

KANSAS FARMER

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KANSAS FARMER.

Established in 1863.

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116 West Sixth Ave., Topeka, Kans.

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BLOCKS OF TWO.

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

Though the Hessian fly may get some of the wheat of Kansas this year, yet the weather conditions are so favorable for the crop that a great yield is now promised.

The regular weekly reports of the Kansas section of the U. S. Crop and Weather Service will appear in the KANSAS FARMER from and after April 16 until the end of the growing season. In Kansas these reports might well be published continuously throughout the year, but the powers that be at Washington have not yet realized this fact.

Hon. F. D. Coburn, chief of the division of live stock at the coming World's Fair has taken up the work with characteristic energy and is interesting all producers of pure-bred stock in the exposition. The Central West will doubtless respond with exhibits more varied, more numerous, and more excellent than ever yet assembled in any part of the globe.

WASHBURN COLLEGE.

Large space in this week's KANSAS FARMER is devoted to illustrated descriptions of Washburn College, its surroundings and belongings. This is one of the great schools of the State. It is carried on by private effort and never asks the Legislature for an appropriation. It is doing its work well. Several hundred young men and young women come to its halls every year to avail themselves of the opportunities it affords. Why do they choose this college?

First, because it is an educational institution of high ideals and excellent opportunities.

Second, because of its moral and religious influences.

Third, because its location at a city of considerable size presents opportunities to young men for employment a part of the time, thus enabling many young men to earn a part or all of their expenses while pursuing their studies. Thrifty habits are fashionable at Washburn.

Fourth, because of the "atmosphere." Hundreds of Western youths are sent to Eastern institutions of learning every year because their parents want

them to have the advantages of the grade of culture and the trend of thought which have grown with the growth of these venerable schools, and have characterized the eminent scholars who have gone out from them. Washburn is a scion of the most characteristic of the New England colleges grafted upon the vigorous stock of Western progressiveness. In a marked degree this college carries the "atmosphere" of culture of the Eastern schools and the energy of the West. Those who seek both learning and refinement make no mistake in going to Washburn.

BALANCE OF TRADE.

The exports and imports of the various nations of the world amount to very large figures annually. As compiled by the statistical division of the U. S. Treasury Department, the sum of the imports of the several countries engaged in foreign commerce amounts to about eleven billions of dollars. Since every import must have been exported from some country the aggregate of the exports should equal the aggregate of the imports. Through some fault of the bookkeeping of the nations the international account is out of balance by about one billion dollars, the exports falling short of the imports by this sum. A part of the discrepancy may be attributed to the fact that all exports are estimated at the price in the exporting country. The imports are, in some cases at least, estimated at the price in the exporting country plus the cost of transportation, or at the price "laid down."

The United States stands at the head of the list of exporting countries having recently passed France, Germany, and the United Kingdom.

The United States has long been and still is fourth in the list of importing countries.

Of these four leading nations, the United States is the only one which exports more than it imports. For the nine years ending June 30, 1902, this country recorded an aggregate of exports over imports amounting to \$3,484,700,224. These figures are usually pointed to with pride. They average nearly four hundred millions a year.

They show at least that the products of this country amount to a good deal more than the people consume. We are at least contributing this much to the comfort of the people of other countries—chiefly to the people of England. There are in round numbers about sixteen million families in the United States. Dividing the \$400,000,000 contribution by 16,000,000 gives \$25 as the approximate average annual contribution of the American family to the comfort of people in foreign lands.

Why do we make this large contribution?

First. We borrowed large amounts of capital—accumulated products of labor—in foreign countries with which to make improvements in this country. We built railroads, bridges, school-houses, court-houses, residences, barns, fences, manufactories, etc., with foreign capital. These were doubtless good investments in the main, but they cost a good deal of interest and the payment of the principal has proceeded with great rapidity during the last few years. We were opening our farm and installing our factory and we did not wait to do it as we could spare the capital from what we could make on the "raw land." The rate at which we have been able to "pay up" justifies our risk in borrowing.

Second. Students of finance are sure that while some of our obligations are still held abroad we are now offsetting

this by loaning in foreign countries. There is no known way of ascertaining whether or not the interest accounts on our foreign credits and on our foreign debts balance, but with the balance of trade as large in favor of this country as it has been in recent years, the balance of interest should speedily turn in our direction.

Third. The mania of rich Americans to spend their time and substance in foreign countries necessitates the exportation of large amounts of the good things here produced to meet the drafts of our nabobs for money.

If the time shall come when the average American family can consume what the average American family produces without the \$25 a year deduction to be sent abroad, that is, if the balance of trade shall reach its normal value, zero; that is, if we have paid our foreign debts, ceased to loan abroad, and shall spend no more abroad—for hollow foreign titles or other commodities—than foreigners spend here, there should be a considerable elevation of the average standard of living in the United States.

A FEW POINTS ON EDUCATION.

There was a time when education was for the few and it was thought by the few at least—that universal education would disturb, disrupt, and even destroy the organization of society. During the days of slavery, it was, in most slave States, made an offense against the law to teach a slave to read and write. Doubtless the assumption that it would be impossible to retain educated people in bondage was correct. The uneducated man is not a slave to-day, but he is in positions of disadvantage as compared with every educated man in the community, state, nation, world. The uneducated man is not as effective a worker as his educated rival in any save the most menial position, the position in which his thinking is done by another. In all positions of responsibility, in all positions which command liberal compensation, especially in positions requiring independent action, positions whose remuneration depends upon the wisdom of the action, the educated man has the better chances of success.

True, an ignorant man may plow as many acres in a given time as the man who has given years to acquiring an education. He may reap as much wheat, or husk as much corn, or pitch as much hay; but on the average he does not get on in the world as does the educated man. There are exceptions to this as to all general statements. "Self-made" men are pointed out as having succeeded without much education. During late years the self-made man has generally devoted his first great efforts to obtaining an education as an essential preparation for the work of making himself.

The individual who seeks education as a possible avenue of escape from his just share of the world's work is the only one in whom education contributes to failure. But the effort—the continued, strenuous effort—required to acquire an education of the modern sort generally begets such habits of work as cling through life. The educated man is in almost every case a hard-working man. He may do much of his work with his mind; but the mind-worker is the effective worker. The work of the horse is more valuable than the work of the ox. This superiority results almost wholly from the superior intelligence of the horse. The work of the freeman is

(Continued on page 416.)

Agricultural Matters.

REPLIES FROM THE AGRICULTURIST OF THE KANSAS EXPERIMENT STATION.

Feeding and Harvesting Kafir-Corn.

Will you kindly give me the following information in reference to Kafir-corn: What is the average yield of seed per acre where it is listed in? Do you consider the seed as good feed when ground as Indian corn? Some say it is too rich to feed regularly. Is this true? What is the best plan for topping or heading it in the field? Is there a successful machine in use for this purpose? Where it is desirable to use it for roughness, which is preferable, to list or drill it? Can you recommend a good grinder for the seed? Dublin, Texas. J. K. GRAVES.

The average yield of Kafir-corn at this station for eleven years was forty-six bushels per acre. This average includes one complete failure of crop. This was on upland not greater in fertility than the average land of the State. It is not satisfactory to list Kafir-corn at this station. Listing is perhaps the best method for the eastern half of the State. You will know whether this is the proper method for you to use or not.

Experiments show that bushel for bushel, Kafir-corn does not have the feeding value of corn, there being a difference of about 10 per cent in favor of corn when each is fed alone to hogs. Kafir-corn is not "too rich" to feed alone but it needs to be fed with other feeds which contain more protein in order to give a balanced ration. Kafir-corn may be fed well with alfalfa.

If the fodder is desired for feed it is best to cut stalk and leave it in shock until dry. In thrashing, the whole stalk may be run through the separator, or as is more common, cut off the heads with a long knife or broad as, and thrash the heads only.

There are several machines made for heading Kafir-corn while standing in the field, but the great drawback to this method is that the corn heats when piled up green. In the drier sections this is a favorite method. Two standard machines for heading Kafir-corn are, the "Eagle," manufactured by the Eagle Manufacturing Company, Kansas City, Mo., and the "Stafford," sold by the Western Manufacturing Company, Kansas City, Mo.

Some farmers manufacture a home-made implement for this work which consists of a gear attached to the wagon wheel, such as is used on a broadcast sower, and fitted on an upright shaft with a sprocket wheel at the top, having long arms, flush with a table which is fastened at the side of a wagon box. This table is fitted with a knife at the outer edge against which the Kafir-corn stalks are forced with the sprocket wheel, and being cut off are scraped into the box.

In using Kafir-corn for forage we would certainly prefer to drill it.

We are using a Bowsher Grinder Mill, manufactured by the Patterson Machine Company, Kansas City, Mo. This mill answers very well for grinding Kafir-corn. The Ideal Duplex Mill is also recommended for grinding small grains. This is manufactured by the Stover Manufacturing Company, Freeport, Ill., and is handled by the Kansas Moline Plow Company, Kansas City, Mo. The Kingman, Moyer Implement Company, Kansas City, Mo., also sells a general feed grinder mill. Another good mill is manufactured by the Sattley Manufacturing Company, Kansas City, Mo..

A. M. TEN EYCK.

English Blue-Grass.

Will you please inform me as to the average yield of English blue-grass seed to the acre—not the extremes under intense farming, but the average for the field? And also how much is it worth for pasture? Can it be pastured and still get seed? B. B. GRANT.

Shawnee County.

The average yield of English blue-grass seed is about nine or ten bushels per acre. Crops averaging twelve bushels per acre are common, and in favorable seasons fifteen or eighteen bushels are often harvested.

When it is the purpose to cut for seed, the field should not be pastured in the spring but it may be pastured after the crop has been harvested without injuring the field for seed another season. A wet spring is most favorable to a large production of seed.

For pasture, English blue-grass is often more productive than any other of the tame grasses except alfalfa. The grass starts early in the spring, fully a

month before the native grasses, and lasts about as long in the fall as any of the pasture grasses, and cattle thrive on it. It is considered to be one of the hardiest grasses for the eastern part of the State, and will thrive on poorer land than most of the other tame grasses. A. M. TEN EYCK.

Bromus Inermis.

Will you please give me the results of your experience with Bromus inermis as compared with other grasses, either for pasture or for hay in your locality? On which, high dry upland, stiff clay, alkali, or rich bottom land does it do the best? Will it do well on either of these? W. MCCREARY.

Butler County.

We have a small field of Bromus inermis which was seeded a year ago last spring. The grass made an excellent stand and produced about one and one-half tons of hay per acre last season, a very rank after-growth making excellent pasture. This grass has been tried at several points in this State with good success generally.

It is very hardy, one of the first grasses green in the spring and remains green late in the winter. It resists drouth better than most cultivated grasses. The characteristic which makes it so valuable is that it tends to thicken up the longer it stays on the ground. It makes an excellent hay, equal to timothy in feeding value and is one of the best pasture grasses.

The grass will do well on upland, stiff clay, or in rich bottom land, but I believe it can not be grown on alkali soils. I do not speak from experience, however, and it might be worth while to try the grass on an alkali spot and see what it will do. I would prefer the rich bottom land to any of the soils named.

The seed should be sown very early in the spring, preferably on clean corn ground which has not been plowed, simply prepared by thorough disking and harrowing. Sow the seed broadcast and harrow once very lightly after seeding. If you are obliged to sow on spring plowing, the land should be firmed and worked very thoroughly before seeding. I prefer fall to spring plowing.

The seed can not be sown with a drill unless some device be arranged for making it feed evenly. This can be done by making a shaker which sets in the bottom of the drill box. Take a small slat of wood and drive two nails through the slat into each feed-cup, attach a handle which will serve to shake the slat, thus causing the seed to feed more evenly. Only a small amount of seed should be put in the box at a time.

Some have made a success of mixing Bromus grass and oats half and half and sowing the mixture. The oats should be cut for hay about the time they come into the blossoming stage. The last plan is recommended for land that is inclined to blow. We prefer to sow Bromus grass without a nurse crop. The seed should not be sown deep, not more than one and one-half inches. As a general rule, I do not recommend rolling after seeding unless you have sown quite late when the ground is too dry to germinate the seed. We prefer, rather, to sow the seed very evenly, harrow it lightly after seeding and let the spring rains do the rest.

A. M. TEN EYCK.

Grass on Upland Prairie.

I am very anxious to have the benefit of your experience and knowledge in reference to sowing grasses on an upland piece of prairie land.

Timothy and clover do not last many years. In your opinion, what is the best grass or grasses to plant on such land to make the most permanent meadow that will stand mowing for hay year after year?

I will feel very greatly obliged for any help you can give me on this subject. I have written you because I thought you the most reliable source to apply to for information on the question. A. M. LINGO.

Anderson County.

Your letter of February 6 received. Under separate cover Bulletin No. 114 on alfalfa and Press Bulletin No. 62 on grasses have been sent you. It would seem to me that timothy and clover would make one of your best meadow grasses. There is no grass which will stand a great many years for meadow and continue to produce profitable crops without renewing in some way. I always recommend a rotation of other crops wherever it is possible; break up the meadow and grow cultivated

crops for two or three years and then reseed.

It is possible to renew an old meadow to a considerable extent by disking it thoroughly in the spring or fall and, if necessary, sowing a little more grass seed. The disking will tend to kill out some of the old plants and cause a new growth. The reason why an old meadow can not be productive is that, as a rule, the ground is filled up with roots of the grass, the fertility of the soil is largely stored in the roots, and in order to get new growth it is necessary to kill out some of the old grass and cause the roots to decay, thus furnishing plant-food for a new growth.

I recommend that you try Bromus inermis for a hay meadow. You might sow it with timothy and clover, using about one-half your usual amount of seed of timothy and clover, adding about eight pounds of Bromus seed per acre. Bromus grass will gradually thicken up and after four or five years probably take possession of the field.

It is always well to have in every meadow a little clover growing, as the clover acts as a host plant to the other grasses; that is, by gathering the nitrogen from the air it tends to build up the fertility of the soil and in a measure feed the other grasses.

A. M. TEN EYCK.

Amount of Water for an Animal.

Have you any statistics showing the amount of water an average milch cow or 2-year-old fattening steer will consume in twenty-four hours? What I want to know is this, how many barrels of water must my well furnish in twenty-four hours to supply twenty-five milch cows and twenty fattening steers?

If you have no statistics I would be thankful to have your estimate.

Atchison County. EDW. R. STACEY.

Professor King of the Wisconsin Experiment Station has published some figures on the amount of water required per day for dairy cows and other domestic animals. He concludes that fattening cattle require about one cubic foot of water per thousand pounds of weight per day of twenty-four hours. Dairy cows drink, on an average, about one and one-half cubic feet of water per day during the winter season.

He concludes from this investigation and others that dairy cows giving a full flow of milk may require two cubic feet of water in twenty-four hours.

Twenty 2-year-old steers averaging one thousand pounds each and twenty-five dairy cows will, therefore, require in the neighborhood of 57½ to 70 cubic feet of water per day, which is equivalent to from 430 to 525 gallons, and at 45 gallons per barrel this is equal to from 9 to 12 barrels.

With an ordinary pump throwing 2½ gallons per minute, to supply the required amount of water for the above-mentioned stock will require from three to three and one-half hours pumping per twenty-four hours. If the capacity of your pump is greater than that stated the water could be supplied in less time.

A. M. TEN EYCK.

Fall Seeding of Bromus Inermis.

EDITOR KANSAS FARMER:—A correspondent writes concerning fall seeding of Bromus inermis, and as we seeded six and one-half acres on the college farm last fall our experience may be of some value.

The ground seeded had been sown to oats in the spring and pastured by dairy cows. After the oats were eaten down the land was plowed and harrowed several times through the summer to conserve the moisture by keeping a loose soil mulch on top. The very heavy rains through August compacted the soil very firmly and it was necessary to lightly disk the surface to get a seed-bed. The seed was sown broadcast September 9, twenty pounds per acre being put on. It was harrowed in with a smoothing harrow having the teeth set quite sloping. The seed came up promptly and it was almost too thick a stand. It was apparent that the amount of seed sown was far too great.

As regarding a nurse crop we may learn something from the effect of a heavy growth of volunteer oats which sprung up all over the field in irregular patches. The oats were very thick in some places and made a very rank growth, continuing green and growing until quite late in the fall. A careful examination of the field the past week shows that the stand of Bromus was very poor where the oats were thickest. The spots clear of oats showed a good, sturdy sod of Bromus. This would seem to indicate that the growth of oats had smothered the Bromus during the fall growing period,



and if a nurse crop were used it should be a very light sowing of oats or wheat. The writer is of the opinion that for localities where weeds are bad the fall seeding would be more successful than spring seeding, providing the proper moisture conditions prevail in the soil at seeding time, thus insuring a prompt and vigorous fall growth.

G. C. WHEELER.

Kansas Experiment Station.

Bad Weed Seeds in Foreign Alfalfa.

The following letter to Secretary Coburn calls attention to a matter of prime importance to persons buying alfalfa seed:

"As you no doubt take a great interest in the alfalfa crop, we have thought for some time about writing you about the introduction of foreign seed.

"The crop in America is so short this year on account of the frequent rains, which prevented it from filling last fall, that the price has ruled very high, and a great deal of foreign seed has been imported, but all the samples we have seen have the ribbed plantain or buck horn in them, which makes it very undesirable, as it seems to be the meanest weed in existence, and depreciates the value of the seed very much. "We wrote the largest importer of foreign alfalfa seed in New York for samples without buck horn, but he said he could furnish none, as it all had buck horn in it.

"Now, the prairies of Kansas, where the most alfalfa is raised, are free from buck horn, and it would give Kansas alfalfa an advantage over foreign seed if buck horn could be kept out, as we will no doubt have considerable surplus seed to offer Europe in a few years, and if we can guarantee it free of buck horn, it will be sought after by foreign countries above any other seed.

"There ought to be a law passed making it a finable offense to introduce alfalfa seed with buck horn in it, the same kind of a law they have in many counties in Texas, making it a finable offense to introduce Johnson grass seed. If you have the time, do you not think it would be well to ventilate this matter by an article in the KANSAS FARMER and other papers?

"We wrote a seed house east of the Missouri River that we thought it would be almost a crime to sell this foreign seed to be sowed on the prairies of Kansas; but he said there would be plenty of people who would buy it if it was sold cheap enough. Kindly let us hear from you what you think about the matter. Yours truly, "KANSAS CITY SEED & GRAIN CO., "By J. I. Reynolds, President."

Fertilizer.

EDITOR KANSAS FARMER:—The most practical and general fertilizer is the barn-yard manure, but that will not do in all cases, for some farmers have not enough of it, while others do not know how to use what they have. The lack of this knowledge is what seems to bother the most of us. I have a hard-pan prairie farm. The soil is very thin in lots of places. Having to raise corn principally, on account of my farm being small, I had to experiment some on producing corn fertilizer. I find that the most practical method for


HONEST MEN

are at a premium everywhere and an Honest Farm Wagon should be. If more men who misrepresent articles they offer for sale were put

IN JAIL

the farmer would have less trouble. When you buy a Farm Wagon that it is the "NEW TIFFIN," for it is an HONEST wagon in every part. No Maple axles. No Elm or inferior Birch hubs. Nothing in the gears but first quality Hickory and Oak. If your dealer will not handle it write to THE TIFFIN WAGON CO., TIFFIN, OHIO, and they will tell you where you can get one.

TO CURE A COLD IN ONE DAY

Take Laxative Bromo Quinine Tablets. This signature  on every box. 25c

me is to plant four or five acres of millet or oats each spring and when the millet is cut, sow cane seed thick so that it will just begin to head when frost strikes it, then plow it under. The next spring, plant corn. Just before it comes up, harrow the ground, cultivate shallow, because the corn roots will not go below the cane manure.

This, with barn-yard manure applied to the thinnest places, will soon give you a rich farm, and cost but little. The increase in your corn will pay you big wages.

Shawnee County.

Horticulture.

The Horticulturist—Himself and Family.

I. B. LAWTON, BENTONVILLE, ARK., BEFORE THE ARKANSAS STATE HORTICULTURAL SOCIETY.

According to the common definition, a horticulturist is a producer of fruit, and we will assume that this is a correct rendering of a language that is so dead that no man cares what those dead and gone people meant.

Where circumstances admit of it most farmers raise fruit to a greater or less extent. The Northwestern wheat grower, the Southern cotton planter and the Western stock rancher are the principal exceptions. The horticulturists, to a man, own the land on which they plant their orchards, and this is one strong point in their favor. God never made a renter. He may allow his creatures to rent land for a few years for some wise and inscrutable reason but the man who tills the soil should own it, either as an individual or as part of a community. The renter who was here last year and is looking for another place for this year, plants no fruit. If the farm he rents has fruit on it he accepts the good the gods provide and his children regard that place as a home. As a rule the farm suffers from this migratory inhabitant and the renter himself and his family suffer from much moving and often lose the benefits of schools and the rights of citizenship.

This is no digression from the subject, for it shows what the horticulturist is not. His orchards may be large or small, but there is a look of permanence in all the surroundings; the sides and roof of the buildings are in fair repair, the fences show the presence of an owner, and the bushes do not encroach on the fence rows and orchards. This is the natural condition of the farm where horticulture has a recognized interest. The man votes for what he thinks is for his country's best interest and for a five-mill school tax. He wants good roads, and, so help him, he will get them. He takes good farm and fruit papers and the literary needs of the family are not neglected. The woman fills her place in society and church and sends for flower catalogues galore. She keeps good chickens and makes good money from them. She has flowers indoors and out and plants beans in the garden where her husband wants to cultivate. The children go to school, know how to pick strawberries, crate peaches, and barrel apples. They are not compelled to steal fruit of the neighbors and early learn to eat good ripe fruit instead of green and immature trash.

A good man says it is wrong to kill even the smallest boy for stealing fruit, and he is no doubt correct. But the parent who raises his children without fruit of their own is liable to future punishment. Boy nature demands fruit and they go out and begin on the ten commandments in the weakest place. The rest of the decalogue may remain in full force, but it is better to raise fruit for your children than to run any risks. Those who get the acid of fruits, green, canned and dried, seldom have a craving for alcoholic drinks. After making due allowance for errors in the calculations of temperance reformers, the hard, cold fact remains that alcoholic drinks cost more than bread and meat, and cause more crime than even the greed for money. If the free use of fruit prevents, in any degree, the use of intoxicating liquors (and all statistics point that way), then the horticulturist is an aid to a great reform. If most of the farmers, and some of those who follow other professions, are horticulturists, at least to the extent of providing fruit for the family, a new and better era is begun. The home is the base of our government. If the government is built on good homes it is a good government and if the homes are bad the government is corrupt. A pleasant home, with fairly kept lawn, neat fences, shade trees, flowers, pictures,

music and those things that appeal to the better side of human nature is generally found among the fairly well-to-do farmers and horticulturists. The children do not care to leave such a home, or if they do, its memory stays with them through life. From such homes, surrounded with fruits and flowers, may come presidents and captains of industry, or, what is better, those who know how to distribute the benefits of industry or who should be presidents.

A true horticulturist shares the benefits of any discovery he may make with his brother fruit-raisers. He sells his fruits but asks no royalty on the methods he adopts from years of patient experiments. We have allowed the glorious product of our orchards to eclipse the producer. The homes built up with comforts and some luxuries where education, morality, and temperance prevail, are what will give perpetuity to our government and prosperity to the people.

Grape Cuttings.

EDITOR KANSAS FARMER:—1. Is there anything to be done to grapevine cuttings before putting them in the ground to grow?

2. When would be the proper time to put them in in order to be successful in starting them?

3. How should they be cared for? Chase County. JOHN THOMAS.

For grape cuttings, wood of the past season's growth is taken from the vines as soon as the leaves have dropped. It has been the practice at the station to prune the grapes in November and save all healthy wood of the past season's growth. This wood is stored in bundles in damp leaves or hay in a cool cellar until time can be taken to make up the cuttings. The cuttings are usually made from six to ten inches long, ten-inch cuttings being preferred. The cut on the lower end is made within a half inch of a bud, taking care to have another bud on the cutting. It is better to have three or more on the cutting, and the cane with buds near together makes the best cutting wood.

After the cuttings are made they are tied in bundles of fifty to facilitate handling, labeled and buried in sand in the cellar or bottom up below the frost line out of doors. By spring they will have calloused, and as soon as the danger of frost has passed they may be planted out of doors. In planting the cuttings should be made to slant towards the sun with about two inches out of the ground, and care should be taken to pack the dirt along the full length of the cutting below the ground. Good thorough cultivation is all the cutting requires during the first year.

GEO. O. GREENE.

Kansas Experiment Station.

Watermelons, and Other Vine Fruits.

EDITOR KANSAS FARMER:—We plant our melons in an orchard in a warm, sunny place. The ground is well manured with barn-yard manure and is slightly sandy (it would be better if it were more so), plow the ground early and prepare the soil into a soft mellow condition. Get good seed both true to name and of good quality. If a large amount is planted it is best to test the seed, but in small lots it is not necessary if bought of reliable seedsmen who know that honesty pays. We use Jones' True, Jumbo and Kleckley Sweets watermelons and think them the best. They are sweet and mellow and almost all "heart." We have tried most all other standard kinds but they are very inferior. For muskmelons we plant Shumway Giant, Emerald Gem, and a novelty not as yet listed in the catalogue known as the new muskmelon from Borneo. We plant the muskmelons 6 to 8 feet apart and the watermelons 8 to 10 feet apart in small ridges about three inches high, we then give them plenty of cultivation with a hoe and "eagle claw" cultivator, we, of course, having them in rows to make this permissible. Never let the weeds get a good start. Later on after the melons begin to ripen I like to have a few weeds as I think they do better then. In plucking them it is best to do so in the morning before the heat of the day. Never "plug" them for they will not keep but will sour quickly.

