. Ekstrom, Osborne, Kans.	67.50
Orpheus	60.00
M. O. Kilmer, McPherson, Kans.	60.00
Grand Chief's On	60.00
G. W. Morehead, Beloit, Kans.	60.00
Admiral Togo	60.00
Ed. McDaniel, Parsons, Kans.	53.00
Impudent	50.00
Fred Tanner, Beatrice, Neb.	44.00
Hustler	45.00
M. G. Hudson, Osborne, Kans.	40.00
Sunflower Chief	40.00
R. R. Walker, Osborne, Kans.	40.00
Originator	40.00
Tom Collins, Barnard, Kans.	40.00
P. I. K. 2d	40.00
W. J. Young, McPherson, Kans.	37.50
D.'s Favorite	26.00
G. M. Gaddis, Barnard, Kans.	26.00
Eureka	26.00
Togo 3d	37.50
G. A. Gifford, Beloit, Kans.	32.00
Conformation	32.00
H. A. Terrell, Waldo, Kans.	32.00
Generator	32.00
H. P. Bacon, Sylvan Grove, Kans.	32.00
On's Venus	32.00
S. A. Hicks, Beloit, Kans.	39.00
C.'s Perfection	45.00
W. J. Bowman, Smith Center, Kans.	45.00
Togo 2d	\$795.50
17 boars average	\$46.80 per head.
Grand total of sale, 41 head,	\$3504.50.
Average of 41 head,	\$85.47.

The Rockefeller Hereford Sale.

As was predicted, the Rockefeller sale of Hereford cattle was a good place for bargains. The cattle were in good, strong breeding condition, having been just taken off the pasture. They were of the finest breeding, and many of them were extra fine animals. Under the management of C. A. Stannard, of Sunny Slope Farm, Emporia, Kans., the sale had been well and thoroughly advertised, and buyers were present from a half-dozen different States, who came to Kansas City to buy. The sale was conducted by Col. R. E. Edmondson, Kansas City; L. R. Brady, Manhattan, and I. V. Holman, assisted by Mr. Stannard in the ring. Mr. Rockefeller has long been known as a liberal buyer of Herefords, and it is a rare thing for a sale of this breed of any importance to be held without his being present and buying something. On his magnificent ranch at Belvidere, Kans., is maintained one of the largest herds of pure-bred Here-



A Moulting Hen Needs a Tonic

Shorten the non-productive moulting period—hasten the return of normal vigor in the hen, and be ready to reap a harvest while the rest of "hendom" are still shedding feathers. A daily use of Dr. Hess Poultry Pan-a-ce-a will help you do it. It is a perfect aid to digestion and causes the maximum amount of food to be assimilated and hens to become profitable layers throughout the winter.

DR. HESS Poultry PAN-A-GE-A

is a scientific tonic, the prescription of Dr. Hess (M. D., D. V. S.) and the result of experiments conducted by him in his own poultry yards. It contains just the elements to make the hen in confinement as natural as she would be at liberty. It cures, gaupes, cholera, roup, indigestion, etc. Poultry Pan-a-ce-a has the endorsement of leading poultry associations in United States and Canada. Costs but a penny a day for 30 hens, and is sold on a written guarantee.

1 1/2 lbs. 25c, mail or express 40c. } Except in Canada and extreme West and South.
 5 lbs. 80c. }
 12 lbs. \$1.25 }
 25 lb. pall. \$2.50 }
 Send 2 cents for Dr. Hess 48-page Poultry Book, free.
DR. HESS & CLARK, Ashland, Ohio.
 Instant Louse Killer Kills Lice.

BLACKLEGOIDS



JUST A LITTLE PILL
 ●● THIS SIZE ●●

placed under the skin by a single thrust of the instrument

No Dose to Measure.
 No Liquid to Spill.
 No String to Rot.

SIMPLEST, SAFEST, SUREST, QUICKEST WAY TO VACCINATE CATTLE AGAINST BLACKLEG

Purchasers of 100 doses get an Injector FREE

For Sale by all Druggists. Send for Free Booklet.

PARKE, DAVIS & CO.

Home Offices and Laboratories, DETROIT, MICHIGAN.

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The great preventive and cure for HOG CHOLERA. Indorsed by more good breeders than any other remedy. We also put out a Dip at \$1 per gallon, in 5 and 10 gallon cans. Freight prepaid. Guaranteed as good as any Dip on the market or money refunded. Address

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Lincoln, Nebraska

No More Blind Horses For Specific Ophthalmic Envelopes and all other kinds of CARDS and Premium Articles. Sample Album of Planet Cards and Biggest Premium List, all for a 2 cent stamp. OHIO CARD COMPANY, CADIZ, OHIO.

294 Hidden Name, Friendship, Bill, Friend Envelopes and all other kinds of CARDS and Premium Articles. Sample Album of Planet Cards and Biggest Premium List, all for a 2 cent stamp. OHIO CARD COMPANY, CADIZ, OHIO.

fords in the United States, from which the draft of 142 head, sold in this sale, made hardly an impression. The crowd in attendance seemed anxious to buy, though the prices paid were conservative, owing to the fact, perhaps, that the cattle were sold right from the grass and without being specially fitted for the occasion. Some representative sales and the averages are given here-with:

COWS AND HEIFERS.	
Armour Ruby 80089, Jones Bros., Comiskey, Kans.	\$110
Eudora 80678, Jones Bros.	100
Lily of Soldier Creek 100240, B. Howard, Portales, N. M.	100
Miss Simpson 17th 117769, B. A. Packard, Phoenix, Ariz.	146
Jennie May 91144, H. Hilton, Malvern, Iowa.	110
Genesta Hayes 126225, W. T. Harvey, Leavenworth, Kans.	100
Muret 124111, G. W. Newman, Americus, Kans.	105
Mistletoe 93822, Jones Bros.	115
Lady Earl of Shadland 7th 105522, J. W. Farrar, Kansas City, Mo.	105
Cheerful 115272, G. W. Newman.	110
Norma 93507, B. A. Packard.	115
Muriel Columbus 141840, B. A. Packard.	100
Petunia Archibald 153197, Scott & March, Belton, Mo.	110
Celeste Columbus 152193, Thomas Taylor.	120
Martha 125155, M. P. Harvey.	100
Nattie 2d 125159, B. Howard.	120
Hamlet 135137, Scott & March.	100
Lady Columbus 159475, B. A. Packard.	110
Miss Columbus 3d 159478, B. A. Packard.	115
Miss Columbus 4th 159479, John Garth, Liberty, Mo.	110
Motto Columbus 166277, S. G. Burnside, Kansas City, Mo.	125
Olive Archibald 2d 166278, Thos. Taylor.	100
Jay 154402, G. W. Newman.	135
Hamlet Roderic 176188, Thos. Taylor.	100
Agnes 133206, B. Howard.	120
Laura 97270, Thos. Taylor.	110
Winnie 133217, G. W. Newman.	165
Armour Ecstasy 125629, B. A. Packard.	130
Baroness 2d 162895, G. W. Newman.	120
Violetta 163067, B. A. Packard.	150
Dora Columbus 2d 177567, B. Howard.	110
Royal Duchess 3d 154618, B. A. Packard.	150
Miss Waverly 148337, Geo. Newman.	125
Jewel 154604, B. A. Packard.	100
Java's Lass 142501, G. W. Farrar.	110
Theressa 142515, B. A. Packard.	100
Lockett Hayes 185017, John Garth.	100
Cora Hesiod 185006, B. A. Packard.	105
Motto Columbus 2d 192611, J. W. Farrar.	100
Laura Onward 192607, B. A. Packard.	125
Florizel 156520, G. W. Newman.	110
Miss Busybody 2d 202457, J. W. Farrar.	110
Miss Busybody 7th 204105, B. A. Packard.	105
Miss Busybody 8th 207168, John Garth.	100
Miss Busybody 14th 214667, B. Howard.	115
Geraldine Hayes 2d 214658, B. Howard.	110
BULLS.	
Soldier Creek Archibald 9th 166282, C. C. Sanders, Hereford, Tex.	220
Beau Donald of Soldier Creek 2d 216389, C. C. Sanders.	100
Soldier Creek Columbus 17th 160050, Chas. Faulhaber, Brown Lea, Neb.	200

More Thrift—More Profit.

WE guarantee that Standard Stock Food will put and keep every animal on your place in a vigorous, healthy, thrifty condition at less cost to you than will any other means you could possibly employ.

We sell Standard Stock Food to you on that square-deal guaranty.

The modern domestic animal kept on high feed needs a little help from day to day—not medicine or dope or physic, but something to give variety to the ration and to make it taste better.

The animal needs something of this kind, a condiment, a flavoring, a seasoning, just as you need salt and pepper, mustard and horse radish and various kinds of flavors and seasonings to help you digest your food.

Standard Stock Food makes the ration taste better so that the animal eats it with a greater relish.

The very smell of it makes the animal's "mouth water"—that is, it stimulates the flow of saliva and other fluids which perform the work of digestion so that the animal digests its feed more quickly, more easily and more thoroughly.

Hence it makes the feed you feed go farther because less of it passes through the animal undigested.

Its tonic properties quicken the circulation, aid assimilation and put the entire system in that prime condition which makes for finer finish and bigger profits.

We say Standard Stock Food does this better than any other stock food because it is made of purer, better ingredients, more scientifically compounded.



STANDARD STOCK FOOD
"IT MAKES STOCK THRIVE"

As to its quality, you don't even have to try it to be convinced. If your dealer will open packages of various stock foods and let you compare them, you will find that the Standard looks better, smells better, tastes better and is better than any of them. It is stronger, richer and more concentrated.

That's why you need feed so little

STANDARD STOCK FOOD CO.,
1517 HOWARD ST. OMAHA, NEBRASKA.

of it and that's why it costs you less per animal per month than any other stock food made.

Do not be misled by a low price per pound. Examine the directions for feeding on various packages and you can see for yourself that a dollar's worth of Standard Stock Food will last longer and go farther than any other. It is the most economical stock food made.

Our Square-Deal, Money-Back Guaranty.

You buy Standard Stock Food on a money-back guarantee. If it does not do exactly what we say it will do, you get your money back. You know the editor of this paper would not print this advertisement if he did not know that we will do exactly what we agree to do.

Go to Your Dealer

and ask him to supply you; if he cannot, do not take a substitute but send to us direct. We will ship immediately and protect you with our square-deal, money-back guaranty.

Free to You.

Our big stock book, "The Standard Feeder," 160 pages, 200 illustrations, 12 chapters on feeding, care and handling of all kinds of live stock. Regular price 50 cents, and you could not buy its equal at several times the price. But free to you if you give us the name of your dealer and tell us how much stock you keep.

AGRICULTURAL COLLEGE FINE STOCK

SHORTHORNS—Ravenwood Admiration 186157, by the champion Lavender Viscount. Also one of his good sons and some heifers.
HEREFORDS—Soldier Creek Columbus 4th 253179 by the \$5,100 Columbus 17th. Also two good bulls sired by him.
Also one good **ANGUS** coming yearling bull.
HOGS—A few of the best from 200 spring pigs—**DUROC-JERSEYS, POLAND-CHINAS, BERKSHIRES, TAMWORTHS, and YORKSHIRES.** Only the tops will be sent out on order.
Department of Animal Husbandry, Agricultural College, Manhattan, Kansas

sive, is in good flesh, and is mighty cheap for the price asked. There are many other good ones that might be mentioned, but for the present we will only say that this is one of the very best herds of Shorthorn cattle in the great Mississippi Valley. This is proven by the show record this herd has made in the last eight or ten years and by the quality of the animals the owners now have on hand. We earnestly hope that some good breeder will get some of these Purdy bulls to head Kansas herds. We do not know of a herd where the general type is so good all the way through. Write them and inquire about these cattle.

John Joiner's Sale.

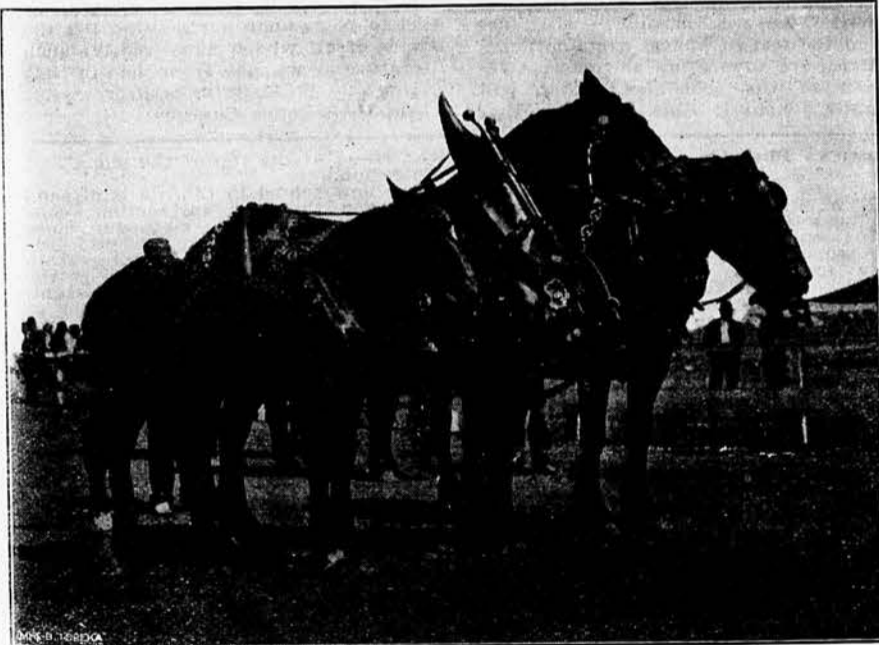
The Duroc-Jersey sale held by John Joiner at Clyde, Kans., October 22, was conducted under very adverse conditions. A heavy rain set in the night before and continued through the day of the sale and prevented breeders as well as many farmers from being present. But in spite of this fact, an average of \$22.50 was obtained. The following is a list of buyers and prices paid by them:

P. M. Howard, Clyde, \$20; C. E. Hakes, \$25; F. Forten, \$15; A. Pelan, \$17; A. Olson, \$15; G. Pickard, \$16; John Plaison, \$15; C. W. Freelove, \$21; Fred Painter, \$17; J. D. Danielson, \$17; L. C. Stout, \$22; C. LaFaun, \$15; M. Howard, \$20; J. D. Danielson, \$16; J. H. Hakes, \$10; C. Marcette, \$16; G. Danielson, \$18; Ford Skeen, Auburn, Neb., \$26; J. A. Rathburn, Downs, Kans., \$32; W. M. Putman, Tecumseh, Neb., \$29; Lamb Bros., Tecumseh, Neb., \$30; John W. Jones, Concordia, Kans., \$30; T. P. Teagarden, Wayne, Kans., \$34.

The Rathburn Sale of Duroc-Jerseys.

J. A. Rathburn, of Downs, Kans., owner of one of the largest and best herds of Duroc-Jersey swine in the West, has decided to leave the farm, and for this reason will make a public sale of Durocs at the farm three miles south of Downs Friday, November 16. While the sale will not be exactly a closing-out sale, it will contain a much larger per cent of extra good stuff than the ordinary sale. It is Mr. Rathburn's intention to keep a few good sows and place them with his nephew, who will stay on the farm; the rest of the tops will go into the sale, including the two good herd-boars, Desoto 2d 35531 and Rouser Mc. Desoto 2d is a son of old Desoto, a boar of considerable note, and Rouser Mc. is by the great breeding boar, Parker Mc., now owned by J. E. Joiner, of Clyde, Kans. He, it will be remembered, was a winner at the World's Fair at St. Louis, and also won first in class at the Kansas State Fair last year. Both of the boars that are to be sold are splendid and uniform breeders. Most of the young stuff in the sale are of their get. Included in the sale are about 15 tried sows, many of them sows that cosa
(Continued on page 1153.)

uals now in the herd that are good enough to come to Kansas as herd-headers, and this is the same thing as saying that they are as good as any Shorthorn anywhere. Orange Monarch 190181 by Lord Lovell is one of the best young bulls in America. He weighed 1,700 pounds in his yearling form. He is a show bull in every sense of the word and won first prize as senior bull calf at the American Royal last year. He is now the sire of several of the best herd-bulls in the Fairview herd and was the sire of the calf herd and most of the breeder's young herd shown at the American Royal this year. He was also sire of the first-prize heifer calf at the Royal last year in the senior class, and of the first-prize junior



Prize-Winning Percheron Mares Owned by J. W. & J. C. Robison, Towanda, Kans. Champions at Kansas State Fair and American Royal.
(Photo by the Kansas Farmer Man.)

137 females sold for.....	\$11,775
Average.....	86.00
5 bulls sold for.....	630.00
Average.....	126.00
142 head sold for.....	12,405
Average.....	87.25

The Fairview Shorthorns.

Everybody who has attended the American Royal Live-Stock Show at Kansas City must have admired the magnificent Shorthorn cattle shown by Purdy Brothers, of Harris, Mo. Their herd-bull, Lord Lovell 130157, is one of the most famous of the breed and it was largely from his get that the Purdy Brothers won \$2,000 in cash premiums on seven head at the Louisiana Purchase Exposition. Many of his descendants are still in the herd. Lord Lovell is by the champion St. Valentine, one of the greatest bulls that ever lived. His second sire was Gay Monarch 92411, sired by W. F. Marr, Uppermill, Scotland. In addition to the blood of this grand old bull, there are some individ-

bull calf at the same show. Monarch Viceroy 264469 was calved December 26, 1905. He is a good calf all over, being straight in his lines, good in the heart, very smooth in the shoulder, with broad back, thick flesh, good head and loins. He stood at the head of the third-prize calf herd at the Royal this year. His breeding shows that he is wonderfully rich in Princess Royal blood. Scottish Lord 2d is an Orange Blossom that won sixth prize as senior bull calf at the Royal last year and is now a great yearling. He was sired by Lord Lovell and is a brother of the first-prize cow at the World's Fair. He is good from head to foot and is worth a long journey to see. He is a herd-bull and a show-bull and ought to come to Kansas. Royal Lovell 264470 is a red Cruickshank Acanthus. From this family came the great Field Marshall and others of note. This bull is 13 months old and is a herd-header of the large, smooth type. Orange Favorite is a Cruickshank Violet by Orange Monarch and was calved in December, 1905. He is large, smooth, very deep and mas-

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with Fleming's **Fistula and Poll Evil Cure**—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vest-Pocket Veterinary Adviser. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated. **FLEMING BROS., Chemists, 212 Union Stock Yards, Chicago, Ill.**

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INCUBATORS hatch better than hens. If not, we take back. We ship, freight paid. 10 years' highest record in hatching, and lowest prices in selling. Write today for free catalog, to **Sure Hatch Incubator Co., Box 42 Fremont, Neb., or Dept 42 Indianapolis, Ind.**

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Opposite Union Depot. Everything first class Cafe in connection. Cars for the Stock Yards, the up town business and residence parts of the city and for Kansas City, Kansas, pass the door. Solid comfort at moderate prices. A trial will please you.

SERVICE TABLE

Every farmer and breeder of stock should have one. Tells just when animals are due at a glance. Save the young by knowing when to look for them. Absolutely correct. Only 10c. Send today. **E. W. SHOLTY, 508 W. Allen St., Springfield, Illinois**

10 Duroc-Jersey Boars for Sale

The best of breeding. Fine and large pigs farrowed in March and early April. I can please you. Write me now. **Geo. F. Dorsch, Cook, Neb.**

ORANGE LILY cures Weakness, Ulcerations, Displacement, Painful Periods. For a free trial address **M. S. F. FRETTER, Detroit, Mich.**

Miscellany

The American Reciprocal Tariff League —How It Was Organized and What It Seeks to Accomplish.