Do not plant pumpkins in the melon patch but put a handful in the corn planter box and plant with corn. This way you will have not only plenty of pumpkins for yourself and stock but they will receive their tillage as does the corn and they take no more space than the corn alone.

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morning. We plant Early Cluster and gherkins; the latter which are used exclusively for pickling and which we put up ready for use by the following method: Take enough water to cover the pickles and to it add salt at the rate of a teaspoonful to the gallon, put on the stove and boil for six days, using the same water and skimming off the foam; on the seventh day cover with vinegar spiced to suit, put in jars, weight, and set in a cool place. These are always ready for use and very little trouble.

B. P. WAGNER.

A Valuable Spraying Mixture.

EDITOR KANSAS FARMER:—In your issue of March 12, I notice the list of insecticides from the Massachusetts Station does not include soda arsenite of lime, a remedy which is being recommended by the Division of Entomology. This is more easily prepared and cheaper than arsenate of lime, which the article referred to mentions but does not recommend. It is also more reliable, being good for codling moth and all leaf-eating insects. In making this, soda is used to make sure of the arsenic being all combined with the lime, and to hasten the process. It is prepared according to the Kedzie formula, as follows:

One pound of white arsenic, and four pounds of crystals of soda. Boil together in one gallon of water until the arsenic is all dissolved. Then add some water to make up for evaporation, and keep on hand till wanted. Keep plainly marked. When wanted for spraying, add one pint of this mixture to forty gallons of water in which from two to four pounds of lime has been slacked.

This remedy has proved to be quite effective. Mr. Simpson in his work with the codling moth in Montana has found that in addition to the spring spraying just after the blossoms fall, it is well to spray two or three times in the last part of July or in August; this catches the later brood.

WM. C. LEE.

Washington, D. C.

Wash Your Trees.

A thorough application of a good wash composition from the base of the tree to the branches will be the most profitable investment the orchardist can make. Several good recipes for washes have been published in the Practical Fruit-Grower. With soft soap or whale-oil soap for a base, some sulfur and sulfide of soda, a compound can be made at a small cost. Apply with spray pump, brush, or rag. Professor Bailey suggests using 30 pounds of whale-oil soap dissolved in 60 gallons of water by heating the two together. Next boil 3 pounds American concentrated lye with 6 pounds of sulfur in 2 gallons of water. After both these compositions have been thoroughly dissolved in boiling water separately, mix the two together and boil for half an hour, and then add 90 gallons of water. It is more effective when applied warm. By using a good wash the bark is made clean and moths find no hiding places to deposit eggs. The roots get the benefit of the liquid that runs down the tree and aphid is killed. The vitality of the tree is stimulated and it is able to resist attacks.—Practical Fruit-Grower.



READING TIME

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The Veterinarian.

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Unthrifty Horses.—Will you please tell me through the columns of your valuable paper of a good condition powder for horses? My horses have a good appetite, but the feed does not seem to do them the good it ought. I feed corn in the ear, and hay, and corn fodder. Would it pay to give them a change of feed? Also would like to know of a good cure for worms in horses. H. N. CRAWFORD.

Cowley County.
Answer.—By all means make a change in the feed; also have horses' teeth examined; many horses are unthrifty from bad teeth. Alfalfa hay would be a good substitute for prairie hay. Be sure to feed at regular hours.

For worms, give the following: Sulfate iron 2 ounces, potash nitrate 2 ounces, powdered gentian and ginger of each 1 ounce. Mix six tablespoonfuls night and morning in the feed. After four days give pint and half of raw linseed oil and ounce of turpentine (mixed) as a drench. After oil has worked, give powders as before.

Cracked Heels in Horses.—Will you please tell me of a remedy for "scratches" on horses' limbs. Have tried many remedies but failed.

GLEN FULTON.
Answer.—Wash thoroughly with Castile soap and soft water, making a good suds. With the suds soak the heels thoroughly, removing all scurf, dirt, etc. Wipe dry and apply the following: Lead acetate 1 ounce, zinc sulfate 1 ounce, carbolic acid 2 drams, water for 1 quart. Shake bottle before using. Apply the lotion twice a day.

Epizootic Aphtha.—I have bay mare 9 years old, whose lips and tongue crack as though chapped. Her breath smells much as a person's does when suffering from indigestion. Her appetite is good, but she loses flesh rapidly. She had a colt last July which was weaned at 4 months. Have been feeding corn and prairie hay. During the day she has run in the pasture, and has been stabled at night. It seems to be contagious as other horses in the neighborhood are affected in the same way.

I have done nothing in the way of treatment. This is the second attack, the first being in October before the colt was weaned. Have worked her but very little. A. R. KINGSBURY.

Smith County.
Answer.—Your mare has "epizootic aphtha."

Treatment: A mild laxative such as a pint of raw linseed oil as a dose, to be followed by, first, wash out the mouth with clean, warm water with a little powdered alum sprinkled in. If this does not have the desired effect, bathe the mouth with weak solution of vinegar and water. It is usually easily treated and of short duration if promptly treated as above.

Blackleg.—I lost a calf about 10 weeks old to-day with blackleg. I bought it a week ago and it had been sucking half of cow's milk before I got it. It was a good bred bull. I have fed it milk, alfalfa hay, and Kafir-corn bundles with seed on; was the seed too strong for it? Is there any help for blackleg after it starts? It was sick two days and commenced first on brisket and then on foreleg.

B. FOWLES.
Answer.—There is no successful treatment for blackleg, but thanks to science there is a preventive treatment that is almost infallible if properly done with pure vaccine. I would advise by all means vaccination. The cost is so trifling no one can afford to take the chances of losing even one calf.

Black Haw for Abortion.—Extract of black haw has been recommended for abortion in cattle. Can not get the extract without a doctor's prescription. Would it do to use the black haw in bark form prepared by pouring boiling water over it and giving it the same as the extract. Please answer.

Harper County. Jno. B. DOWNING.
The decoction you speak of would be a very weak preparation indeed.

Would advise you to use the extract by all means. Give the extract in half ounce doses once a day till all danger is past.

Lymphangitis.—I have a large dark bay mare 9 years old, English Shire bred; she has the very large leg—the left hind leg—said to have been caused by scratches over three years ago. It is large from the hoof to a little above the hock joint. It did not seem to hurt or lame her much until about a year ago, when for about ten days she could not be worked. Since that time she is a little lame at times but works all right, but does not seem to carry flesh well now. About one year ago it commenced to discharge watery fluid just about six inches from the hoof behind through a division running straight across the swelling and drips all the time now and smells bad. I have never doctored it any and do not think it can be cured, but would like to know if anything can be done, or if there is danger of blood poison or anything of that kind. WILLIAM BOWLEY.

Anderson County.
Answer.—Your mare is suffering with a disease called lymphangitis, and the pathology is inflammation of the lymphatic vessels. If treated in the early stages is entirely amenable to treatment, but in the chronic form (as yours is) but very little can be done. There is no danger of blood poisoning. Keep the animal out at pasture all you can.

The Apiary.

Conducted by A. H. Duff, Larned, Kans., to whom all inquiries concerning this department should be addressed.

Bees and Horticulture.

The benefits the horticulturist derives from having honey-bees in close proximity to his fruit farm can not be too strongly set forth. Experiments have proven beyond any doubt that bees are a valuable fertilizer of the fruit blossoms and the means of materially increasing the quantity, as well as the quality of the fruit. As a pollen-distributor among the fruit blossoms nothing equals the honey-bee or will come anywhere near it in the distribution of pollen to secure the most effectual fertilization of blossoms. The theory that bees are injurious to blossoms or to sound fruit has completely fallen since the subject has received the attention necessary to discover the facts.

One would be surprised at the amount of work one colony of bees can do in thus distributing pollen in an orchard, and by no means does it require any great number of colonies to completely pollenize an ordinary orchard. One honey-bee will visit several hundred blossoms during the day, and if this is true, how many blossoms will 25,000 bees (the number in a fair colony during fruit bloom) visit during the day? Hence a few colonies of bees in close proximity to an ordinary orchard will completely execute the job.

If the weather is favorable bees will go long distances to visit orchards, and I have known them to go in large numbers as far as eight miles. I had a good opportunity to test this at my present location, having the only bees in the locality, and none nearer than fifty miles distant. On several occasions I found my bees on the bloom of a peach orchard, just eight miles on an air line. But we can not expect to receive full benefits at such distances or anything like it on account of weather inclemencies. The weather also has much to do in preventing bees from thus visiting the blossoms on account of its being too cold for the bees to leave the hives.

Honey Production of the West.

The best honey fields are gradually slipping westward. Aside from California, it has been but a few years since we heard much of Western honey, but now we hear of the tons, and of the carloads, and even trainloads at different points all over the West. The West now may be said to lead in honey production, and not only the West proper, but the Northwest and the Southwest. The East and the Northeast has in the past furnished the bulk of the honey crop, but these localities seem to be gradually falling off in honey production. The South has never been much of a honey-producing field, and this is something of a mystery, and may be greatly due to the limited interest taken in this branch of business in the Southern States. Owing to the mild winters, the Southern States should be adapted to successful bee-

keeping, and if bee forage is limited, it certainly could be increased by planting for honey. To this the beekeepers of the East, and the South should give their earnest attention, and more especially the South. Our best honey plants now, are also good forage for farm stock. We do not need to plant and grow worthless weeds to the detriment of the farmer, but we can grow and introduce the best honey plants, which are very valuable to the farmer, and thus help the farming community and induce the farmer to help himself. We can see no reason why the new kind of clovers, alfalfa and bokhira, would not do well in the South. Certainly bokhira would do well, as it grows on the poorest spot of worn-out ground that can be found, and scarcely ever fails on account of drouth. Alfalfa is also a drouth-resister, and no one should decide as to the soil it will grow, or not grow on, without giving it a thorough trial. Tree-planting also is profitable to everybody. Many of these furnish great quantities of honey, are good for timber, and make the finest shady groves. But a few years ago the people of the West settled on a barren desert and it is now almost a flower garden in comparison with the East.

Empty Combs and Moth Worms.

When warm weather comes in spring, and we have empty combs unprotected by the bees, we will be very sure to find that the moths have got in their work on them, if they have been left about in the hives in a careless manner. We can not afford to have so valuable property as these destroyed by moth worms and we should get them up very early, place them away very carefully, and watch them closely for the appearance of worms. A little fumigating with sulfur will readily kill the worms, but not the eggs the moths have deposited, and it will take a second application to entirely get rid of them.

Empty combs should be well stored away in the fall as soon as they are taken from the hives and away from the bees. If they are put away carefully in a tight building, we are seldom bothered with moths. The moths get in their work more effectually when such combs are left in the hives sitting about in the apiary. Moths do not seem to be so numerous or so destructive as they were in the earlier days when we had the black bees only. It seems that the old black bees were a harbor for them, and very frequently they would take possession of numbers of colonies of these bees, and almost, if not entirely, destroy apiaries. Since the introduction of the Italian bees, the moths have apparently disappeared to a great extent. No one need fear moths in any hive that Italian bees occupy, for they soon disperse them. But when the combs are not protected by the bees, they will do serious destruction, rendering such combs valueless in a very short time.

Combs may be somewhat damaged by moths, yet not past redemption; if the base of the comb is not cut into holes, the bees will rapidly repair them, and they are thus as good as ever and should not be discarded.

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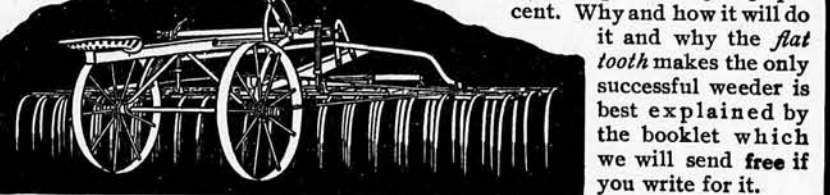
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April 22, 1903—Breeders' Combination Sale at Kansas City. W. C. McGavock, Manager.
May 5-6, 1903—Collin Cameron, at Kansas City, Herefords.

The Army Horse.

CAPTAIN W. C. SHORT, U. S. A., FORT RILEY, BEFORE THE CLASS IN HORSE-JUDGING AT THE KANSAS STATE AGRICULTURAL COLLEGE.

[In connection with the horse-judging school at Manhattan during the week ending March 21, there was held a round-up or institute on Friday evening in which valuable papers were presented and opportunity for ample discussion given. One of the most valuable that the writer has ever listened to was presented by Captain W. C. Short, of the United States Army, who is now stationed at Fort Riley. His subject was "The Cavalry Horse," and as Captain Short is undoubtedly the most famous trainer of cavalry horses in the United States army, if not in the world, and as he has long been engaged as purchasing inspector of cavalry horses for the Government, he is the highest possible authority on this subject, and it is with pleasure that the KANSAS FARMER presents his paper herewith.—EDITOR.]

I have been honored by a request from your president to tell you gentlemen the kind of a horse required for the army, with the idea, I presume, that some of you might care to breed for that purpose, or knowing the kind desired might have the opportunity to help fill a Government contract. I will start by giving you the regulations prescribed by the War Department for their purchase and the different requirements.

All army horses are bought by contract, after competition duly invited by the Quartermaster's Department and an inspection by such department. This means that when horses are desired, the purchasing quartermaster of a military department advertises that he wants so many horses for cavalry or artillery and that ten days from date of advertisement he will open bids for the supply of the number required. For instance, the headquarters of the department of which Fort Riley is a part, is at Omaha, Neb., and a letter to the quartermaster there asking that you be notified when more horses are required will be sure to bring the desired information. If you should be in some other parts of the States and have no means of knowing where the headquarters of the department in which you live may be situated, a letter to the War Department at Washington will give you that information and then you can communicate with the quartermaster of your own department.

First, I will give you the regulation requirements of the cavalry horse. He must be sound and well bred, gentle under the saddle, free from vicious habits, with free and prompt action at the walk, trot, and gallop, without blemish or defect, of a kind disposition, with easy mouth and gait, and must conform to the following description: A gelding of uniform and hardy color, in good condition, from fifteen and one-fourth to sixteen hands high, weight not less than 950 nor more than 1,150 pounds, from 4 to 8 years old, head and ears small, forehead broad, eyes large and prominent, vision perfect in every respect, shoulders long and sloping well back, chest full, broad, and deep, forelegs straight and standing well under, barrel large and increasing from girth toward flank, withers elevated, back short and straight, loins and haunches broad and muscular, hocks well bent and under the horse, pasterns slanting and feet small and sound. Each horse to be subjected to a rigid inspection, and the animal that does not meet the above requirements must be rejected. A horse under 5 years old should not be accepted unless a specially fine, well-developed animal.

The artillery horse is required for quick draft purposes and should move the gun carriage ordinarily, by weight thrown into the collar rather than by muscular exertion. The requirements are the same as for the cavalry horse with the following exceptions: He must be well broken to harness and gentle under the saddle, weight of lead horses not less than 1,050 pounds and of wheel horses not more than 1,200 pounds, age from 5 to 8 years old, shoulders sufficiently broad to support

the collar, but not too heavy, as the artillery horse has to gallop. Long-legged, loose-jointed, long-bodied, and narrow-chested horses, as well as those which are restive, vicious, or too free in harness, or which, upon rigid examination, do not meet the above requirements, will be rejected.

The contract is usually awarded to the lowest bidder, and he furnishes bond that the contract will be completed. In case the required number of serviceable horses is not furnished by the contractor, the quartermaster purchases them in open market and the contractor's bondsman must pay the difference, above the contract price. Contractors usually arrange to have a representative of the Government accompany them when gathering horses in order to avoid the expense incurred through buying those which are sure to be subsequently thrown on their hands for various defects.

Now, it would seem from the requirements as laid down in the specifications that it would be next to impossible to get many such ideal horses, but officers of experience usually judge the horses offered and they accept such sound horses as will fill the bill, soundness, power, and disposition being considered first. It would be well to state before we go to the horse in detail, so you can see the necessity for the powerful conformation that I am going to point out, that the cavalry horse with his complete equipment for field service carries about ninety pounds before the man mounts and still he must be very handy, as the trooper's life often depends on the mobility of his horse; he must often go long distances without rest, even past the 100-mile mark, often for days on very short rations and little care. He must stand the extremes of heat and cold in almost every climate, and the value of cavalry to-day rests solely on its quick movement, in fact, the horse is used to carry the soldier to the place to fight, not to fight upon, as the long range arm has almost done away with the charge.

Now for the horse and the kind to aim for and those to avoid. We never take a horse with any of the stable vices such as pulling back on the halter, cribbing, kicking, chewing tails, weaving, wind-sucking, etc., because in addition to being faulty they will teach their bad habits to other horses of their troop.

The line of demarcation between blemishes and defects is sometimes very dim. Under the first-named come all abnormal conditions of the various parts of the horse which do not affect his serviceability, such as scars, brands, splints so placed as to be of no consequence. Under the head of defect come peg splints and those very close to the knees, ring bones, side bones, false quarter, quarter cracks, sit fasts, and any trouble, local or constitutional, which may tend to shorten or render unsatisfactory the service of the animal.

In picking the cavalry horse we must view him always with reference to carrying a saddle, look at the formation of the feet and legs separately and in pairs, the shape, expression, and size of the head generally and in detail, the shape of the back and withers, to note whether the forehead and hind-hand bears proper relation to each other as to weight, whether the abdomen is so shaped as to hold the saddle by means of the cinch alone (as breast straps are not furnished in the cavalry), whether the legs are strong enough for the combined weight of the horse and trooper with his equipment, whether the head and neck are of the character likely to respond readily to the rider's hand, or if the horse is shod, to see if the shoes have been put on for the purpose of correcting defects.

A good horse, as the old saying goes, is one with many good, few indifferent, and no really bad points, as one radically bad point neutralizes any number of good ones. Excess of power or development in one part of a horse may not only be useless because the strength of the animal is limited to the weakest point, but it may be a positive source of evil. For example, a strong, powerful forehead is not an advantage if the hindquarters are light, because the strain on the hind legs would be unusually great; similarly, if the fore legs are weak, they may suffer from excessive propulsion communicated by powerful hindquarters, whilst such horses might have lasted much longer if they were proportionately developed. Attention should be paid to the head, which should be short and not of great volume and should have a wide forehead which is nearly always accompanied by large nostrils, well-situated eyes, ears small and widely separated, distance from the eye to the angle of

the jaw great, large space under and between the jaws. A large-headed horse always makes the horse heavy on his forehead. The nostrils should be large as the charger often has to gallop long distances. The mouth should be small, with thin, firm lips. The eyes should be large and mild with fine eyelids, the ears should be pointed, without any appearance of flabbiness, as they show the temper and disposition of the horse more than anything else. The medium neck is the best, as the very long neck is too mobile, while very short ones are not supple enough. The volume of the neck should not be too large but harmoniously proportioned to the other parts of the body. Of course the neck put on upside down, forming the hammer head, is out of the question in the saddle horse. Next we come to the withers, a very important part of a good cavalry horse. Horses with very fine, high withers, while pleasant to ride, are unsuited for hard service with packed saddles as this type is usually accompanied by flat muscles about and in rear of the shoulder blade where the front end of the side bars of a military saddle are intended to rest. This flatness allows the saddle to slip unduly forward, which is very objectionable and will cause the horse to stumble. The military saddle is not high enough in the pommel to permit extremely high withers, and although a horse may accumulate enough flesh over the muscles to support the saddle high enough while fat and in good condition, but in a severe campaign, where the horse gets low in flesh, the saddle comes down on the withers, and as you all know, a fistula will be the result. Horses with low withers, not well defined or outlined, are not suited for the packed saddles either, because they allow the saddle to slip forward and bruise the parts and this displacement also causes sores to be made by the cinch close to the forelegs. So, as you can see, a medium high wither is preferable. The shoulder blade should be broad and well sloped and then the saddle will sit in place, while if short and upright, the saddle will have a tendency to work forward on the withers and the horse would have a very rough gait.

On account of the weight that it is necessary to carry, a short, straight back is best, as it is strong and keeps the saddle in place; the roach back is unsightly and not adapted to free and rapid motion; the sway back is out of the question because the ends of the stiff sidebars of our saddle would bore into the muscles and make sores. The ribs should have a well-defined convexity and the space between the last rib and the point of the hip should not be more than four fingers at the most. The chest should have great capacity in depth without excessive width and should be plump in front. The capacity of the lungs is marked by the size of the chest at the girth. While excessive width in front is not desired for rapid gaits, such form is well adapted to carrying great weight. If from want of proper length and convexity of the ribs, the barrel decreases rapidly from forehead to the hear, the cinch and consequently the saddle will slip back. Such horses are very unsatisfactory and are not apt to retain flesh under short rations, and usually break down on a long march.

The cavalry horse must have good legs and round, well-formed feet in proportionate size to the body and put on properly just as any other horse should have, and of which it will not be necessary for me to say any further except that the saddle horse must not have too straight a pastern because the gait would be too rough. Ability to carry flesh under short rations is a very excellent quality in troop horses for it not only enables them to stand hard work, but saves sore backs, which generally results when loss of flesh destroys the perfect fit of the saddle. This aptitude to take on and retain flesh exists, as a rule, in horses such as I have attempted to describe to you. You may ask "How is such a horse to be obtained?" From my experience and observation in various parts of the country, I would say to get a thoroughbred stallion with such a conformation as I have described (and there are plenty of them) and cross them with range mares of good size, or better yet, the standard mare or the medium-weight draft mare. The thoroughbred will give the quality and bravery and the cold-blooded mare the strength and docility. But in picking your stallion bear in mind that he must have no weak points if you wish to breed chargers, because in active campaign the charger is limited to his weakest point, while in private life care could be taken of the weak part

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and thus enable the horse to last as long as a more sound one.

In the requirements as given heretofore, mention was made of the cavalry horse being well broken to the saddle. This means that the horse shall allow a man to mount and go forward willingly at a walk, trot, and gallop, that he shall not be a buck or bolter. It does not mean that he shall be a trained saddle horse, but just a kind, green horse. In speaking of the walk, trot, and gallop, it means that they shall be true, such as a green horse will give and not to interfere, paddle or grab. No gaited horses, such as single-footers, pacers, or cantering horses, are accepted, and, of course, docked horses are not used in the army.

It is always well to educate the horse to various unusual sounds and sights before submitting them to the examiner, as I have seen many horses turned down for excessive nervousness all on account of the surroundings being new, and it was the fault of the owner who had probably never taken them away from the farm they were raised on.

The principal requisites of the horse, affecting his adaptability for cavalry uses, are all that has been attempted to portray. A more complete theoretical knowledge of the horse I presume you know, and I hope I have made myself intelligible.

The value of the American horse for purposes of war has been brought out in the recent campaigns and surprised the military men of the different na-

Report of Progress.

To the Members of the National Live-Stock Association and all Stockgrowers:

Now that the legislative year has just closed, it is proper that you should be advised as to what has been accomplished in your behalf by the National organization during the past year.

The Interstate Inspection case which the Association began early in 1901, protesting against the right of State sanitary boards to impose a second inspection and levy fees for the same after the stock had been inspected and pronounced clean by a federal inspector, was decided adversely to us by a divided bench of the Supreme Court of the United States, in December last, after nearly two year's litigation, and at an expense of five thousand dollars. We immediately caused a bill to be introduced in Congress, correcting this injustice, which promptly passed both houses and was signed by the President on February 3, 1903. This law places all interstate inspection in the hands of federal inspectors appointed by the Bureau of Animal Industry, and also gives the Secretary of Agriculture the power to inspect and if necessary quarantine all stock, hay, grain, etc., coming from infected foreign countries. The new order of things will work a saving to stockmen of the Nation of about \$150,000 annually, while it relieves both cattle and sheep growers of the pernicious and unjust practices which State sanitary inspection boards have for years imposed upon stock-growers.

Ways and Means, owing to the opposition of Chairman Serano E. Payne of that committee. This office received letters early in December from nearly every member of Congress, a majority of whom were in favor of the passage of the bill. Mr. Payne, however, declared himself squarely against the interests of the wool growers and consumers of woolen goods of the Nation, thus favoring a continuance of the fraud being perpetrated by the manufacturers, by refusing to permit the bill to be considered by the committee or make a report to the house thereon, although this Association used every power at its command to force some action. Before the convening of the Fifty-eighth Congress, we shall ask the assistance of the people in this, and other matters we are interested in, to secure favorable consideration.

The bill extending the time limit on unloading live stock passed the House, but was side-tracked in the Senate by the Statehood and Panama Canal deadlock. The same fate also met the resolution we caused to be introduced in the Senate, providing for the appointment of a commission to investigate conditions in western States and territories regarding the arid and semi-arid lands and make a report to Congress upon the same.

We have caused to be presented in every State Legislature in session this year, bills providing for a uniform assessment of live stock in all the States, and one regulating corporations and trusts within each State. The passage



ROSEBERRY 71789.

By Beau Brummel 51817, one of the herd bulls owned by D. L. Taylor, of the Sunflower Herefords, of Sawyer, Kans. This bull will be at the Taylor sale (for inspection only), at Manhattan, Kans., April 15.

tions on account of his adaptability to all climates. On the forced march of the allies from the coast to Peking, our cavalry was in far better condition than that of any other nation, and it was freely admitted by everybody that the United States had the best cavalry.

In Cuba the American horse thrived and the climate did not even take the buck out of him. In the Philippines after his eight thousand mile voyage in hot iron ships, he grew fat on grass alone and under hard work.

The English in Africa made every effort to get American mounts, and our military attaché, who was sent to witness the operations (and who is now at Fort Riley) says that our horses were the only ones that did stand the work and the climate. The British shipped, it is estimated, from New Orleans during the African campaign, about a thousand head of horses and mules per week, and they so thinned out the serviceable mounts in some sections that it was hard for us to obtain horses for our five new cavalry regiments which were organized in the summer of '91.

I would advise every breeder to raise at least a few of such horses, as they are a serviceable kind for all purposes, except heavy draft, and a specially fine one brings higher prices in the East than any other class of horse, as the fast single and double drivers are not in style and probably never will be again. The people want the combination horse now, one that can be put in harness or used under the saddle and that is the exact type that makes the charger.

The amendment to the Interstate Commerce Act which this and all other live-stock organizations have for years been asking Congress to enact, has passed both branches of Congress, and is now a law. The most important feature of this new law is the section which gives the Interstate Commerce Commission power to enforce its decrees, a most important function heretofore denied them. The Commission now has not only the power to regulate or abrogate all terminal charges at live-stock markets, which at present amounts to more than \$500,000 annually, and to regulate and establish just freight rates, but it has the power to compel those interested to obey these rulings. This is one of the most important laws, so far as our interests are concerned, that Congress has ever enacted. Already a rehearing has been asked of the Interstate Commerce Commission, upon the celebrated \$2 terminal charge case from Chicago, in which the Interstate Commerce Commission held that the Chicago railroads could only charge \$1 per car, instead of \$2. That was the case in which the United States court held that the Interstate Commerce Commission could not enforce its orders and decrees, but this Elkins bill permits this Commission now to order these Chicago railroads to cease charging to exceed \$1 for each car of live stock delivered at Chicago stock yards.

The Grosvenor Anti-Shoddy Bill, requiring woolen manufacturers to properly stamp their goods, as the manufacturers of oleomargarine are compelled to do, is still "pigeon-holed" in some strong box of the House Committee on

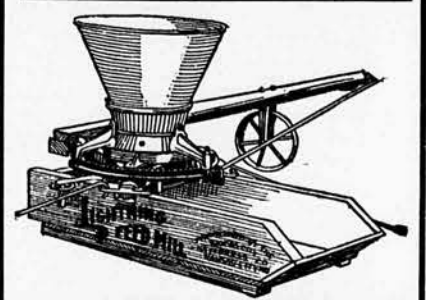
of the latter would make the operation of a Packing House Merger Corporation within a State absolutely impossible. We are advised that these measures are being favorably considered by the legislatures of several States.

At the next session of Congress, we want to be prepared to urge the passage of the following measures, with all our power: The Grosvenor Anti-Shoddy Bill, which means more than \$200,000,000 to wool growers; the extension of the Twenty-eight Hour Law; for a Classified Census of Live Stock; for a commission to investigate the arid land question and the bill for the improvement of our horses for general purposes.

We also desire to be in a position to oppose any attempt to merge the packing plants of the country into one gigantic trust, or any move looking to the removal of the duty on hides and wool.

This work can not be accomplished without your united financial and moral support. The National Association is maintained by local or State organizations, and the assessments levied for this purpose amount to but one-twentieth of one cent for every animal returned as owned by the members of such organization. This is indeed an insignificant amount when the magnitude and importance of the matters in hand are taken into consideration. Were you engaged in a commercial line of business, you would annually pay a hundred times this amount into your national organization for the purpose of having your interests conserved. It is simply and purely an insurance, and there is as much reason for the carry-

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ing out of this policy by live-stock growers as other industries.

We believe every progressive stock-grower will agree with us, and for the reasons stated, our officers urge upon you to give your hearty support to the National Live Stock Association, and also to your local organizations. The latter are equally as important as the former, as it is through them that State legislation can most easily be secured, sanitary and grazing matters regulated, and questions of greater importance presented to the National body.

If you or your local association be not a member of this, we earnestly invite you to write the secretary for the necessary blanks and become identified with us in this important work.

CHAS. F. MARTIN,
Secretary.

Denver, Colo., March 14, 1903.

Breeding Horses and Mules.

EDITOR KANSAS FARMER:—The time is approaching when the farmers who raise horses are asking themselves (or should be doing so) "What is the best and most profitable horse for us farmers to breed?" If the question were asked me, I would unhesitatingly answer, good draft horses. The reason for this conclusion is the fact that a much larger per cent of the draft colts mature into marketable horses than do the colts of the harness horses; and the average farmer will more nearly get the value of the drafter when ready for market than he will the harness horse; for, when he succeeds in breeding a really good stepper, or fine knee actor he does not find it out until the horse has been sold and "handled" by a "specialist." If he does find out he has bred a fast one or a good actor, he spends more time and money in fitting the horse to get the sky-scraping price than the price amounts to. This often at a big loss from neglect of his business proper, the farm. So I say to the farmers, breed draft horses and leave the harness horse to the specialists. Any of the draft breeds are all right if properly mated with good mares. But be sure and not make the mistake of breeding to a second- or third-rate stallion because the fee is less than that asked for a good one. No man can keep a really good horse for the same price as an inferior one any more than he can buy a good one for the price of a scrub. If you will investigate you will find that in the locality where the farmers are willing to support a good horse, the quality of the horses raised is far superior to those raised where the farmers want low-priced horses, and when you see into the pocketbooks of the two different classes of farmers you will find money on the one side, and disappointment on the other. One community

will tell you that it does not pay to raise horses (it does not such as they raise). The others fellows will tell you, "See that barn. Made it raising horses. I raised only good ones bred to good sires. They cost more in the start, but did not cost any more in time and feed than my neighbor's scrubs. And look at the drove he has! Can not sell them for cost of feed. He thought I paid too much for stallion fee, but I raised horses that I have to hide to keep the buyers away from while I do my farming and let the colts grow. See!"

Beside the profit in good ones there is another point to be considered: The satisfaction of having done a good thing well. This, in itself, should be argument enough in favor of the high-class horse as against the scrub. Again I say, if you raise horses raise good draft horses. Do not be deceived by the scrub-owners into breeding "all-purpose horses." There is no such horse goes to market in the United States to-day. There is no such thing as an "all-purpose horse." No one can find a market quotation of "all-purpose" horses, so why try to breed them?

If you do not want to raise draft horses, raise mules. But all arguments in favor of raising good horses will apply with equal force to mules; raise good ones. You can not do this unless you use good jacks. If you get a fairly good mule colt from a small jack, it is no argument in favor of using small ones, because the mare that will raise a passably good mule when mated to a small jack will in all probability raise a better one if mated to a better jack. And one mule does not need to be but a little better than another to far more than pay the difference in first cost; and that is all the difference there is in cost of your mules—just the difference in service fee between a good jack and a poor one.

Now a word as to the probable future of prices. It takes no figuring to prove that there is a scanty supply of brood mares. The recent foreign demand took many of our mares along with the geldings, and a large per cent of mares of breeding age now in the country are nearing the close of their usefulness as brood mares. This renders it almost impossible to raise horses in excess of the needs of the country before more mares can be grown to breeding age. Starting this spring it will be five years before we can hope to increase the number of horses of proper age for market. If this reasoning is correct it would seem that there is a bright future ahead of the horse-raiser for ten years at least; and the future of the mule business looks even brighter than that of the horse; for the mares that raise the mules do not add to the productive

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number of mares, and as mules will surely command good prices along with horses, they will be bred, thus in a measure steadying the price of horses by keeping down the supply, and insuring profits to both horse- and mule-raising if managed with intelligence.

If I am wrong in my reasoning I would be pleased to have some one show me wherein.
Allen County. J. C. STRONG.

Odebolt Cattle-Feeding Experiments.

Prof. W. J. Kennedy, head of the Animal Husbandry Department of the Iowa Agricultural College, has completed final arrangements for the mammoth cattle-feeding experiments to be conducted on the Cook farms, Odebolt, Iowa. The cattle have been carefully selected and divided by Professors Kennedy and Marshall into ten lots of fifty animals each.

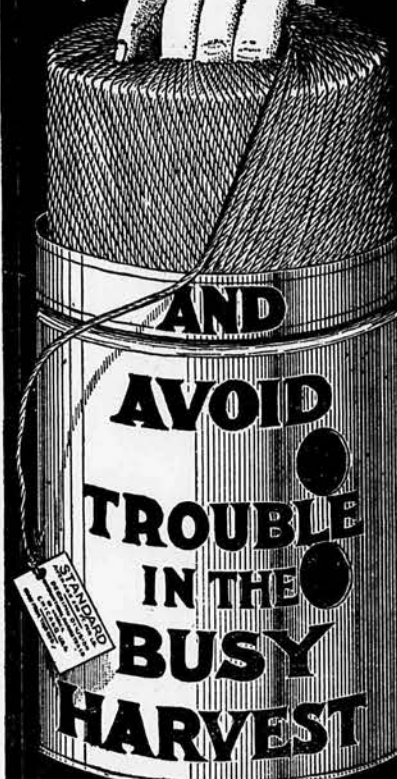
Three different experiments are being conducted. The first is an acclimation test to determine the climatic influences, if any, on Southern cattle when brought to the Northern States as feeders. For this purpose fifty head of Southern cattle from Oklahoma and Indian Territory are being fed on exactly the same kind of a ration and under similar environment as another lot of fifty head of Western cattle from

Colorado and the Sand Hills. Exact data will be kept of all the feed eaten by each of the lots, gains made, and a careful comparison of the results will be made at the conclusion of the test.

The second experiment contains three lots of fifty head each, to be fed on different amounts of grain. The light ration lot will not be fed over 16 pounds of grain per day per steer when on full feed; the medium ration lot not to exceed 20 pounds, and the heavy ration lot 24 pounds of grain per day per steer when on full feed. At the conclusion of the test the relative

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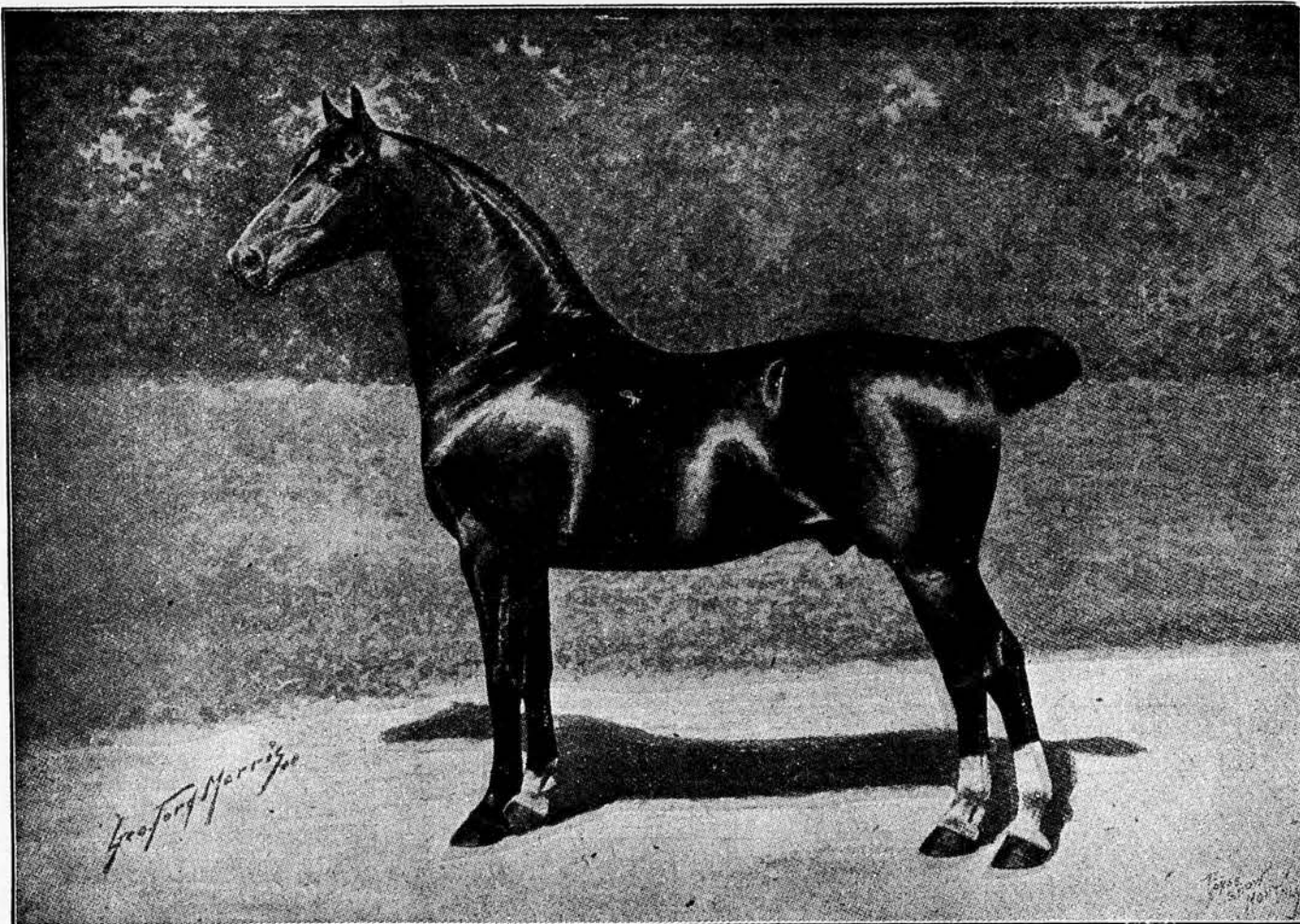
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cost of feed per 100 pounds gain, average daily gain, and other interesting data will be conducted.

The third experiment contains five lots of fifty head each. This test will be a continuation of the work commenced last year, except that none of the lots will be fed any stock food, as the manufacturers of the same would not enter this year's test on the same ground that they did last year and those complied with by the manufacturers of the other feeds which are being fed this year. Lot one will be fed corn and roughage. Lot two, corn, old-process oil-meal and roughage. Lot three, corn, cottonseed-meal, and roughage. Lot four, corn, gluten feed, and roughage. Lot five, corn, dried blood, and roughage. Each lot of steers will be followed by a thrifty bunch of shoats.

The feeding is being done by Newton C. Rew, a graduate of the college. Full details and results of the work will be published in bulletin work at the conclusion of the test.

The Spriggs Sale.

On Tuesday, March 31, was held a sale of stallions and jacks at the breeding headquarters of S. A. Spriggs, Westphalia, Kans. The day was delightful and the crowd of buyers from a distance. Missouri, Iowa, Nebraska, and many parts of Kansas were represented by buyers and the sale as a whole was a good one. The top price paid for Percheron stallions was brought by Pollydore, a solid black with white stripe and black star in face, who went to M. Weisderfer, Burlington, Kans., for \$700. He is a half brother to the prize-winning Percheron mare, Bijou, belonging to J. W. and J. C. Robison, Towanda, Kans., who won so many prizes for them during the fair season last fall and who sold for \$615 in their Wichita sale. The cheapest animal offered in the Spriggs' sale was the dark iron-gray 3-year-old Percheron stallion, Sampson 26128. Sampson is a line-bred Brilliant and was the first animal to be sold. He went to J. M. McConnell, Kiro, Kans., for \$650 and was easily the best stallion as well as the cheapest animal sold.

The only other Percheron offered was the very dark gray yearling, Montague 30682, who went to Alexander Potts, Mt. Airy, Iowa, for \$405. This youngster was shown as an untired stallion of wonderful bone and promise and regrets were expressed by several horsemen that they had not bid higher on him.

The Shire stallion, Groundswell (3253) 9477, went to Col. J. A. Marshall, Gardiner, Kans., at \$147.50, and the Coach stallion, President, was taken at \$400 by Chas. Dyerley, Lyons, Kans. A full-blood Percheron stallion named Newton was then put up and went to G. W. Wittman, Westphalia, Kans., for \$150.

JACKS.

Missouri Model, Joe Fox, Greeley, Kans., \$500.
Klondyke W. J. Finley, Marshall, Mo. 290
Billy Bryan, W. J. Finley, 250
Young Sampson, W. J. Finley, 300
Baalam Jr., Col. J. A. Marshall, 200
King Cooper, M. Weisderfer, 260
King Mammouth, J. A. Hamilton, 300
Greeley, 300

JENNETS.

Grace, with jack colt, G. W. Love, Pottawatomie, \$155.
Brown Bess, with jennet colt, J. C. Marshall, Welda, 80.
Great Duchess, with jennet colt, J. C. Marshall, 70.
Mrs. Mammouth, G. W. Love, 125.
Blue Ribbon, Alex. McConaghy, Westphalia, 125.
Brown May, Alex. McConaghy, 30.
Lady Mammouth, G. W. Love, 20.
The three Percheron stallions brought \$1,705, an average of \$568.33. The seven jacks brought \$2,100, average \$300. The seven jennets brought \$517.50, average \$73.93. The total for the sale of twenty head was \$5,020, or an average of \$251 for all animals offered.

This sale was cried by Colonel Sparks and the very creditable results obtained showed that he was at his best.

Holton Sale of Shorthorns.

The joint public sale of Shorthorn cattle held at Holton, Kans., April 1 and 2, comprised offerings from the following breeders: H. O. Tudor, Holton, Kans.; D. L. Dawdy, Arrington, Kans.; John McCoy, Sabetha, Kans.; M. C. Vansell, Muscotah, Kans.; Levi R. Strawn, Half Mound, Kans.; M. K. Nichols, Horton, Kans.; E. D. Ludwig, Sabetha, Kans.

The sale was hardly up to the expectation of the various consignors, and some very low prices were realized, much lower than the quality and breeding of the animals merited. However, the principal trouble seemed to be the lack of local buyers and the absence of large buyers from the range country. It is evident that the offering was too large for the time and place, nevertheless the buyers present took advantage of the opportunity to secure some good things at low figures. Quite a number of the animals consigned were in exceedingly poor sale condition which greatly effected the general average as they sold at a very low figure.

Of the animals which sold for \$50 and upwards, fifty-eight females averaged \$75.34, and twenty-one bulls averaged \$89.52.

The complete list of buyers is as follows:

BUYERS OF COWS AND HEIFERS.
M. H. Larkin, Holton; W. F. Arnold, Troy; Walter Sherman, Lenexa; H. N. Farrar, Axtell; H. E. Huber, Meriden; J. L. Armstrong, Muscotah; N. E. Patton, Holton; W. G. Donaldson, Edgingham; H. M. Farrow, Axtell; R. J. Linscott, Holton; F. J. Juneau, Onaga; R. H. Luscombe, Circleville; John Foster, Hoyt; C. F. Primm & Son, Atchison; Lefe Burger, Wellington; Henry Haub, Whiting; Lee Cook, Ed Kauffman, Valley Falls; J. W. Ream, Bonner Springs; A. D. Walker, Holton; W. F. Arnold, Troy; Ernest Colderman, Onaga; J. W. Vincent, Pullman, Washington; C. E. Beech, Havensville; S. R. McKelvie, Fairfield,

Neb.; Herbert Haub, Whiting; Carl Welding, Topeka; Joseph Hubble, Holton; E. R. Rafter, Holton; E. L. Benfer, Leoti; B. W. Wright, Holton.

PURCHASERS OF BULLS.

T. Y. Smith, Holton; Ernest Colderman, Onaga; Sld Martin, Whiting; C. Hebbe, Perry; Clarence E. Beech, Havensville; C. J. Reed, St. Clare; Ira McCoy, Sabetha; J. W. Vincent, Pullman, Wash.; Patrick Tobin, Goffs, Kans.; Lark Farrell, Valley Falls; F. W. Dixon, Holton; J. A. Ladd, Onaga; John Hinnon, Jr., Holton; Adam Recker, Meriden; Henry Haub, Whiting; Carl Welding, Topeka; Taylor Bros., Onaga; F. W. Fasnite, Burlington; R. H. Luscombe, Circleville; R. H. Plumb, Circleville; John Herde, Hoyt; W. E. Sawyer, Netawaka; H. M. Farrar, Axtell; J. H. Davis, Holton; Robt. Dougher, Willis; E. Hard, Holton.

"Ruby Reds" Next.

The first annual sale of "Ruby Red" Herefords and Poland-China swine will be held at the ranch two and one-half miles northwest of Cunningham, Kingman County, Kansas, on Thursday, April 16, 1903. Mr. Landon, the owner, will dispose of his young registered Hereford males and registered Poland-China males and close out his 150 grade cows and his 40 grade sows and shoats. He has made an arrangement with Mr. R. J. Siman-son, present manager of the ranch, to conduct their business in registered Herefords and Poland-Chinas exclusively. Socrates 75813 heads their herd of cattle and is the sire of most of the young things offered in this sale. In the opinion of many he is the best male that has ever been in Kingman County, and that is saying a good deal, as the famous prize-winner, "Hero," was formerly at Cunningham. He is a great calf-getter, as his offspring offered in this sale demonstrate. At least two in this offering would be picked out in any group of Herefords as extra fine individuals. They will be a bargain to some one who is looking for a new head to his herd. Mr. Landon has started his herd with great care and never offered anything at public sale before. His females are of the richest strains embracing such ancestors as Lord Wilton, Anxiety 3d, Earl of Shadeland 2d, The Grove 3d, and Hesiod. Visitors to this herd have expressed their surprise that it is so little known, as they regard it as the best herd of cattle of any breed that they have ever seen. Mr. Landon does not claim that it is equal to the best cattle he has ever seen, as he knows how good the best Herefords are. We can say that he has shown excellent judgment in the choice of his foundation stock and can commend his herd as a most excellent one. The new partnership has been so fortunate as to secure the well-known herd of Poland-China swine of the late F. J. Knappenberg, whose reputation as an exhibitor was thoroughly established. Thus they start with a jump to the fore front of Poland-China breeders in Kansas. They are offering some of the young males from this herd and are closing out all of their grade sows and shoats which have been bred up to a high point by the Knappenberg blood. The grade cows are both Shorthorns and Herefords, all bred to registered Herefords and are now calving. There are some choice females in this bunch. Their calf crop last year was the large average of 90 per cent. This offering gives an excellent opportunity to purchasers.

Last Call for the Manhattan Sales.

We have a number of the catalogues of the great combination Hereford and Shorthorn sale to be held at Manhattan on Wednesday, April 15, and a very brief inspection shows them to contain some very rich pedigrees and other extremely interesting matter. It will be remembered that this sale will be made of a draft from the Sunflower Herd of Herefords and the Elm Grove Herd of Shorthorns belonging to D. L. Taylor and his son, W. W. Taylor, Sawyer, Kans. We have mentioned the herd-bulls in both herds and in addition would call attention to one or two of the females as representative animals for this sale. Winnie 101397 is a cow of extra quality bred by Scott & March and very strong in Anxiety 4th, Lord Wilton, and other like blood. Miss Duchess 141707 is a heifer by Greatness 98472, by Corrector and out of Bright Duchess 26th 71653 by Don Carlos. She is a very choice individual and a fair representative of the consignment. Lorenzo 95757, by the Don Carlos bull, Pretorian 71784, is very hard to beat.

Lola May 95756, sired by the herd-bull, Roseberry, whose portrait appears on first page of this issue and out of the Anxiety 4th cow, Sarah 55490, is perhaps one of the best things that will be offered. These four Herefords have been selected at random from the catalogue to afford the reader an idea of the breeding lines. Individually, the whole consignment will go into the sale-ring in the best of condition. Mr. Taylor writes that he has arranged to have all of the sale animals of both breeds in their stalls at Manhattan one week before the sale, so that they will be well rested from their long journey and will appear before the audience in the pink of condition. Collectively, this will be one of the great sales of the year, so far as quality and breeding goes, and we predict that there will be a large and appreciative audience present who will show their appreciation by the prices they are willing to pay for the good things offered.

Write Col. L. R. Brady, Manhattan, for catalogue.

The Healy Shorthorn Sale.

On the fair grounds at Seneca, Kans., on Tuesday, April 21, will be held a sale of some of the richest bred Shorthorn cattle that have been brought into Kansas in a good while. The sale will be made up from selections from the herds of such famous breeders as F. P. Healy, Bedford, Iowa; W. R. Wilson, Arispe, Iowa; G. P. Simpson, Blockton, Iowa; D. P. Rickenbaugh, Sheridan, Mo.; O. M. Healy, Bedford, Iowa; and Edw. Shuler, Falls City, Neb.

The catalogue will embrace such pedigrees as that of Royal Bud 186714, sired by Bampton Bud 152945, who was bred by I. Barr & Son, and is a grandson of imported Cupbearer 91223. His sire was Scottish King 100743, a pure Cruickshank bull descended in all crosses from ani-

mals bred by Amos Cruickshank. Royal Bud's third sire was imported Ducal Crown 97149 who was bred and used in Amos Cruickshank's herd as a show bull. This animal is contributed by Mr. F. P. Healy.

King Dodo 191126 by Violet's Galahad 138816, bred by H. C. Duncan. His second sire was Victor of Wildwood 126054, bred by W. T. Clay, and his third sire was Valley Champion 110477, bred by F. Bel-lows. These pedigrees are simply taken at random in the catalogue which contains others as good or better. They serve to show the strength of the Cruickshank blood that will be offered in this great sale. This will be an opportunity given to Kansas and Oklahoma farmers to purchase some of the best blood to be found in Iowa, Missouri, and Nebraska. The catalogues are ready and may be had for previous study by addressing F. P. Healy, Bedford, Iowa.

The Great Manhattan Sales.

As a commentary on the quality of stock that will be offered at the D. L. Taylor combination sale at Manhattan on April 15, we are glad to mention that Mr. John Gosling, of Kansas City, has just returned from the Sunflower Hereford breeding farm, at Sawyer, Kans., with twenty-three yearling bulls which he bought there. Mr. Gosling is known through the West as a most expert judge of beef cattle and when he backs his judgment by buying bulls at wholesale it is a pretty good compliment on the quality of the animals. Last spring Mr. Gosling bought twenty-seven Hereford bulls from the Sunflower breeding farm and seems to be in the habit of going there for good things. While at this farm last week Mr. Gosling looked over the herd of Shorthorns belonging to W. W. Taylor and especially that portion of them that will be consigned to the Manhattan sale. He announces that Roan Duke 159499, the Shorthorn herd-bull consigned to the Manhattan sale is an exceedingly good breeder and that his offspring are hard to beat. The writer remembers that there are two yearling heifers and two yearling bulls which are consigned to this sale and which are extra fine individuals. On the first page of this issue we publish a cut of their great Hereford herd-bull, Roseberry, who now weighs 2,700 pounds. We predict that this sale will make an event in breeding circles in the West and urge interested parties to write to Col. L. R. Brady, Manhattan, for catalogue and to be prepared to attend the sale in person.