EDITOR KANSAS FARMER:—The American Reciprocal Tariff League (with its main office in the Great Northern Bldg., Chicago, and a branch in New York City) is the outgrowth of the National Reciprocity Conference held in Chicago in August, 1905. Said conference was made up of about six hundred delegates appointed by various leading commercial and agricultural organizations throughout the United States; a non-partisan gathering of representative business men interested in all that relates to the more profitable distribution of our surplus commodities in foreign markets.

The Reciprocity Convention authorized the formation of The American Reciprocal Tariff League, which is directed by a National committee of twenty-seven members. Partisan affiliations were not regarded in selecting this National committee or its officers. In view of the fact, however, that those who are opposed to any modification of our present tariff laws, have charged that the league represents a covert attack upon the principle of protection to American industries, it may be said that from the outset this movement has been dominated by business men who are believers in the doctrine of protection honestly applied, and so far as they take any active interest in politics are identified with the Republican party. The chairman of the league, Mr. Alvin H. Sanders, editor of the Breeder's Gazette, is a Republican, selected not because of that fact, but because he stands for the great agricultural and live-stock interests of the country which have such deep concern in this matter of foreign outlets; his services to that industry having previously had conspicuous recognition when the late President McKinley appointed him a member of the United States Commission to the Paris Exposition of 1900 in special compliment to the agricultural interest. Two of the three vice-chairmen are Republicans and four of the six members of the executive committee of the league are also Republicans. So much, therefore, for the charge that the league is in the hands of the enemies of the protective principle.

The league has been organized for the purpose of directing attention to certain needed changes in the American tariff system. Those who have this work in charge believe that the time has come when due regard for changing world conditions demand that some practical scheme of reciprocity be coupled with the protective policy.

The league believes that in any modifications of our tariff laws to be made in the future, the dual, or maximum and minimum principle must find some recognition if we are to successfully meet competition in the future in the markets of the world. Most of the Continental European nations are already managing their customs duties upon this basis, rendering it difficult and in some cases impossible for our own exporters to compete successfully with nations enjoying special privileges granted under reciprocal tariff agreements. We have practically been at war commercially with Germany for some time past, and that country's maximum duties will go in force against us during 1907 all along the line. Preferential or discriminating tariffs are being considered by other foreign countries.

The difficulty with the rigid single-tariff system now in force in the United States is, that it gives our Government no leverage whatever for forcing entrance for our surplus commodities into markets operated under a dual-tariff system. A rigid range of high duties in this country accomplishes successfully the restriction or exclusion of imports; and a rigid range of low duties (such as might be enforced under a "tariff for revenue only") would open wide our doors to commercial friend and foe on equal terms with no consideration demanded in return. The gist of our contention is that duties no longer needed should now be traded off in exchange for valuable commercial favors to be given us in return.

The reciprocity principle was distinctly recognized by Congress in the Dingley bill; and President McKinley repeatedly called the attention of the country to the importance of safeguarding the future of our industries through the medium of reciprocal commercial arrangements. Owing to the

fact, however, that the treaties provided for by the Dingley law had to be ratified by the Senate, the whole proposition fell to the ground. Reciprocity by and with the consent of those who are asked to relinquish protection which fair-minded people believe they no longer need, is a demonstrated failure. The question, therefore, of how the subject can be taken up in a practical way with assurance of accomplishing the object sought is one demanding the thoughtful attention of all who hope for the future commercial prosperity of the United States. The American Reciprocal Tariff League seeks to encourage discussion of this subject to the end that a solution fair and just to all parties alike may be reached.

The only measure thus far brought forward in Congress which the league has formally endorsed is the bill H. R. 15725, introduced by Hon. Charles Curtis, a Republican member of the Ways and Means Committee of the House of Representatives. This bill proposes to put into practical effect at once the reciprocity feature of the Dingley act, by authorizing the President to negotiate commercial agreements with foreign nations conceding not to exceed 20 per cent of the Dingley duties in the course of the negotiations. This specific authority is delegated by this measure direct to the President, requiring no further act of the legislative power, and is believed by good constitutional lawyers to be valid. Such a bill should enable the Secretary of State and the President to quickly adjust the German difficulty now rapidly coming to a crisis, as well as to promptly protect our commercial interests wherever threatened in any quarter. Furthermore, its passage would not involve the opening up of hearings on the entire tariff and therefore would not "disturb" business. No general lowering of duties would follow. One nation would ask for a concession on one commodity and another upon something different; so that the reductions would be so scattered, and would come into effect so gradually that such able-bodied industries as might be asked to yield a little of their advantage in the interest of the general welfare would not be specially "disturbed."

The American Reciprocal Tariff League contends for the establishment of three leading principles.

First—The element of elasticity which would enable our Government to make tariff revision the basis of advantageous trade agreements with individual nations, from time to time, as our commercial needs may require. A beginning could be made and with the least possible disturbance of "vested interests" by the passage of such an act as the Curtis bill above mentioned. Hence, the league suggests its early consideration.

Second—All the discretionary authority possible under the Constitution should be delegated to the Executive so that he may apply the powerful leverage provided by this system in protecting and promoting our commerce in every direction.

Third—The league advocates as a particularly desirable feature of any future tariff legislation, the establishment by Congress of a permanent non-partisan tariff commission made up of experts, to be appointed by the President, charged with the duty of studying domestic and foreign trade conditions at all times, and making recommendations to Congress and to the President. This is with a view towards removing as far as possible what is primarily a pure business question from the realm of partisan politics.

The American Reciprocal Tariff

It Makes a Big Difference

how you skim your milk. Perhaps you don't fully realize how big a difference. May be you haven't even thought of it. But look at those two cream pails! One is twice as big as the other. Yet both were actually filled from the same quantity of milk, and Mr. R. A. Shufelt, of Cohoes, N. Y., didn't realize he was losing every day actually as much cream as he saved, until he tried a

U. S. CREAM SEPARATOR



Mr. Shufelt says: "I set the milk in coolers and skimmed with dippers. Best I could do was about 20 qts. cream per day from 20 cows. By keeping an accurate record, I found with the U. S. I was getting about 40 qts. cream per day from 20 cows. As the total amount gained by the U. S. paid for it in 30 days, I will say that it is the best investment I ever made."

How much cream are you losing? Cream is money—the U. S. gets more than any other separator. The U. S. holds the World's Record for cleanest skimming. We will gladly send you our big, handsome, new catalogue telling plainly all about the construction and wonderful skimming records of the U. S., if you will just write us: "Send new construction catalogue No. 41". Write today, addressing

VERMONT FARM MACHINE COMPANY
Bellows Falls, Vt.

Eighteen distributing warehouses centrally located in the United States and Canada.



Better Than Ever

No matter what separator you are now using—No matter what separator you are thinking of buying—No matter how you now handle your milk—you ought to examine the

Improved Frictionless EMPIRE Cream Separator

It won't take you long to see its good points—and it's worth a whole lot to you in good hard money to find the separator that turns easier, is more simple in construction and does better work than any other. All we ask is that you investigate. Send for catalog and valuable dairy books. **EMPIRE CREAM SEPARATOR CO., Bloomfield, N. J.** Temple Block, Kansas City, Mo.



question is being debated, we urge that the President be empowered to make some good commercial bargains predicated upon the duties as they stand to-day. Valuable time is being lost.

The officers of The American Reciprocal Tariff League again deny emphatically any desire or intent to foster or promote partisan political change or advantage. We approach this important subject in its purely business aspects. We simply invite the attention of our public men and our people to the importance of giving this matter serious, unprejudiced study in the hope that as a result of this agitation a businesslike and up-to-date method of attaining reciprocity may in the near future be worked out. Looking to this end, we invite the cooperation and support of all who sympathize with the objects sought, and will be glad to place upon our mailing list the names of all who wish to receive such literature as we may from time to time put out. **W. E. SKINNER, Secretary.**
ALVIN H. SANDERS, Chairman.

Brown's Business College, Lincoln, Neb.

G. W. Brown, proprietor of Brown's Business College, Lincoln, Neb., has had a successful career as a commercial teacher and business college manager for nearly twenty years. He taught in and also was principal of one of Brown's Colleges in Illinois for eleven years. He owned a school in

who stand at the top of the shorthand profession.

The new school in Lincoln is already noted for thorough instruction; conservative, aggressive methods; close relation between the teachers and students, who take a special interest in the moral and social interest of the young people. There are 125 bright, ambitious young people registered at present. There is a prospect of over



G. W. BROWN, JR.,
Proprietor and Manager of Brown's Business College, Lincoln, Neb.

Sioux City, Iowa, for six years, but sold it last year and located in Lincoln, considering Lincoln a much better location. Mr. Brown is ably assisted by his wife, who is a shorthand writer and teacher of National reputation. She is considered one of the most skillful instructors in America by those

200 in daily attendance during the winter season. We are satisfied you will not make a mistake in placing a son or daughter with these old, tried, successful teachers. If you want further information write to Brown's Business College, Lincoln, Neb., mentioning this paper.

Home Departments

CONDUCTED BY RUTH COWGILL.

Solitude.

Out where the wide seas sweep
 With solemn swing and sway,
 The waves of the lonesome deep
 Unstopping tread their way;
 And down through fathoms long,
 In silent depths below,
 In currents still and strong,
 The deep moves to and fro.

Where mountains pierce the sky,
 Unmeasured piles uprear
 Their rocky peaks on high,
 And stirlless stand, and drear,
 Unscaled their ragged forms,
 Their jagged heights unknown,
 They meet the eternal storms,
 Majestic and alone.

Enwrapped in polar cold,
 Extends the northern sea,
 Where winds their trystings hold
 As o'er the ice they flee;
 Unvisited, unviewed
 Those lonely ice-fields stay,
 In stately solitude,
 While ages steal away.

—J. E. Everett.

Diversions for the Young People.

One of the greatest needs of the young folks in the country is diversion. It is as necessary to them as is food to nourish their bodies, and if they fail to find what is wholesome and helpful, they seek and find what they can, easily and conveniently. It is a matter of surprise that there is so much wickedness among the young men in rural districts, where one would suppose, at first thought, there would be few temptations. Many reasons for this have been given, but the principal cause is this lack of something in the form of recreation to amuse and divert.

The girls are compelled to remain at home even though they inwardly rebel, but the boys will get together to be sociable and have a good time. The barn is usually the only accessible meeting place, and here they assemble. They have been in town but have seen only the worst element—the street loafer who has between his lips the ever-present cigar, and from those same vile lips issue words profane and impure. The country lads naturally think it smart, and when they come together they learn to smoke and chew, and having nothing better to talk about, impure stories are introduced. The so-called simple game of cards is played, which leads to betting, something of no value at first, but it will not stop there. For refreshments they have cider, which often sparkles in the cup and "moveth itself aright." It makes them feel jolly, and ere long they want something stronger. Thus one thing leads to another and your bad boy is made, or, your boy is made bad. Here is an opportunity, a great field for work for the schoolteacher, the parents, and the country club. Some one must provide the needed recreation and guide and direct the young in their choice of such.

Something to call the young folks together once a week is much needed in every rural community. A club or circle of some kind that has some object in view ought to exist in every neighborhood. It might be a debating society just for the boys or a regular club for both sexes, with a program for each meeting. I heard of a band that was the outcome of a debating society, which shows what may be done by a

lot of boys if started right, and it will never be known how many sins and wrong-doings they have escaped because of this very society. This band is composed of seventeen farmer boys, ranging in age from fourteen to twenty-five. These young men live in Crawford County near Girard, within a radius of three miles of the Slifer school-house, where they meet to practise every Saturday night. They have a few rules; one is that no member shall be retained who uses tobacco or stimulants or who swears, and they have lost no members. The band was organized a year ago last April. The members were all without experience. Each one had to buy his own instrument and each had to be his own teacher, as they could not employ a leader. At first they had to make assessments to buy their music, but now they make enough playing for picnics to cover all expenses and more. They are in demand at all country picnics and also play for affairs at Girard.

The home should furnish entertainment and amusement for the young folks to a large extent. The different homes in the neighborhood could cooperate and open their doors in turn for the young folks in the community. There are many ways to amuse and interest, and each evening should have a plan and guard against the amusements dropping into the childish and foolish sentimentalism, such as kissing games. There are many instructive games, such as clumps, charades, stage-coach, proverbs, and progressive conversation. These progressive games are very enjoyable—and will occupy a whole evening very profitably and enjoyably. The schoolteacher's influence and assistance is inestimable here. I hope the time is not far in the future when the teacher will be chosen, not only because he has passed an examination in certain studies, but that more emphasis will be laid upon his personal character and his ability to bring out the best there is in his pupils, in every way. He has it within his power to start the youth aright in many ways, and this is one.

How to Read the Morning Paper.

C. J. EVANS, TOPEKA, KANS.

To many it may never have occurred that this is a subject needing particular attention and consideration. They have thought of the newspaper as simply a means of entertainment and diversion. The writer is disposed, however, to take the daily newspaper somewhat more seriously. It is entertainment and it does gratify the perennial thirst for the new. But it is instruction also, and it may become a liberal education. Daily it brings to our doors the happenings of the world. It is the powerful glass through which we look out upon the manifold movements of our fellow men. It brings to us the new; but what is the new? We have the word of the wisest of men that "There is nothing new under the sun." All things stand in a great chain of cause and effect.

That which came but yesterday as a sudden shock, and which the world labels an event of the year 1906, may have had its deep and hidden causes

in the long past. A short time ago the trembling of mother earth shook down, in a few moments, a great city on the Pacific Slope. That happening stands segregated in our thought as a sudden, violent, and distinct event.

And yet probably that earthquake has been preparing in the shrinking crust of the earth for many thousands of years. So it is with sudden social movements and uprisings. The strike promulgated but yesterday, has it not some casual relation to the uprisings of Jack Cade and Wat Tyler in the dim, middle ages of England? Even those events which we call accidents, fires, and explosions, wrecks on sea and shore, even these seem to happen according to law, and their average frequency of happening may be determined with reasonable certainty. But there are some events whose antecedents and consequences we will hardly care to investigate. Just the why and wherefore of Miss Samantha going into the country to visit her dear cousin, Celia Ann, or the cause and consequence of the untimely demise of Mrs. Jones' pet poodle, we may not care to explore. There is then a very great difference in the importance of the events brought to us by this daily messenger, the morning paper. They comprise a vast, heterogeneous mass of varying value. Some classification of the news and some plan or method of reading it is, therefore, desirable.

WHAT WE SHOULD READ AND WHAT WE SHOULD NOT READ.

There are two almost equal dangers to be avoided; the mistake of wasting time over trivialities, and the danger of losing, hidden in the mass, the things of chief importance. Roughly speaking, we may classify the contents of the newspaper as follows: Things that are worthless, things to be touched lightly, and things to be perused carefully. To begin with, there are things deserving scant attention, because they are probably not true, that is, they are not news at all. Under this head come scandal and gossip, not always but generally recognized for what they really are. Then there is the sensationalism which flaunts its glaring improbabilities on the front page. This it may be necessary to sketch, but always with wary discrimination.

There are many things to be touched lightly. They have some importance, but a distinctly subordinate degree of importance. The happenings in society, social functions so-called, the coming and going of people, these are worthy of some attention. It is good thus to cultivate a kindly interest in people, but this sort of newspaper reading can be very much overdone. Then we must know something of disasters and crime, but it is not necessary to dwell on the disagreeable details. The knowledge of these things should serve the same purpose as pain in our bodies. We must know pain that we may avoid the causes of disease. We should know of crime that we may the better understand how to prevent its recurrence. We can not shut our eyes to the evil of the world, but we need not gloat over it.

Then there are the things in the morning paper which deserve all the attention which we can command time to give them. Here we find daily chronicled accounts of the great social, political, and industrial movements.



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We should, if possible, at least in a general way, keep informed as to what is being done in all the great fields of human endeavor. We should have some intelligent idea of what is being done in science, literature, and art. As citizens and sovereign voters under a popular government, we should know the great political facts of the day. We should know in their larger outlines at least such facts, as for example, the Panama Canal enterprise, the recent railway rate legislation, the great insurance investigation. In the great controversies of the time, if we can not become expert disputants, we should at least know the main points in dispute. The day of mere partisanship is happily on the wane. There is everywhere a disposition to weigh public men and measures, to be more discriminating and hence more just in our political judgments.

By cultivating an interest in all that makes for human betterment, we will not only strengthen our knowledge, but also broaden our sympathies.

HOW WE SHOULD READ A PAPER.

Having determined what is worth reading, the order of reading must be controlled somewhat by the time at our immediate disposal. All will not and should not read alike. Personal tastes and interests should be given some latitude. The following plan of reading is suggested: First go over the paper quickly to get a comprehensive idea of its contents, and thus to determine what should be read. And yet this preliminary survey must be made with some care in order that matters of importance be not overlooked. Without this preliminary survey we are likely to miss things of importance, and once overlooked they may not be found again. Generally speaking, and where you have sufficient time, it is best to "do" the paper at a single sitting. The chances are that you will not have time to take it up again. And yet there are likely to be things of such importance that they can not be properly read in the limited time at your disposal when the paper first comes into your hands. Note these carefully and read them carefully at some time during the day, if possible. You may find it difficult to go back to them on another day.

In watching the development of large, continuous movements through the daily newspaper, our vision is apt to be focused too much on details. We are too close to events to get the proper perspective. Hence, we need to correct our daily impressions by a review of the news from time to time. A careful weekly or monthly resume of the news in a trustworthy magazine will be useful for that purpose. Events that loom too large to-day will soften down into the general landscape in time.

Another most important adjunct to the understanding of current events is discussion. The mind was not made for a simple receptacle of knowledge. It must react upon the information it receives to really know. And there is no more useful means of testing and correcting our information than by the give and take of common conversation.

The printing-press can never take the place of human speech. The writer has been impressed in conversation with farmers and residents of the smaller towns over the State, that these people have a keener interest and a more accurate knowledge of current events than have we in the capital city. I am

How Much Did Your Fuel Cost Last Winter?

Pretty big sum wasn't it? Now can you figure up how much of the heat generated by that fuel was wasted?

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A few weeks' use, and the putty shrinks and falls out, leaving air-sucking cracks, which force heat and unburned gases up the chimney.

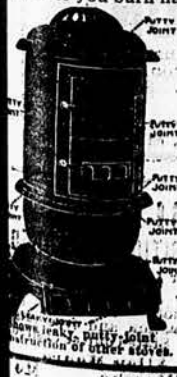
Whether you burn hard or soft coal, a great

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To get your money's worth from your fuel you must have a stove which is tight enough to hold back these gases until burned.

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disposed to think it is because they talk more about what they read, and their minds are not so distracted with a multitude of minor interests.

The Young Folks

Young Women's Christian Association.
 Every Young Woman who is planning to come to Topeka, will find peculiar advantages at the rooms of the Young Women's Christian Association, 623 Jackson Street. Rest rooms, reading room and lunch room are at the disposal of all women at any time. A boarding house directory is kept at the rooms, and also an employment bureau, free of charge. On each Sunday afternoon, at 4:15 a gospel meeting is held to which all women are invited. The first week of October is the time set for the opening of the club work, and the classes in Bible Study, in English, Parliamentary Law, Sewing, Water Color and Travel. The Gymnasium also opens then, with classes in Physical Training under a competent instructor. The printed announcements will be mailed on application to the General Secretary. A cordial invitation is extended to out-of-town women, especially to make use of the rooms.