National Red Polled Cattle-Breeders' Association.

A meeting of the members of this association was held at Fort Worth, Texas, on the 6th ult.

The articles of incorporation provides for one thousand members. The secretary's report shows that 687 have been disposed of during the management of J. C. Murray. His offer to resign was rejected by the meeting.

The fee for registration was made \$1, members, half price.

The officers elected were: President, John D. Fields, Manor, Texas; vice-presidents, A. Y. Sweezer, Maquoketa, Iowa; R. G. Somberton, Franklin, Pa.; E. H. Small, Aberdeen, Texas; and A. W. Hulbert, Starkville, Miss.; editor and secretary, J. C. Murray, Maquoketa, Iowa; corresponding secretary, Freeman Current, Lost Nation, Iowa; treasurer, C. D. Foster, Preston, Iowa. Directors: S. C. Bartlett, Perth, Kans.; C. W. Farr, Maquoketa, Iowa; O. N. Vaughn, Coleman, Texas; and B. R. McConnell, Jackson, Texas.

Berkshires are Booming.

The demand for Berkshires continues strong, and the sales recorded for February, 1903, largely exceed those of any previous February. The sales of recorded Berkshires filed in the office of the American Berkshire Association during the month of February, 1903, by the breeders residing in the several States are as noted:

Alabama.....	1	Nebraska.....	4
Arkansas.....	7	New Jersey.....	7
California.....	2	New York.....	17
Connecticut.....	6	North Carolina.....	10
Delaware.....	1	Ohio.....	30
Georgia.....	5	Oregon.....	8
Illinois.....	62	Pennsylvania.....	10
Indiana.....	43	Tennessee.....	8
Iowa.....	29	Texas.....	25
Kansas.....	31	Virginia.....	7
Kentucky.....	6	Vermont.....	2
Louisiana.....	18	Washington.....	6
Maryland.....	4	Wisconsin.....	17
Massachusetts.....	5	Canada.....	8
Michigan.....	16		
Missouri.....	40	Total.....	425

The Goslee Shorthorn Sale.

Go to the Goslee sale of Shorthorns at Falls City, Neb. April 18. The 15 bulls in this sale constitute an element of interest in themselves sufficient to bring an appreciative set of gentlemen to the front on this occasion. Young Marys and Rose of Sharons predominate in the Goslee herd. It is to these standard and popular families that the herd can trace its long years of prosperity. Mr. Goslee will be pleased to have buyers come early to the sale and inspect the fine string of big, roomy cows to be seen. These cows have produced the young stock to be sold and they are all now in calf to the Scotch herd-bull, Gloster's 2d Duke, or have his calves at foot. Remember that Gloster's 2d Duke is to be sold in this sale. He is a massive red bull, vigorous, a sure calf-getter; and he goes in this sale-ring with no strings tied on him. Don't miss seeing him and his get. Keep the date in mind. Forty head of breeding cattle go under the hammer without protection, selling fairly and squarely upon their merits. Read the advertisement. It gives the whole thing in a nutshell.

Omaha Angus Sale April 15-16.

A splendid galaxy of Aberdeen-Angus cattle will come before buyers at Omaha, April 15-16. We take it for granted that the catalogue has been widely asked for, and a strong representative attendance is therefore to be looked for. One hundred and fifteen head of model breeding cattle is a sufficient drawing card. The men who were in attendance at the March sale expressed the highest satisfaction with the class of stock put before them.

THROWN FROM FIRE TRUCK

Ladderman Frank Smith Meets with a Serious Accident While Answering an Alarm.

While on the way to a fire the sudden jolting of the hook-and-ladder truck threw Fireman Frank Smith from his position on the running board. He struck the pavement head foremost and was still unconscious when brought to the hospital. It was feared by the house physician that he had received internal injuries which might prove fatal.

Smith is stationed at the Central Fire Station, corner Fifth and Valley streets, Burlington, Iowa, and in referring to the accident, he said to a reporter: "My whole system had received a violent shock which affected my nerves fearfully. The doctor said I had nervous prostration. I would often start trembling out of a troubled sleep, covered with a cold perspiration, and imagining something horrible was about to happen. There would be times when my whole body would be numb and then again there would be terrible cramps in my limbs.

"For a long time after leaving the hospital I was so weak that I could not walk across the room and my strength steadily refused to return. I could not eat and the tonics and appetizers they gave me did me no good. I was too sick to go on duty and the doctor said it would take a long time to recuperate. I was discouraged and disheartened.

"Then a friend persuaded me to take Dr. Williams' Pink Pills for Pale People. They gave me strength, quieted my nerves so that I could get a refreshing night's sleep, my appetite came back and I soon began to feel better. In a short time I was cured and now I feel perfectly well and strong."

Dr. Williams' Pink Pills for Pale People have a double action—on the blood and on the nerves. It is not claimed that these pills are a cure-all, but the very nature of the remedy makes it efficacious in a wider range of diseases than any other. It is a scientific preparation designed to cure diseases through a direct action on the blood and nerves.

At druggists or direct from the Dr. Williams Medicine Company, Schenectady, N. Y., on receipt of price, 50 cents per box; six boxes for \$2.50.

This April sale stuff is squarely up to the mark. It is material from which to build up money-making herds of the market-topping breed. Many of the best herds of Aberdeen-Angus cattle in Illinois, Missouri, Kansas, and Iowa are drawn upon for this Omaha sale, under the Chas. Escher, Jr., management. High-class individual excellence and fashionable family connections should serve to mark this sale ring as an attraction for appreciative buyers. All are invited to be present and share in the bargains in first-class "doddies."

The Johnson & Son Hereford Sale.

On March 31, at Arkansas City, Kans., was held a sale of a draft of Hereford cattle from the breeding farm of L. F. Johnson & Son, Geuda Springs. The sale was conducted by Col. Lefe Burger, of Wellington, but owing to insufficient advertising and the fact that this was his first sale, the crowd was small and prices ruled low.

The purchasers at this sale were as follows: Bulls—C. P. Franks, Winfield; C. F. Eastwood, Geuda Springs; B. Brandenburg, Geuda Springs; Jens Clausen, Newkirk, Okla.; N. Heberd, Tisdale; S. Thurlow, Oxford; W. I. Beech, Hackney; W. T. Lasinger, Winfield; Jos. Kramer, Wellington. Females—R. C. Dixon, Arkansas City.

When you make a failure it is hard to interest people in your good intentions. Advertise in the KANSAS FARMER and don't fail.



DISEASES OF MEN ONLY

The greatest and most successful Institute for Diseases of Men. Consultation free at office or by letter. BOOK printed by E. J. WALSH, President, English, German, and Swedish, explaining Health and Happiness sent sealed in plain envelope for four cents in stamp. All letters answered in plain envelope. Varies cured in five days. Call or address

Chicago Medical Institute.

518 Francis Street,
ST. JOSEPH, MO.

Gossip About Stock.

Note the change in the advertisement of Pearl Shorthorn herd owned by C. W. Taylor, Pearl, Kans. He has twenty-five very choice young Shorthorn bulls for ready sale. He has the sort worth going to see and they can be had at reasonable figures.

The Kansas Farmer is getting to be the greatest medium for business published anywhere. It reaches the best class of farmers and stockmen in the West. In evidence of the foregoing a brief note from D. P. Norton, Dunlap, Kans., breeder of Shorthorns, says: "The Kansas Farmer has just brought me an order for six heifer calves from Old Missouri."

Master Ardi Graham, son of our associate editor, reports that he has just taken off a hatch of Barred Plymouth Rock chickens from his Hiawatha incubator which contained a larger percentage of live birds than any he has yet had. They are very strong and vigorous and he is much pleased with the incubator he is using. Its convenient size and simplicity of operation make it a pleasure for even a 14-year-old boy to handle. He expects to raise about 1,000 chickens this year.

W. H. Graner, of the firm of Graner Bros., breeders of Shorthorn cattle and Percheron horses, Lancaster, Atchison County, Kansas, this week makes announcement of a public sale of Shorthorns to be held on Tuesday, April 21, 1903. The offering will consist of thirty-eight head comprising twenty heifers and eighteen bulls. For further particulars write to W. H. Graner, Lancaster, Kans., and mention the Kansas Farmer.

You can gain a good idea of a firm by knowing the name of its patrons. Just read the names of the well-known firms who are large buyers of Rex Conditioner for horses, manufactured exclusively by Rex Stock Food Company, Omaha, Neb. It's the best thing for poorly wintered, lousy, wormy, or out-of-condition horses or other animals on the market. Every horse needs Rex Conditioner this time of year to put them in proper condition to withstand the hard work and heat of the coming season. Write for free booklet.

On April 11, at Logan, Kans., will be held a farmers' and business-men's meeting which will have for its object the development of the dairy industry in that locality. This meeting will be presided over by Hon. W. A. Reeder, and the principal speaker will be Mr. W. W. Marple, of the Blue Valley Creamery Company, St. Joseph, Mo. Mr. Marple has won a reputation as an orator and humorist and we predict that his audience will be thoroughly entertained and amused in addition to being well instructed on dairy lines.

McLaughlin Bros., Importers of French and Coach stallions, write the Kansas Farmer as follows: We received a cable message from Mr. James McLaughlin saying that he has already bought forty Percheron stallions which will sail from Southampton April 4 on the steamship Minnehaha. They will be due to arrive in New York two weeks from to-day and should reach home the day following. Mr. McLaughlin will remain in France to buy our regular summer importation. The foreman of our stables went over on the Minnehaha to return with the first shipment of horses.

F. H. Schrepel, Ellinwood, Kans., proprietor of the Cheyenne Valley Stock Farm, Percheron horses and Poland-China swine, reports splendid results from his advertisement, and in a recent letter says: "I have had a good trade this spring. Only have three more horses to sell, two Percherons of Brilliant blood, one weighing 1,900 pounds, the other over a ton. I sold my cheap horses first. The trouble is I can not sell these horses cheap enough, they are too valuable to sacrifice. I also have one trotting-bred coach stallion for sale."

The Republic County Herd of Poland-China swine of O. B. Smith & Son, of Cuba, Republic County, has an important announcement in this week's paper on page 425 in which they offer a number of select males of September farrow, perfect in markings, good bone, coat of hair, and sired by the splendid herd-boar, Moonshine 29559, said to be one of the best sires in northern Kansas. The writer attended a public sale last fall where the get of Moonshine was in good demand at splendid figures. Mr. Smith will also sell Rose-comb Brown Leghorn eggs at \$1 for 15.

Public sales of cattle North and East have experienced a drop from the heretofore prevailing prices, while on the other hand in the South and Southwest there seems to be an increase in former values at auction. Col. E. L. Harriman, the auctioneer, Bunceton, Mo., just returned from a three-weeks' trip of selling pure-bred cattle in Arkansas, Texas, Oklahoma, and Kansas, and brings very encouraging reports of good prices realized, and of the expansion of his business, which seems to be growing heavier every month and covering a wider range of territory. He reports that during the months of April and May he will sell in six different States and Territories, extending from the Mississippi to the Pacific coast. The Colonel is using his best endeavors to reach the top ladder of success and usefulness in his business.

Our subscriber, Fred Martin, of Washington County, things he has a thoroughbred Poland-China sow with a record that is extremely hard to beat. She was farrowed in April, 1900, and her first litter in 1901 was ten pigs; second litter, September, 1901, fourteen pigs; May, 1902, sixteen pigs; October, 1902, twenty-one pigs, making a total of sixty-one pigs in four litters. She is due to farrow again during the present month. The last litter from this sow was sired by Black U. S. Hadley and the owner thinks they are

as fine as any one need to look at. He also expresses the opinion that the Poland-China men of late years have been paying too much attention to the showing hog and not enough to the all-around useful type, and he thinks that he can claim for Washington County the championship on Poland-China litters.

It is always a pleasure to commend a young man for well-directed efforts. It is especially pleasant to commend young men for well-directed efforts along agricultural and stock-breeding lines and we never allow an opportunity to pass to help the young breeder along by showing our commendation and appreciation of his efforts. Just now we have in mind Mr. James A. Carpenter of Carbondale, Kans., who, in setting out the herd which was long ago established by his father, had the good judgment to retain for his own use the choicest individuals it contained. Many of the animals which he now has in his possession were of his father's breeding and, having known them all their lives, he was of course able to judge from past performances of their future capabilities. In 1901 Mr. Carpenter used as a herd-bull the Don Carlos bull, Sampson 90527, who is a grandson of the famous Boatman now at the head of the Vermillion Hereford Cattle Company herd, owned by E. B. Woodman, Vermillion, Kans., and he now has a number of good things that were sired by him remaining in the herd. The present herd-bull is Beau Gondolus 133277, a Beau Brummel bull bred by Gudgell & Simpson out of an Earl of Shadeland cow. Associated with him in the herd are a number of choicely bred Tom Reed heifers that were bred by the elder Mr. Carpenter. Tom Reed 58617 numbers The Grove 3d, Anxiety 4th, Lord Wilton, and such blood among his ancestry, and his heifers that are now on the Carpenter breeding farm are at once a credit to him, to the breed, and to the breeder. Notice his advertising card on page 423.

This is the only Angus auction that will likely be held at Kansas City during the spring of 1903. It is not help with the idea in view of realizing fancy prices for the animals consigned, but to distribute in the territory tributary to Kansas City bulls of this great market-topping breed that will sire steers with the quality that can be found in the get of no other breed of bulls; and to furnish females to those desiring to found herds that will pay enormous dividends on the investments, and to supply suitable stock bulls to head such herds. "There is no way of judging the future but by the past. There is no breed with such a past as has the Aberdeen-Angus, and consequently there is no breed with such a future. Angus cattle have for years commanded a premium over every other breed in the fat-cattle markets of the old world and imported to this country in numbers of any consequence just twenty years ago, they have actually furnished the highest priced carload of each year for the past fourteen consecutive years in the great cattle markets of America. They have demonstrated conclusively everywhere, that as a breed they are superior to all others for crossing and grading up purposes. At the recent International Exposition the Angus won a majority of the prizes on grades and crosses, the champion steer, the champion herd, the champion carload and the champion carcass were each awarded to grade Angus. At the last Smithfield show the Angus won eleven out of twelve of the prizes in the grades and crosses section, but the grand championship of the show was awarded to a pure-bred Angus, and these victories were but a repetition of what had happened at other fat-stock shows of Britain. The outstanding quality of the Angus is bound to be recognized. He is free from the pimples and patches, the coarseness and tallow of the other breeds and he who would breed the steer that will win at fat-stock shows and top our markets the year around, must use Angus bulls. The animals herein catalogued are creditable specimens of this great breed and they will prove useful in giving to the cattle of this country the quality and finish, along with substance and thickness, that is so much needed in our herds. We invite breeders, farmers, and stockmen generally, to attend this sale. The tabulations reveal the names of every noted strain of the breed. We have cattle that will please any and all of you and that you can obtain at your own price.

Great Colonist Movement.

Indications point to an unprecedented rush to the marvelous agricultural regions of the Northwest, and thousands of homeseekers from all parts of the East are already on their way to take up Government lands, or purchase them outright.

Vast bodies of land are open to any taker on payment of small fees. The State of Oregon has nearly 500,000 acres of selected school lands that it offers at \$1.25 per acre, only 25 cents an acre of it in cash and the rest on long time.

This wonderful region has been aptly termed "A land of gold and golden grain," where crops never fail and the rewards of intelligent industry are certain. The climate for mildness and equability is unrivaled anywhere.

No other part of the United States or of the world has greater or more valuable opportunities to offer to intelligent and industrious seekers for homes and competence than the Pacific Northwest, Oregon, Washington, or Idaho.

To enable persons to reach these localities at a minimum expense, the Union Pacific has arranged, beginning with the third Tuesday of March and the first and third Tuesdays of every month until July 16, 1903, a round trip rate of one fare plus \$2 to the West, northwest Idaho, Oregon, and Washington. Information cheerfully given by Union Pacific agent.

Big Dairy is Planned.

The J. P. Baden Produce Company has leased 320 acres of land south of Winfield for a dairy. One hundred first-class milch cows have been purchased and put under the care of Johnnie Cochran, an experienced dairyman. The object of this step on the part of the Baden people is twofold; namely, to obtain fresh milk for daily use in the creamery department, and to experiment with cows for the purpose of obtaining more information on dairy products.



When such firms as ARMOUR PACKING CO., SWIFT PACKING CO., CUDAHY PACKING CO., AMERICAN EXPRESS CO., ADAMS EXPRESS CO., and STANDARD OIL CO., buy and feed Rex Conditioner, can you doubt its merit? It is endorsed by State Veterinarians. It is worth its weight in gold. All horses need it this time of the year. Don't fail to write for our FREE BOOKS and Bulletins.

REXSTOCK FOOD CO., Dept. 9, OMAHA, NEBR.



Rupture and its Cure.

Those of our readers who are so unfortunate as to be ruptured are interested in learning where they can go to be cured; having heard of so many claimed cures they have become skeptical and many of them have made up their mind to try no more. To those who have tried many different remedies without success we wish to call their attention to an announcement to be found elsewhere in this issue of that eminent specialist in the treatment and cure of rupture, O. H. Riggs, M. D., Second Floor Altman Building, Kansas City, Mo. Dr. Riggs for many years has devoted his entire time to this his chosen specialty and to say that he has been successful would be putting it rather mildly. His reputation and success in the cure of rupture extends from ocean to ocean and from the Lakes to the Gulf. Dr. Riggs' familiarity with rupture in all of its various stages enables him at a glance to state to a patient if a permanent cure can be effected, and when he once makes up his mind that a cure is within the bounds of his skill, he backs up his opinion by an absolute guarantee that he will effect a permanent cure or make absolutely no charges for his services. Readers of the Kansas Farmer who have rupture should lose no time, but write at once to Dr. Riggs, for his free booklet on rupture. It contains full information in regard to his treatment and cure of rupture. When writing for this booklet or for any information please mention the Kansas Farmer.

Sporting Goods at Wholesale.

We want every reader of the Kansas Farmer who is interested in fishing tackle, bicycles, guns, ammunition, baseball goods, hammocks, athletic and general sporting goods to know that they can buy the best goods in the market at the lowest prices of our new advertiser, Louis Erhardt & Co., Atchison, Kans., one of the oldest houses in the West, established twenty years ago. Write for their spring catalogue No. 91 just issued which contains forty-eight pages and is well illustrated. It must be seen in order to fully appreciate the great number of desirable things it offers. Write at once and mention Kansas Farmer.

Caustic Balm Cures Shoe Boils.

Shelbyville, Ind., July 30, 1902. The Lawrence-Williams Co., Cleveland, O. I wish to know if GOMBAULT'S CAUSTIC BALM will take off a curb and use horse at same time. (Yes. L. W. Co.) We used your Balm several years ago for shoe boils successfully, but have never tried it for curb.—ED. B. JOHNSON.

Last Chance for California.

The cheap rates will be withdrawn June 15. Plan your trip now—\$30 from St. Louis, \$25 from Kansas City. Personally conducted excursions on "The Katy Flyer" from St. Louis on Tuesdays of each week. Tourist car through to San Francisco. Ask for tour book and information.

The marvellous history of the growth of "Life Insurance in New England" is described and illustrated by H. H. Putnam, the editor of the trade paper, in the April number of the New England Magazine. This business had its origin in Boston and its highest development in Hartford, and the layman as well as the expert will be astonished at the rapid growth of outstanding policies, paid benefits, and resources for future loss in the dozen gigantic leaders in the insurance field.

Athletes frequently die in their prime. Health is not a question of brawn or muscle. Neither is it a question of fat, height, breadth or weight.

The strong constitution which is but another way of saying an abundant reserve of nerve force or vitality, is the true guardian of health. Nerve force constitutes resistance and endurance.

If you have occasional headaches, if after extreme mental exertion you find yourself "giving out," if your stomach is frequently upset; if you are unable to get sleep or rest at night; if your appetite is poor and your food is not readily assimilated, your condition shows plainly through these symptoms that your reserve of nerve force has been exhausted, that, in fact—you are a nervous bankrupt.

Do not deceive yourself as to your condition. Do not mistake the symptoms, which may be inconvenient only, for the disease. There is but one malady which could affect you in so many ways, and that malady is a derangement of the nervous system.

To strengthen the nerves and restore their lost energy; to replace the wasted tissue with healthy flesh; to supply to the nerves the readily assimilated elements of which they stand in need; to bring back appetite, sleep and rest; to establish a reserve of nerve force which will guard you against attacks of overwork and disease, Dr. Miles' Restorative Nervine is a true specific. It brings sweet sleep and rest; it stays the hand of impending danger. It is perfectly harmless, is as good for children as for adults, is a true tonic and in no sense a stimulant, will not affect the most sensitive stomach and is so readily assimilated that good effects are felt after the first few doses are taken. It is the favorite formula of a nerve specialist whose experience and practice covers a period of over a quarter of a century.

Our faith in it is proven by the fact that all druggists sell and positively guarantee that Nervine will benefit or money refunded. If you are in doubt as to the nature of your trouble write to-day for free Treatise on Nervous Diseases.

Dr. Miles Medical Co., Elkhart, Ind.

GREAT BUGGY BARGAINS.

WE OPERATE ONE OF THE LARGEST VEHICLE FACTORIES IN THE COUNTRY, where we make a higher grade of vehicle work of all kinds than you can buy from your dealer at home, and our prices are about one-half the price charged by dealers. OUR FREE VEHICLE CATALOGUE EXPLAINS OUR LIBERAL 10 DAYS' FREE TRIAL OFFER, explains how we ship buggies subject to examination, payable after received, explains our binding guarantee, illustrates, describes and prices at incomparably low prices a big assortment of high grade Road Wagons, Runabouts, Open Buggies, Top Buggies, Surreys, Carriages, Phaetons, Stanhopes, Wagons, Carts, etc. Our free Vehicle Catalogue explains how we make freight charges very low by shipping from Kentucky, Indiana, Minneapolis, Omaha, Kansas City of Des Moines, the one nearest you. We illustrate below a few of our new 1903 rigs just to give you an idea of the values we are offering.

\$25.90 buys this, our Standard Runabout, exactly as illustrated, the latest style for 1903, complete with handsome cushion on back, carpet and shafts, the equal of runabouts sold by others at about double the price. Our free Vehicle Catalogue contains an offer on this and other buggies that will surprise you.

\$25.90 our Em-press Top Buggy, exactly as illustrated, complete with top, full length back and side curtains, cushion in back and seat, carpet, anti-rattlers and shafts; the equal of top buggies others sell at about double the price. Our free Vehicle Catalogue shows a big assortment of top buggies at astonishingly low prices, and carries with it an offer made by no other house.

\$28.75 buys this, our Summer Beauty leather quarter top buggy, the latest 1903 model, complete with full length back and side curtains, cushion in seat and back, carpet, wrench, anti-rattlers and shafts. Our free Vehicle Catalogue shows a big variety of high grade buggies at correspondingly low prices, and carries with it an offer which you must see before ordering elsewhere.

\$49.75 buys this, our new 1903 model Family Favorite large size surrey or carriage, exactly as illustrated, complete with handsome canopy top, full length side and back curtains, lamps, large fenders, carpet, anti-rattlers and shafts. Such a surrey as others sell at \$60.00 to \$80.00. Our free Vehicle Catalogue shows this and many other handsome surreys at correspondingly low prices. If you write for it you will receive an offer no other house will make you. OUR VEHICLE CATALOGUE IS FREE FOR THE ASKING. Just drop a postal card or write a letter and say "Please send me your free Vehicle Catalogue" and it will go to you by return mail postpaid. Our low prices, big assortment, liberal terms of shipment and our guaranteed proposition will astonish you. You will receive a book free that will surprise you. Address:

\$31.75 buys this, our new 1903 model, Big Road and Combination Half Platform Spring Wagon, exactly as illustrated, complete with two seats, full spring cushions and backs and shafts. Others sell this same wagon at \$40.00 to \$50.00. Our free Vehicle Catalogue shows this and many other wagons at correspondingly low prices. If you write for it you will receive an offer no other house will make you. OUR VEHICLE CATALOGUE IS FREE FOR THE ASKING. Just drop a postal card or write a letter and say "Please send me your free Vehicle Catalogue" and it will go to you by return mail postpaid. Our low prices, big assortment, liberal terms of shipment and our guaranteed proposition will astonish you. You will receive a book free that will surprise you. Address:

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SEARS, ROEBUCK & CO., CHICAGO.

1900 PENNIES—Do you save them? You may be rich. Send 10c, silver, for private guide and present. U. S. Supply Co., Dept. 11, Box 73, Albany, N. Y.

CANCER ON THE ARM CURED BY THE COMBINATION OILS.

Emporia, Kans., October 18, 1901. Dr. D. M. Bye Company, Indianapolis, Ind.

Dear Doctors:—Believing you would be glad to know of the recovery of your patients, I am pleased to tell you the cancer on my arm is well. It is wonderful, this rapid recovery. I do not believe things happen, but that the Lord rules in all things, and that He led me to try your wonderful cure. May the dear Father bless you in your work of healing is the earnest prayer of your grateful patient,

Mrs. A. J. Wooster.