KEEP THY SOUL BEAUTIFUL.

O woman, if to-day, in weariness
 Thy feet must tread a thorny way;
 If thou art faint with longing, and thy
 soul
 Goes haltingly, nor hastens to life's
 goal
 For dearth of human sympathy.
 Keep thou the waters of life's fountain
 sweet;
 Be sure thy pleading prayers are
 heard
 And thou shalt gather strength to walk
 alone
 If need be, with the Christ who leads
 His own.
 If thou art true in deed and word.
 And if temptation comes to turn thy
 thought
 To hateful things or words unkind,
 Mar not the beauty of thy womanhood
 By acquiescence; let thy spirit's food
 Be such as shall enrich thy mind.
 Think only on the beautiful, bar out
 The envyings which lead to hate.
 Though thou must walk apart, in soli-
 tude,
 Afar from things desired, the pure and
 good
 In ministry will on thee wait.
 And thou shalt gather strength and
 beauty—
 And be made ready for that day
 Of soul emancipation, and at last
 When earth's dark days of growth and
 test are past,
 Thy soul from griefs shall slip away.
 And thou shalt be a part of all thy
 heart
 Hath so desired—life is the best
 Of all soul worth. We build of earthly
 clay
 Our heavenly houses and Love paves
 the way
 O'er which we toll to home and rest.
 —Annie Wall.

Which Road Will You Choose?

Here is a story for young men to read, who are starting in life and who think that life means a good time: Thirty years ago there lived in a neighboring town less than one hundred miles from Emporia two boys who had a good education and indulgent parents and every advantage that a hustling Western town could give. One boy, Leroy Peterson, clerked in the "when" grocery, and played in the silver cornet band. He was the life of the company at the festivals given by the band boys, and with his savings he bought an iron gray horse that could outrun anything on four feet in the Arkansas Valley. The other boy who was his friend in those days—Walter G. Burton, of whom you have probably heard, protested that the money put in the horse would bring 2 per cent a month if loaned to the boys with their horns as security. But Peterson was stubborn. Burton, who was at that time employed in an humble capacity in a livery stable, saved his money and bought an interest in the barn. Later, having a wide acquaintance with the farmers, he was made deputy sheriff and ran for sheriff. While Peterson was going around to fairs with his horse, Burton was lending his money, and when his four years was up he had saved ten thousand dollars and with that he left the little town, but not without first trying to get his friend Peterson to go with him. But Peterson was having too good a time to leave, and was known as the best hand at stud poker east of Dodge and west of Chicago. His quarter horse went over the board one night, and he wrote to Burton for a loan. He got a letter of good advice written on the stationery of a Chicago real estate firm, of which Burton was president. Later Burton went into the iron business and had fifty boats on the lakes and organized the famous swivel trust, which secured patents on all the swivels in all the countries in the world and doubled the price, netting him many millions. But he left that business and became president of the D. F. & R. G. Railroad, and though not widely advertised is one of the great powers in this country. But what became of Leroy Peterson? He, too, went to Chicago—went as a plain gambler,

and after years of misfortunes was put in charge of one of the great rooming-houses from which illegal voters are registered. He got into politics, and went from bad to worse.

From this story Emporia boys should learn that it pays to be saving and that the rewards of this life come to those who work hard and save and put their money where it will do the most good. For Leroy Peterson was in for thirty days for being drunk and disorderly, and his pictures never got into the papers at all. What a sad ending for such a promising life. Yet both boys started with the same equipment, the same advantages, and only the difference in their talents separated them. —William Allen White, in Emporia Gazette.

The Horned Owl's Nest.

Work had been going on all day in the sugar-bush; the sap had been gathered and drawn to the boiling-plate, until there remained but a few scattering trees to be visited near the swamp. The boy was softly whistling to himself, when a rabbit with easy, graceful bounds crossed the road but a few paces ahead of him and stopped by the side of a birch-bush to nibble the tender buds. Just then a startling sound came up from the swamp.

Why did the rabbit pause in his dainty meal and squat in his very tracks until his form more nearly resembled a footprint in the snow than a living mammal? The chattering red squirrel dropped into the crotch of a tree, and ceased to chatter, as the ominous and almost supernatural "Whoohoo, hoo-wo-hoo" sounded through the dismal swamp and echoed through the maple grove. That was the hunting-call of the great horned owl.

The actions of the rabbit and squirrel did not surprise the boy, who had always heard that this owl was a veritable Nero among the feathered race. As yet he had never discovered the nest of the great horned owl. It was now the first week in March. Of late he had heard the weird call frequently from the swamp, causing him to believe the birds were nesting there, and he fully determined to make a search for that nest.

The next day was spent in a fruitless search and it perplexed the boy, for often he had located the nest of the bobolink and meadow-lark—nests that are not easily found.

But the second day's search ended, about noon, in rather an interesting manner. The boy stopped for lunch and a little rest under a hemlock that he knew well, for, the spring before, a pair of crows had a nest in the tree. The old nest was still there, and, just to see what condition it was in after the storms of winter, he ascended the tree. The nest was between fifty and sixty feet from the ground. Just imagine the boy's surprise when about thirty feet from the nest to see a great horned owl silently glide off and wing its way through the tree-tops. It was a revelation, upon reaching it, to find that the great horned owl had really used the old crows' nest, which had the appearance of being slightly remodeled, and was sparsely lined with evergreen leaves and feathers. In the nest were three white eggs, about the size of a bantam's. The boy afterward learned that the usual number of eggs deposited by the great horned owl is two, and that sometimes the bird constructs a nest for itself in a hollow tree or an evergreen.

On the first day of April there were two little owls in the nest, and a day later a third appeared. They were queer-looking little birds, seeming to be nearly all head and eyes, and their bodies were covered with the softest of down.

The young birds grew very slowly, although the remains of fish, mice, squirrels, rabbits, and birds of various kinds furnished abundant evidence that the old birds were lavish in supplying food. They remained in the nest for about eleven weeks, which is long compared with most of our birds—many young birds leaving the nest in from twelve to fifteen days, and the woodcock, bob-white, and ruffed grouse in about as many hours.—St. Nicholas.

A Boy's Essay on Hornets.

A hornet is the smartest bug that flies anywhere. He comes when he pleases, and goes when he gets ready. One way a hornet shows his smartness is by attending to his own business and making every one who interferes with him wish he had done the same thing. When a hornet stings a fellow he knows it, and never stops talking about it as long as his friends will listen to him. One day a hornet stung pa (my pa is a preacher) on the nose, and he did not do any pastoral visiting for a

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month without talking about that hornet.

Another way a hornet shows his smartness is by not procrastinating. If he has any business with you, he will attend to it at once, and then leave you to think it over yourself. He don't do like the mosquito, who comes fooling around for half a hour singing, "Cousin, Cousin," and then when he has bled you all he can, dash away yelling, "No kin." A hornet never bleeds you; but if he sticks you, you will go off on a swell.

I don't know anything more about hornets, only that Josh Billings says: "A hornet is an inflammable (Josh was a poor speller) buzzer, sudden in his impresshuns, and rather hasty in his conclusions, or end."—Epworth Herald.

Simplified Spelling.

Following is the list of three hundred words in the simplified form designed by President Roosevelt for use in Government Departments:

abridgment	eon	phenix
accouter	epaulet	phenomenon
accurst	eponym	pigmy
acknowledg-	era	plow
ment	esophagus	polyp
address	esthetic	practise
adz	esthetics	possest
affixt	estivate	prefixt
altho	ether	(v. and n.)
anapest	etiology	prenomem
anemia	exorcize	prest
anesthesia	express	pretense
anesthetic	fagot	preterit
antipyrin	fantasm	pretermit
antitoxin	fantasy	primeval
apothem	fantom	profest
apprize	favor	program
arbor	favorite	prolog
archeology	fervor	propt
ardor	fiber	pur
armor	fixt	quartet
artisan	flavor	questor
assize	fulfil	quintet
ax	fulness	rancor
bans	gage	rapt
bark	gazel	raze
behavior	gelatin	recognize
blest	gild	reconnoiter
blusht	gipsy	rigor
brazen	gloze	rime
brazier	glycerin	ript
bun	good-by	rumor
bur	gram	saber
caliber	gript	saltpetr
caliper	harbor	savior
candor	harken	savor
carest	heapt	scepter
catalog	hematin	septet
catechize	hiccup	sepulcher
center	hock	sextet
chapt	homeopathy	silvan
check	homonym	simitar
checker	honor	sipt
chimera	humor	sithe
civilize	husht	skilful
clamor	hypotenuse	skipt
clangor	idolize	slipt
clapt	imprest	smolder
clapt	instil	snapt
clipt	jail	somber
clue	judgment	specter
coeval	kist	splendor
color	labor	stedfast
colter	lacrimal	stept
commixt	lapt	stopt
comprest	lasht	strest
comprize	leapt	stript
confest	legalize	subpna
controller	license	succor
coquet	licorice	suffixt
criticize	liler	sulfate
cropt	lodgment	sulfur
crost	lookt	sumac
crusht	lopt	supprest
cue	luster	surprize
curst	mama	synonym
cutlas	maneuver	tabor
cyclopedia	materialize	tapt
dactyl	meager	teazel
dashit	medieval	tenor
decalog	meter	theater
defense	mist	tho
demagog	miter	thoro
demeanor	mixt	thorofare
deposit	mold	thoroly
deprest	molder	thru
develop	paleontology	thruout
heresis	molding	tipt
like	moldy	topt
dpt	molt	tost
discust	mullen	transgrest
dispatch	naturalize	trapt
distil	neighbor	tript
distrest	niter	tumor
dolor	nipt	valor
domicil	ocher	vapor
draft	odor	vext
dram	offense	vigor
drest	omelet	vizor
dript	opprest	wagon
droopt	orthopedic	washt
dropt	paleography	whipt
duilness	paleolithic	whisky
ecumenical	paleozoic	wilful
edile	paraffin	winkt
encyclopedia	parlor	wisht
egis	partizan	wo
enamor	past	woful
endeavor	patronize	woolen
envelop	pedagog	wrapt
Eollan	pedobaptist	

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If our modern railway engines had the same power to laugh that they have to scream they might, as you children say, "nearly die" laughing over the way our first railway engines looked. Little, queerly shaped, puny things they were. The "Stourbridge Lion" didn't weigh one-twenty-fifth part of the weight of an engine of today, and it looked as if people might well hesitate about risking their lives behind it. It was first used at Honesdale, in Pennsylvania, and it ran on wooden rails with a thin layer of iron on them. People gathered from near and from far that 8th of August, in the year 1829, when the little British Lion of iron and steel was to make its first run. The wisecracks shook their heads and prophesied all sorts of probable disasters, and people said that

"nothing on earth" could tempt them to ride across the bridge spanning the Lackawaxen River on "that thing." But the little lion went safely over the bridge and over the eight or nine miles of track, which was the entire length of this line of railroad.—St. Nicholas.

The Little Ones

VISITING.

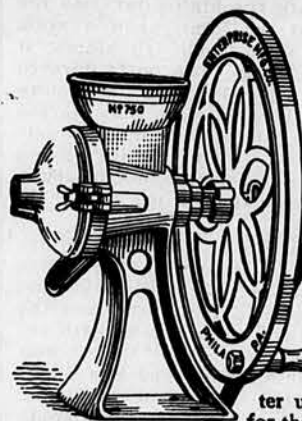
First I run in and say "Hello!" And Minnie says so, too; and then We just take hold of hands, and go Outdoors to see her speckled hen; And then we swing so high, so high, We 'most could jump into the sky; And we play school, and dollies, too, And all the things that children do: We play, and play, and play, and play— That's when I visit children's way!

But there's another way than that That grown-up people like, I guess; I wear my pretty, wide-brimmed hat And such a stiff and starched dress. I sit up very still and straight, And to the chair-arms tightly cling; But, tho' I wait, and wait, and wait, Those grown-ups never play a thing! The time seems very long to stay When I must visit grown folks' way.

—Selected.

A Boy's Bravery.

The story of a little Boer boy who refused to betray his friends, even on the threat of death, is told by Major Seely, M. P., as an illustration of deeply rooted love of freedom and of country. It happened during the Boer war. "I was asked," said Major Seely, "to get some volunteers, and try to capture a commandant at a place some twenty miles away. I got the men readily, and we set out. It was a rather desperate enterprise, but we got there all right. I can see the little place yet, the valley and the farmyard. And I can hear the clatter of the horses' hoofs. The Boer general had got away, but where had he gone? It was even a question of the general catching us and not we catching the general. We rode down to the farmhouse and there we saw a good-looking Boer boy and some yeomen. I asked the boy if the commandant had been there, and he said in Dutch, taken



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eyes. He threw back his head, and said in Dutch, 'I will not say.' There was nothing for it but to shake hands with the boy and go away."—Singapore Budget.

Club Department

OFFICERS OF THE STATE FEDERATION OF WOMEN'S CLUBS.

President.....Mrs. May Belleville Brown, Salina
Vice-President.....Mrs. L. H. Wishard, Iola
Cor. Secretary.....Mrs. N. I. McDowell, Salina
Rec. Secretary.....Mrs. W. D. Atkinson, Parsons
Treasurer.....Mrs. H. B. Asher, Lawrence
Auditor.....Mrs. Grace L. Snyder, Cawker City

Our Club Roll.

Excelsior Club, Potwin, Kansas, (1902).
Women's Literary Club, Osborne County (1902).
Women's Club, Logan, Phillips County (1902).
Domestic Science Club, Osage, Osage County (1888).
Ladies' Social Society No. 1, Minneapolis, Ottawa County (1888).
Chaltee Club, Highland Park, Shawnee County (1902).
Cultus Club, Phillipsburg, Phillips County (1902).
Literateur Club, Ford, Ford County (1903).
Saban Club, Mission Center, Shawnee County (1899).
Star Valley Women's Club, Iola, Allen County (1902).
West Side Forestry Club, Topeka, Shawnee County, Route 8 (1903).
Fortnight Club, Grant Township, Reno County (1903).
Progressive Society, Rosalia, Butler County (1903).
Pleasant Hour Club, Wakarusa Township, Douglas County (1899).
The Lady Farmer's Institute, Marysville, Marshall County (1902).
Women's Country Club, Anthony, Harper County.
Taka Embroidery Club, Madison, Greenwood County (1902).
Prentiss Reading Club, Cawker City, Mitchell County (1903).
Cosmos Club, Russell, Kansas.
The Sunflower Club, Perry, Jefferson County (1905).
Chaldean Club, Sterling, Rice County (1904).
Jewell Reading Club, Osage County.
The Mutual Helpers, Madison, Kansas (1906).
West Side Study Club, Delphos (1906).
Domestic Science Club, Berryton, Shawnee County (1906).
Mutual Improvement Club, Vermillion, Marshall County (1903).

Mothers' Meeting.

- I. What constitutes a good mother?
II. Children and their rights in the home.
III. Training the affections in the child.
And say to mothers—what a holy charge is thine;
With a kindly, kingly power their love might
Rule the fountains of the new-born mind.

The club department will contain a program every two weeks for the benefit of new clubs or of clubs that have no year-books or prepared programs for the year.

I. Is the good mother she who denies herself every pleasure in order to pamper and indulge the child in every desire? Is she a good mother who loves her child too well to discipline him, but lets him have his own way in everything? Just what does constitute a good mother?

II. This topic is a good companion for the one above, and the discussion of the two ought to bring out many helpful thoughts for parents on their responsibility to their offspring.

III. The affections of children are often neglected and allowed to suffer for want of attention, and some children's affections need cultivation; indeed, I think they ought all to be encouraged and fostered.

The Richardson Art Embroidery Club of Madison.

As Professor Taka has severed his connection with the Richardson Silk Company, at their request, we have changed the name of our club to Richardson Art Embroidery Club. Please change it in your club list accordingly.

The past six months have been very pleasant ones in our club. We have finished a large number of pieces of embroidery, thirty-nine in all. Our increase since April 1 has been 150 per cent, for which the organizer received \$2 as a premium, from Richardson Silk Company, headquarters of all branches of Richardson Clubs, of which ours is a branch. A MEMBER.

THE INTERNATIONAL SUNDAY-SCHOOL LESSON.

(Copyright, Davis W. Clark.)

Fourth Quarter. Lesson V. Matt. xxvi, 17-30. November 4, 1906.

The Lord's Supper.

All the singing pilgrim caravans had come to a halt with the high grace-note of the last "song of degrees," "Our feet shall stand within thy gates, O Jerusalem!" Green booths and snowy tents dotted all the valleys and slopes around the city, and three million worshippers made ready for the morrow. Over two hundred thousand lambs had been purchased and marked for sacrifice, and all the details of the joyous festival were being attended to.

Jesus tarried yet in the sweet and restful seclusion of Bethany; but His disciples knew very well that He who had said, "Thus it becometh Me to fulfill all righteousness," would not ignore the great Pascha. The question was not if He would eat it where He would do so. Two of the disciples are at once commissioned to make the necessary preparations. They are sent with sealed orders, no doubt, to keep the traitor off their track. Not one of the remaining ten could possibly divine the place until they arrived there in the evening. A man doing a woman's work (carrying water) would be novelty enough to serve them as a sign. Jesus bade the messengers to ask for a lowly place in some hallway. He will fain make the circuit. As He spent His first night on earth in "a lodging" so He would fain spend His last one. He knows beforehand, however, that His nameless but well-to-do disciple, John Mark's father, perhaps, will give Him the best his stately manor affords.

The disciples are off at once upon their errand. They find it as Jesus had said. The proprietor of the house gladly places at their disposal a spacious room, capable of holding a hundred or more. But they will not be asked to share it with other paschal parties. They shall have it in completest privacy. It is in the second story, which will add to their seclusion. Its walls have been freshly whitened, and tile-floor scoured for this very occasion. The low, gayly-painted table is already in position, with the couches forming three sides of a hollow square about it. The hanging-lamps, dishes, basins, and water-jars, all are in position. The disciples view the place with grateful satisfaction and then hurry out to make the necessary purchases—the wine, and cakes of unleavened bread; the vinegar, salt, and bitter herbs; the nuts, raisins, apples, and almonds to make the compost of, reminder of the clay in the brickyards of Egypt; and, most important of all, the year-old lamb. One of them carries the lamb on his shoulders, the sacrificial knife sticking in its fleece or tied to its horns. At two o'clock in the afternoon, at sound of trumpet-blast, with all others who had been similarly commissioned, they went into the inner court of the temple. At three blasts, they, with thousands of others, struck the death-blow to their victim while the priest caught the blood in a golden vessel, and passed it up to the high altar. As the disciples held the lamb upon a stick that rested upon their shoulders, it was quickly flayed. The parts devoted to God were separated; then, wrapping the victim in its own skin, they started for the house where they were to celebrate the feast. The carcass, trussed upon skewers of pomegranate in shape of a cross, was baked in the household oven.