The Combination Oil Cure was originated and perfected by Dr. D. M. Bye. He has cured many very bad cases without pain or disfigurement. Those who would like to know more about it, or who desire free books and papers, should write to the HOME OFFICE of the Originator, Dr. D. M. Bye Company, Drawer 505, Indianapolis, Ind.

ANNUAL STATEMENT.
Year Ending December 31, 1902.

UNION CASUALTY AND SURETY CO.,
St. Louis, Mo.

Risks written during year.....	\$18,548,250.00
Premiums received thereon.....	117,519.03
Losses incurred.....	262,124.47
Assets.....	528,366.81
Liabilities, except capital stock.....	205,292.18
Income.....	1,000,306.13
Expenditures.....	584,572.88
Balance forward, Gen. Agents, Topeka, Kans.	

DIETZ LANTERNS are everywhere noted for shedding strong, clear, white light. Hand lanterns, street and driving lamps, etc., many sizes and styles for all purposes. Send for free illustrated catalogue. R. E. DIETZ COMPANY, 25 Laight St., NEW YORK. Established 1840.

NO MONEY TILL CURED. 28 YEARS ESTABLISHED.
We send FREE and postpaid a 200 page treatise on Piles, Fistula and Diseases of the Rectum; also 100 page illus. treatise on Diseases of Women. Of the thousands cured by our mild method, none paid a cent till cured—we warrant their names on application. **DRS. THORNTON & MINOR, 1007 Oak St., Kansas City, Mo.**

Washburn College

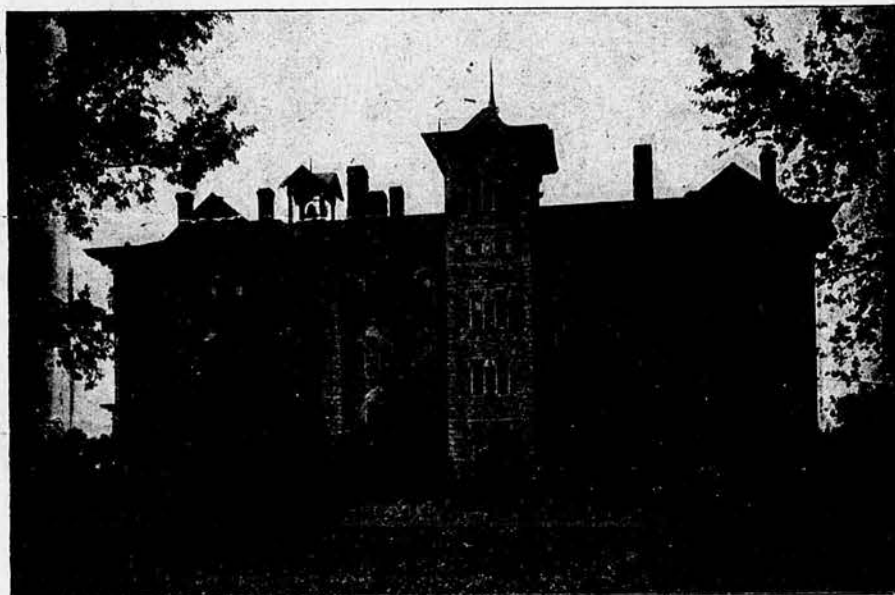
Topeka, Kansas.

Advantages and Attractions



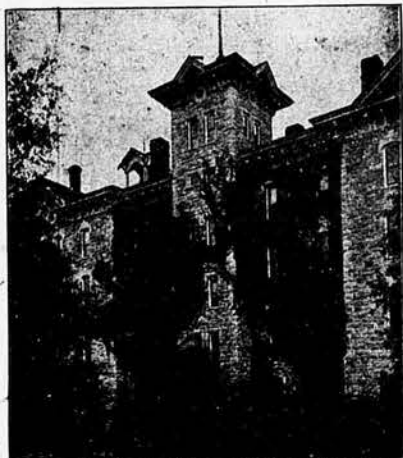
THE INAUGURATION ARCH.

WASHBURN COLLEGE, founded in 1865 to commemorate the successful issue of the struggle to make Kansas a free state, has ever stood for noble ideals in educational work, and has constantly advanced from one height of attainment to another. Her beautiful campus of one hundred and sixty acres, her noble buildings



constructed of native rock, and her honorable sons and daughters, are a monument to the sagacity, energy and devotion of those who have woven their lives into this institution, which has been set as the gem among Kansas colleges. Washburn is one of the pioneer colleges of Kansas, with a record of thirty-nine years of noble achievement.

RICE HALL, a dignified, noble structure, the first building upon the present campus, was erected in 1872. Originally known as Science Hall, it was rechristened at the Commencement of 1902 in honor of Mr. Harvey D. Rice, one of the founders of the college, who superintended the construction of this its first permanent building, and continues as one of the most devoted friends of Washburn. The building, one hundred and fifty-six feet long, is the largest among the various structures upon the college campus.



It was at one time the center of the college life—the home of the president and teachers, and the dormitory for the students. It also contained the recitation-rooms, the laboratories, and the chapel. The large room that has of late years been the gymnasium was originally the college chapel. Rice Hall is naturally dear to the hearts of the older graduates. Its ivy-covered tower guards the campus on the east.

VARIOUS Departments of Science are located in Rice Hall. The completion of the new Physics Building renders it possible to devote the first floor of Rice to the Department of Chemistry, which has hitherto been located in the basement. The second floor is occupied by the Departments of Geology and Biology. Fine Museums, geological and biological, are located upon the second and third floors. Materials for the careful study of economic geology, one of the best collections of fossils in the country, a fine cabinet of insects, and a good variety of skeletons and mounted vertebrates, are available here. The college Literary Societies find accommodations in Rice Hall in suitably furnished rooms.



HARTFORD COTTAGE, the domestic end of the college settlement, was erected in 1879. Besides several rooms that are assigned to lady teachers, it contains the dining hall for the young ladies who make their home at the college. The building is heated by steam.



WHITIN HALL was erected in 1882. It contains the offices of Administration, and fifteen other rooms devoted to college purposes. Several of the young ladies have their home in this building. It is centrally located, within a few steps of the chapel, the library, and the lecture rooms.



HOLBROOK HALL, built in 1886, the largest ladies' dormitory, heated by steam and lighted by electricity, affords a capacious, attractive home. Several of the studios of the Department of Music, recently fitted up at large expense, are located here. The building, constructed of brick, has been thoroughly renovated, refurnished, and painted within and without.

BOSWELL LIBRARY is a beautiful structure, spacious and well suited to the purpose for which in 1886 it was erected. The high basement has now been assigned to the Department of English Literature, with its lecture room and department library. The first floor contains the principal stack room, a large reading-room, and a refer-



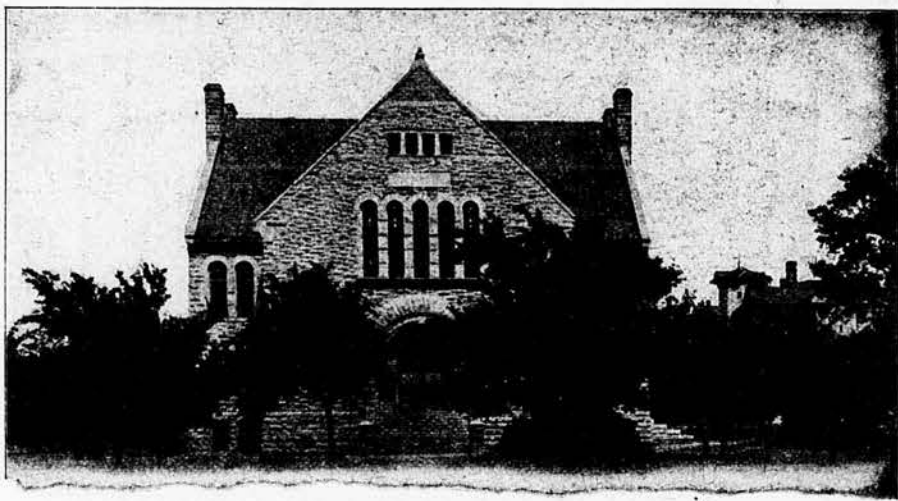
ence room. The latest magazines and periodicals are here. Upon the floor above is located another stack room, besides two large rooms devoted to the social life of the college. The Art Department, with its statuary and pictures, contributes much to the attractiveness of this portion of the building.

It is thought by many that the architectural features of the library render it the most artistic building upon the campus.

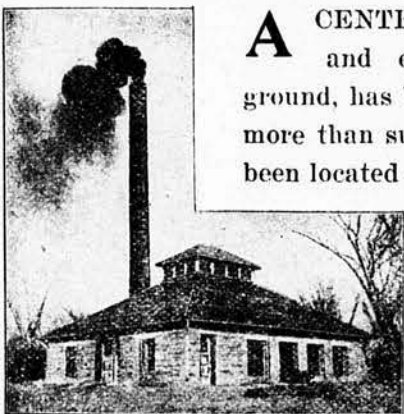
The entrance to the library, with its archway, and surrounded by ivy-covered walls, is especially attractive.



THE CHAPEL was built in 1889. This crowning work of President Peter MacVicar, who devoted twenty-four supremely successful years to the college, is fitly called the MacVicar Chapel. Besides the assembly room, in which religious exercises are held each day of the college year, it contains a room devoted to the work of the Chris-



tian Societies. The Y. M. C. A. and the Y. W. C. A. are both organized among the students. They hold weekly services of prayer, and classes in the study of the Bible and missions are conducted under their auspices. Their touch upon the student life is one of the constructive Christian forces of the institution. Several of the largest and best-lighted lecture-rooms are located in this building. The Departments of the Languages, Literature, Sociology and History, are here.



A CENTRAL HEATING PLANT, 42x45 feet, and extending eleven feet beneath the ground, has been provided for the college. Boilers more than sufficient to heat all the buildings have been located in it. The steam is conducted through

underground pipes enclosed in vitrified tile, and embedded in cork. All the buildings upon the campus will be connected with the central source of heat supply at the earliest possible date.

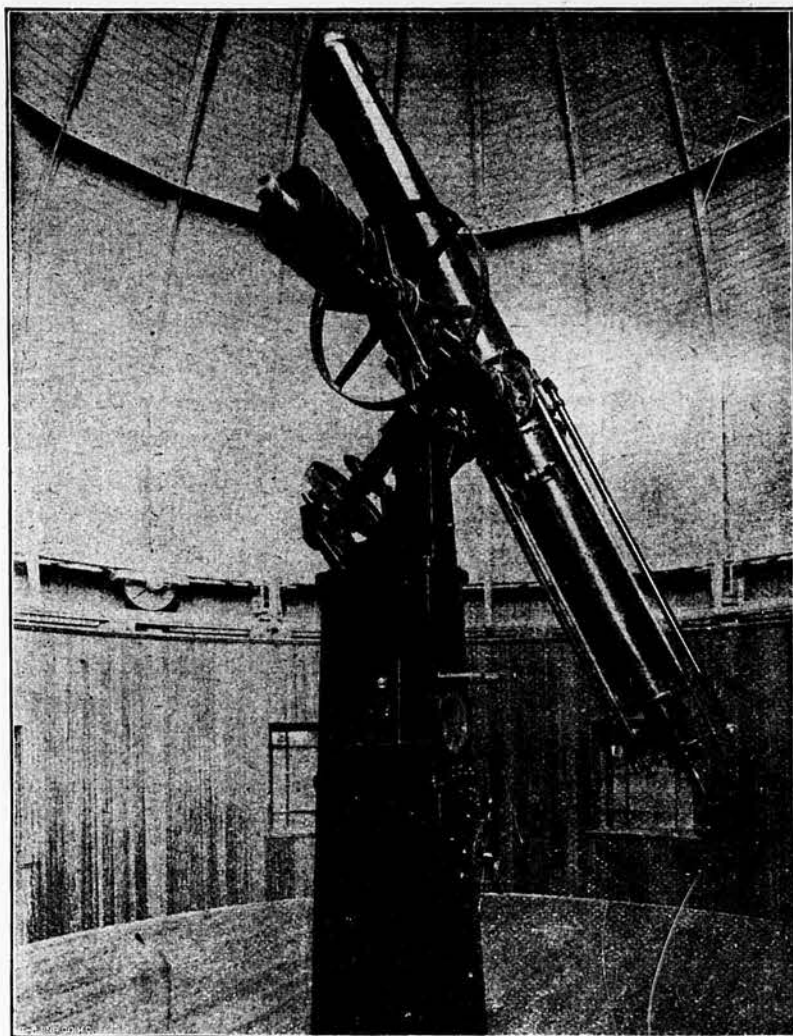


THE OBSERVATORY BUILDING, the last to grace the campus, just completed, is modern and up-to-date in every regard. It contains the Departments of Physics and Astronomy, Mathematics and Mechanical Drawing, and Psychology, with Physical and Psychological Laboratories. Additional Astronomical and Physical apparatus, at a cost of \$18,000, is provided for in the munificent gift for this building and its equipment, the total cost of which is \$56,000. No better equipment for these departments can be found in any western college. An eastern friend of the college, who has modestly requested that his name shall remain unknown, has generously provided this splendid gift as a monument to his interest in the educational development of the west.

The steel-framed, copper-covered dome of the tower, fifteen tons in weight, is so perfectly poised that a slight pull upon the cable by which it is moved causes it to revolve. It affords an attractive adornment to the landscape.

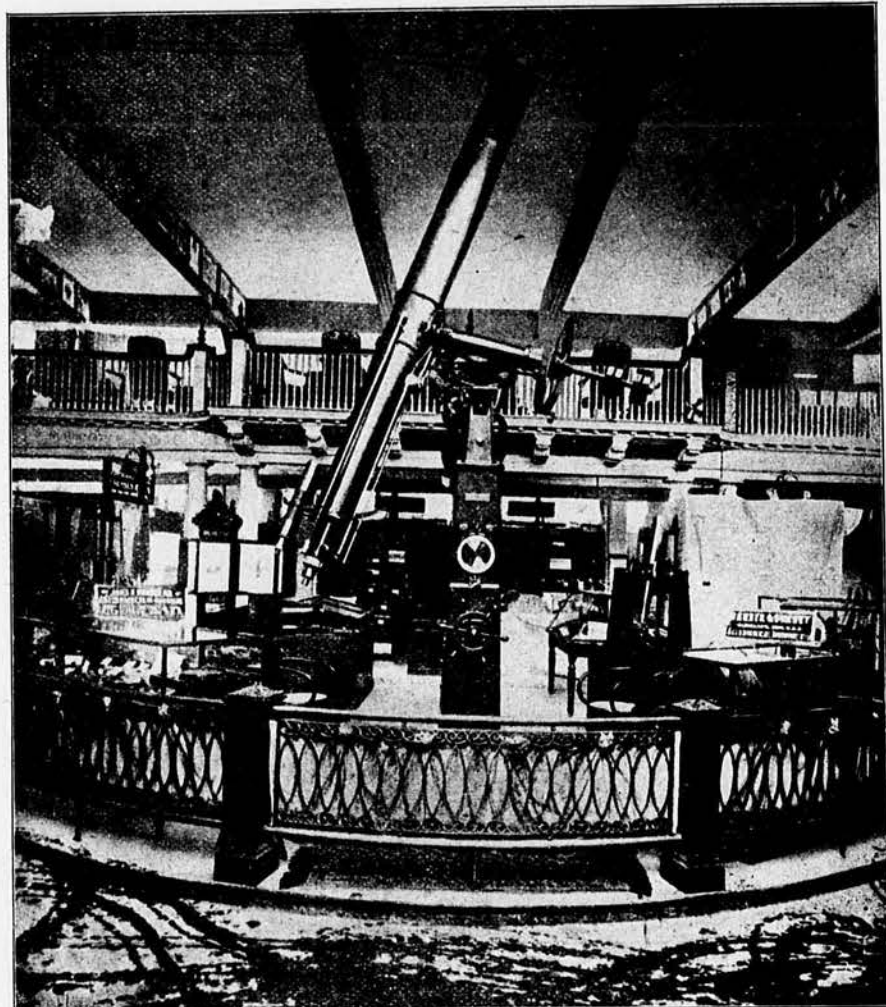


THE STEEL-TUBED TELESCOPE, equatorially mounted in the dome of the observatory, has an object-glass of eleven and a half inches clear aperture, and its appliances and mechanism are in every sense completely up-to-date. It is the instrument that took the Grand



Prize over all the world at the last Paris Exposition, as well as first honors at the Pan-American. The illustrations show it in its present home, and in the midst of the display at Paris. It is the best instrument obtainable for the work to which it is devoted.

THE telescope was built by the Warner & Swasey Company, of Cleveland, Ohio, who have constructed the finest instruments in use throughout America, including the Lick and the Yerkes telescopes. The additional astronomical equipment includes a position microm-



eter, a photographic lens and camera, a universal spectroscope, a meridian circle, a meridian telescope, a sextant, a standard chronograph, a computing machine, a Howard sidereal clock, a Howard mean time clock, a Bond mean time chronometer, books, charts, celestial spheres, lantern slides, and various other pieces of equipment.



the exercises at the Chapel in the afternoon, the address by President Thwing of Western Reserve University at the First Presbyterian Church in the evening, and the reception at the State House, which the Governor's Council graciously placed at the disposal of the college. The Inaugural address sounded the note of expansion, and the improvement of the curriculum, together with the enlargement of the scope of the college work, with the newly organized School of Law, and other projected departments, has been the result.



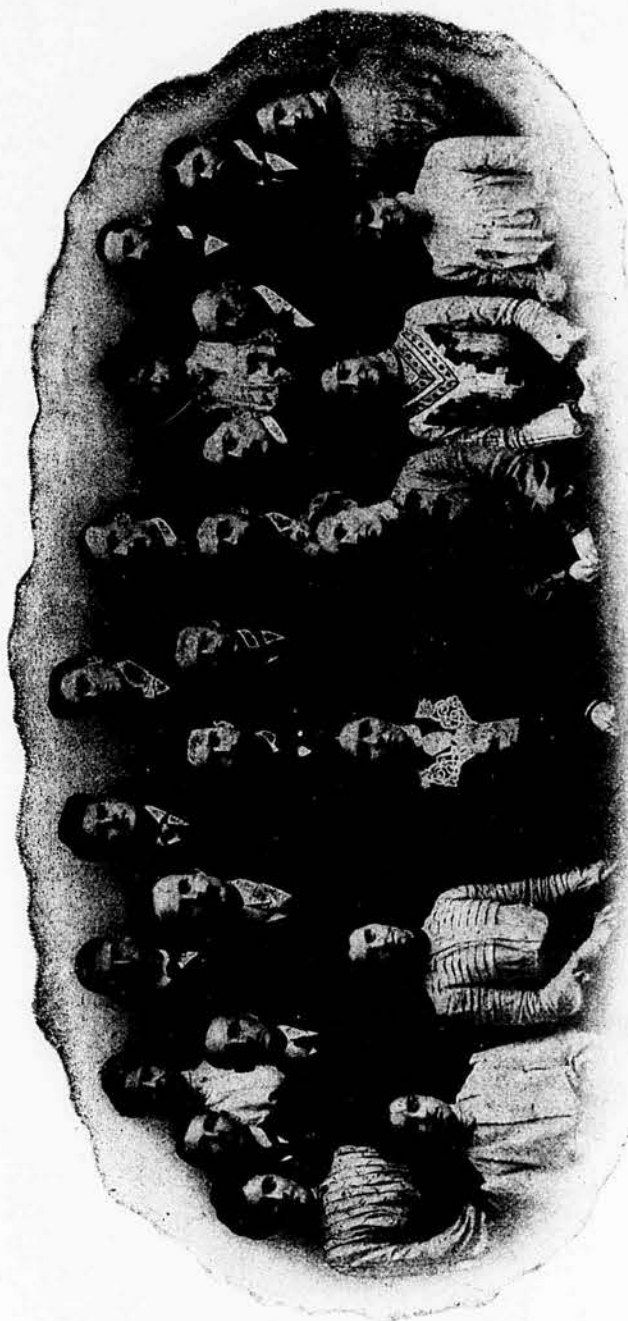
THE high standard of scholarship and instruction at Washburn has been maintained through the policy of securing the best available talent. None but specialists in their respective departments are engaged.

No student teachers are employed.

No instructor is advanced to the position of professor until he has proved his eminent fitness for a permanent place upon the Faculty.

Western colleges are sometimes said to be "weakly manned, largely by their own graduates, who are without post-graduate training and inadequately equipped for work."

This criticism is met at Washburn by the fact that her Faculty is composed of twenty-five thoroughly trained and progressive teachers, who have been students at fifty-five different colleges and universities—eight at the University of Chicago, four at Harvard, three at Yale, three at University of Michigan, three at Berlin, two at Williams, not to mention Brown, Columbia, Amherst, Pennsylvania, and



Members of the Faculty.

Top row (beginning at left)—Miss Helen R. Ingalls, Ward W. Silver, Duncan L. McEachron, Orwell B. Towne, Daniel M. Fisk, Mrs. Natalie R. Clark, Theodore W. Todd.
Middle row (beginning at left)—Miss Nancy J. Rodgers, Arthur M. Hyde, Harry I. Woods, Harris L. McNeill, George P. Grimsley, Frank L. Clark, Norman Plass, Frank B. Dalns, William A. Harshbarger, Frederick W. Ellis, Miss Emma M. McKean.
Lower row (beginning at left)—Miss LuCelia B. Clarke, Miss Helen W. Morton, Mrs. Clara S. Grimsley, Miss Charlotte M. Leavitt, Miss Maude Parker, Miss Lizzie M. Pond. Mrs. Frances D. Whittemore, of the Art Department, does not appear in the picture.

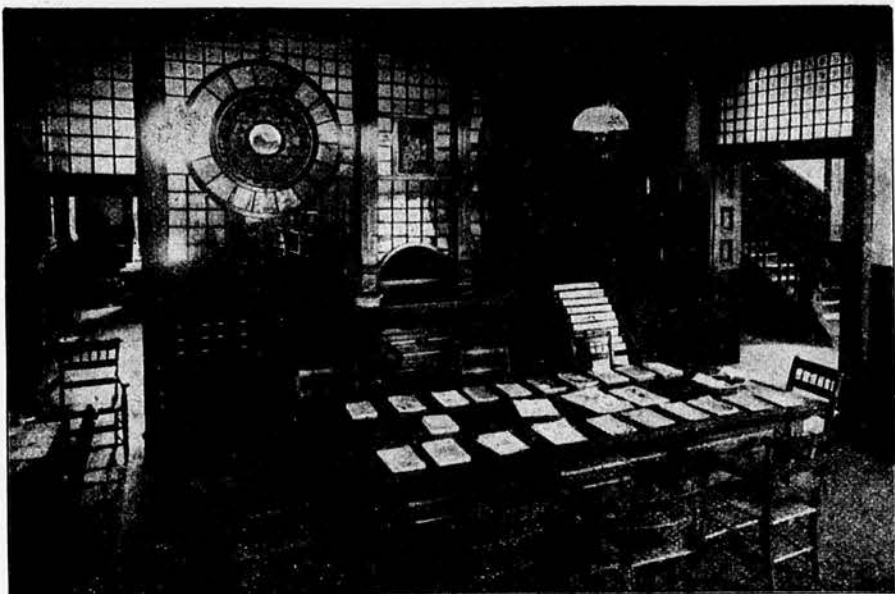
others. It is also worthy of note that some of the Washburn graduates, who have further equipped themselves by post-graduate study at other institutions, are among her best instructors.

Thirty-eight degrees, from leading colleges east and west, are held by members of the Washburn Faculty.

The touch of the instructors upon the students is personal and intimate. The various departments are so thoroughly manned that there is one instructor to every thirteen students. This fact readily shows that it is possible for the students to receive the individual attention that their attainments—or lack of attainments—demand.

No student teachers—efficient instructors—each department equipped with thoroughly trained experts—such is the policy of Washburn.

THE interior of the Library is artistically finished in hard wood and tinted glass. It contains upwards of eleven thousand volumes, most of which have been selected with greatest care. A Law Library of one thousand volumes is a recent addition. Several department libraries are distributed in other buildings. The location of the college at the Capital renders available the State Library, the Library



of the Kansas Historical Society, that of the Academy of Science, and the Topeka Public Library, making an aggregate of more than 120,000 volumes freely available to Washburn students for purposes of consultation and study. One of the finest law libraries of the west, containing 50,000 volumes, is open for constant reference.

The advantage to the student body is practically the same as though Washburn had these 120,000 volumes standing upon the shelves of her own library. Her students have free access to these books at any hour of the day. Her facilities for study and research are thus seen to be far in advance of those of most Western colleges.



A VIEW of the buildings from the rear gives a good idea of the grouping of some of them. The Library, the Chapel, Whitin Hall and Rice Hall are here distinctly seen. The glimpse of neighboring houses among the trees suggests the proximity of the city, with its advantages. No other educational institution in Kansas combines the advantages of city and country as fully as does Washburn College. Topeka is the center for meetings and conventions of every sort. Lectures, concerts and oratorios are among the constant educational features.