At sundown, Jesus, with the ten, approach the city, knowing well where He would find the waiting disciples and the supper-room. They enter, and the Master views the preparations with evident satisfaction. The three first stars are shining now, and the silver trumpets signal the feast to begin. Shame, shame! The unseemly dispute as to precedence breaks out once more as the disciples scramble for the most eligible places. Jesus rebukes them in an acted parable, performing for them the mental task of a scullery drudge. Now the paschal banquet begins. The ritual is used, the rubrics observed. The cup is passed with thanksgiving. Bitter herbs, dipped in vinegar, are eaten in remembrance of Egypt. The unleavened bread, with a bit of the roasted lamb upon it, is taken by each. Another cup is passed. There is the customary hand-washing. Jesus, as the symposiarch, discourses upon the significance of the feast. They break out in the joyous singing of the first part of the Hallel. (Psa. cxii-cxiv.) The third and last cup goes from hand to hand, and then they sing the second part of the Hallel. (Psa. cxv-cxviii.) At times through the feast, Jesus gives intimations, increasingly distinct,

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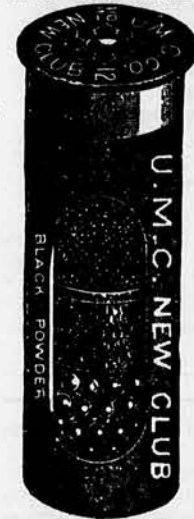
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of His betrayal and betrayer. He suffers not His manner toward Judas to change. He probably let him take the chief place at the table. He certainly washed his feet and gave him his portion with His own hand. But the devil was in his heart, and the thirty pieces in his scrip. An incubus was lifted when the apostate left the table. All that remained of the paschal ritual was the blessing of praise with which it always closed. They were all expecting it. The innovation could not but be noticed by those who had followed one program annually from the time they were ten years old. Instead of lifting His hand in benediction, Jesus reached over to the dish of unleavened bread upon the table, and, taking up a piece, He rose from the mat, and blessed it, and, as He passed from one to another, He broke it, giving each a morsel, saying, "Take, eat; this is My body." Then He filled a cup, and, again giving thanks, and passing it from one to another, He said, "This is My blood of the new covenant, which is shed for many for the remission of sins." Then followed His words of institution, "This do in remembrance of Me."

The Grange

"For the good of our Order our Country and Mankind."

Conducted by Geo. Black, Olathe, Secretary Kansas State Grange, to whom all correspondence for this department should be addressed. News from Kansas Granges is especially solicited.

NATIONAL GRANGE.

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Lecturer.....Geo. W. G. Gaunt, Mullica Hill, N. J.
Secretary.....C. M. Freeman, Tippecanoe City, Ohio

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Successful Cooperation in the Grange.

MORTIMER WHITEHEAD.

Early in its history the Grange issued to the world its platform or declaration of purposes. One of the "purposes" as stated is, "We propose meeting together, talking together, buying together, selling together, and in general acting together, as occasion may require." Specially in the Western States the occasion seemed to require cooperative buying and selling and took form in many exercises, some founded on good business principles, others experimental in many ways. The National Grange instructed I. W. A. Wright, of California, to study the

Rochdale system of cooperation which had from humble beginning grown to large proportions and is still going forward in its various branches of business amounting to hundreds of millions per annum. The report of Brother Wright was finally adopted and rules formulated, for putting into practise the true system of business cooperation.

Stores founded on these National Grange lines were started in many States. In some instances the safe rules laid down were modified or changed, and when mishaps occurred the Grange was blamed and suffered by it, but it is safe to say here if the carefully considered rules of cooperation as sent out by the National Grange have been closely followed, success has followed. Many such enterprises have been running all these years and others are being established. One of the most noted of these successes, and one that is an object lesson worthy of study is located at Olathe, Johnson County, Kans. The cornerstone of the original building, which cost \$60,000, was laid by Put Darden of Mississippi, when master of the National Grange 30 years ago. A few years since the building was burned on a Saturday and on the following Monday in three other local stores the business started again and went on as usual. This is a department store, dry goods, groceries, boots and shoes, farm machinery, hardware, meat shop, restaurant, etc, all having place.

Up stairs are numerous offices, including that of the grange fire insurance company, carrying many millions of risks. Only members of the Grange can be stockholders and share in the profits. The goods are sold at the usual prices, and in competition with other stores. To show the magnitude of the business done, it is only necessary to say that over \$400,000 has been paid back in dividends to grange customers. This store also has four branch stores located in other parts of Johnson County, and all doing a large business and with growing success. This central store at Olathe is the "wholesale" for the branches. After its more than 30 years of business experience, this cooperative enterprise, carried on by the practical farmers of that county, has won the respect and confidence of the business world and the support which has made its business so large and at so good a saving to its grange customers.

On the same street is the patron's cooperative bank, its officers all farmers, and together with the stockholders, all patrons, it has been running over 20 years, never pays less than 10 to 12 per cent annual interest and besides this on a capital of \$50,000 has an accumulated surplus of another 50,000, thus making the value of each \$1 of its stock \$2. Surely all this plainly shows that, as led and guided by the Grange, farmers can mind their own business.

All Labor Is Dignified.

The subordinate grange is the foundation of the order, and on whether or not it succeeds, depends the success of the order as a whole. This line

of argument was taken up by C. M. Gardner, lecturer of the Massachusetts State Grange, in a recent address to patrons. Brother Gardner urged loyalty in the Grange to things near home. As an instance of what a subordinate grange could do in this respect, he cited the public schools. The schools are an institution which every citizen should support. However, too often it is the case that fathers and mothers do not visit the school for years at a time.

Continuing, Brother Gardner said, "Let us exalt agriculture in the Grange. This can be done by discussing such issues as rural delivery, good roads, pure-food laws, and denatured alcohol. We must have a concentration along all lines if we would gain the best results. The fundamental principle of the order is to exalt agriculture, which is the basic industry of the country. The Grange should instill in the minds of its members the feeling that all labor is dignified.

"Then again, a good grange will promote optimism. It is the hopeful life that wins. It is always the man who has a cheery face and a hopeful smile with whom we like to do business. Too many of us are inclined to do too much mourning over the past.

One of the greatest blessings accomplished by the Grange is in connection with home life. It brings the whole family to the same place for entertainment. The meetings bring the families of the neighborhood together and tie them in a more sympathetic mass. In the active competition of the business world we are apt to drift a little apart, but the Grange brings us back."

What Is Education.

MRS. KATE A. GILMAN, LECTURER BELKNAP POMONA.

There is no duty of greater magnitude than that of educating our children. In this work we decide, in a measure, what shall be the character, the ability, the ideals, and the efficiency of our young men and women. It is of the greatest importance that we have the highest and clearest conception of education. Man at his birth is the most helpless of all living creatures; his surroundings and his education decide the success or failure of his life.

What is education? Who are educated and when are they not? Education is not putting things into a person's memory. It is not filling him and then putting a cover on like a can. Neither are accomplishments education any more than frescoing and cornices are the house, but they are appropriate as decorations. There is no more wide-spread delusion than that a knowledge of music, of history, etc, is education. They are simply some of the things that an educated person may use.

The first thing that seems to me to be essential to an education is one's ability to stand on his own feet, to control the forces of life that are about him, and to earn an honest living. We must be producers, and our education should be along the lines of

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practical utility. No one is educated who can not keep himself afloat and be able to render some service to his fellow man. The man who has not been able to take out of life the best and grandest things, to keep himself noble and true and to say at the end "The world is richer because I have passed through it," has lost the better part of life.

Hitting the Nail on the Head.

FOUNDED SUGGESTIONS OF C. M. GARDNER, LECTURER OF THE MASS. GRANGE.

Utilize the vacation experiences. When your members return from a pleasant trip, ask them to tell others of some of the things they saw.

Celebrations of anniversaries are always of particular interest. Look up the records of your grange and see if your anniversary does not come some time this fall. If so, why not observe it?

Have something in every lecture hour that will appeal to the intelligence of the members, something that will give them food for thought. This is the real bed-rock test of lecture hour quality.

There is nothing in the world like responsibility to develop usefulness. If only the members can be induced to do something, if it is only a little thing, a long step has been taken towards securing their interest.

Care and preservation of our shade trees is a subject on which our people need lots of educating and the Grange ought to lead in the work.

There is scarcely a grange but can, if it will, organize either a male or a mixed quartet, which will be in readiness to help out on the various occasions when such help would be a god-send. This means just so many more people taking some responsibility in grange work.

Practical people demand practical evidence of the value of the Grange. Is your grange filling the bill?

Miscellany

Kansas's Population by Congressional Districts.

Secretary Coburn, of the State Board of Agriculture, has compiled a table showing by counties the population in each of the present eight congressional districts of Kansas, and making comparisons with the population of the counties comprised in the seven districts as they were constituted prior to the reapportionment by the last Legislature.

Two districts, the first and fourth, show losses of population since 1904. The largest gain is in the sixth district; the largest percentages of gain are in the sixth and seventh districts, composed of counties in the western part of the State.

The following table shows the situation as to each district, and also gives the total vote cast for members of Congress at the last election by each political party, in each of the counties which make up the present eight districts:

Table with columns: District, County, Population, Gain, Loss. Includes Nemaha, Brown, Doniphan, Jackson, Atchison, Jefferson, Leavenworth, Shawnee.

Table with columns: District, County, Population, Gain, Loss. Includes Wyandotte, Johnson, Douglas, Franklin, Miami, Anderson, Linn, Allen, Bourbon.

Table with columns: District, County, Population, Gain, Loss. Includes Crawford, Cherokee, Neosho, Labette, Wilson, Montgomery, Blk., Chautauqua, Cowley.

Table with columns: District, County, Population, Gain, Loss. Includes Pottawatomie, Wabaunsee, Osage, Lyon, Coffey, Woodson, Greenwood, Chase, Marlon, Morris.

Table with columns: District, County, Population, Gain, Loss. Includes Marshall, Washington, Republic, Cloud, Clay, Riley, Ottawa, Saline, Dickinson, Geary.

Table with columns: District, County, Population, Gain, Loss. Includes Jewell, Mitchell, Lincoln, Ellsworth, Russell, Osborne, Smith, Phillips, Rooks, Ellis, Trego, Graham, Norton, Decatur, Sheridan, Gove, Thomas, Rawlins, Cheyenne, Logan, Wallace, Sherman.

Table with columns: District, County, Population, Gain, Loss. Includes Greeley, Hamilton, Morton, Wichita, Kearny, Grant, Stevens, Scott, Finney, Haskell, Seward, Lane, Gray, Meade.

Table with columns: Name, Population, Gain, Loss. Includes Ness, Hodgeman, Ford, Clark, Rush, Pawnee, Edwards, Kiowa, Comanche, Barton, Stafford, Pratt, Barber, Rice, Reno, Kingman, Harper.

Table with columns: Name, Population, Gain, Loss. Includes Butler, McPherson, Harvey, Sedgwick, Sumner.

Table with columns: District, Rep., Dem., Soc., Pro., Total. Includes First District, Second District, Third District, Fourth District, Fifth District, Sixth District, Seventh District, Eighth District.

Russia's Wheat Surplus. Russia is the chief competitor of the United States in the wheat markets of Europe outside of Russia, and the conditions under which wheat is grown in that country, as indicating cost of production and prospective export supply, are the subject of a bulletin soon to be issued from the Division of Foreign Markets of the Bureau of Statistics, Department of Agriculture, prepared by Dr. I. M. Rubnow, economic expert.

Bread cereals have always been the mainstay of Russian agriculture. They claim over 75 per cent of all cultivated land in Russia, as against 20 per cent in the United States; but forty years ago the share of wheat in Russia was small in comparison with that of rye, the Russian staple. Since the Russian land-tiller began to produce for the foreign market, the strong demand for wheat has had its effect. During the last twenty-five years the acreage under rye in European Russia has remained about 65,000,000 acres, while the acreage under wheat has increased from 29,000,000 to 46,000,000. Taking the entire Russian Empire, the acreage under rye has increased from 70,000,000 acres in 1894 to 74,000,000 acres in 1904, while that under wheat has increased from 41,600,000 to 59,200,000 acres.

Of the immense territory of Russia, the wheat belt occupies a comparatively small share. There is very little wheat grown beyond the southern and eastern parts of the famous black-soil region. Eight provinces in the south and southeast contain 70 per cent of the wheat acreage of all Russia, Caucasasia has about 12 1/2 per cent, and Siberia about 6 per cent.

In the wheat belt proper, wheat is rapidly crowding out almost everything else. In New Russia, in the Lower Volga provinces, and in Northern Caucasasia from one-half to two-thirds of all cultivated land was under wheat in 1904. Here the most rapid extension of wheat acreage has taken place, namely, 7,800,000 acres in twenty-three years in New Russia (1881 to 1904); and in the Lower Volga provinces, 4,800,000.

The Russian wheat-crop has increased from 400,000,000 bushels in 1896-1898 to 630,000,000 bushels in 1902-1904. The wheat area is over 10,000,000 acres larger than that of the United States, and in 1903 and 1904 the Russian crop exceeded the crop of this country.

Nevertheless, the crop is small when the acreage is considered, the average yield of wheat per acre in Russia being the lowest of all important wheat-growing countries. In European Russia it varied within the last twenty-three years from 5 to 11 bushels per acre. Nine times out of the twenty-three years it was below 8 bushels. If the Russian peasant obtained as good a yield as the German peasant, the wheat-crop of European Russia alone would amount to 1,300,000,000 instead of 400,000,000 bushels.

In the western part of Russia, in the Baltic provinces, Poland, and the southwestern region, the yield is considerably higher—between 15 and 20 bushels per acre; but New Russia and the Lower Volga region, often called the granary of Europe, show a yield normally fluctuating between 8 and 6 bushels, and often dropping to 5. The explanation for such low yields

must be sought in Russian agricultural methods as well as the system of land ownership, which dates back to the emancipation of the peasants in 1861, when they were granted small lots out of the estates to which they belonged. The greatest share of the land remained in the hands of the large-estate holders, while three-fourths of the peasants received less than 16 acres per male person, or less than 40 acres per family. At the same time the noblemen's estates were so large that 924 families owned 74,000,000 acres of land. Since the emancipation era the peasants have been largely buying land from the noblemen, having acquired in this way over 50,000,000 acres; but notwithstanding this, the normal increase of population has been such that from 1861 to 1896 the average land holding of the peasants per family decreased 20 per cent. This system of petty land holdings, combined with the ignorance of the

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duction of wheat rises to 55 to 80 cents per bushel.

The future of wheat production in Russia depends largely upon economic conditions and the educational progress of the Russian peasants. Forty years ago the Russian peasantry was uniformly illiterate. According to the census of 1897, 35 per cent of the adult male peasants were literate, and in the younger generation the proportion of literacy was still higher.

The economic condition of the peasantry may be improved in increased size of holdings, which is contemplated in the Imperial manifesto of November 3, 1905. The immediate results of such extension of peasant-land ownership will be of practical importance to the American farmer. It will mean a setback in the tendency to change from rye culture to wheat culture, since rye plays a larger part in the peasant economy, and a considerable reduction in yield of wheat, which, accompanied by an increased home consumption, would considerably reduce the surplus. Eventually, however, such changes, it is expected, will lead to an improved economy and increased production of wheat in the Russian heat belt, after an indefinite but long series of years, during which the peasant will naturally develop a new economic position.

Copies of the bulletin may be obtained from the Superintendent of Documents, Government Printing Office, who has them for sale.

The Best Corn-Shellor.

Some of the reasons given as to why the Racine corn-shellor, advertised by the Rock Island Implement Company, of Kansas City, in this week's KANSAS FARMER is the best are as follows: The feeder is 16 inches longer than others, thus giving the corn ample opportunity to straighten out before it reaches the throat. It is wider and higher, thus enabling the operator to work the machine to its full capacity. It is the only shellor having a gravity force feed. When the corn reaches the top of the feeder, it falls by its own weight into the proper hole and the beater strikes each ear and drives it firmly against the picker wheels and bevel runners, thus making it impossible to choke the shellor. The rear end of this shellor is about six inches wider than others and thus gives room for the corn and cobs to spread and the machine to clean itself. Then there is a steel agitator above the cob-rake which shakes all of the loose corn out of the husks and prevents it from being carried out with the cobs. This feature is entirely distinctive of this machine, and any one can soon see how valuable it is. The front sieve is a combination one which prevents husks, silks, etc., from clinging to it, and all dirt, sand, and other foreign matter which may not have been removed by the fan is allowed to fall to the ground through an opening prepared for it. The sieves are operated by a single wood pitman attached to the center instead of by eccentrics on each side. This insures a uniform movement and prevents binding and wearing. The fan itself is six inches longer and four inches greater in diameter than any other. The elevator head is very wide, so that corn can not strike and rebound into the elevator and clog and break the elevator chain. This is a great fault with other shellors. All the shafts and gears are larger and heavier than in other makes. The bearings are all babbitted with removable boxings, and the frame is made of selected oak with all joints mortised and pinned. Drop a card to the Rock Island Implement Company and ask them to show you. It will pay.

"The Whole Family Group." The Dellneator one year; McClure's Magazine one year; The World's Work one year. The Kansas Farmer one year; total value, \$5. OUR PRICE, \$3.50. The Kansas Farmer Co., Topeka, Kans.

The Rathbun Sale of Duroc-Jerseys. (Continued from page 1145.)

Mr. Rathbun long prices. They are of many different strains and were carefully selected. It is an opportunity that only occurs occasionally to get a chance to buy sows like these. The young offering is one of the best and most growing that will be seen this year, and will please buyers, no difference how particular. Write for catalogue and either attend or send bids to J. R. Johnson or auctioneers in Mr. Rathbun's care at Downs.

Frank Iams' First-prize Royal Belgian Stallion, 4 years old, at Nebraska State Fair. Weight 2210 Pounds. Iams Has on Hand 168 Imported Stallions, the Peaches and Cream Kind—\$1000 and \$1500 Buys "Toppers" of Iams.

Son Ikey—The outlook for breeding first-class draft and coach horses is the best in twenty-five years. Never were horses of all classes so high. The future promises big prices for 15 years for first-class drafters and coachers. To-day is the "best time ever" to buy prize-winning stallion of Frank Iams, St. Paul, Neb. His barns are filled to "the roof" with "top-notchers" at bargain counter prices. He has over 100 stallions, Percherons, Belgians and Coachers, 2 to 6 years old, weight 1,700 to 2,600 pounds, 90 per cent blacks, all registered, stamped and approved. He is selling these stallions at \$1,000 and \$1,400 (a few higher). He guarantees these stallions to be better horses than those sold to "farmer stock companies" at \$2,500 to \$5,000, or pay you \$100 to see them, you the judge. Our illustration on the first page is the noted show stallion, Iams' Pruso-de-Liroux (29344), Royal Belgian, black, 4 years old, weight 2,210 pounds, first winner at Nebraska State fair and winner at Iowa and Illinois fairs. He is a typical drafter—a "wide-as-a-wagon stallion," with two good ends and a middle. Has 15-inch bone, of fine quality. His big dashing style makes all the "chappies" turn round, and exclaim: "That's one of Iams' stallions. He is a real practical up-to-date horseman that always has "top-notchers." The real "peaches and cream" stallions that will make you \$1,000 in service fees in one year, and the whole family will wear diamonds. You say: Why can Iams sell these largest and best stallions at such low prices? Iams is a practical, up-to-date business man, a borne horse-man, and not made while you wait. Iams buys and imports stallions by special trainload—100 to 150 in a shipment. He does not keep the water rolled up making small shipments.