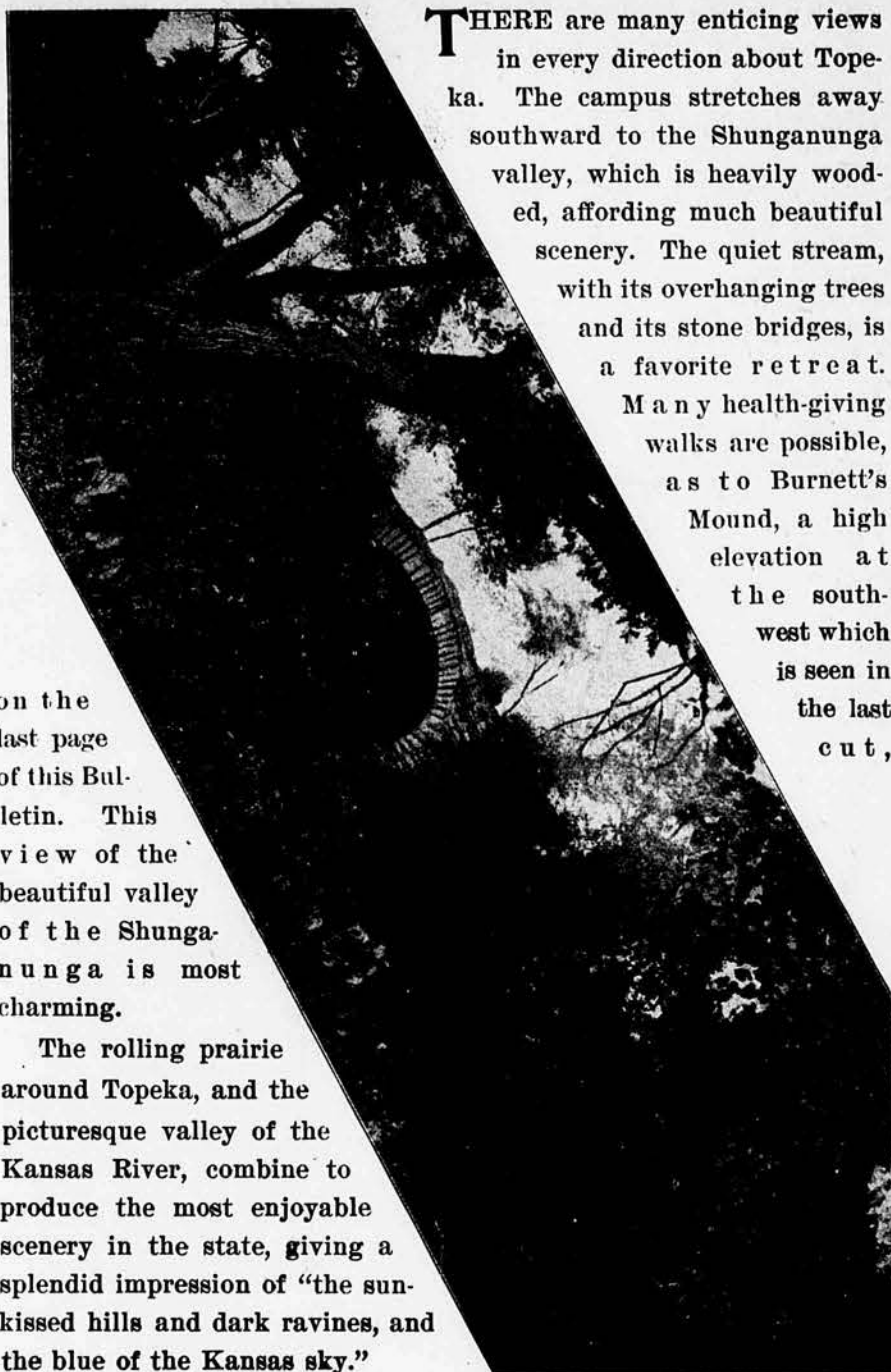
The diversified tides of political, social, business and administrative life of the state pour into the capital city. These facts

would be decisive with many in selecting a place for higher education if their true value were once comprehended. Our dignified state Capital is an ideal place for a college, and the balance and breadth of the training of Washburn's graduates and students are sufficient witness to this unique advantage.

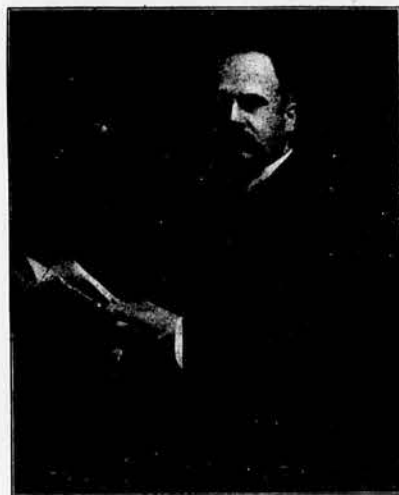


on the last page of this Bulletin. This view of the beautiful valley of the Shunganunga is most charming.

The rolling prairie around Topeka, and the picturesque valley of the Kansas River, combine to produce the most enjoyable scenery in the state, giving a splendid impression of "the sun-kissed hills and dark ravines, and the blue of the Kansas sky."



THERE are many enticing views in every direction about Topeka. The campus stretches away southward to the Shunganunga valley, which is heavily wooded, affording much beautiful scenery. The quiet stream, with its overhanging trees and its stone bridges, is a favorite retreat. Many health-giving walks are possible, as to Burnett's Mound, a high elevation at the southwest which is seen in the last cut,



REV. CHARLES M. SHELDON is an important factor in the religious life of the college. His church is near the campus. A large proportion of the students make it their religious home. His Sunday evenings are devoted to the young. His stories are written for them. He makes frequent visits to the college, and has large influence with the students. We delight to call him "our college pastor." He is beloved by all.

FORTY acres or more of the Washburn campus are shaded and beautified by hundreds of thickly planted elms with their

widely spreading branches. Pines and cedars and other trees grow in great luxuriance. The makers of Washburn, beginning with a treeless prairie, have transformed it into a beautifully wooded park.



With its cool and shaded nooks in summer, and its enchanting vistas in winter, who can wonder that many a visitor pronounces the Washburn campus "the finest in the West"?



Nothing is more beautiful than a wild prairie when the flowers are in bloom, and a stroll across the campus often invites to the fields beyond, where the tell-tale daisies grow. The heart of the true Kansan beats with joy in the region of Washburn.



THE college has ever stood for high grade work in the line of scholarly attainment, and has an enviable reputation in literary



achievement. Prizes are offered for literary and oratorical excellence. Societies for both the young men and the young women are constantly at work in literary lines. Much attention is given to preparation for successful public speaking, by the Department of Oratory and Debate.

Preliminary contests are held for the selection of a representative at the State Oratorical Contest, and the individual contestants receive thorough drill.

Public debates are frequently given, and contests with other colleges are of yearly occurrence. The debating team of 1902, composed of Dougherty, Titt and Leach, won a contest

RECENT

for the second time over a similar team representing Iowa College at Grinnell.

A Junior-Sophomore Literary and Oratorical Contest has been provided for, beginning with the spring of 1903.

A first prize of twenty dollars in gold, and a second prize of ten dollars in gold, are offered. These are to be awarded without class distinction. The contestants select their subjects from a submitted list. The orations pass to the literary judges under names assumed by the writers, whose identity is not disclosed till the decisions are made. There is a preliminary oratorical contest in each class, which is followed by the final contest.



SUCCESSFUL



DEBATERS.



THE number of young ladies at Washburn, in all the departments, is about the same as that of young men. A good percentage of them are from Topeka homes, but the quota from other parts of the state, upon and about the campus, is by no means small. Both the work and play of college life are to them extremely pleasant. The intimate associations result in life-long friendships. The Washburn girl is marked by her intense loyalty to Washburn, wherever she is found.

Parents who desire to secure for their daughters, in connection with the completion of their education, a development along social lines, are having their attention directed more and more to the surpassing advantages of Topeka in this direction. Unsurpassed opportunities are offered by the life of the city for those social acquisitions that are as much a part of education as are the intellectual attainments.



THE CONSERVATORY OF MUSIC has had a steady growth until it has become one of the strong departments of the college. The piano department has been wisely developed under the direction of Miss Ingalls. The work in voice culture, in harmony and the theory and history of music, in violin and other instruments, is not excelled in grade and efficiency at any other institution.



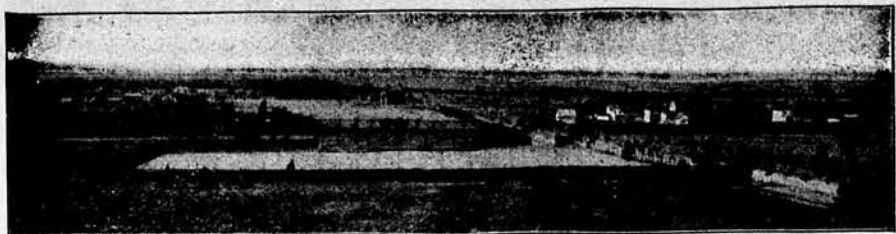
The Conservatory affords material for various organizations along both vocal and instrumental lines. The Monday night rehearsals help to develop such material. The Ladies' Quartet, directed by Mrs. Grimsley, composed of Misses Wood, Daniels, Parker and Morton, and assisted by Miss Clarke with her violin, have visited several sections of the state and have been highly complimented on their work. The Department of Music has had a marked development within recent years, and promises much for the future. Plans are taking shape for the early enlargement of its work.

The advantages in musical lines at Topeka are great. The leading pianists and vocalists of the world are brought to the city. There is frequent demand for the musical talent of the college at various social functions. The college events at which musical numbers are demanded are sufficiently frequent to keep the musically inclined in constant practice.



THE Orchestra has become an important factor in the musical and social life of the college. At various meetings, entertainments, and social functions, it has contributed a most enjoyable part. Its frequent rehearsals afford to those who are capable in this line of work an excellent opportunity to secure abundant practice.

Under the skilled leadership of Miss Clarke, it has attained a degree of efficiency that has gained for it a merited recognition. Its annual concert has become a feature among the musical events of the year.



THE athletic life of the college, embodied in the football team, the baseball nine, and the track team, finds its outlet in Athletic Park, covering several acres on the northwest corner of the campus.

The expenditure of surplus energy, the acquirement of self-possession, and the ability to accept defeat manfully and welcome victory graciously, are the results in which athletic activity finds its justification. It has been well said that "the benefit of athletic sports, when pursued in the right spirit, is equalled only by their perniciousness when pursued in the wrong spirit."

The football teams and the baseball nines of Washburn have scored the customary number of victories and defeats. Their work has been meritorious. - The track team is a new departure, which is



enlisting the energies of students who have had no inclination toward the other sports. With its gymnasium and outdoor drill, it promises much for the physical development of its devotees. Professor Towne has shown deep interest in this line of athletic sport, and has given unstintingly of his time to its development. It is anticipated that an Annual Track Meet will be held.

Students are strongly urged to engage in some sport or occupation that will give them the systematic exercise they need.



Large numbers of Washburn students earn their way through college. The opportunities for this are unsurpassed. Every student who desired to find such opportunities during the past year has been successful. Such may not need the help of athletic sports. But others feel the need.

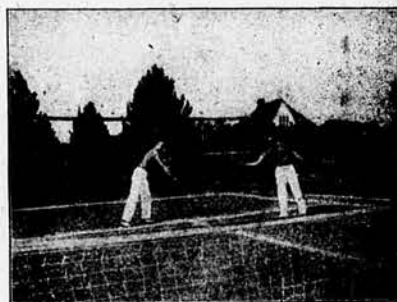
The athletics of the college are under the supervision of a Board of Control, composed of representatives of the Faculty and the student body, and are conducted strictly in accordance with the rules adopted by the Topeka Conference. Professionalism is discountenanced, the standard of scholarship of those who participate must be satisfactory, and the interests of the student are safeguarded in every possible way.



BASKET-BALL has become a favorite sport with the girls. A large number of them have engaged in the practice games, and several contests with outside teams have been held. It makes an ideal sport for either gymnasium or campus.

Two splendid tennis courts, skirted by an abundance of shade, are located near the buildings. These are in constant use during the tennis season.

The fine rolling grounds at the south of the Observatory, comprising about sixty acres, are used for the links of the Washburn Golf Club, which was organized in the spring of 1902. The large amount of walking required of golf players makes it a desirable game for students and others of sedentary habits.



Washburn Song.

A song of our prairies wide!
A song of our breezes strong!
A song of our pride, the true and tried;
Of our college dear a song!

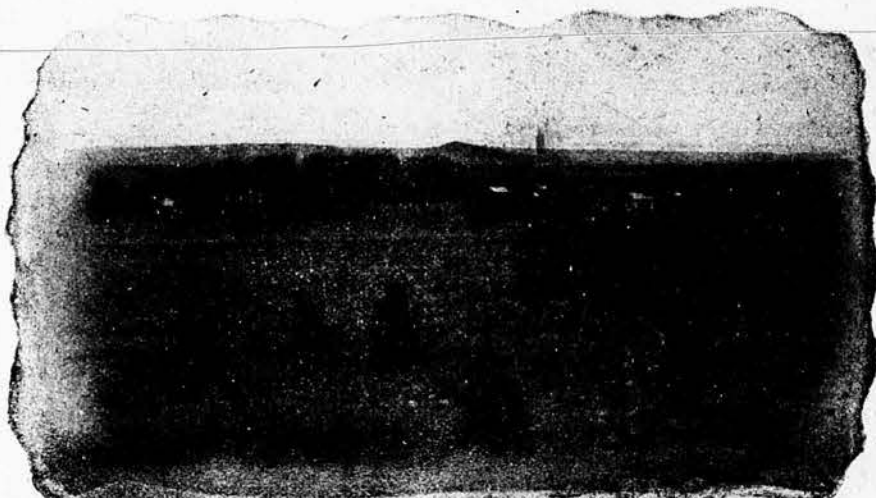
CHORUS:

Washburn, Washburn, we love thee well;
Ours is the joy, thy praise to swell;
With voices free, we sing of thee,
And ever thy name we tell.

'Tis not for thy hoarded light,
'Tis not for thy stately halls,
But 'tis for thy might, the sword of right,
Thy sons obey thy calls.

The winds for thee music make,
The prairies their strength reveal,
Our glorious state, our Kansas great
On thee has set her seal.

—Frances Storrs Johnston, '92.



A FEW POINTS ON EDUCATION.

(Continued from page 401.)

worth more than the work of the slave because of the mental force put into his work by the free man. The work of the civilized man is worth more than the work of the barbarian or of the half-civilized man because of the intellectual superiority of the civilized man. The effort of the mind-worker produces results for which the world is willing to pay liberally, results which are marketable at a long price. Ability to work with the mind in no wise impairs ability to work with the hand.

All education develops the ability of the man to work. Modern education is designed to develop ability to work in those departments of endeavor demanded by the world of to-day. Of two young men of equal powers who at 18 or 20 years of age choose, the one to begin the real work of life, the other to take a course at college, the one who begins his life work will at the end of five years seem to be greatly in the lead. At the end of ten years the lead will be one of dollars only, and possibly not many of these. At the end of twenty years, in most that makes their lives worthy of emulation the college man will be the acknowledged superior.

"But," says one father, "my boy is going to be just a plain farmer and won't have any use for a college education." Be not deceived. The day of the educated farmer is at hand. The time is here when farming as properly conducted requires the use of more intelligence than is needed in most other callings. The plain farmer has to meet and solve a greater variety of problems than confront any other citizen. If able to bring to their solution a powerful and well-trained intelligence he is a success, otherwise he is liable to be only a plodder.

The farmers' sons and daughters have the first claim upon the rights and privileges of this good land and age. One of the first of these rights and privileges is the education which will develop the strength of their manhood and womanhood. Instead of being the exception in any community in Kansas the college-bred man and woman ought to be almost universally found.

To obtain an education requires effort and, in almost every case, sacrifice of present good by both the student and the parents. But the thing aimed at is worth the price. An education is an investment which no mortgage, no change of times, no financial reverse can take away. Kansas has not colleges enough to hold the young people who ought, next fall, to enter their halls.

CORRECTNESS OF WRITING.

Immediately on the publication of the latest report of the Kansas State Board of Agriculture, students at the Kansas State Agricultural College began applying for copies. Thereupon, Secretary Coburn wrote to Professor Otis setting forth the conditions on which he would comply with these requests, as follows:

Capitol Building, Topeka, Kansas,
January 20, 1903.

Prof. D. H. Otis, Kansas State Agricultural College, Manhattan,
My dear Sir: The Thirteenth Biennial Report of the Kansas Board of Agriculture is now ready for distribution, containing a large fund of information intended to be useful to those interested in agriculture and stock-raising in this State. While the limited edition makes it possible for only about one Kansas farmer in twenty to be supplied with a copy, I am especially anxious that the bright young farmers, stockmen and dairymen at the Agricultural College have their full proportion, with the others.

With a view to having the distribution made to those most appreciative and deserving, you may say to the students in agriculture, animal husbandry and dairying that I will do the best I am able in response to their letters of application, giving preference all the time to the best-worded, best-spelled and best-written letters, and to those in which the writer declares his intentions to continue in the business of farming, stock-raising or dairying after leaving college.

These letters to be received by me on or before Wednesday, February 23, proximo; to ask for but a single copy of the report, and it to be sent to the applicant. No attention will be paid to postal card applications.

To each of the writers of the best two letters I will send a copy of the report bound in half-morocco and lettered with the names of those to whom they are sent; the awards to be made

by some competent business men or man, selected for that purpose.

Very truly yours,

F. D. COBURN,
Secretary.

Many applications were filed in pursuance of the foregoing offer. These were sent to the editor of the KANSAS FARMER with following letter:

Capitol Building, Topeka, Kansas,
February 27, 1903.

Prof. E. B. Cowgill, Editor "Kansas Farmer", City.

My Dear Sir: The enclosed copy of a letter written to Prof. D. H. Otis, of the State Agricultural College, is self-explanatory. I hand you in the same connection about 118 letters from the agricultural and dairy students of the College which the letter to Prof. Otis has brought out within the time specified.

I will be greatly favored if, in ac-

your very valuable time, I am sure it is a matter in which you cordially sympathize, and if you can give it reasonably early determination I will be under many obligations.

Very truly yours,

F. D. COBURN,
Secretary.

(Encl.)

After examining the applications and selecting about twenty of the more excellent of them, the editor submitted these twenty to the judgment of Miss May Capper, of the Topeka Mall and Breeze. She selected three of these as being better than the others. These three were submitted to Hon. T. A. McNeal, of the Mall and Breeze, who placed them in the order of their excellence. The three judges agreed fully on all points jointly considered by them.

Following is the report sent to Secretary Coburn:

*Kansas State Agricultural College
Manhattan, Kansas.*

Feb. 4, 1903.

*To the Secretary of
State Board of Agriculture.*

*Dear Sir:— Please
send me a copy of your
Thirteenth Biennial Report.*

*As I intend to make farming
my vocation I am desirous
of adding this book to my
farm library.*

*Yours Respectfully,
Chas. C. Randle.*

*Manhattan, Kansas.
Jan. 30 - 03.*

*Hon. F. D. Coburn
Topeka, Kansas.*

*Dear Sir: Please send me a copy of the 13th
Biennial Report of Kansas Board of Agriculture.
It is my desire to become a farmer after
completing my course here at K. S. A. C.,
and a copy of this report would be
highly appreciated by me.*

*Yours Truly,
Herbert L. Davis.*

cordance with your verbal expression of a willingness to do so, you take these letters, and with two other such competent gentlemen as you may invite to act with you, you will examine them carefully, and then return the letters to me, with a statement as to whom you have awarded the two volumes to be bound in half-morocco and lettered with the names of the students best entitled to them.

I am profoundly interested in helping these young men who are trying to learn the methods of a better agriculture and animal husbandry; not only in helping them along agricultural lines, but in others, conducive to their welfare in every good way, and any observations or suggestions you and your two associates will make in reference to the letters written me I will be glad to have, with a view to laying them before the students for their information.

While I know this is trespassing on

Topeka, Kansas, March 20, 1903.
Hon. F. D. Coburn, Secretary Kansas State Board of Agriculture, City.

Dear Sir:—Your letter of Feb. 27, with enclosures, was duly received. The 118 letters from the agricultural and dairy students of the State Agricultural College were examined with the cooperation of Miss May Capper and Hon. T. A. McNeal, both of the Mall and Breeze. We were unanimously of the opinion that the prizes should be given to Mr. Chas. C. Randle and Mr. Herbert L. Davis.

It is a pleasure to note that every letter expressed clearly the writer's meaning. Regarding the forms of the requests it may be mentioned that a few lacked brevity. In some there were misspelled words. The word "biennial" was the hard one. Failure to punctuate properly was almost universal.

It will be well for these young men to observe that it is no more trouble to write such a letter properly than



Why don't you get a Horseshoe Brand Wringer?

It will lighten your day's work

Every wringer is warranted from one to five years. The rolls are made of Para Rubber. They wring dry, last long, and will not break buttons. Our name and trade-mark is on every wringer and roll.

The American Wringer Co.

99 CHAMBERS ST., NEW YORK CITY

We manufacture the Wringers that wring the Clothes of the World

otherwise. I suggest that each should procure a manual of letter writing, an unabridged dictionary, and a copy of Tealls' Punctuation.

Very truly yours,

E. B. COWGILL.

Herewith are photo engraved copies of the two letters on account of which the prizes were awarded.

"CORN-WHEAT."

Somebody in the State of Washington has caused the publication of glowing accounts of a so-called new grain which he calls "corn-wheat." The U. S. Department of Agriculture authorizes the statement that there is no such thing as "corn-wheat" and that it is probable no cross of corn and wheat could ever be produced, or at any rate, one that would be fertile. The grain which caused the newspaper publications, the department says, is known correctly as Polish wheat, though the grain is not a native of Poland, as the name might suggest, but its original home probably is somewhere in the Mediterranean region. The newspaper reports, the department says, are correct in saying that the heads and grains of this wheat are very large, the grains being in many cases actually twice as large as those of ordinary wheat. The statement that it yields sixty to one hundred bushels is, however, probably considerably exaggerated, though there may be instances in Idaho and Washington, where there are always proportionately large yields of wheat, in which the yield may reach sixty to seventy-five bushels per acre. The experiments made by the Agricultural Department and by experiment stations in a few places show that the yield is rather disappointing. The wheat has been grown only experimentally in this country except in a few places. From experiments so far made the inference would be that the grain would be very good as a hog feed. Polish wheat is much restricted in its adaptation, and, the department says, could not be successfully grown anywhere east of the Mississippi River, but only in the great plains region, in Washington, Idaho, and Montana, and other parts of the mountain and Pacific States where grain is grown. It has great resistance to drouth. The Department of Agriculture has no seed of the grain in stock.

When inquiries concerning "corn-wheat" began to come to the KANSAS FARMER, the editor wrote for information to the introducer of this grain. He says:

"I have been raising the wheat for the last five years, and have been selling it all over the United States, and with such success that I am entirely out of the seed for sale at the present time.

"The Government calls it Polish wheat. I have named it corn-wheat for the reason that it makes the same kind of meal, or similar to it, that corn does. It is a great yielder, and its feeding qualities are superior to corn. It grows similar to wheat, should be sown the same, and is a spring wheat. It will yield on an average from a third to a half more than ordinary wheat, in whatever country it is sown, and the straw of it after it is thrashed has at least double the feeding qualities that

ordinary wheat-straw has. In binding and thrashing it is handled by machinery exactly as wheat.

"I sold some two years ago to a party in Prince Edward Island. Since then I have received a good many small orders from all over the country. I believe the farmers in Kansas and Nebraska could raise a bushel of it cheaper than they can raise corn, notwithstanding the fact that their climates are typical for corn."

A sample of this wheat has been received. It is true Polish wheat. The grains are large, varying in length from three-eighths to one-half inch. The editor has sown the sample in his garden and hopes to see what it will do.

AMERICANS IN MANITOBA.

The fact that a good many American farmers are migrating to the Canadian Northwest is attracting attention on both sides of the Atlantic. The glowing descriptions of that country given in the advertisements are called in question by persons in the United States who dislike the movement. Doubtless the advantages of that country are painted full life-size. What real-estate agent can be expected to call attention to the untoward characteristics of the lands he has for sale? There will be a large development of the wheat lands of the Northwest territory. It is even conceivable that at some future time that country may contain a contented population. But the man who goes there from Kansas is apt to be reminded inside of twelve months, of the remark of the settler who got away from those hyperborean regions, to the effect that "up there they have eight months winter, one month summer and three months—late in the fall."

Plenty of cold weather may call for the exercise of some of the energies of men, but the history of the human race shows the greatest average prosperity, the best conditions of the home, and the highest development of manhood in a broad belt which encircles the earth with culminating points not many degrees from the fortieth parallel north latitude.

The suggestion that a hundred thousand or more Americans in the Northwest territory may Americanize the country seems to call out some discussion. If the country north of the United States ever falls away from the British empire there is only one place for it to light. Whether it shall come part at a time or all together makes little difference with Ingall's glittering prediction that the ultimate northern boundary of the United States would be the aurora borealis.

ALFALFA BACTERIA FOR CHEROKEE COUNTY SOIL.

There have been many complaints of poor success with alfalfa in the southeastern corner of Kansas. Thinking that possibly the soil is lacking in the bacteria which enable alfalfa to appropriate atmospheric nitrogen, Friend Cyrus W. Harvey of Cherokee County, last fall obtained some soil from the alfalfa fields of Friend William Hinshaw, of Lyon County. Anxious to know the results at the earliest possible date, the editor wrote a letter of inquiry to Friend Harvey who, under date March 23, 1903, answers as follows:

"The experiment enquired after has not proceeded far enough to report on it yet, as I only shipped my soil from Emporia last fall.

"We have had what we might call hard luck with alfalfa in this county, and I can not tell just how we are going to win with alfalfa in Cherokee County. I sowed five different plats of ground last fall, three of them the 4th of 9th month. Two of the three have come through the winter very nicely. Two sowed 10th of 10th month froze out so badly I shall sow oats on the ground. Moral: Sow early."

SNOW IN THE MOUNTAINS.

The following, from the official reports of snow in the Arkansas River watershed in Colorado promises plenty of water in the American Nile at least during the early part of the coming summer:

"Leadville, well packed in gulches; exposed places bare; flow will be double last year's. Buena Vista, drifts well packed and outlook good for a prolonged flow. Salida, three feet or more in timber. Winfield, drifted into gulches and well packed; outlook for excellent flow. Howard, a scarcity of water improbable. Tecumseh, flow will be good. Whitehorn, considerable thawing and soil taking up moisture. Rosita, practically solid ice; a large flow expected during May and June.

Westcliffe, packing well; outlook best for many years. Clear View, drifted and packed in timber. Beulah, a fair flow for spring months assured. Lake Moraine, deep, well-packed drifts."

STOCK-BREEDERS' ANNUAL 1903.

The Stock-Breeders' Annual for 1903 is being printed this week. It contains the complete proceedings of the thirteenth annual meeting of the Kansas Improved Stock-Breeders' Association, also a complete Kansas Breeders' Directory classified alphabetically of all the best breeders in Kansas. It can be had by any reader of the KANSAS FARMER for simply the cost of mailing, 5 cents in stamps. Address H. A. Heath, secretary, Topeka, Kans. Only a limited supply.

KANSAS FARMERS' NEW WALL ATLAS.

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

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

Every one of our old subscribers who will send us \$1 for two new trial subscriptions for one year will receive as a present a copy of this splendid New Wall Atlas, postpaid, free.

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

Publishers' Paragraphs.

Erwin, S. Dak., March 13, 1903.
Mrs. Anna L. Pinkerton, Clay Center, Neb.

Dear Madam:—Having seen your chick food advertised, and highly spoken of by Mr. Saunders, of our Agricultural College at Brookings, S. Dak., I want to try it. Enclosed find \$5.50 for two 100-pound sacks of chick-food. Yours truly,

Mrs. Antone Collin.

Readers of the Kansas Farmer have doubtless observed quite a number of new announcements from the best poultry-breeders in the West during the past two weeks. Almost every desirable variety of poultry is being advertised by successful and prominent breeders. This week we have a new announcement of Light Brahmas for F. W. Dixon, Holton, Kans., the proprietor of La France Fruit and Plant Farm. Owing to the very large number of lawing hens, they make a specialty of furnishing large orders for setting incubators on short notice, for which they make a special price.

The growth of the demand for two-row corn tools during the past two years proves that in a short time the one-row lister and the one-row cultivator will be a thing of the past.

Mr. David Rankin, the big bonanza corn-grower and stock-feeder of Tarkio, recently stated that he had entirely dispensed with one-row cultivators and from now on would cultivate his 15,000-acre corn-fields with double-row cultivators. He uses seventy double-row listers to plant this big corn-field and one hundred double-row cultivators to cultivate it. An ordinary day's work for one man and three horses with a two-row cultivator is fifteen to twenty acres per day. Mr. Rankin uses the Midland Two-Row Cultivator, which is advertised on another page.

We are in receipt of one of the hand-somest catalogues that has come to our table for many days. It is the latest one issued by the International Stock Food Company, of Minneapolis, Minn., and shows the home and some of the get of the great world-beating stallion, Roy Wilkes 2:06½. This great stallion won the first premium at the World's Fair in 1893 and for seven years was perhaps the most famous pacing stallion in the world. In his last race season he made the record which goes with him name and which was the world's record at the time. The catalogue is illustrated with cuts of colts gotten by Royal Wilkes that have made themselves famous. Among these is Jessie Roy with a matinee wagon record of 2:14, Roy C, a 4-year-old, Roy Udell, 2 years, and others. Included is a list showing eighteen colts that have made a mile in 2:20, eight in 2:15, and two in better than 2:09. All of these are race records. Several of them were made on half-mile tracks. Mr. Chas. K. Dutton, Westville, N. Y., writes that he lately had the pleasure of seeing a pair of gelding 3- and 4-year-olds, full brothers, that were owned by Frank Gould and sired by Roy Wilkes. Of them he says: "I do not think I ever saw a pair of horses that were so near alike in every respect as were these two. They were noble looking fellows with heavy bone and not a weak spot anywhere. Their dam was sired by a son of Almont and her pacing record was 2:13½." The International Stock Food Company is making a wonderful success in breeding fast goers by the use of such sires as Roy Wilkes, Online 2:04, and others and by feeding their dams with the product of their manufacture.



Miss Agnes Miller, of Chicago, speaks to young women about dangers of the Menstrual Period — how to avoid pain and suffering and remove the cause by using Lydia E. Pinkham's Vegetable Compound.

"To YOUNG WOMEN:—I suffered for six years with dysmenorrhea (painful periods), so much so that I dreaded every month, as I knew it meant three or four days of intense pain. The doctor said this was due to an inflamed condition of the uterine appendages caused by repeated and neglected colds.

"If young girls only realized how dangerous it is to take cold at this critical time, much suffering would be spared them. Thank God for Lydia E. Pinkham's Vegetable Compound, that was the only medicine which helped me any. Within three weeks after I started to take it, I noticed a marked improvement in my general health, and at the time of my next monthly period the pain had diminished considerably. I kept up the treatment, and was cured a month later. I am like another person since. I am in perfect health, my eyes are brighter, I have added 12 pounds to my weight, my color is good, and I feel light and happy."—Miss AGNES MILLER, 25 Potomac Ave., Chicago, Ill.

The monthly sickness reflects the condition of a woman's health. Anything unusual at that time should have prompt and proper attention. Fifty thousand letters from women prove that Lydia E. Pinkham's Vegetable Compound regulates menstruation and makes those periods painless.

READ WHAT MISS LINDBECK SAYS:

"DEAR MRS. PINKHAM:—Lydia E. Pinkham's Vegetable Compound has greatly benefited me. I will tell you how I suffered. My trouble was painful menstruation. I felt as each month went by that I was getting worse. I had severe bearing-down pains in my back and abdomen.

"A friend advised me to try Mrs. Pinkham's medicine. I did so and am now free from all pain during my periods."—JESSIE C. LINDBECK, 1201 6th Street, Rockford, Ill.

FREE ADVICE TO WOMEN.

Remember, every woman is cordially invited to write to Mrs. Pinkham if there is anything about her symptoms she does not understand. Mrs. Pinkham's address is

Lynn, Mass., her advice is free and cheerfully given to every ailing woman who asks for it. Her advice has restored to health more than one hundred thousand women. Why don't you try it, my sick sisters?

\$5000 FORFEIT if we cannot forthwith produce the original letters and signat es of above testimonials, which will prove their absolute genuineness.

Lydia E. Pinkham Medicine Co., Lynn, Mass.

A card addressed to M. W. Savage, International Stock Food, Minneapolis, Minn., will bring one of these catalogues.

Even the old-time colleges of the East are falling into line and bringing their courses of study down to date by the introduction of hand training as well as brain training. The last quarter of a century has demonstrated the necessity which exists in our modern civilization for the training of the whole boy or girl and not a part of him. It has always seemed to be absurd to send a boy's memory to school and neglect the rest of him. One can buy for \$10 more knowledge in an encyclopedia than could be memorized in a lifetime by an ordinary person, and who shall say that it would not be cheaper. Modern conditions require that every faculty and power inherited or acquired by each individual

shall be thoroughly trained in order to enable him to compel success in this world. Hence, the strong support of the manual training idea which teaches the eye to inform the mind and the hand to perform its dictions. It is noted in this connection that Wellesley College has made provision in the regular college course for instruction in the general principles of agriculture. This will include vegetable gardening, horticulture, and floriculture, as well as general agriculture. While nothing will be attempted in a very practical way at present, theoretical instruction will be given, accompanied by such practice as is feasible with the idea of making young ladies acquainted with the common things of life. No woman can know too much to be a woman. This is a start in the right direction and should be carried to its best fruition.

The Young Folks.

Conducted by Ruth Cowgill.

THE DEFENSE OF LUCKNOW.

(Published by request.)

I.
Banner of England, not for a season, O banner
of Britain, hast thou
floated in conquering battle or flapt to the
battle-cry!
Never with mightier glory than when we had
rear'd thee on high
Flying at top of the roofs in the ghastly siege
of Lucknow—
Shot thro' the staff or the halyard, but ever
we raised thee anew,
And ever upon the topmost roof our banner of
England blew.

II.
Fell were the works that defended the hold
that we held with our lives—
Women and children among us, God help them,
our children and wives!
Hold it we might—and for fifteen days or twenty
at most—
"Never surrender, I charge you, but every
man die at his post!"
Voice of the dead whom we loved, our Lawrence
the best of the brave:
Cold were his brows when we kiss'd him—
we laid him that night in his grave.
"Every man die at his post!" and there hall'd
on our houses and halls
Death from their rifle bullets, and death from
their cannon-balls,
Death in our innermost chamber, and death in
our slight barricade,
Death while we stood with the musket, and
death while we stooped to the spade,
Death to the dying, and wounds to the wound-
ed, for often there fell
Striking the hospital wall, crashing thro' it,
their shot and their shot and their shell,
Death—for their spies were among us, their
marksmen were told of our best,
So that the brute bullet broke thro' the brain
that could think for the rest;
Bullets would sing by our foreheads, and bullets
would rain at our feet—
Fire from ten thousand at once of the rebels
that girded us round—
Death at the glimpse of a finger from over the
breadth of a street,
Death from the heights of the mosque and the
palace, and death in the ground!
Mine? Yes, a mine! Countermine! down, down!
and creep thro' the hole!
Keep the revolver in hand! you can hear him—
the murderous mole!
Quiet, ah! quiet—wait till the point of the
pickaxe be thro'!
Click with the pick, coming nearer and nearer
again than before—
Now let it speak, and you fire, and the dark
pioneer is no more;
And ever upon the topmost roof our banner of
England blew!

III.
Ay, but the foe sprung his mine many a time;
and it chanced on a day
Soon as the blast of that underground thunder-
clap echo'd away,
Dark thro' the smoke and the sulphur like so
many fends in their hell—
Cannon-shot, musket-shot, volley on volley,
and yell upon yell—
Fiercely on all the defenses our myriad enemy
fell.
What have they done? where is it? Out yon-
der. Guard the Kedani!
Storm at the Water-gate! storm at the Bailey-
gate! storm, and it ran
Surging and swaying all round us, as ocean on
every side
Plunges and heaves at a bank that daily de-
vour'd by the tide—
So many thousands that if they be bold
enough, who shall escape?
Will or be kill'd, live or die, they shall know
we are soldiers and men!
Ready! take aim at their leaders—their masses
are gapp'd with our grape—
Backward they reel like the wave, like the
wave flinging forward again,
Flying and foiled at the last by the handful
they could not subdue;
And ever upon our topmost roof our banner of
England blew.

IV.
Handful of men as we were, we were English
in heart and limb.
Strong with the strength of the race to com-
mand, to obey, to endure,
Each of us fought as if hope for the garrison
hung but on him;
Still—we could watch at all points? we were
every day fewer and fewer.
There was a whisper among us, but only a
whisper that past;
"Children and wives—if the tigers leap into the
fold unawares—
Every man die at his post—and the foe may
outlive us at last—
Better to fall by the hands that they love,
than to fall into theirs!"
Roar upon roar in a moment two mines by the
enemy sprung
Clove into perilous chasms our walls and our
poor fusilades
Twice do we hurl them to earth from the lad-
ders to which they clung,
Twice from the ditch where they shelter we
drive them with hand-grenades;
And ever upon the topmost roof our banner of
England blew.

V.
Then on another wild morning another wild
earthquake out-tore
Clean from our lines of defense ten or twelve
good paces or more.
Riflemen, high on the roof, hidden there from
the light of the sun—
One had leaped up on the breach, crying out:
"Follow me, follow me!"
Mark him—he falls; then another, and him too
and down goes he.
Had they been bold enough then, who can tell
but the traitors had won?
Boardings and rafters and rafters and doors—
and embrasures! make way for the gun!
Now double-charge it with grape! it is charged
and we fire; and they run.
Praise to our Indian brothers, and let the dark
face have his due!
Thanks to the kindly dark faces who fought
with us, faithful and few,
Fought with the bravest among us, and drove
them, and smote them, and slew,
That ever upon the topmost roof our banner in
India blew.

VI.
Men will forget what we suffer and not what
we do. We can fight!
But to be soldier all day and be sentinel all
thro' the night—
Ever the mine and assault, our sallies, their
lying alarms,
Bugle and drums in the darkness, and shout-
ing and sounding to arms,
Ever the labor of fifty that had to be done by
five,
Ever the marvel among us that one should be
left alive.

Ever the day with its traitorous death from
the loopholes around,
Ever the night with its coffinless corpse to be
laid in the ground,
Heat like the mouth of a hell, or a deluge of
cataract skies,
Stench of old offal decaying, and infinite tor-
ment of flies,
Thoughts of the breezes of May blowing over
an English field,
Cholera, scurvy and fever, the wound that
would not be heal'd,
Lopping away of the limb by the pitiful, pit-
iless knife—
Torture and trouble in vain,—for it never could
save a life.
Valour of delicate women who tended the hos-
pital bed,
Horror of women in travail among the dying
and dead,
Grief for our perishing children,—and never a
moment for grief,
Toll and ineffable weariness, faltering hopes of
relief,
Havelock baffled, or beaten, or butcher'd for
all that we knew—
Then day and night, day and night, coming
down on the still-shatter'd walls
Millions of musket-bullets, and thousands of
cannon-balls—
But ever upon the topmost roof our banner of
England blew.

VII.

Hark cannonade, fusillade! is it true what was
told by the scout,
Outram and Havelock breaking their way
through the fell mutineers?
Surely the pibroch of Europe is ringing again
in our ears!
All of a sudden the garrison utter a jubilant
shout,
Havelock's glorious Highlanders answer, with
conquering cheers,
Sick from the hospital echo them, women and
children come out,
Blessing the wholesome white faces of Havel-
lock's good fusiliers,
Kissing the war-hardened hand of the High-
lander wet with our tears!
Dance to the pibroch!—saved! we are saved!—
is it you? is it you?
Saved by the valour of Havelock, saved by the
blessing of Heaven!
"Hold it for fifteen days!" we have held it for
eighty-seven!
And ever aloft on the old roof the old banner
of England blew.

—Alfred Tennyson.

"Laurie."

Almost all the boys and girls of
America have read Louisa May Al-
cott's stories. If a vote could be tak-
en for the most popular writer for
young people, Miss Alcott, I doubt not,
would receive a large majority of the
votes cast. For pure, hearty fun and
wholesome sentiment, she has no
equal. The one book that is dearest
to us all is *Little Women*, the story of
her own home life, with its comedy
and its pathos, its laughter and its
tears. She makes it all so real and so
homelike, that her boys and girls be-
come our friends, and never once do
we doubt their reality. Strong-minded
Joe and fun-loving Laurie, gentle Beth
and frivolous Amy and the dear moth-
er are human beings whom we half ex-
pect to meet some time.

And yet, you will be surprised when
I tell you that I have met and talked
with Laurie! It is the truth. I have
shaken his hand and seen the very old
genial twinkle in his eye! He is now
an old man with white hair and beard—
a grandfather, in fact—yet the same
Laurie still. He lives in Lawrence,
Kans., whither he came in 1857—a
prominent and successful lawyer. He
has many letters from Miss Alcott,
which prove—should it ever require
proof—that he is, without doubt, the
one whom she had in mind when she
told us of Laurie. He is still a vigor-
ous man, with that eternal boyishness
which a few men preserve through life
even to old age. He has another char-
acteristic which also is rather rare. It
is the desire to serve. He is happy
when he discovers that he can do
something for you. He will spend long
minutes of his busy time to tell you
carefully how to reach your destina-
tion most quickly and without mistake,
or to hasten to the other end of town
to get something you would like to see.
And when it is all done, you feel that,
in some way or another, you have done
him a favor and he ought to be thank-
ing you rather than receiving your
words of gratitude. Another delight-
ful manifestation of this charming
man's selflessness, is his appreciation
of any good you may possess. Indeed,
if you possessed no redeeming quality
whatever, I fancy he would imagine
one for you and endow you with it.
He is sincerely delighted to make your
acquaintance, and you leave him with
the comfortable feeling that you are
really quite a nice sort of a person and
this world is a lovely place to live in,
altogether.

In short, Laurie grown old is exactly
what you would expect him to be.
Sometimes, when he tells you a good
joke on his neighbor and the laugh
shines out of his eyes, you want to ask
him if he has thought recently of run-
ning away from home, and whether or
not he thinks Jo will be willing to go
with him next time.

In Spite of Environment.

You may be sure that people who
are always complaining of their en-
vironment—of the conditions which
surround them—for the evident pur-
pose of excusing their inaction, medi-
ocre work, or failure, are not organized


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for success. They lack something,
and that something, as a rule, is an in-
clination to do downright, persistent
hard work. They are better at finding
excuses for their failures than at any-
thing else.

The man who expects to get on in
the world can not do it with a half-
heart, but must grasp his opportunity
with vigor, and fling himself with all
his might into his vocation. No young
man can flit with the Goddess of Suc-
cess and succeed. If he does not mean
business, he will quickly be jilted.

In this electrical age of sharp com-
petition, no young man can hope to get
on who does not throw his whole soul
into what he is doing. Great achieve-
ment is won by doing, doing, doing,
and doing over again; by repeating, re-
peating, repeating, and repeating over
again; by finding one's bent and stick-
ing to that line of work early and late,
year in and year out, persistently and
determinedly.

There is no halfway about it. No
one can succeed by taking hold of his
occupation with his finger-tips. He
must grasp the situation with all the
vigor of his being, with all the energy
he can muster, and stick and hang and
dig and save; this is the cost of any
worthy achievement, and there is no
lower price. There are no bargains on
the success-counter. There is but one
price—take it or leave it. You simply
waste your time if you banter.

What a pitiable sight it is to see a
strong, vigorous, well-educated young
man, in this age of opportunity such as
the world never saw before, sitting
around wasting his precious years,
throwing away golden opportunities
simply because he does not happen to
be placed just where he thinks the
great chances are, or does not see an
opportunity which is big enough to
match his ambition or his ability!

It is a cruel, wicked sight to see our
wealthy young men squandering the
hard-earned fortunes of their fathers
in vicious living, but what shall we
say of a vigorous youth with giant en-
ergies, and good education, who folds
his arms and refuses to seize the gold-
en opportunities all about him?

Bishop Spaulding, in a recent ad-
dress, said: "Success lies in never tir-
ing of doing, in repeating, and never
ceasing to repeat; in rolling, in wait-
ing, in bearing, and in observing; in
watching and experimenting, in fall-
ing back on oneself by reflection, turn-
ing the thought over and over,
round and about, the mind and
vision acting again and again upon
it—this is the law of growth. The
secret is to do, to do now; not to look
away at all.

"That is the great illusion and delu-
sion—that we look away to what life
will be to us in ten years or in twenty
years; we look to other surroundings.
The surrounding is nothing; the en-
vironment is nothing; or, in other
words, it is not possible to work ex-
cept in the actual environment. If you
do not work where you are, where will
you work? If you do not work now,
when will you work? There is nothing
for us but here and now."—O. S. Mar-
den, in *April Success*.

A New Ten Commandments.

Some modern philosopher has
thought up ten new commandments
which are rather good:

1. Never put off till to-morrow what
you can do to-day.
2. Never trouble another for what
you can do yourself.
3. Never spend your money before
you have it.
4. Never buy what you do not want
because it is cheap; it will be dear to
you.

5. Pride costs us more than hunger,
thirst, and cold.

6. We never repent of having eaten
too little.

7. Nothing is troublesome that we do
willingly.

8. How much pain have cost us the
evils that have never happened.

9. Take things always by their
smooth handles.

10. When angry count ten before
you speak; if very angry, count one
hundred.

For Public Speaking.

The request has been made that we
print some selections on the serious
order for recitation. Fearing to trust
our own judgment in the matter, we
referred the question to the Professor
of Oratory of Washburn College, who
furnished us a list, from which we will
print one selection each week for sev-
eral weeks.

For the Little Ones

THE BOY LIVES ON OUR FARM.

The Boy lives on our Farm, he's not
Afraid o' horses none!
An' he can make 'em lope, er trot,
Er rack, er pace, er run!
Sometimes he drives two horses, when
He comes to town an' brings
A wagonful o' taters nen,
An' roastin'-ears an' things.

Two horses is "a team," he says;
An' when you drive er hitch,
The right un'r a "near"-horse, I guess,
Er "off"—I don't know which.
The Boy lives on our Farm, he told
Me, too, 'at he can see,
By lookin' 'at their teeth, how old
A horse is, to a t!

I'd be the gladdest boy alive
Ef I knowed much as 'at,
An' could stand up like him an' drive,
An' 'st push back my hat,
Like he comes skallyhootin' through
Our alley, with one arm
A-wavin' fare-ye-well! to you—
The Boy lives on our Farm!
—James Whitcomb Riley.

Sensible Jip.

I have an Indian pony and he is very
smart. He is a good cattle pony and
my father has a mate to drive with
him. Her name is Nell. Their color
is a mouse color. My little sister
Lillian can ride and drive Jip.

In the summer I made a cart of old
cultivator axle and rake wheels, went
to the woods to get some poles for
shafts, and then I nailed them together
and bolted them to the axle, put on
the wheels, and for taps I used spikes.
Then we hitched Jip up and drove
him around. Mother was afraid that
we would get hurt but we said he knew
we were children, and then he looked
around to mother to see what the mat-
ter was, just as much as to say that
he would not hurt children.

Children can feed him fruit, bread,
onions, cookies, and crackers. When
we take Nell out of the barn he will
whinny and paw. I go hunting on him.
I can shoot off of his back and he does
not move.

EVELETT STAATZ.
Dickinson County.

Puzzle Corner

Answers to Last Week's Puzzles.

1. The wind is a breeze, a breeze is
a zephyr, zephyr is yarn, a yarn is a
tale, a tale is an appendage, an appen-
dage is an attachment, an attachment
is love, and love is blind; therefore the
wind is blind.
2. The man who gets a right hand, a
left hand, and a little behind-hand.
3. For every kernel she gives a peck.
4. Blend, lend, end.
5. What, hat, at.
6. Car-pen-ter.

The Home Circle.

Conducted by Ruth Cowgill.

JOHN MOLLAIRE.

(Reprinted by request.)

In the cell of a great asylum
I saw a fair woman's face,
As she stood at an upper casement,
The picture of love and grace,
But the smile on her face departed
As a cloud that was floating by
Its banner of black unfolded
And waved in that azure sky,
And over her face came creeping
A shadow more black and dread
Than any the soul has ever
Seen hovering over its dead.
And the lightning's leaping, glancing,
Flashed out of her eyes there,
As the keeper stood fast to tell me
The story of Jeanne Mollaire.

Ten years ago in that summer
When Jeanne was a woman grown,
And fair as the Queen of Sheba,
And sweet as a rose unblown,
Old John Mollaire, her father,
Reeled home to his cottage door,
In a fury of drunken frenzy,
As oft he had done before,
And his timid wife and his daughter
Crouched low in a corner there
While his curses and imprecations
Poured forth through the morning air,
Till at length, in a quaking terror,
And with courage of danger born,
They fronted his frowning menace,
Unheeding his words of scorn,
And sought by their prayers to placate
The rage that was not his own,
But the fury that, born of liquor,
Hurled reason from off its throne.

But the demon of drink, at banquet,
With the demons of want and care,
Was in that sacred temple
That God had given Mollaire,
And the drunkard whom Jeanne called
father,
A scowl for a smile on his face,
Struck down his wife as she met him,
New come from her hiding place,
Then smote with a maniac's fury
The prostrate form that lay
Stretched out on the floor before him
In the light of that fatal day.

The sight of her weltering mother
Froze Jeanne to the core that morn
And waked the avenging spirit
That came to her when she was born.
And fierce as a jungle tiger
She sprang to her mother's side
And seizing that carnate demon,
And tugging again, she tried
To drag him away from his murder
And out of the cabin door,
But like the Numidian lion,
That startles the world with its roar,
He turned and smote down his daughter,
With an oath that rang far and wide,
While the blood that he gave her with
being
Poured forth in a crimson tide.

Then seizing an axe from the corner
She whirled it aloft in the air
And sent it resounding, crashing,
Through the brain of John Mollaire,
And he sank on the floor before her
And bled out his dying note,
While the curse that he tried to mutter
Stuck fast in his burning throat.
Then the soul of that fairest woman
Yet seen with these mortal eyes,
Reeled down from its throne and van-
ished.

Like a star stricken out of the skies;
And the temple wherein her spirit
Had dwelt and was richly clad
In the garb of a matchless beauty
Stood vacant—and Jeanne was mad!

Up there in that guarded window
I saw her wild eyes glare,
While the scowl on her face reflected
The storm that was raging there,
And I heard her appeal for mercy
In a maniac's wildest shriek,
While a hot and vermillion splendor
Flamed over her brow and cheek.

Then I heard, as I gazed on that horror,
The sound of that maniac's prayer,
As it rose in the tenderest pleading
And thrilled through the ambient air.
And there comes, as I stand here and
listen.

A voice that is clear and profound;
It comes like the roar of the ocean
And rings through the spaces around:
"Who tramples my law is a traitor,
As God liveth let such beware,
And whose defileth my temple
My wrath shall in no wise spare."

That voice is the voice of the people,
And I call to you, girls, have a care!
Lest some whom you love shall yet curse
you.

In the likeness of John Mollaire!
—Henry W. Roby, M. D.

Domestic Help.

MRS. A. C. KLINE, BEFORE THE FARMERS' INSTITUTE AT BERRYTON, FEBRUARY 5.

The problem of domestic service or hired help, indoors and out, has been assigned me, not to solve, but to open for free discussion.

The unsolved problem of domestic service is rapidly growing, not only in America, but in England as well; so that we see it is not due to social conditions alone. It is endangering our homes nevertheless, and we sincerely hope our intelligent American women will combine their efforts in a practical solution of this important question.

"Housekeepers: Do you, then, like those of yore,
Keep house with power and pride, with grace and ease?"