Iams uses his own money, owns his stallions, barns, houses, farms, and book stocks, has no two to ten men as partners to divide profits with, buys the best stallions direct from breeders, without paying buyers or interpreters, sells every stallion at his home barns direct to users. He saves you all "commissions" and "middleman's" profits. He owns and sells more registered draft and coach stallions than any man in the United States. You can compare his "stallion emporium" to a grand department store. He sells direct to patrons at small profits. He saves every one of his stallion buyers \$1,000 or more and sells a better stallion. If you will visit him and will pay cash or give bankable note you will sure buy a stallion before you leave, as Iams always has on his "selling clothes" and he makes the wheels of business go round. There is always "something doing" at Iams'. He is not in the "stallion trust." That saves you \$500 and is why so many importers are "knockers" on Iams' stallions. He places \$1000 or \$1500 insurance on stallions. Ikey, Iams' stallions at Iowa, Illinois, and Nebraska State fairs were the "talk of the people." They said: Iams is a "hot advertiser," but he has "the goods" better than he advertises. Iams had all competitors and judges "jumping sideways" when his horses were in the ring, and they won from one to three prizes in every ring shown in, and championship Percheron and Belgian stallions, and winner over champion Percheron stallion of France 1906. Write for eye-opener and greatest horse catalogue on earth. It shows you over 80 fine horse illustrations, tells what Iams sells and how you can save \$1,000 on an imported stallion. It's the greatest horse book in the United States. It will make you all smile sweetly.

The International Live-Stock Show.

Preparations are now completed for the holding of the greatest live stock show in history at Chicago, December 1-8. Some of the announcements of special interest are as follows:

The J. Ogden Armour \$5,000 annual scholarship subscription to be distributed through the medium of this exposition was promptly accepted by a board and a resolution to Mr. Armour for his most generous gift placed upon the records of the association.

A committee was appointed, consisting of Mr. A. G. Leonard, Mr. A. H. Sanders, and Mr. R. B. Ogilvie, to call a meeting of the instructors of the agricultural and live stock departments of the various agricultural colleges of the United States for the purpose of agreeing upon a basis for distributing the J. Ogden Armour scholarship fund. The corn contest, which was omitted from the preliminary classification, will be taken up and carried on at this year's exposition, same as in 1905, for the Cook Trophy.

The board decided to award the Rosenbaum specials, which are as follows, to the colleges located in the States whose exhibitors receive the most money from the International's own classification, not including specials:

- To the State whose exhibitors win most in premiums.....\$500
 - To the State whose exhibitors win the second greatest amount in premiums..... 300
 - To the State whose exhibitors win the third greatest amount in premiums..... 200
- These prizes are to be paid to the

experiment stations of the winning States and by them paid out as prizes on live stock or to successful students in judging live stock and grain, or both, at the winter meetings of the agricultural colleges, known as the "Farmers' Short Course in Agriculture."

John W. Jones & Son's Sale.

The Duroc-Jersey sale of John W. Jones & Son, held at Concordia, October 23, was handicapped by the cold, rainy weather which prevented the farmers from attending. The prices obtained were very satisfactory, the average being about \$35 per head, the top of the sale was \$150, paid by A. J. Linley, of Beatrice, Neb., for the yearling boar, Woodlawn Prince, he by Fancy Orion 30227. The selling was done by Col. Lefe Burger, of Wellington, Kans. The chief attractions in the sale, aside from the yearling boar, were gilts sired by Mr. Jones' famous herd-boar, Fancy Chief. These gilts all brought good prices and went to some of the leading herds in the State.

Of Value to Horsemen.

Do you turn your horses out for the winter? If so, we want to call your attention to a very important matter. Horses which have been used steadily at work, either on the farm or road, have quite likely had some strains whereby lameness or enlargements have been caused. Or perhaps new life is needed to be infused into their legs. Gombault's Caustic Balsam applied as per directions, just as you are turning the horse out, will be of great benefit;



Silvery Knight 206653, at the head of the Prize-Winning Herd of T. K. Tomson & Sons, Dover, Kans. Shown at the Kansas State Fair, Hutchinson, The Interstate Fair, St. Joseph, Mo., The American Royal, Kansas City, Mo., etc. (Photo by The Kansas Farmer Man.)

and this is the time when it can be used very successfully. One great advantage in using this remedy is that after it is applied it needs no care or attention, but does its work well and at a time when the horse is having a rest. Of course it can be used with equal success while horses are in the stable, but many people in turning their horses out would use Caustic Balsam if they were reminded of it, and this article is given as a reminder.

Hay Short—Grind the Corn.

Reports go to show quite a general shortage in the hay-crop this year. There will, therefore, be a greatly increased demand on the corn-crop. Heavy as the corn yield is, it should be made to go as far as possible. We naturally turn to grinding. When we grind ear-corn and feed cob and all, another most important point is gained besides making the feed go farther. The roughage which is so necessary to the animal's well being is supplied. Nothing can be better than the ground-corn cobs for this purpose. Undoubtedly one of the best mills for grinding ear-corn as well as smaller grains is made by the N. P. Bowsher Co., of South Bend, Ind. The Bowsher people have long made this class of mills a specialty. If you do not have a mill, the Bowshers are good people to deal with. Look up their little advertisement in this paper and write to them.

The Kansas Poland-China Breeders' Association.

The second annual meeting of the Kansas Poland-China Breeders' Association will be held at the Agricultural College, Manhattan, January 3 and 4, 1907. A good program has been prepared and a large attendance is expected. Besides this meeting, there will be several others held during the week and the farmers' short course will be in session. This is a good chance for every farmer and stockman to attend these meetings, visit the college, and examine the work done there. Every Poland-China breeder should become identified with the State Association. Write the secretary, L. D. Arnold, Enterprise, Kans., for a copy of the by-laws and enclose 50 cents for a year's membership.

An English Judge for the International Live-Stock Exposition.

The International Live-Stock Exposition has each year been fortunate in the selection of a foreign judge to pass upon the cattle in this great show. It has been the aim of the directors always to secure a man of high character and of international reputation. This year their choice fell upon Mr. Arthur P. Turner, Pembridge, Herefordshire,

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Surprising what beautiful dresses can be made from these economical fabrics. Their fadeless color, durable material and artistic designs have given them the reputation "Prints of Quality."

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The Eddystone Mfg Co. (Sole Makers) Philadelphia

England. He comes well recommended for his excellent work in the show yards of England, and as a breeder, feeder, and judge. He will pass upon the grade and champion steers at the forthcoming International. Stockmen generally, both in this country and Canada, will unite in giving Mr. Turner welcome.

Free—for a Limited Time Only.

We will give a year's subscription to Farm and Fireside with The Kansas Farmer, both papers for \$1.00—the price of The Kansas Farmer alone. Farm and Fireside is America's greatest twice-a-month farm and fam-

noe Girl." It alone is worth the price of both papers. But there will be five others during the year—all masterpieces from the world's greatest artists—suitable for framing. A great magazine section just added and a thrilling story by Maude Roosevelt, of that celebrated family, begins this issue. Seventeen regular departments, each one edited by an authority in his line. It goes into over 400,000 homes every issue.

The Kansas Farmer is always looking for something special for its host of readers, so here is a rare opportunity—to old subscribers as well as to your friends. Send in your renewal and tell your neighbors about this extraordinary offer.

Don't miss this opportunity, but send in your order at once. You will regret it if you don't. We can make this offer for a short time only. Address: The Kansas Farmer, Dept. F., Topeka, Kans.

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The "old reliable" KANSAS FARMER, established in 1863, the best genuine agricultural weekly paper in the West. It solves the problems for the busy farmer. It helps and interests every member of the farmer's family. It has 12 regular departments. Its contributors are expert authorities. It contains 24 to 32 pages each week. Sent on trial three months free. Test it. Clip the coupon below.

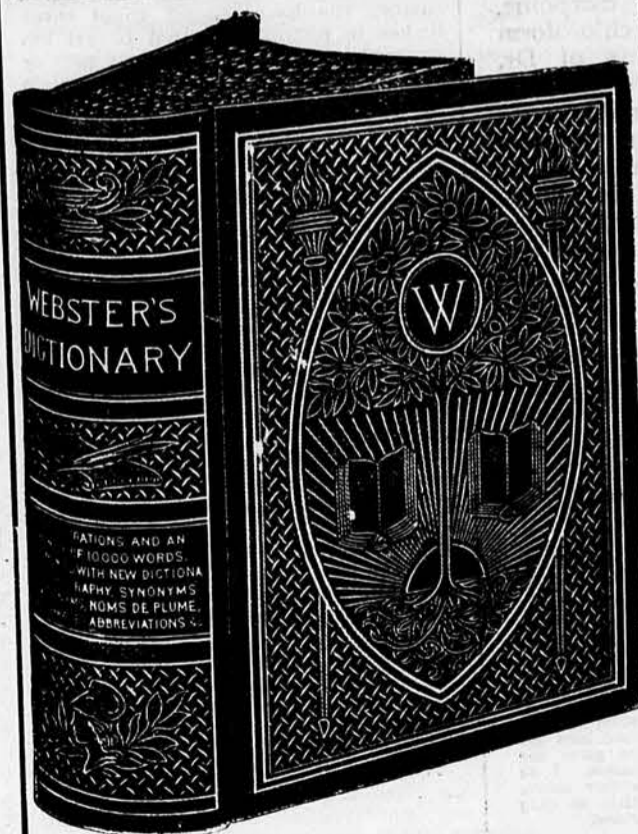
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BUILT UP HER HEALTH SPEEDY CURE OF MISS GOODE

She Is Made Well by Lydia E. Pinkham's Vegetable Compound, and Writes Gratefully to Mrs. Pinkham.

For the wonderful help that she has found Miss Cora Goode, 255 E. Chicago Avenue, Chicago, Ill., believes it her duty to write the following letter for publication, in order that other women afflicted in the same way may be



Miss Cora Goode

benefited as she was. Miss Goode is president of the Bryn Mawr Lawn Tennis Club of Chicago. She writes;

Dear Mrs. Pinkham:—
"I tried many different remedies to build up my system, which had become run down from loss of proper rest and unreasonable hours, but nothing seemed to help me. Mother is a great advocate of Lydia E. Pinkham's Vegetable Compound for female troubles, having used it herself some years ago with great success. So I began to take it, and in less than a month I was able to be out of bed and out of doors, and in three months I was entirely well. Really I have never felt so strong and well as I have since."

No other medicine has such a record of cures of female troubles as has Lydia E. Pinkham's Vegetable Compound.

Women who are troubled with painful or irregular periods, backache, bloating (or flatulence), displacement of organs, inflammation or ulceration, can be restored to perfect health and strength by taking Lydia E. Pinkham's Vegetable Compound.

Mrs. Pinkham invites all sick women to write her for advice. She has guided thousands to health. Her experience is very great, and she gives the benefit of it to all who stand in need of wise counsel. She is the daughter-in-law of Lydia E. Pinkham and for twenty-five years has been advising sick women free of charge. Address, Lynn, Mass.

\$5,000

Reward will be paid to any person who can find one atom of opium, chloral, morphine, cocaine, ether or chloroform in any form in any of Dr. Miles' Remedies.

This reward is offered because certain unscrupulous persons make false statements about these remedies. It is understood that this reward applies only to goods purchased in the open market, which have not been tampered with in any way.

Dr. Miles' remedies cure by their soothing, nourishing, strengthening and invigorating effects upon the nervous system, and not by paralyzing and weakening the nerves as would be the case if these drugs were used.

For this reason Dr. Miles' Anti-Pain Pills are universally considered the best pain remedy

"I have suffered for 25 years with severe pains in my head, heart and back, and have tried everything I could get and could not find any relief until I got a box of Dr. Miles' Anti-Pain Pills. I suffered as long as 12 hours at a time with such severe pains that I feared I would lose my mind. The Anti-Pain Pills gave me relief in from 10 to 20 minutes. I do not have to use Morphine any more. I wish you would publish this so that other sufferers may find relief."

L. A. WALKER,
R. F. D. No. 6, Salem, Ind.
Dr. Miles' Anti-Pain Pills are sold by your druggist, who will guarantee that the first package will benefit. If it fails he will return your money. 25 cents, 50 cents. Never sold in bulk. Miles Medical Co., Elkhart, Ind.

Horticulture

Pruning the Peach.

S. W. COLE, WAYSIDE, GA., IN SOUTHERN CULTIVATOR.

When a peach-tree is taken from the nursery, the tap-root is, or should be, cut back to at least five inches. With the usual method of digging, all of the small and fibrous roots are left and they are shipped in this way to prevent them from being damaged by bruising or by splitting off the large roots which often causes a dead place on the main root. The tap-root should be cut not over four or five inches long and left with a smooth surface, and the branch roots should be cut back to one inch, and if careless hands are to plant them, all of the roots that are not strong enough to hold their natural position when planted, should be taken off and nothing but healthy roots left.

If they are pruned in this manner and properly planted, they will at once put out new fibrous roots and grow off quicker than would a tree planted with the root-system intact. If the roots are pruned as previously described, one will readily understand that the top must be very severely cut back, because it grows in proportion to the root in the nursery and if the roots are cut back it is reasonable that the top must be shortened proportionally, and if there is any difference the root should be given the advantage; for the function of the root is to produce and support the top. Hence, if you cut the roots back so severely that they can not support the top, it must die, and if you leave it in such shape that the roots merely support the top, it hasn't the energy to send out new shoots and rehead the tree. Consequently, your trees will probably stand there until they can regain strength enough to force a top, and will never do as well as trees whose tops have been cut back more severely than the roots. When cut back in this way, the roots will at once force a top and start a growing tree.

The top should be cut back to 14 or 18 inches according to the size of the tree.

Trees on ordinarily good land, as those properly fertilized, will put out a thick mass of shoots which, according to my ideas, should not be bothered except to keep the suckers away from around the tree near the ground or below where the tree was budded.

The pruning of one-year-old trees should take place in the spring after the trees begin to put out—not earlier—for trees prematurely cut back to the right height will sometimes sprout out below the bud and no shoots will appear above it.

They should be cut above the last bud (or wherever necessary, if the first buds are too low). I am in favor of cutting them back to 16 inches and cutting the branches off about three inches in length so as not to get too many shoots, and I leave about four or five, if possible, for some are likely to be knocked off in cultivating. If there happens to be only two limbs, cut off one close to the trunk of the tree and cut the other off at the height you want the tree headed. This will prevent the formation of a fork that would later prove ruinous.

The second year is the most important year in pruning the peach-tree. During this year the tree must have enough interior wood removed to give it a vast shape. And the ends of the limbs should be cut back as evenly as possible, but always above a bud that will force the new growth outward—not inward, towards the axis of growth.

If the ends of the smaller limbs are severed as much as the main limbs it leaves a snag, or, as it is more commonly known among pruners, a "hat-rack." These snags will not heal over until the tree grows around their base and while this is taking place the snag is decaying and this often produces a defect in the limb, which causes it to break when subsequently loaded with fruit or sleet. So reason and observation both demonstrate that all branches should be severed close to the limbs or to the trunk of the tree.

The same system is kept up during the third and fourth years, only gauging the number of fruit-buds that should be left in order to get the proper amount of fruit.

Of course the dead or injured limbs should be taken out at any time or at any age of the tree.

A peach-tree becomes "grown" after a certain time, depending on condition

of soil, cultivation, etc.; and since the fruit-buds form on wood developed the previous year, we have to adopt some plan to force new wood in order to secure fruit-buds; and since our trees are "grown," it is out of the question to resort for this purpose to cultivation or fertilizing any more. So we are compelled to adopt the plan suggested and cut back the top. The roots are worked to their full capacity to support the top and so, when we take away part of the top, they have sufficient strength to force fruiting wood again; and if the pruning is kept up there is no reason why we could not maintain a growing tree as long as we succeed in controlling infectious diseases.

If the tree is pruned as previously suggested, it will have a tendency to keep down "brown rot" by exposing the fruit to the sun, which will tend to reduce the development of the rot-spores. It will also thin the fruit so that one peach will not come in contact with another.

A second reason for pruning in such manner as to expose the fruit to the sun is that thereby the fruit becomes more brilliantly colored and is far handsomer than fruit grown in the shade.

Prof. L. C. Corbett, of the United States Department of Agriculture, gives the following reasons for pruning:

"The removal of dead, dying, or broken branches; the reduction of the annual growth for the purpose of correcting the habit of the plant; the removal of branches in order to prevent the breaking or disfiguring of the tree in later years; the removal of branches and fruit-spores for protection against infectious diseases, and the reduction of the annual growth in order to reduce the crop in proportion to the tree."

Early History of Potatoes.

The chronicle of one of the old Spanish travelers, published in 1553, says: "The people of Peru eat a tuberous root which they call papas." The Spaniards took this root to Spain, where it was grown as "the truffler root." The Italians very quickly adopted it into their gardens, and soon the Dutch were cultivating it with much the same zeal that they displayed for tulips. Of its introduction into England, all that we are sure of is that in 1586 Sir Walter Raleigh was growing potatoes in his Irish garden. Thomas Harriot, in his account of Virginia, names potatoes among the roots that were found growing there, saying that some of them were as big as a walnut, and others considerably larger. This Virginia potato seems to have been that which is now known as the Irish, while that grown in Peru is more likely to have been a sweet potato. Another writer, describing the esculents of Virginia, says that the potato root is thick, fat, and tuberous, not differing much in shape from the sweet potato, except that the roots are not so great or long, while some of them are round as a ball, and others are oval, in the egg fashion, "of which the knobble roots are fastened with an infinite number of thredle strings."

Early in the seventeenth century, says the Independent, Raleigh's plantation of potatoes had been repeated all over Ireland, but the farmers of England, moved by stubborn prejudice and possibly in part by jealousy, decided that they would have nothing to do with the tuber. Shakespeare makes Falstaff imagine that the heavens are raining potatoes on him—an imagination which could hardly have been delightful, unless the potatoes retained their original small size. It was as late as the time of Charles II, certainly it was after the Cromwellian episode, before the potato got any fair hold in English soil.

Gilbert White, writing in 1778, says that potatoes have prevailed in his district for about twenty years, and that this had been brought about "only by means of premiums," but that potatoes were then much esteemed by the poor people, who would scarcely have ventured to taste them in the previous reign. Another writer speaks of them as a rather questionable product—possibly to become human food, "although rather flatulent and acid for the human stomach." He recommends boiling them with dates, and thinks that such a combination would keep soul and body together, for those who are too poor to get anything better. It is probable that the storage of this esculent was very little understood, and so, being left in the light after digging, they became continuously less and less suitable for food.

The story of the introduction of the

Mama, Be Warned! Protect the Little Ones!

MAMA! Don't be frightened—but be warned! Every Mother knows, or should know that the terrible Mortality among children is caused by Stomach and Bowel troubles. Colic, Sour Curd, Cholera Infantum, Summer Complaint, Measles, Rashes, Scarlet Fever—even Mumps—have their first cause in constipation.

The Delicate Tissues of a Baby's Bowels will not stand rough treatment. Salts are too violent, and Castor Oil will only grease the passages, but will not make and keep them Clean, Healthy and Strong.

* * *

There is no other medicine as safe for a child as Cascarets, the fragrant little Candy Tablet, that has saved thousands of families from unhappiness.

The Nursing Mother should always keep her Milk Mildly Purgative by taking a Cascaret at night before going to bed.

No other medicine has this remarkable and valuable quality. Mama takes the Cascaret, Baby gets the Benefit.

Cascarets act like strengthening Exercise on the weak little bowels of the growing babe, and make them able to get all the Nourishment out of Baby's Natural Food.

* * *

Larger children cannot always be watched, and will eat unreasonably. The Ready Remedy should ever be at hand—Cascarets—to take care of the trouble when it comes.

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Home is not complete without the ever ready Box of Cascarets. Ten cents buys a small one at the Corner Drug Store.

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YOUNG MEN WANTED

To learn telegraphy. Write J. G. TIGHE, care of Santa Fe Railway, Arkansas City, Kans.

potato into France has been often told. The country people were so convinced of the poisonous nature of the tuber that they would not give it a trial. Its friends were actually mobbed for trying to introduce a food that would poison the people. The story goes in two ways. One of these tells us that King Louis XIV. wore potato blossoms on his buttonhole, and had potatoes on his royal table, until they became popular with the aristocratic classes. Another story recounts how a celebrated physician and philanthropist planted a field of potatoes, about which he placed a guard, with instructions to allow just as much thieving as possible. The poorer people, believing a vegetable that deserved such watchful care must be of great value, stole nearly the whole of them. In this way their prejudices were overcome, and a valuable esculent added to their dietary.—American Cultivator.

Recipe for Keeping Cider Sweet.

Kindly publish a good recipe for keeping cider sweet, in your next issue. SUBSCRIBER.

The fermentation of cider, as of other fruit juices, is caused by the presence of the organism the bacteriologists call "wild yeasts." To quote a paragraph from Professor Conns book on "Bacteria, Yeasts, Molds, Etc.":

"In all such cases the trouble is due to the presence of wild yeasts which are floating in the air and which settle and grow upon any proper food. These wild yeasts are so sure to be present in the air that it is very difficult to protect a fermentable material from their action, unless the air is wholly excluded.

"Such wild yeasts do not, of course, live permanently in the air, since the air would of itself furnish no food for them. They live and grow in the soil, in decaying fruit on the ground, on the surface of fruit on the trees, and in a variety of other places. The air simply distributes them. The apple has been growing in the air for many weeks, and the wild yeasts have had plenty of chances to lodge on its skin. When the juice is squeezed from the pulp, it is sure to contain these yeasts, and they promptly start a fermentation."

The only way of keeping cider sweet is to treat it so that these "wild yeasts will not grow and in their growth produce alcohol." Boiling cider is an old way, but it results in depriving the cider of its natural flavor, and except where it is intended for cooking, it is not much employed. This is somewhat lessened by heating only to 170°, but the natural flavor is even then somewhat destroyed.

Where it is possible to keep the cider at a low temperature, as nearly 32° as possible, the ferment develops very slowly and the cider may be kept for a long time with its best flavor unimpaired. For home use it is frequently possible to make cider at short intervals during the fall and winter, which is to be recommended whenever possible.

There are very many so-called recipes for checking fermentation at various stages of "hardness." One quite common is to suspend in the barrel ground mustard-seed tied in a bag. The others call for the addition of some one or more chemicals such as sulfite of lime or salicylic acid, but it is questionable whether these should be used.

ALBERT DICKENS,
Horticulturist, State Agricultural Col.

The Apiary

Wintering Bees.

EDITOR KANSAS FARMER:—The honey-season has now ended for this year, and all supers that have not yet been moved should be taken off at once. Where the sections or frames above the brood-nest are not filled with honey and mostly sealed, they should be put away for next season's use, being careful to put them away so that mice can not have access to them. If the bees are to be wintered on the summer stand, the entrance should be contracted so that mice can not enter the hives, as they will destroy an unlimited amount of comb and honey. It will also be well to pack straw around and on top of the hives, leaving the entrance uncovered. When snow falls, care should be used to see that the snow does not melt and in turn freeze and close the entrance, as in such an event the bees are likely to be smothered. If the bees are to be wintered in

the cellar, it should be kept dark, and the temperature should be from 35° to 45° F., for if much warmer than 45°, the bees will become restless and crawl out of the hives. And if the temperature is kept below 32°, they will consume much more honey than if kept between the degrees above named. If any colonies are not supplied with honey sufficient to carry them through the winter, candy made of sugar may be laid directly above the bees on the top bars of the comb-frames so that they can have access to it, or a sirup made of two parts by measure of granulated sugar and one of water may be used. This sirup may be put in a pepper-box feeder and turned mouth downward above the bees in an empty super. A warm cloth should be put over the bees, folded several thicknesses all around the feeder, which will enable them to get the sirup even when the weather is quite cold. G. BOHRER. Rice County.

Alfalfa and Honey-Bees.

EDITOR KANSAS FARMER:—It is a common complaint among alfalfa-growers that the first crop is more difficult to cure than any of the following crops. It has been advised to cut each crop as soon as it begins to bloom freely. But the second and third crops are not, as a rule, cut until the entire crop is in full bloom, the farmer's time being otherwise taken up. The result is that the hay of the second and third cutting is of better quality in the matter of being better cured and less musty. The honey-bees also get by far more honey from the later cuttings. Let alfalfa-growers try letting the first crop stand until in full bloom and see how much sooner it will cure than when cut as soon as the bloom begins to open out. The reason for this difference lies in the fact that if cut too soon there is much more top in it than there is when harvested in full bloom. I am aware that it will be said that I have bees and am interesting myself in behalf of a good crop of honey, which is true. And I am also interested in securing good, well-matured, well-cured crops of alfalfa hay, as I have horses, cattle, and hogs, all of which are fed alfalfa hay. In fact, nearly all I raise is consumed by stock of my own on my own farm. G. BOHRER. Rice County.

A WONDERFUL OIL HEATER.

It Solves the Problem of Fall and Spring Heating and Supplements the Regular Heating Apparatus in Mid-Winter.

With the passing of the summer months comes autumn, and with it the chilly nights and mornings which force us to turn our thoughts to the problem of heating our houses, and we begin to look over our stoves and furnaces and get them in repair for the cold winter months.

To start stoves and furnaces in the early autumn brings more or less discomfort for the reason that they furnish too great heat during those portions of the day when the heat of the sun is still considerable. For such times the Perfection Oil Heater, equipped with a device which prevents all possibility of smoking, solves this hitherto perplexing problem.

There are also many times during the cold winter months, while the furnace and stoves are in operation when they may not be equal to the task of warming remote rooms, hallways, etc. This is more apt to be true in the early morning before the full efficiency of the regular heating apparatus is developed. In many houses there are rooms not reached by the direct heat. At such times and in such places the Perfection Oil Heater will be found a very valuable auxiliary. It will enable the household to eat its breakfast in comfort instead of shivering with the morning chill.

The Perfection Oil Heater produces a surprising amount of heat immediately after lighting and will heat an ordinary room in a remarkably short time. They are strong and well made in a design pleasing to the eye, and they are light enough to be easily carried from room to room as required.

In these days of numerous devices for illumination, there are still many who have not provided themselves with satisfactory lamps. The Rayo Lamp makes it possible for every one to have adequate light at a small cost. The Rayo Lamp is the best lamp for all-round household use. It is made of brass and beautifully nickeled, and is an ornament to any room whether in palace or cottage.

The Perfection Oil Heater and the Rayo Lamp form a combination that makes home bright and comfortable. Their absolute safety and very moderate price makes them a valuable and easy acquisition to any home. Both heater and lamp are warranted.

Cider for Winter Use

Can be put up in barrels and kept sweet by using "Ciderine Formula," which will be sent for 12 two-cent stamps. Guaranteed to keep sweet and comply with all pure food laws. CHEMICAL SUPPLY CO., Topeka, Kans.

Vanity is as common to the human family as fleas is to a dog, and makes them just about as oneazy.—Billings.



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

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T. C. Davis, Benedict, Kansas

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NEW YORK

A SPLENDID HOUSEHOLD MAGAZINE



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ADDRESS

KANSAS FARMER COMPANY

TOPEKA, KANSAS.

Dairy Interests

Better Prices for Milk.

The large cities will soon be faced with a shortage in their milk supplies. This is the belief of the New York Farmer, an authority on the milk question. Each large city, it says, is already drawing milk from a large territory, so large that the milk from the farthest parts is badly affected by the long carriage. The keenest observers realize that the extension of territory can not be depended upon to increase the milk supply of the cities much more, for two reasons, namely: (1) The lengthened carriage will spoil the milk. (2) Further extension of territory will bring the large cities into close competition with many smaller cities. New York City, for example, already competes with Boston, Springfield, and Providence on the east, with Albany, Troy, and many other towns on the north, with Elmira, Binghamton, Syracuse, Scranton, and other towns on the west, and with Philadelphia, Trenton, Newark, Patterson, and Harrisburg on the south and the southwest. All these lesser cities are growing with the metropolis, and all will need more milk each year. The growth of population in the Eastern States and the Middle States will very soon make their milk-consuming capacity greater than their milk-producing capacity. Then what of milk and its prices? The producers in this territory are not at the end of their rope. The present dairy herds are made up of small milkers in the main. The majority of the cows will barely average 1,200 quarts of milk per head per year. The minority will average perhaps 1,600 quarts each per year. The producers of milk, by putting on cows that will yield the moderate average of 2,000 quarts of milk per head per year, can greatly increase their output of milk, and so long as this can be done, so long it will be wrong to say that the territory is unable to meet the draft made upon its milk-producing capacity. The first step needed to induce producers to put on better cows is the increase of price to the producers. The middlemen are beginning to talk "better prices for the farmers," and the signs are that the better prices will come soon. At the very lowest, the net price for milk to the producers should be three cents a quart. That price would encourage and enable the farmers to increase their output of milk.

Cheese-Making at Home.

I am sure if many farmers knew how easily and inexpensively cheese can be made on the farm, more families would enjoy this nourishing food. Here are

the directions, and, if followed, will make a delicious three-pound cheese, good after four weeks, and better with age:

Take five gallons of sweet milk, cream and all, if it has set awhile, and heat until the milk is warm. Dissolve one No. 2 rennet tablet in one-half teacup of cold water; stir well into the milk, and add one tablespoon of salt. Remove from the fire, and let stand from three to seven minutes, when it will be like very thick clabber. As soon as it becomes clabber, it is ready to break up.

Then with a hand spoon or some other article stir the clabber or curd, as it is now called. This separates the curds from the whey. Let it stand, and the curd will settle to the bottom; then with the hands press the pieces into a mass or ball. Slip the lump of curd into a sack, take out and hang up to drain; this will be in about one-half hour. If the curd is broken again during the time it is draining, cut the curd in small pieces, say an inch thick, put in a crock and pour over it hot (not boiling) water. Stir with a spoon, and let it set until it seems tough like leather, which will be in about three minutes. Take out of the water and again cut in pieces, as it has probably run together again. Salt as for butter, and it is ready to press.

Take a gallon apple or sirup can, either round or square, and melt off the top and bottom; this is to be the press can. Make followers of inch boards to just fit inside the can. Set the can over one follower, and line the can with a well-greased cloth, long enough to fold over. Pour in the curd, put on the cloth left to fold over, and lay on the follower. Set where it can drain, and place a 15-pound weight on top. Leave twenty-four hours, after which remove from the press. Take off the cloth and grease well with butter. Lay on a plate in a screen-box. Grease and turn every day until ready to use. If the cheese molds scrape well and grease again. If it cracks, dampen a cloth in vinegar and wrap about it once a week.—"Farmer's Wife."

Raw Linseed-Oil for Bloat.

Mr. Hugh G. Van Pelt, the feeder of the Jersey herd at the St. Louis cow demonstration, contributes to the Jersey Bulletin his experience in administering raw linseed-oil to cows with disordered digestion. He says:

"One of our cows, before the test, bloated once or twice, but this was charged to the lucerne, of which she ate greedily. On July 24, after cleaning up her morning feed and appearing to be in the best of condition and health, she began to bloat, and in less than fifteen minutes went down in her stall groaning. Had she not been noticed at once, undoubtedly she would have soon died. She was at once drenched with one quart of raw linseed-oil, and in less than another fifteen minutes she seemed in perfect ease, and most of the bloated condition had left; but the results of her thus impaired digestion remained for a great many days, as could be noted in the permanent decrease in milk flow. Up to this time there had occurred in this herd several such cases, but none so severe.

"There is no remedy of so much value as a goodly supply of linseed-oil, and for us it certainly saved a great deal of trouble throughout the test. I can not help but believe that without its speedy use on several occasions, that are now pointed out by 'off feed,' the cows would have suffered very seriously. Whatever may be the ailment of the animal, the first thing to do is to make certain that the digestion tract is in proper working order before further treatment is resorted to. In nine cases out of ten the feeder will find that with cows on heavy feed the worst of the ailment is passed when the digestion is made perfect, and I have never known a good dose of oil to harm any beast at any time. So if you wish to be on the safe side when you are giving your cows their best record, have at hand a supply of raw linseed-oil."

Washing Dairy Utensils.

1. Rinse out all vessels that have contained milk with lukewarm water (70° to 80° F.)
2. If boiling water is first used, it cooks or sets the milk on the surface of the tin, making it greasy in appearance, and to the touch. A coating thus formed increases from time to time and this may be first cause of abnormal fermentations that occur later.
3. A little sal soda added to the wash-

WORD'S BEST BUTTER FROM DE LAVAL CREAM

Cream skimmed by a DE LAVAL separator can be made into butter SUPERIOR to that which can be made from cream skimmed by any other separator or system. This is the FACT—the proof of which grows more and more conclusive each year. Following is a list of the more important STATE FAIR FIRST HONORS awarded DE LAVAL users during 1906:

- Ohio—Conover Creamery Co., Greenville..... Score 98
- INDIANA—Ray & Arnold, Logansport..... Score 97
- ILLINOIS—W. J. Kane, Morrison..... Score 97
- WISCONSIN—W. J. Clark, Troy Center..... Score 97
- MINNESOTA—M. Sondergaard, Hutchinson..... Score 98
- IOWA—R. Bergsather, Northwood..... Score 98 1/4
- SIoux CITY—C. J. Rhode, Manchester, Iowa..... Score 99

Of special note are the awards made at the Ohio State Fair where the highest score of 98 went to butter entered by the Conover Creamery Co., of Greenville, MADE FROM DE LAVAL HAND SEPARATOR CREAM, while the butter receiving the second highest score of 97 was also made from DE LAVAL HAND SEPARATOR CREAM by the Glen Echo Creamery of Springfield. Here, as in many other instances, we have a practical demonstration of how much the DE LAVAL separator means in both creamery and farm separation.

All highest awards in every contest of the National Butter-makers' Association, from 1892 to 1906, including the great Dairy Show in Chicago this year, have been won by users of DE LAVAL machines. The butter receiving highest score at the World's Exposition in Paris in 1901 was DE LAVAL made, as was also the Grand Prize butter of the St. Louis World's Fair in 1904. A DE LAVAL catalogue will help to make plain why DE LAVAL cream is superior. Write for it to-day.

THE DE LAVAL SEPARATOR CO.

- Randolph & Canal Sts., CHICAGO.
- 1113 Filbert Street, PHILADELPHIA.
- 9 & 11 Drumm Street, SAN FRANCISCO.
- General Offices: 74 CORTLANDT STREET, NEW YORK.
- 109-113 Youville Square MONTREAL.
- 75 & 77 York Street, TORONTO.
- 14 & 16 Princess Street WINNIPEG.

water has a beneficial effect. It is an alkali and is used in "cutting" the greasy substance so often seen on improperly washed vessels.

4. After "thorough scrubbing," invert the cans over steam jet and sterilize them with hot steam for five minutes. Nearly all fermentations in milk are due to the action of bacteria. These can be best destroyed by the use of steam, fresh air, and sunshine. As many of them can successfully resist the action of steam for several minutes, it is necessary to expose milk utensils to the action for some time.

5. Never use rags to cleanse vessels used in the dairy. They are simply hot-beds for the breeding of undesirable germ life.

6. Steam, in addition to destroying germ and fungus growth, aids in drying the cans, thus preventing the formation of rust and obviating the use of cloths to dry the several vessels.

7. If rust or accretions have formed on tins, they should be removed at once by using sand-soap, sapollo, gold dust, etc.

8. "Soured" cans may be sweetened by boiling thoroughly with sal soda and sterilizing. If a can has open seams and has become badly tainted, it will be difficult to make it sweet again. In such a case it is better to abandon it altogether and secure properly constructed new utensils.—Exchange.

The Care of Cream.

A cream containing 35 to 40 per cent fat is preferable to too thin or too thick a cream. Too thin a cream is likely to cause slow, difficult churning, with a large loss of fat in the buttermilk, while the same loss is likely to occur through too thick a cream.

As soon as the separator stops, the temperature of the cream should be reduced to 45 or 50 degrees, and held there in a pure atmosphere until ready to ripen, which is within two or three days at the most. Cream kept in cellars, kitchens, smoke-houses, etc., will absorb undesirable odors. There is a tendency to keep cream too long when the weather and roads are bad. When cream is kept too long, even at low temperatures, it will not make good butter and should be paid for according to its merits. The buttermaker will find it a good practise to keep and churn all poor cream by itself and pay the patrons who furnish it only what it will bring when made into butter. The result of educating the patrons to better ways and methods of handling their cream will pay for the extra labor required.

Warm cream should never be mixed with cold cream; when cool and ready

to ripen, the temperature of the whole should be brought to 70°, after which a thorough mixing should take place. No cream should be added during the ripening process. To secure a uniformly ripe cream, it should be stirred occasionally during the ripening process. There is likely to be a large loss of fat in the buttermilk, when cream of uneven ripeness is churned.

Pasteurizing destroys germ life and helps in getting rid of bad odors and flavors, but it can not change old, bad-flavored cream to good cream. Cleanliness at every point in dairy work is more important than pasteurization, but they should go hand in hand.—Exchange.

Age Limits of Dairy-Cows.

A bulletin from the Wisconsin Station states that a cow is at her best during her fifth and sixth years, up to which time the production of milk and butter-fat by cows in normal condition increases each year. The length of time the cow will maintain her maximum production depends on her constitutional strength and the care with which she is fed and managed. A good dairy-cow should not show any marked falling off until after ten years of age. Many excellent records have been made by cows older than this. The quality of the milk produced by heifers is somewhat better than that of older cows, for a decrease has been noted of one to two-tenths of 1 per cent in the average fat content for each year until the cows have reached the full age. This is caused by the increase in the weight of the cows with advancing age. At any rate, there seems to be a parallelism between the two sets of figures for the same cows. Young animals use a portion of their food for the formation of body tissue, and it is to be expected, therefore, that heifers will require a larger portion of nutrients for the production of milk or butter-fat than do other cows. After a certain age has been reached, on the average seven years of age, the food required for the production of a unit of milk or butter-fat again increases both as regards dry matter and the digestible components of the food. A good milch cow of exceptional strength, kept under favorable conditions, whose digestive system has not been impaired by overfeeding or crowding for high results, should continue to be a profitable producer till her twelfth year, although the economy of her production is apt to be somewhat reduced before this age is reached.

It is allwuss a safe thing to listen, for nine men out of ten would rather talk than be talked to.—Billings.

The Cream of Cream Separators

The Sharples Dairy Tubular is the cream of cream separators—the pick of the whole bunch. Supply can waist low, you can fill it with one hand. All parts enclosed, dirt free, absolutely self-oiling—no oil holes, no bothersome needs only a spoonful of oil once or twice a week—uses same oil over and over. Has twice the skimming force of any other separator—skims twice as clean. Holds world's record for clean skimming.



Bowl so simple you can wash it in 3 minutes—much lighter than others—easier handled. Bowl hung from a single frictionless ball bearing—runs so light you can sit while turning. Only one Tubular—the Sharples. It's modern. Others are old style. Every exclusive Tubular feature an advantage to you, and fully patented. Every Tubular thoroughly tested in factory and sold under unlimited guaranty. Write immediately for catalog J-165 and ask for free copy of our valuable book, "Business Dairying."

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

The Veterinarian

We cordially invite our readers to consult us when they desire information in regard to sick or lame animals, and thus assist us in making this Department one of the most interesting features of The Kansas Farmer. Kindly give the age, color, and sex of the animals, stating symptoms accurately, and how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply all letters for this Department should give the inquirer's postoffice, should be signed with full name and should be addressed to the Veterinary Department of The Kansas Farmer, Topeka, Kansas, or to Dr. C. L. Barnes, Veterinary Department, Kansas State Agricultural College, Manhattan, Kansas. If in addition to having the letter answered in The Kansas Farmer, an immediate answer is desired by mail, kindly enclose a 2-cent stamp. Write across top of letter: "To be answered in Kansas Farmer."

Blind Stagers.—What causes blind stagers? Is there any cure or prevention? Nearly every one in this part of the State has lost horses or colts this year. L. J. S. Macksville, Kans.

Answer.—We have mailed you a press bulletin on this subject. These bulletins will be sent to any who desire them.

Bloating in Cattle.—(Tympany or Hoven.)—Gastric tympany is a common ailment of cattle, being easily recognized by a uniform swelling of the left side of the animal, especially in the region of the flank. The accumulation of gas in the first stomach (paunch or rumen) is the cause of the distension. Indigestion or paralysis of the stomach, from no matter what cause, will bring on the disorder. The affection has been observed especially in weak, unthrifty cattle, when first turned on a good pasture, or after they have broken into a corn-bin, a stock of potatoes, or turnips. The affection is extremely common in the spring when cattle are first turned on alfalfa or clover. These plants being eaten very rapidly and in large quantities, the readiness with which they ferment produces indigestion. Frosted foods commonly cause bloating, not only from the chilling action on the stomach, but also the tendency of all frozen vegetables to undergo rapid fermentation when thawed out. Inflammation of the rumen often causes bloating, the inflammation being caused from the ingestion of hot or cold foods, foreign bodies, (nails, needles, wire, bones, etc.), irritant drugs and poisons.

Symptoms.—Swelling of the flank on the left side is characteristic, and in well-developed cases the distension may be above the level of the croup. Tapping of the finger on the elevated portion gives a drum-like sound. The patient stands with an anxious expression, and may wander about uneasily and show great distress. In severe cases, if not relieved in time, the animal breathes with great difficulty, staggers in walking or even in standing, and in a few moments falls and dies from suffocation. The distension of the stomach may become so great as to prevent the animal breathing.

Treatment.—In less severe cases all that may be necessary is to drive the animal on a walk for a quarter or half an hour. A simple treatment is to pour cold water on the animal's back allowing it to run down over the distended stomach; if possible, a hose can be used to throw the water direct from a hydrant onto the animal's body. This last treatment is beneficial in starting a contraction of the muscles of the abdomen and in turn stimulates the muscles of the stomach. Some prefer to use a bit or gag in the animal's mouth. When the patient tries to dislodge the bit, this causes movement of the tongue, jaws, and throat. A stimulation of saliva is the result. It being swallowed, opens the lower end of the esophagus and allows the gas to escape through the mouth. These simple methods of treatment are more or less satisfactory in the less extreme cases, while in urgent cases the gas must be allowed to escape without delay or otherwise the animal dies from suffocation. The trocar and cannula is the most satisfactory instrument to use in tapping cattle; the instrument should be clean, and if time will permit, it should be boiled, or have hot water poured on it, or rinsed in a disinfectant before using. An incision should be made through the skin at the highest point of the swelling, which is usually located at the center of the triangle formed by the last rib and point of the hip and the transverse processes of the lumbar vertebrae. The trocar and cannula are placed together and the point of the trocar placed in the incision that has been made. With one blow with the hand the trocar and cannula should be driven through the abdominal wall and into the distended stomach. The frog

car is then removed and the gas allowed to escape. The cannula should be left in position as long as any gas escapes. It is often beneficial to place a funnel in the cannula and pour a disinfectant that may be handy directly into the paunch, thus checking the fermentation. At times it is necessary to keep the cannula in the stomach for several hours so as to prevent a repetition of the former attack. If the cannula be left in, it should be watched by a competent attendant who will not leave the animal until the gas has ceased to issue through the instrument. In removing the cannula the trocar should be inserted so as to force any food back into the stomach that may have accumulated in the cannula during the escape of the gas. Just as soon as the animal appears to be out of danger, it is necessary to resort to internal treatment, thus checking fermentation. Turpentine in two-ounce doses every hour to three hours given in a pint of milk is beneficial; also the coal-tar products well diluted. A full pound of epsom salts dissolved in two quarts of water to clean out the system is often advisable. A purgative is also beneficial in keeping the bowels open, as animals often become constipated after an attack of indigestion.

Poll Evil.—I have a black mare, 12 years old, that has an enlargement on the top of her head. Has been there about three months and is getting larger. It is half as large as a pint cup and seems tender when handled. Do you think it will be poll evil? Toronto, Kans. T. W. B.

Answer.—My impression is that your horse is getting the poll evil. If it is possible for you to scatter the enlargement so that you will not need to open it, it would certainly be advisable. A stimulating liniment applied to the poll will probably be beneficial, therefore secure the following: 4 ounces turpentine, 2 ounces tincture of iodine, 2 ounces of tincture of cantharides, 6 ounces of tincture of capsicum, 1 pint compound soap liniment. Mix and apply to parts daily till sore, then withhold for a few days and begin again. A cheaper liniment would be 4 ounces of alcohol, 4 ounces of eucalyptol, and a pint of water. Use the same as the above. We are sending you a press bulletin on poll evil and fistulous withers, which may give you additional assistance in successfully treating your animal.

Warts on Colt.—I have a sound colt about a year old. Six months ago there appeared some warts on the lower side of the neck on the right side of the windpipe and a little later two more appeared on the top side in the mane. Slowly they grew larger and now they are as large as a man's fist and are round in shape and bloody. Smaller ones are scattered over different parts of its body. I didn't do anything with the warts, but called a competent veterinarian. He told me it was a cancerous system and if he would cut the large ones off, the small ones would grow very quickly. He said he could not do anything for the colt. Can you give me any advice in this matter, and is there any danger of this affecting other horses? C. N. Brookville, Kans.

Answer.—In regard to your colt that has warts, will say that I would advise you to use daily on the warts a 30 per cent Thuja Oil Ointment. Continue this treatment for several weeks, even though the warts have apparently disappeared, and I think you will find it successful in curing your animal of the warts. This ointment is a little expensive, but I think on an animal that will warrant the treatment it is advisable to use the preparation.

Summer Sores.—I have a 2-year-old colt that had the distemper last spring. After he was well he broke out on his neck and shoulders with small lumps, and after a week or so he began to bite his legs and rub himself until he has rubbed the hair off in places. He bites his ankles and legs until he makes them raw. He is in good flesh and a very fine colt. Is sorrel in color and weighs about 1,280 pounds. He bites and rubs himself more when he is warm than any other time. I have done nothing for him excepting to put some salve on the raw spots. J. H. C. Buffalo, Kans.

Answer.—I think your colt has what is known as summer sores. Will recommend that you use cold water several times daily, and in a very short time you will find that the sores will leave the animal.

Horse Stiff in Shoulders.—I have a 3-year-old mare that is lame. She seems to be stiff in both front feet or shoulders. I have examined feet and shoulders by feeling with hand and can not

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find any place where she flinches when touched. She stumbles and sometimes falls down. Is very stiff after standing a while or of a morning. Please let me know what to do for her, by mail.
Fridley, Mont. J. D. K.

Answer.—Would advise you to place your horse that is stiff in a large box-stall with plenty of bedding. Feed the animal sloppy bran mashes three times a day. If the animal gets too lively, reduce the grain. Give the animal absolute rest in the box-stall for several weeks. If the feet are not the trouble, the rest is the best thing you can give the sore muscles of the shoulder.

Distemper.—Please send me a press bulletin for something to cure horses of distemper. My horses have it in a light form.
C. G.

Ozawkie, Kans.
Answer.—I would advise you to use the following as a cure for distemper: Pulverized nux vomica 1½ ounces, pulverized gentian 2 ounces, pulverized iron sulfate 2 ounces, pulverized glycyrrhiza root 8 ounces, pulverized sodium hyposulfite 4 ounces, powdered buchu 8 ounces. Mix with 10 pounds of oil-meal. Give heaping teaspoonful to each animal twice daily in ground feed. We are also mailing you a press bulletin on "Some Troubles of Swine," which has the Government formula which you desired.

Sweeneyed Gelding.—Founded Heifer.—Will you please tell me how to cure a sweeney on a 4-year-old gelding?

Have a 3-year-old heifer that seems to be stiff in all her legs. Just put her on wheat pasture about a week ago; has gotten that way since. What can I do for her? Have not used any treatment yet.
W. T. G.

Meade, Kans.
Answer.—I would advise you to use a seton on your animal that is sweeneyed. Use a cheese cloth that has been boiled and then dip in a disinfectant before drawing it underneath the skin. I fear that your heifer has had too much feed and has become founded. You had better stand her in mud for several days and if her pulse raises very much, use Aconite in 15- to 25-drop doses. Tincture of Aconite is the usual form that is administered. You will need to probably give her 1 or 2 doses an hour apart.

Blood Wart.—I have a 3-year-old gelding that has a blood wart on one of his front feet just above the hoof; has had it eighteen months. I have cut it off twice and burned it with some medicine, but it grows again. Would like to have a cure for it.
J. K.

Kinsley, Kans.
Answer.—I would advise you to use Thuja Ointment daily on your gelding's blood wart.

Stiff Horse.—I have a 13-year-old horse that has been stiff for a month at times. He is so stiff sometimes after standing for a while that he can hardly walk. The stiffness seems to be in all his joints or muscles. He lies down a great deal. He seems hearty and in good condition. He shifts his weight from one foot to another and will set one toe on the ground. I thought at first he might be founded, but do not think he could have gotten too much of anything except water. The stiffness seems to hurt him only when driving. He works all right.
Lowell, Ark. A. E. R.

Answer.—For one thing I fear the horse's feet are extremely dry, and would advise having him stand in mud or something of the kind. Then apply the following to his legs and over back and kidneys: Tincture capsicum 4 ounces, tincture cantharides 4 ounces, spirits camphor 6 ounces, alcohol sufficient to make a quart. Use a tablespoonful of this mixture to a quart of water and apply over the legs with considerable hand-rubbing.

Stump-Sucker.—I have a 3-year-old colt that is a stump sucker. Is there anything that will cure her? Has had the habit for a year. Would sawing between the teeth or pulling one of them cure her?
Mt. Carmel, Ill. A. S.

Answer.—Put a strap around the colt's neck just back of the throat; buckle it rather tightly and see if that won't stop the colt's trouble.

Bladder Trouble.—I have a 12-year-old bay horse that has had kidney trouble off and on for one year. He can scarcely make water now, and has been this way for about four days. I took him to our home veterinarian and he tried to draw the urine from him but failed. There seems to be something in the way of the catheter. Since that time a lump has appeared just under the rectum. This lump can be removed by pressing with the hand, and it will go back so far that you can not feel it.

By pushing it back there will be a discharge of urine, but when he tries to urinate it comes back. This lump is about the size of a pigeon egg. I am giving him about one bottle of Hamlin oil every other day. I am feeding prairie hay and new corn. Our veterinarian says he doesn't know what to do. I think it is a gravel. I would like for you to advise me as soon as possible, as the horse is no better up to date.
Topeka, Kans. H. T.

Answer.—I think your diagnosis is correct on your horse that has difficulty with the bladder. There is evidently what is known as stone in the bladder, a calcareous material. This is evidently obstructing the flow of urine. You will need to employ a veterinarian to perform an operation in order to remove this material, as no medicine is practicable to give an animal for this trouble.

Inflammation of Udder.—I have a young well-bred Shorthorn cow (had her first calf last May) that gives a small clot of blood, sometimes two or three, at every milking. Can I cure her and how?
Topeka, Kans. OLD SUBSCRIBER.

Answer.—For your cow that has blood coming through in the milk, would advise that you use fluid extract of poke-root, rubbing thoroughly in the udder three times daily for at least a week; then use the camphor ointment instead of the poke-root.

Distemper.—I have a dark brown horse, 5 years old, that had the distemper nearly all last winter and is beginning to get the same again this fall. He caught cold about two weeks ago and coughs considerable, and whenever he drinks his nose will run.
Maysville, Kans. F. W.

Answer.—For your horse that is getting distemper again, would advise you to feed the following in ground feed. Have your druggist put up the following for you: 1½ ounces of nux vomica, powdered, 2 ounces of powdered gentian, 4 ounces of powdered digitalis, ½ pound of sulfur, 4 ounces of common salt, 10 ounces of pulverized glycyrrhiza root, 6 pounds of oil-meal. Mix, giving a heaping teaspoonful night and morning in ground feed.

String-halt.—I have a 6-year-old mare that is a little string-halt. Never noticed it until this month. While driving her she stumbled a little and went lame a few steps and then appeared string-halt. Is there anything that can be done to overcome the difficulty?

Another mare stepped on a spike last October. While being driven dirt worked into the hole and later the hoof broke open near the top and pus was discharged for a while; then it stopped and seemed to be healing up, when a new break appeared just at the top of the hoof. Now there are two or three openings with pus running from all. What treatment would you recommend?
Green, Kans. H. L. S.

Answer.—If your animal has string-halt, nothing short of an operation by a competent veterinarian will prove entirely satisfactory.

For the animal with pus coming from the foot, would advise poulticing with bran or linseed-meal for three or four days, then remove all the sole that has been under run with pus and poultice with antiphlogistine.

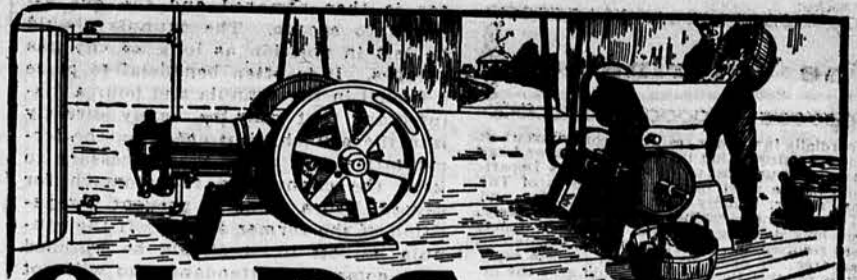
Bunch on Mule's Shoulder.—I have a 3-year-old mare mule that has a bunch on her left shoulder, caused by the collar while disking last spring. Have washed with salt water and turned her to pasture to get well, but the bunch seems to remain the same. The bunch is now hard and smaller than five weeks ago. What treatment would you advise?
Lebanon, Kans. M. R.

Answer.—I think the bunch on the mule's shoulder will have to be opened to allow the pus to escape before the animal will make a recovery.

Material for Tuberculin Test.—Please inform me through your paper where material may be obtained for testing cattle for tuberculous, and also give directions for its use and the cost.
Americus, Kans. A SUBSCRIBER.

Answer.—The tuberculin for testing cattle may be obtained from the Government. It is not practicable for a person to give a tuberculin test unless he is a qualified veterinarian. You had better employ a competent man to do the work for you and he can get the tuberculin from the Government or from Parke Davis & Co., Detroit, Mich.

Injured Colt.—I have a 3-year-old gelding, roan, that does not have good use of its limbs. He acts very much like a badly founded horse. When he is backed, he drags his front feet, and he can hardly turn around without falling. He was in my neighbor's pas-



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ture and some time in July he and other colts were running, and in passing through a gate he and the other colts ran together and he fell and could not get up for a while. I brought him home and he seemed to be getting very much better but he never got entirely well so that he could back without dragging his front feet; neither could he turn around very well. He seems to be very weak, but eats and drinks and seems to have a very good appetite. Has a sleek coat, but is thin in flesh. I feed oats and alfalfa. A. E. P. Fairview, Okla.

Answer.—I am unable to give you a specific treatment for your colt that is evidently injured. You had better employ a competent individual to make a thorough examination of your animal and I think then the results for treatment will be very much more satisfactory.

Hogs With Thumps.—I have a bunch of 40 head of pure-bred Duroc hogs, and in the past few days there has been six head taken suddenly with the thumps. Those hogs will weigh from 80 to 175 pounds. I keep them in a lot of one acre on very near full feed of new corn and plenty of good, clean water, but the lot is very dry. They dig large holes and these holes fill up with fine dust. I think the disease is caused by inhaling so much of this dust. Please tell me what you think is the cause and give me a remedy or preventive. Have dissected one and found nothing wrong that I could notice. Found a small amount of whole corn in the small intestines. My hogs all seem to be affected with a dry, hacking cough, but am now feeding for worms. There seems to be a great many losing shoats with the thumps in the neighborhood. J. A. Q. Waterville, Kans.

Answer.—I would recommend that you get the Government formula prescription filled for the prevention of hog-cholera, which is also an excellent tonic for pigs, and would therefore recommend that you feed your hogs less corn and I believe that you will have no further trouble from the thumps. We are mailing you the bulletin which contains the formula.

Cow Refuses to Give Her Milk.—I have a young Jersey cow with second calf, 3 months old. The cow has been broken to let the calf suck part of her milk and then we milk the rest. I have put weaning muzzles on the calf and turned it in the pasture with the cow. The cow now "holds up" her milk. Is there any remedy for it or anything I can do to cause her to give down her milk? Kindly answer through THE KANSAS FARMER. F. F. Lakeland, Fla.

Answer.—Careful milking of your cow, I believe, will remedy the trouble. Would therefore advise you to give the cow plenty of time while milking her and I think she will soon learn to give her milk down.

Poll Evil.—I have a horse about 10 years old, light iron gray, that about six days ago began to hang his head and act rather stupid. The boy was plowing with him and thought perhaps he was sick so he brought him to the barn and he went to eating hay. The next morning he noticed that there was quite a swollen place on his head just back of his right ear, and as I was away from home at the time my wife poured some of Haller's Pain Paralysis Ointment on the swollen place. It doesn't seem to be any better or worse than at first. Can you tell me what to do for him? W. F. B. Oakland, Iowa.

Answer.—I fear your animal has poll evil started. Would therefore recommend that you use a stimulating liniment, using equal parts of turpentine and raw linseed-oil. Rub this on the affected part daily until sore, then try and follow the instructions in the press bulletin I am sending you.

Cow's Udder Affected.—I have a very fine Jersey heifer that will soon be fresh. Her udder is badly caked and has been for several months. Could you tell me anything to do for her? I have tried everything I have ever used before, but nothing seems to help her. I am very much worried about her and will be very grateful for any information you can give. One quarter of the udder is worse than the rest and was the first to swell. S. E. B. Baldwin, Kans.

Answer.—You had better try using lard and camphor on your cow's udder. Melt together 4 ounces of camphor and ½ pound of lard. Stir until cool and apply to your cow's udder three times daily.

Choked Cow.—My 10-year-old Jersey cow for more than a month has had spells of choking or something like it. It nearly always happens while she is eating.

Answer.—In regard to your cow, I

would think from the description you give that there is some foreign substance in her throat, or something that causes a chronic irritation there. I would suggest that you examine the cow's throat very carefully and possibly you will find something she has taken into her mouth with her food which has become lodged in her throat.

Warbles in Cow's Back.—What will take warbles or grubs out of cow's back? F. M. S. Sedan, Kans.

Answer.—Below find extract from Dr. Mayo's press bulletin on warbles or grubs in cattle:

"Treatment should begin as soon as the warbles are noticed upon the animals' backs. Most of the warbles or grubs can be destroyed by putting turpentine, kerosene, crude petroleum, or mercurial ointment in or on the opening through the skin directly over the warble. If the opening is very small, it should be enlarged by using a smooth, pointed stick. A machinist's oil-can having a slender nozzle furnishes an excellent method of applying the medicine. By running the cattle through a chute they can be treated quite rapidly. They should be examined in about ten days and any of the grubs that escape the first treatment should be destroyed by a second; or better, squeezed out and crushed; or they can be crushed beneath the skin by pinching the lump, or killed by inserting a pointed wire or large, blunt-pointed needle. It is important that any grubs squeezed out or escaping naturally should be destroyed or they will transform into adult flies.

Horse With Distemper—Mare With Lame Leg.—My 7-year-old horse had distemper last spring and hasn't recovered; he coughs and seems short of wind. My 17-year-old mare went lame in hind leg a year ago; can detect no swelling in the leg or foot and no soreness. W. D. C. Ogallah, Kans.

Answer.—Have the following prescription filled for the horse with the cough; ammonium chloride, 16 ounces, nitrate of potash 8 ounces, digitalis 4 drams, nux 2 ounces, iron sulfate 4 ounces. Mix, make into 16 powders; give a powder daily in ground feed. In regard to lame mare, would like to have more symptoms, when she is lame, etc. We are sending you a bulletin on ring-bone and spavin which may be helpful in locating the trouble. We will be glad to send this bulletin to any others desiring it.

Colt With Stifle.—My colt coming 4 years old is stifled below hip. There is a little knot in front part of leg. Has been this way two years. R. S. Sedgwick, Kans.

Answer.—This being a chronic case with your colt, before prescribing would like to have you write more particulars in regard to the present condition of colt, everything you can see, any places where the colt is sore, etc.

Shoats Out of Condition.—I have a bunch of shoats that have a terrible cough. They eat well, but are not growing and seem wormy. O. E. R. Invale, Neb.

Answer.—We are mailing you a bulletin which describes various ailments among hogs. You will find in the bulletin a prescription for a tonic for hogs which it might be well to give them. For the worms have the following prescription filled. The following is one dose which should be given after the pigs have been fasting for twelve or fourteen hours: Turpentine 4 drams, liquor ferri dialysatus ½ dram, raw linseed-oil 6 ounces.

Lump on Horse's Shoulder.—I have a brown team, 6 and 12 years old. Last summer the 6-year-old horse had a lump on right shoulder the size of a hazelnut. It disappeared last fall, but came again this winter and disappeared again. The 12-year-old horse has a lump on the left shoulder.

Answer.—It will be best to remove the lump from your horse's shoulder and then heal the wound with some common disinfectant. It would be well to select some time to perform this operation when you can lay the horse off until the place is entirely healed. Have the collar made to fit, and probably no more tumors will form. C. L. BARNES.

Cancerol, a Home Treatment for Cancer.

An unparalleled record of successful cures proves the superiority of Cancerol. Not an experiment, but the result of experience. Investigate for yourself—costs but a trifle. Write today for free book. Address Dr. L. T. Leach, Indianapolis, Ind.

Conceit is like a dry sponge. Once awakened into action by the water of flattery it swells rapidly. So strenuous is the process of enlargement that it not infrequently crowds out of the mind all the common sense and reason put there by Dame Nature.—Star of Hope.

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My Crate is used and endorsed by the leading breeders of the country. It is strongly built and easy to operate. Price, \$15.00 f. o. b., Beattie, Kans. Circulars free, which fully describe it.

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The Only Sheller Having a Gravity Force Feed.

WALNUT GROVE FARM

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Upon the advice of several specialists I am going to New Mexico for my health. On this account I must dispose of all my Kansas property, including the famous Walnut Grove farm, the most complete and profitable stock farm in Kansas. This includes 180 acres of the best land in Kansas, two miles from Emporia. Over 200 good O. L. C. hogs. All our Barred Plymouth Rocks, 25 Colliers, 44 head of cows, 8 head of horses, the best farm house in the State. Also one small farm house, 2 large barns, 2 large cattle-sheds, one 300-foot hen house, one 250-foot broiler house, 20 brooder houses, capacity of plant, 4,000. The best hog house in the West, double-deck cement floors; many small hog houses. This is not an experiment, but a successful stock farm. Price, \$20,000 cash.

H. D. NUTTING, Emporia, Kans.

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I have made a life study of the different Pure Breeds of Horses, Cattle and Hogs. Have a wide acquaintance with breeders. Am thoroughly posted as to the best methods employed in the management of all kinds of sales. Have booked dates with the best breeders in Kansas, Missouri and Oklahoma. Will help you in arranging for your advertising. Write or wire me before claiming dates.

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

The Farmer's Poultry.

Poultry on the farm never received so much attention as is now being given to it. Eggs for a long time have been selling at a very profitable price to the farmer and fowls bring 8 to 10 cents per pound when brought to market. Not so long ago, those farmers who paid particular attention to poultry were looked upon as being cranks and wasting a lot of time on work that women should be allowed to attend to. These men were wiser than their generation, and to them the poultry industry owes much. They built good poultry-houses, took care of the chicks, provided proper food, and made money out of their flocks, and others, becoming convinced that it paid to take good care of hens, followed in their footsteps, until now, the man who neglects the hen, is the one that creates remarks. There is no doubt that the hens have helped out many a farmer during years of drouth and depression, and now they are more profitable than ever before.

It is not necessary for the farmer to start out as a poultry-fancier in order to make a success of his poultry; but the one who begins by taking good care of the poultry he already has, will, before very long, be looking after pure-bred stock, because he will want to get the largest profit, and will become convinced that pure-bred poultry is superior to any mongrel stock he may have.

One breed is enough for any farmer, and when all the hens look alike, the flock is much more attractive than it would be if made up of several different varieties of fowls. The Plymouth Rocks and Wyandottes are good breeds for the farmers. They come now in nearly all colors, White, Barred and Buff Rocks, and White, Silver, Golden, Partridge, Buff, and Columbian Wyandottes. Rhode Island Reds have made great strides lately and are making a big bid for the farmer's favor. They are good all-purpose fowls, where you have plenty of range, Leghorns are good assets on any farm and will shell out eggs in great shape at a minimum of expense, for being great rustlers and foragers, they almost secure their own living during the summer months.

Poultry Pointers.

From sundry comments in the daily papers, we gather that some of the city folks are already worrying over their Thanksgiving turkey. They want to know whether turkeys are going to be as scarce as they were last year and as high in price. If they are, lots of people will have to get along on Thanksgiving Day with just common chicken for dinner, just as they did last year. We are satisfied that there are a great many more turkeys in the country this year than there were at the same time last year, but whether prices will be lower or not is another thing. The farmers are liable to hold out for the high prices of last year, and if the turkeys are plump and fat they probably will get good figures for them; but if they are ill-fed and scrawny, they are liable to go a begging, for a nice plump chicken is better any day than a half-starved turkey. It behooves farmers, therefore, to see that their turkeys are put into a fattening pen for two or three weeks before Thanksgiving. It would add materially to the price of chickens also, if they were given extra feed and care for a few weeks before the holidays.

The poultrymen of Lincoln, Neb., thought at one time that they would have to give up the idea of having the Nebraska State Show in their town this year. It was over the same matter that we had difficulty over in Topeka, viz., the use of the auditorium. But unlike us, it was not because certain folks, who don't know chicken from turkey, were opposed to the poultrymen using the auditorium for the poultry show, but because the city demanded one hundred dollars for the use of it and they did not have the money to pay for it. In this emergency came M. M. Johnson, the Old Trusty Incubator man, and paid the hundred dollars out of his own pocket and the auditorium is theirs for the week of the poultry show.

This week Secretary Owen, of the Kansas State Poultry Association, is sending out circulars to poultrymen urging them to join the State Association. The fee is only 50 cents per year,

with no other dues. For this each breeder's name, and the variety of fowls he raises, is printed in the premium list and in the secretary's report to the Governor. It is the cheapest kind of advertising. Incidentally, he mentions that the price of advertising in the premium list is \$5 per page, \$3 per half-page, and \$2 per fourth-page. He would be glad to receive a membership fee or advertisement from any reader of THE KANSAS FARMER. Address Thos. Owen, Sta. B., Topeka, Kans.

To do well this winter your fowls should be provided with green food, in addition to their grain ration. Save all the small potatoes, imperfect heads of cabbage, and other waste vegetables. Turnips, beets, and carrots are also good. If you have not enough of above vegetables, alfalfa hay makes a good substitute. Cut the hay into half-inch lengths, scald it with boiling water, then mix bran and cornmeal with it. On such a ration, in warm quarters, your hens ought to shell out eggs all winter.

Poultry Notes.

N. J. SHEPHERD, ELDON, MO.

By keeping an account one can at any time make some kind of an estimate of the prospective profit. Now is a good time to begin. In nearly all cases, however, expenses are heavier during the winter.

It is very difficult to engage in the artificial hatching of chickens for early broilers unless a sufficient number of hens are kept to provide the eggs for that purpose.

In nearly all cases the small flocks lay more eggs in proportion to numbers than larger flocks, and many persons who have done well with a few hens have failed when they undertook the care of a large number.

As a general rule, it is not the large turkeys that bring the highest prices, but those of medium size and in good condition. The large turkeys will excel in weight, but the smaller but plump turkeys sell at higher rates per pound. The quality and condition are prime factors.

A small flock well managed will give a larger profit than a flock that is compelled to take care of itself. It costs more to keep a flock that can not secure a large proportion of its food, and as it may be possible for a small flock to need little or no assistance, every hen over and above the limited number will be kept at a loss.

Turkeys should be fed regularly twice a day now. Give all of the whole corn they will eat every night, especially those intended for Thanksgiving. By feeding well now, they can be gotten into such a good condition that only a few days of liberal feeding with a good fattening ration will be necessary to properly prepare them for market.

Every little detail tells in the result desired, and success in poultry-raising depends almost entirely on attention to the smaller details.

Study for variety in the feed of fowls during the winter. To secure the greatest variety, preparation should be made in the fall. With a little care, much that might otherwise be wasted may be saved and used to a good advantage.

The winter quarters for the fowls should be made snug and warm and as comfortable as possible consistent with needed ventilation, which should be so arranged as to be at the top of the building as high as possible above the fowls. Under no circumstances should the roosts be so placed as to compel the fowls to sit in a draft.

Incubator Instructions.

EDITOR KANSAS FARMER:—The temperature of a laying hen's body is 98°. The temperature of a sitting hen's body is 103° to 105°, and I have known it to register 106°. A sitting hen has a fever of from 5° to 7°. It is this fever that makes her want to set. This fever stays with her to a greater or less degree until the chicks are weaned or the hen's sitting notions have been broken up. Little chicks discover the lower-temperature days before the hen quits them and become uneasy. This can be verified by any experienced poultry-raiser.

In operating incubators, the tendency is toward warming the eggs up too fast. It should take two days instead of two hours. The rule when operating incubators is to run the heat up to 105° in the empty machine, set the regulator, and let her go gallagher. The cool eggs run the temperature down. It also holds the damper down, and the heat of tank gets greater and greater. It would be foolish to surmise that the hen gets hotter and hotter.

The contents of an egg is one of the

PLYMOUTH ROCKS.

WHITE ROCKS and WHITE WYANDOTTES—Young and old breeders for sale at attractive prices. W. L. Bates, Topeka, Kans.

BARRED PLYMOUTH ROCK EGGS—From free range stock, no other fowls kept on the farm. Price \$1 for 15; \$5 for 100. Mrs. C. F. Brown, Box 61, Manchester, Oklahoma.

B. P. ROCKS and BUFF ORPINGTONS—Eight grand matings. Send for price list on eggs and Colbie pups. W. B. Williams, Stella, Neb.

SPECIAL SALE ON BARRED PLYMOUTH ROCKS. I will sell 80 yearling hens to make room, at \$1.00 each. These hens are barred to the skin. All my last season's pen breeders, the kind that produce exhibition cockerels. Right here is a chance to get some No. 1 stock at a low price. Let me mate up a trio or a pen that will start you right. I will also sell 10 cocks including the 2d and 6th prize cockerels at the Kansas State show of 1906. Description, price and photographs of any winners sent free. I will also sell cockerels until December 1 at \$1.50 each, sired by my first prize males. Write for prices on exhibition stock. Satisfaction guaranteed or money refunded. A. H. Miller, Bern, Kans.

White Plymouth Rocks EXCLUSIVELY.

Good for Eggs. Good to Eat and Good to look at. W. P. Rocks hold the record for egg-laying over every other variety of fowls; eight pullets averaging 280 eggs each in one year. I have bred them exclusively for twelve years and have them scoring 94 to 96%, and as good as can be found anywhere. Eggs only \$2 per 15; \$5 per 45, and I repay expenses to any express office in the United States. Yards at residence, adjoining Washburn College. Address THOMAS OWEN, Sta. B., Topeka, Kans.

LEGHORNS.

ROSE COMB BROWN LEGHORNS EGGS, 15 for \$1.50 for \$2.50, 100 for \$4. Mrs. John Holzhey, Levens, Kans.

BUFF LEGHORNS and BUFF ORPINGTONS. Catalogue free. W. H. Maxwell 1240 Quincy St., Topeka, Kans.

STANDARD-BRED SINGLE-COMB BUFF LEGHORNS—Bred by first prize pen Chicago show 1905 and took six first prizes and first pen at Newton 1904. Eggs \$3 for 15. S. Perkins, 801 East First street, Newton, Kans.

FOR SALE—A limited number of S. C. White Leghorn cockerels, pure bred birds for laying and size. Price \$1, if sold to once. Mrs. F. R. White, Conway Springs, Kans., Route 2.

SINGLE-COMB WHITE LEGHORN cockerels, \$1 each; two or more 80 cents each. Fine white pure, thoroughbred birds. Also a few Barred Plymouth Rock, barred to the skin—fine, pure and vigorous; hens, cocks and pullets, \$1 each; two or more, 80 cents each. All of our customers are very well pleased. We will make reductions on large lots. Meadow Poultry Farm, Centerville, Illinois.

EGGS FOR SALE S. C. W. Leghorns, W. Wyandottes, \$1 per 15. W. H. turkeys, \$1.50 per 9. Embden geese, 20 each. W. African guineas, \$1 per 17. All guaranteed pure-bred. A. F. Hutley, Route 2, Maple Hill, Kans.

FOR SALE—Exhibition S. C. Black Minorca cockerels, 2. I guarantee them. Address George Kern, 817 Usage Street, Leavenworth, Kans.

Pure Single Comb Brown Leghorn Eggs—20 for \$1; 100 for \$5. F. P. Fowler, Wakefield, Kans.

Buff Leghorns Pure-bred S. C. cockerels \$1 each, 6 for \$5. J. A. Reed R. 3, Wakefield Kas

Johnnie Chase, Glasco, Kas.

Breeds Black Minorcas, S. C. Brown Leghorns and Barred Rocks. Second to none in the state. Eggs, \$2 per sitting.

COCKERELS COCKERELS COCKERELS

Of thirty-two of the leading varieties, being farm raised, no two on the same farm. To make room for winter quarters, Leghorns three for \$5, all other varieties in proportion. Address W. F. Holcomb, Mgr.

Nebraska Poultry Co, Clay Center, Neb.

RHODE ISLAND REDS.

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

The Talbott Poultry Farm

Breeders of the best in the world. Strain of Buff, Brown and White Leghorns, Barred Rocks and White Wyandottes. My birds have won at Chicago, Galveston, Moline, Illinois, Fremont, Hebron and State Poultry Show of Nebraska, and they will win for you. 300 old birds for sale at \$1.50 each; also 1,000 youngsters at \$1.00 and up.

W. R. TALBOTT, Prop. Hebron, Nebr.

best-known non-conductors of heat or cold, and in order to warm eggs clear through to 103° without injury to the side next the heat, it should take two days instead of two hours, as stated. My conviction, drawn from experience, is that 102° for the first week, 103° for the second week, and 104° for the third week is the correct temperature, and if occasionally the heat gets a little too high that it is the proper time to turn and air the eggs. A little too high would mean 105°, which sometimes occurs with the very best regulators.

The sitting hen turns and airs the eggs more than we credit her for. We draw our conclusions too much from casual notice. When we enter the room where she sits, she settles down on the eggs and gets mad. The entrance of a cat or dog has the same effect. Any unusual noise will cause her to settle down and to stay that way as long as she is uneasy, but when everything is safe she is an entirely different hen. She is continually working with the eggs, having a number of motions

WYANDOTTES.

SILVER LACED WYANDOTTES—Thoroughbred cockerels \$2; pullets \$1.50. Jewett Bros., Dighton, Kans.

WYANDOTTES—Pure white. Young stock at \$1 each. L. E. Brown, Norton, Kans.

WHITE WYANDOTTE COCKERELS—Show birds or choice breeders at \$1.00 to \$5.00 each. S. W. Artz, Larned, Kans.

BRAHMAS.

LIGHT BRAHMAS—More prizes than any breeder in the state; 10 firsts this season. Eggs \$1.50. Cockerels \$2 to \$4. T. F. WEAVER, Blue Mound, Kans.

Light Brahma Chickens

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

MAMMOTH BRONZE TURKEYS.

MAMMOTH BRONZE TURKEYS FOR SALE—Inquire of B. B. Kinger, Peller, Kans.

Eggs for Hatching.

M. B. turkeys, \$3 per 10. Golden Wyandottes, \$2.15 and \$1.25 per 15. Satisfaction guaranteed. Mrs. A. B. Grant, Emporia, Kans.

MISCELLANEOUS.

CHOICE BREEDING STOCK—Barred Plymouth Rocks, White Plymouth Rocks, Buff Cochins, Partridge Cochins, Light Brahmans, Black Langshans, White Wyandottes and Brown Leghorns. Single birds, pairs, trios, and breeding pens. All inquiries promptly answered and orders promptly filled with choice stock. Circulars free. Write your wants. A. H. Duff, Larned, Kans.

AGENTS—to sell and advertise our Poultry Compound; \$35 weekly; rig furnished. Franklin Manufacturing Company, Norwalk, Ohio.

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We can furnish you bees and all kinds of bee-keepers' supplies cheaper than you can get elsewhere, and save you freight. Send for our catalogue with discount sheet for early orders. Topeka Supply House 7th and Quincy, Topeka, Kansas

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More than your money's worth in incubators during the summer. We have them all beat, 40, 60 or 90 days, prove it. 5 year Guarantee. Now is the time to write to M. M. JOHNSON, The Incubator Man, Clay Center, Neb.

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Simple, perfect, self-regulating. Hatch every fertile egg. Lowest priced first-class hatchers made. GEO. H. STAHL, Quincy, Ill.

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to move, stir, and turn them. She turns them with her beak, with her feet and hocks, and very often she settles down on them and shakes her whole body. She not only does this during the day, but through the night. To verify this all you need to do is to mark the eggs late in the evening and look at the marks early in the morning. The hen not only goes through all these motions mentioned, but she settles down with her head in different directions. Her whole aim seems to be to keep the eggs warm and moving. Reader, no matter what kind of incubator is used, the mere turning the eggs half over once each day would be a weak mimicry of the hen. The sooner the old superstitions about eggs are put in the background and we get right down to aping the hen in dealing with the artificial method, the sooner incubators will be used on every farm and by every poultry-raiser. M. M. JOHNSON. Clay Center, Neb.