No. You keep servants only!

What is more, you don't keep these!

The article written by Martha Major, and from which these lines were taken, was answered by a motherly English woman. She had no patience with the new-fangled ideas concerning household duties. "Let women," she writes, "return to their old status and give up their ambitions for a more healthful life and a higher education, and there will be no domestic problem."

This, of course, can not be. We live in an age of progress and women of all classes must have more freedom, and

will have when this problem of help is solved.

The American woman is not lazy, but the growing distaste for housekeeping caused by the inability of wives and mothers to find good help, has broken up many happy homes and sent husbands and brothers to clubs and hotels.

True, many a robust woman can and does do all her own work, sewing, caring for four or five small children, and much out-door work besides. Few women have robust health all the time when rearing a family of small children. There are times when, if assistance in the household could be obtained, every atom of a mother's strength would not have to be used, and a nervous breakdown would be avoided. We must make a science of housework. Do we need to ask the question, why more women do not choose housework as a regular employment? The greatest barriers, I think, are pride, social conditions, and an unwillingness to be called servant. The most powerful of these is social prejudice. Personal service should not be so humiliating when conducted on a strictly business basis. The shop girl waits on and tries harder to please the lady customer than does her cook. The girl who does housework for from \$2.50 to \$4 per week with good board, laundry, and a pleasant room furnished her, can save more than public school teachers, shop girls, or telephone operators, and yet she is eager to make a change for some other employment. She does not enjoy housework. She is Mary Jones and not Miss Jones. Certainly this difference is not due to the nature of duties attending the two positions, but to the personal deference servants are expected to show. In the rural districts this social line fades, and they are "help" and not servants. Although the social line is drawn so severely in the city, yet the young ladies raised in country homes leave to work in the city and prefer it to helping in the farm homes. The reasons given are, no washing or ironing, more freedom (as they can easily walk from one place to another), and more modern facilities in the city home, which make work lighter. The city woman, as a rule, shifts responsibility of at least the kitchen and dining room wholly upon her help, while the busy farmer's wife realizes there is work for both and the girl is merely an assistant.

Wives of our Kansas farmers, endeavor to lift the standard of your daily lives. Let your tables be spread with a clean linen cloth and each dish sent to the table in the most attractive manner possible. Treat yourselves as well as your guests leaving off the little extras when very busy. Strive to know some of the many new concoctions for the table. We find numbers of practical ones in the household helps that come to us either as papers or magazines. Have the girl who is helping you feel that she is learning something each day. Appreciate audibly any little extras she may do to improve the bill of fare either in the preparation or serving of any dish.

While the girl who does general housework is supposed to be on duty most of the day and until the evening work is done her hours when compared with those of the shop girl are less. She is not on duty every hour of the day. In every home some days are very busy ones, and every hour is needed, but half the days, at least, the girl is free for several hours. Of course the hours of leisure depend largely upon the girl's ability. If she is a good worker and quick, she has much advantage over the girl who knows but little of housework and must learn to econ-



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omize time. In this as well as many other things, the girl who has received careful training in the science of housekeeping has advantage over the ignorant girl who must learn what she can from first one housekeeper then another. This is indeed a hard way to learn as the routine is never the same in two separate homes. I would urge every girl who has the opportunity of studying domestic science during her school life to do so by all means. If you do not need it until you become a wife, you certainly will then have an opportunity to use all the knowledge you can gather in this line of study.

You may not need to do the work yourselves but your knowledge will be valuable to you as efficiency of help depends largely upon the competent head and trained hands of the employer. A woman who knows thoroughly all parts of housework is naturally more exacting with help than is the woman who knows but little of how to do any branch of it.

The existing conditions have been brought about first by the employer failing to do his or her duty toward help. You may ask, In what way have I failed? Have you treated them with the same consideration you should hope to have shown you under the same conditions? If so, the blame is not at your door. On the other hand, let the employee ask of him or herself the same question. Do I perform my duties as willingly and thoroughly as I should hope to have them done for me were I master or mistress of the home?

The young man or woman employed in any home should guard closely his appearance and bodily cleanliness. Cultivate a high standard of self-respect and others will show the respect due you.

How easy it is to be thoughtful of the pleasures of others and thus open an avenue into the home by which help could enter with a greater degree of welcome. Home is too precious a possession to be robbed entirely of that privacy so dear to each member of it. The help employed in any home should have the privacy which rightfully is theirs, and their own intuition should guide them as to the hours their employer wishes whether it is with friends or his family.

Did you ever imagine yourself, my friend, taken from your home and acquaintances and placed in a strange family with no one to talk to day after day? If so you then know why the young girl with you is at times so glum. She is lonely. I think a girl should make herself as agreeable in the home as possible and the mistress should lighten her burdens by cheerful words, kind acts and an interest in her life. When such a relationship exists between mistress and help, very soon the employee will feel more at home and show greater interest in her work. She will soon be an indispensable member of the household, and a feeling of interest in her welfare will exist that can not be with the girl who will not remain in any one home more than a fortnight.

The training schools in domestic science are doing good work wherever they have been organized, and their possibilities are still greater. Let us hope that in a few years housekeeping and home-making will be one of our foremost sciences. There is just as much mental ability needed to prepare a palatable, healthful meal—not a mass that defies the gastric juices of the strongest stomach but a digestible, appetizing assortment of eatables—as it takes to sell goods. The girls answer, that in the store or office they can appear better. When the board and laundry bills are settled, the garments needed take the remainder of the wages. While the girl in the country home can use her clothing until well worn with some neat prints for afternoon wear. Her best clothes last much longer. She learns to economize and soon has a neat deposit in the nearest bank.

Let us consider the boy or young man who works on the farm for from \$16 to \$20 per month. He is not on the street each evening to spend from 50

cents to \$5, but after the chores are done can go to his room or some comfortable corner and either read or study. Soon he will find himself ahead of the working boy in town both in the little knowledge he has stored away each evening and in the fact that no little habits which drain many boy's pockets have been formed. True, he doesn't wear as many fine clothes, but after he enters upon his chosen vocation, the good morals and industrious habits he has acquired will soon enable him to wear fine clothes, and make a comfortable home.

Boys, when you leave home to work in a strange place, guard closely your manners. Be considerate of the mother of the home you enter. See that each time you go into the house your shoes are clean. If the water bucket is empty fill it. Remember how each kind, thoughtful act lightens the burdens of your own mother. Do not wait to be called each morning, nor think that any duties you have shirked during the day will be of any advantage to you. Your employer will excuse many little mistakes if you are industrious and try to do as you think he would have you no matter how trivial the task. A man who can see work and do it quickly is valuable wherever you place him. Endeavor to make work more of a study. In the homely but true adage, "Let your head save your heels."

Let us solve this pressing, practical problem by making a more thorough study of the work we have to do.

"The world needs strength and courage and wisdom to help and feed,
When we as women bring these to men, we shall lift the world indeed!"

Love the Fulfilling of the Law.

FLORENCE SHAW KELLOGG, FAY, KANS.

"Do your best for one another,
Making life a pleasant dream;
Help a worn and weary
Pulling hard against the stream."

So many are "pulling against the stream," but, too often, Intel-
our own selfish ends, occupied by our own plans and ambitions, we pass them by with scarcely a word of greeting—though so easily spoken—with no hand outstretched to help them in their pulling against the swift current. It is not so much that we do not care as that we do not think. Here as elsewhere "Evil is wrought by want of thought," rather than by want of heart.

It is an age of bustle and hurry; we must keep up with the crowd—pushing ahead unheeding the wants of those about us—or we lose our places in the great procession, and yet does it pay to live in this way? Would it not be better to lag a little if thereby we might help some weary one who toils up life's steep incline with a load too heavy to bear unaided? Think how often our own burden has grown lighter because of a little help from a fellow traveler. It may have been only a kind glance, or a word spoken from the full heart of brotherly love, but all the way grew brighter because of it, and we went on with a song of thanksgiving welling up from our hearts, with lighter step, and a cheerier face. Are we not in duty bound to pass on to another the help thus given us? Have we any right to be selfish and unthinking? any right to make the way of life a barren path when, by just a little thoughtfulness on our part, a little kindly care, we could make the flowers of love and gladness grow freely there?

"Bear ye one another's burdens" said the Christ. Surely the admonition was meant for us as well as for those who heard it when it fell from the lips of him whose mission, and whose joy it was to "go about doing good." "Love your neighbor as yourself," He said, and He also told us the fulfilling of all the commandments lay in this loving: "Thou shalt love the Lord, thy God, with all thy heart and thy neighbor as thyself." No room here for carelessness or unthinking—no room for selfishness or hate.

"What sympathies would wake, what fends decay
If perfect love might reign but one short day."

Think how it would be if we, each one, squared our life by the rule of love and lived true to it day after day!

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Think of the aching hearts it would relieve, the dreary places it would brighten, the loneliness it would cheer! It must be possible that we could live thus or why is the command given? Jesus did not speak from theory but from experience. He had tried living; He knew what life under average earthly conditions meant. He knew the heart of humanity—its needs, its longings, and its dependencies. He knew of the selfishness, the heedlessness, and the depravity; but He knew, too, of the good, the divinity dwelling in even the lowest life, the little germ that awaits but the right touch to awaken and vivify it until it grows to the God-likeness. He knew it was possible for us to live in loving kindness one with another; nay, more, He knew this was—and is—the only true life here or anywhere, and it was for this that He lived and labored. This was the life that sustained Him when all His efforts seemed ending in failure; this it was that gave Him grace to say with His latest breath, "Father, forgive them, for they know not what they do." With His gift of prophesy, He must have seen the time was sure to come when this dear hope would all come true. Looking in that last supreme moment of earth life, down the long stretch of coming years, He must have seen what was to be—what is yet to be—when each shall live true to the highest and best, and so have known that, though mocked and reviled then, His work would yet be a grand success; must have felt that His gentle doctrine of love—lived as well as taught—had conquered the world, and set it true with the heavenly standard. He must have seen how the little seed His hand had scattered by the shores of that Galilean sea was destined to grow into the mighty tree "whose leaves are for the healing of the nation," and know that, thought He "returned to his Father," His work would go on and on until the latest man "stood, God-conquered, with his face to Heaven upturned." He must have seen how, in all ages and climes, others would rise to help on His work; and that it should know no rest nor lagging until it was finished. Shall we then shirk our share in this grand work? Shall we withhold our hands from helping or keep back the loving word that, if spoken, will make glad music in some heart, and help to give some one greater strength for the conflict with evil? Surely here, too, "every one has his part" to do, and his love is the fulfilling of

Let us, then, be up and doing. Let us each

"Be a woman! On to duty!
Raise the world from all that's low;
Placing high in the bright Heaven
Virtue's fair and radiant bow.
Lend thy influence to each effort
That shall raise our nature human;
Be not fortune's gilded lady—
Be a brave, whole-souled, true woman."

And be sure no effort for the right can ever fail of full and blessed fruition.

Spring Housecleaning.

"In the spring a livelier iris changes on the burnished dove;
In the spring a young man's fancy lightly turns to thoughts of love."

In the spring the funny man gets out his perennial joke about the housecleaning season, and the housewife feels the itching in her fingers which means that she longs to get at the dust and rubbish which has collected during the year, and give to her home the beauty and freshness which is the charm of spring. The poor Goodman has not this feeling—he goes happily on his way, unconscious of coming disaster, delighting in the fine growing weather, until the general chaos in the house reminds him housecleaning time has descended upon him; and he meekly acquiesces, feeling that it is the annual visitation of Providence and must be endured as such. And then, such a time! Carpets are torn up all over the house, furniture is set out into the most inconvenient places available; hash, hasty pudding, and water are served three times a day; the children go dirty; nerves are worn threadbare; tempers are lost—as well as everything else—and altogether it is a most trying season. To be sure it lasts only a week, but it is a disastrous week.

I was once in a home where the housecleaning was done under my very nose, and I was hardly aware of it. Once in a while it was noticeable that the housekeeper was a trifle hurried at noon, the meal was perhaps a little simpler than ordinary, but there was no friction, the machinery of the housekeeping was running as smoothly as ever, and, by the evening, everything was as usual. One day, my friend, the housekeeper, said, "Well, I'm glad housecleaning is done! I am always glad when I've cleaned the last room."

"Housecleaning" I exclaimed. "Do you mean to say you have finished housecleaning? Why, I thought you were just getting ready for it!" Then I made her tell me her system, which was simple enough, I am sure—much simpler than the ordinary chaotic upheaval of most households.

I found that she cleaned only one room each week, consuming two days for it, and choosing the least busy days, which chanced to be Thursday and Friday. Thursday she pulled the tacks from the carpet took down her curtains and pictures, and put away whatever things must be protected from dust. This required only a part of the day, leaving her time to attend to the regular routine of the household; and the room was still sufficiently "civilized" to be used. Friday was the harder day. She took up the carpet and cleaned it, swept and scrubbed the floor, washed the windows and woodwork; put the carpet down again, and the furniture back to its place, and one room was done. The next week, she cleaned another room so unobtrusively, and so on, until the house was clean from cellar to attic.

It was ideal. I wondered why all the housekeepers in the world had not hit upon the same plan, years ago. It certainly pays in the comfort and good temper of the whole family.

Club Department.

We have asked that each club send us the name of one of its representative members, and have promised that we will make such an one a subscriber to the KANSAS FARMER, in order that each club may have the benefit of our Club Department, which we hope to make even more and more interesting and inspiring.

If those whose names have been sent in have not yet received the KANSAS FARMER, it is through some mistake, and we beg that you let us know of it at once.

The Constitution for a Country Club.
MRS. IDA M. FERRIS, OF THE DOMESTIC SCIENCE CLUB OF OSAGE CITY, KANS.

At the second meeting of the new country club the chairman of the committee on constitution should be ready to report and then read the constitution and by-laws which they have prepared for presentation. Not that we wish to be egotistical at all, but on due reflection we believe it will be wise to copy the constitution of the country club of which I am a member, not because we think it the best one, but it will serve as a guide to committees on constitution that they may adopt or adapt to the needs and requirements of their several localities and necessities.

CONSTITUTION.

ARTICLE I.—NAME.

This association shall be known as the "Domestic Science Club."

ART. II.—OBJECT.

The object of this club shall be mental improvement and social enjoyment.

ART. III.—OFFICERS.

The officers of this club shall be president, vice-president, secretary and treasurer and board of three directors to be elected annually and to hold their respective offices until their successors are elected.

ART. IV.—MEMBERS.

Any woman sympathizing with the object of this club may become a member in the manner and way prescribed in article 4, section 1 of the by-laws.

ART. V.—AMENDMENTS.

The constitution and by-laws may be amended at any regular meeting thereof by a two-thirds vote of the members present, providing a quorum is present. The amendment having been presented in writing at the previous meeting.

ART. VI.

This club shall be limited to twenty-five members.

BY-LAWS.

ART. I.—MEETINGS.

Section 1. The meetings of this club shall be held on the afternoon of the first and third Thursdays of each month, beginning with April and ending with the first meeting in December.

Sec. 2. Each meeting shall be called promptly at half past two.

Sec. 3. Five members shall constitute a quorum.

ART. II.—ELECTION OF OFFICERS.

Sec. 1. The election of officers shall take place the last meeting of November each year.

Sec. 2. A member having served as an officer for two consecutive years

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shall not be eligible for election to the same office for a third year.

ART. III.—DUTIES OF OFFICERS.

Sec. 1. President—The president shall preside at all meetings of the club and shall perform other duties belonging to that office. She shall be an ex-officio member of the board of directors.

Sec. 2. Vice-president—The vice-president shall preside in the absence of the president. She shall be an ex-officio member of the board of directors.

Sec. 3. The secretary shall keep a record of all meetings, call the roll of members, and collect what money may accrue and pay the same to the treasurer.

Sec. 4. Treasurer—The treasurer shall receive and hold all money belonging to the club and pay only on an order drawn by the secretary and signed by the president.

Sec. 5. Board of Directors—The board of directors shall have charge of the affairs of the club, arrange the literary program, and provide social entertainment.

ART. IV.

Sec. 6. Members—Any woman may present the name of another woman who is eligible for membership (Art. IV constitution) to the secretary in writing—who shall be voted upon by ballot at the next regular meeting. One vote for every ten members voting shall constitute a rejection.

ART. V.—FEES AND ASSESSMENTS.

Sec. 1. Fees—Each member shall pay the sum of twenty-five cents on becoming a member and twenty-five cents for each year for which she is a member.

Sec. 2. Each member may be assessed a sum not more than fifty cents at any time to defray necessary expenses.

Let us review the constitution. All country clubs should not be called Domestic Science clubs, although domestic science should be a feature of every country club. There is no woman however skilled in housewifely art but can learn more, and club discussion on household topics is a good training school.

The object of the club is clearly set forth but there should be a well defined rule discussed and voted upon (but not placed in the constitution) barring the relating of scandal and the discussion of partisan politics or of religious creeds and beliefs—not politics in its broad, true sense nor Christianity, but the difference of opinion that will engender ill-will towards each other.

In choosing the members of the club, care should be taken. A price should be set on virtue and honor. Never allow riches or poverty to count. Many a woman who for years has been too busy even to read much will in the course of a few years renew her youth. If a young woman has a baby or two or three let her come, babies and all; what she hears and learns will do her good, brighten her life, and she will be a better mother for the privileges the club has given her.

As to the limitation of the membership, each community must take into consideration their own requirements. It is difficult to entertain a larger club than ours in most country homes.

Country clubs should always be held in the afternoon and always in summer, for the horses are unsafe for women to drive in winter.

It may seem unnecessary to have

any fees in a country club, but you will find uses for them. Our club orders a traveling library the first of October and returns it the first of April, paying \$2 for its use for the club members and their families during the winter when there is no club. Assessments may become necessary in the matter of a year book or printed program, or in the matter of a public reception or the entertaining of another club.

COLONIZATION OF THE SOUTHWEST.

Aid and Inducements Offered by the Missouri Pacific Railway.

The Missouri Pacific Railway is bending every effort towards developing the agricultural, mineral, and industrial resources of the West and Southwest. To attain this end, it asks the aid and cooperation of every farmer, miner, merchant, and professional man along its lines.

The development of the products of any section of the country means just so much more capital to be spent in that section. Prosperous neighbors make a prosperous community, especially if they live and have their interests at home.

It is this class of persons that the Missouri Pacific Railway asks the patrons along its lines to invite to their sections. You furnish the names and addresses, and we will furnish the necessary descriptive and illustrated literature to induce them to settle in your community.

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Twenty-five Cents a Bottle.

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Hundreds of Upright Pianos returned from renting to be disposed of at once. They include Steinways, Knabes, Fichers, and other well known makes. Many cannot be distinguished from new, yet all are offered at a great discount. Uprights as low as \$100. Also beautiful New Uprights at \$125, \$150, \$175, \$200, \$250, \$300, \$350, \$400, \$450, \$500, \$550, \$600, \$650, \$700, \$750, \$800, \$850, \$900, \$950, \$1000. A fine instrument at \$2500. Monthly payments accepted. Freight only about \$6. Write for list and particulars. You make a great saving. Pianos warranted as represented. Illustrated Piano Book Free.

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is guaranteed to yield the farmer a 6 per cent greater profit on his investment than any other cream separator. Our book No. 166 explains why.
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Chicago, Ill. West Chester, Pa.

In the Dairy.

Conducted by George C. Wheeler, Kansas Experiment Station, Manhattan, Kans., to whom all correspondence with this department should be addressed.

Feeding Cut Feed.

The past winter all the roughness fed to the college dairy herd has been run through the feed-cutter, with occasional exceptions. The results have been highly satisfactory.

The method of feeding has been as follows (by referring to the cuts of the barn shown in KANSAS FARMER of March 19 it may be clearly understood):

Roughness for the evening feed consists of twenty-five or thirty pounds of ensilage. The total quantity is weighed out usually just before milking and dumped in convenient piles along the middle feeding alley. The cut shows the car loaded with silage. It is thrown from the silo through a hanging chute made of sacking material into the carrier and the weighing is accomplished by letting the loaded car down on a platform scale in the barn. After the milking is done the silage is shoveled into the mangers and the grain which has been previously weighed out in small bags and placed in front of each cow is thrown in on top.

The morning feed consists of about ten or fifteen pounds of cut alfalfa which is stored in a vacant box stall. This is fed in the same manner except that the hay is not stirred until after the milking is done and the milk is taken away. The grain is thrown in with the hay as with the silage and the cow eats the whole mixture together. By this method of feeding the roughness can be conveniently handled and stored, and good alfalfa hay is eaten up so closely that it would be hard to tell an hour after feeding what feed had been placed before the cow. Accidentally we were compelled to feed whole hay for a few days, and we did not have to use bedding during those days, so much hay was pulled out of the manger and trampled under foot. In addition to the cut alfalfa and ensilage the cows were fed either cane or Kafir-corn fodder in the feed troughs in the yard. Through the early part of the winter this was cut also and the cows consumed about six to eight pounds daily.

The cost of cutting alfalfa hay is 30 to 40 cents per ton for labor. Kafir-fodder can be cut more cheaply.—G. C. W.

Secretary Borman Pleased.

Under date of March 28, Secretary T. A. Borman writes as follows:

"I read the KANSAS FARMER this week and think it is a splendid evidence of the enterprise, thrift, and good management of your company. On account of lack of funds, however, it will be impossible for me to supply the dairy association with any copies of the paper as much as I feel they should have them. I feel that this issue of the FARMER will do an immense amount of good to dairy interests of the State, and I feel that much of the success and development of the dairy industry in Kansas is due to the efforts along this line made by your paper."

This letter refers to our "State Dairy Association Special," published on March 26 as one of the KANSAS FARMER "Twentieth Century Specials," and only serves to voice the sentiments expressed in letters from dairy and creamerymen all over the State.

The Profits of Keeping Records.

WM. LJUNGDAHL.

Perhaps the first thought that presents itself to the inexperienced person would be, what to keep records of. "Should records be kept of what the cows does between milkings?" might be the sarcastic question of some would-be farmer just out from the city for a visit to his country uncle. If the uncle was the right kind of a dairyman his answer would be that records should be kept of the following things, to wit: The breed or reputation as a dairy animal, her age, her pedigree as a blooded cow. Next, he should have a careful record of what has been received from her since she has been in

his possession, that is, the value of the amount of milk received, and value of calves sold. Besides this, he should know exactly what expenses he has charged against the cow. This would be a very good explanation of what should be recorded. By this method the man, if he is up with his business, can quickly determine which of his cows are profitable to him.

But how to keep records? All of these things take time, and the farmer and dairyman who would succeed has but very little of that to spare. In order to keep records rapidly as well as promptly there must be, primarily, a regular plan of work to be pursued. Otherwise, a man will accomplish nothing but waste a large amount of time.

Always in weighing anything out, keep a record book at hand, and weigh nothing without noting it down. If this is not done the weighing might as well be omitted. Have one day each month for adding up totals and rewriting anything which may call for it. It is preferable to use book form always, as loose leaves are liable to be lost or destroyed.

With these few words of explanation of records, we next turn to the use of them as a mode of determining profitable and unprofitable feeds. When a man is feeding dairy animals and a certain feed produces results that are not satisfactory, he will naturally investigate the cause. He will look over his record and see what and how much he has fed and also the cost. He will consult his neighbor who is feeding at the same cost as himself but of different feeds, say bran, alfalfa, and probably some Indian corn. If he finds his neighbor is making a success of this industry he will, if wise, profit by his experience, and here he will find that record-keeping will be a source of profit to him.

In this connection it might be well to consider the disadvantages of feeding without record as compared with the advantages of the man who weighs and knows how much he feeds. At one time the man may feed his cows too much, the next time he cuts the feed down and gives too little. These sudden changes have a tendency to affect the milk production injuriously. Again, there is a loss of feed by such mismanagement. But the man who keeps a record, if he thinks his cows are getting more than they really need can gradually reduce the amount fed, and bring it to where he wants it without any perceptible decrease in the flow or quality of the milk. Also, his record-keeping may become a help to others, as he can produce his records, and these show better what he has done than could a verbal explanation. A community of record-keeping dairy-men could very quickly ascertain the most profitable methods by comparing their notes.

Another thing that we should remember is, that of the different feeds some tend to increase the quantity, some the quality. Considering the first because of the prejudice some have against causing the cow to increase her flow of milk, on the grounds that she will not yield so much butter-fat as before, we find that, as a general thing, this is a mistaken idea, as, for example, a cow yielding from ten to twelve pounds of milk which tested 5 per cent is induced to give sixteen pounds but this tests only 4 per cent. The increase in the amount of milk causes a lowering in the test, yet the quantity is such that the total amount of butter-fat is greater when the test is lower. Now, in taking up the quality, we can readily see, by noting our record of the milk yielding the largest per cent of butter-fat, that by affecting the quantity we can make a larger per cent profit, providing the feed is practical.

The next phase to be considered is that of different breeds. Without keeping accurate records it would be practically an impossibility to determine which breeds are preferable, and also what the characteristics of each breed are. The cows which at the present time are yielding large profits would never have reached the place they have had it not been for the careful records kept of each individual animal as it gradually kept increasing in value. In the different breeds each has what might be called individuality. If breeding for quantity is desired it follows that to secure this, animals giving the largest quantities of milk should be selected for breeding purposes and the only way of determining this is by keeping records. In the same way by the aid of records we can easily select the animals to breed from for any purpose we may desire.

In conclusion, we may say that it is

A GOOD MORTGAGE PAYER.

THE DE LAVAL SEPARATOR Co. Madison, Wis., Jan'y 20, 1903.
Gentlemen:—Calendar received. I am no longer on the farm. The cows and your Separator paid off the mortgage, and made it possible for me to retire. Yours truly,
MYRON H. ATWOOD.

NEXT AFTER WIFE AND CHILDREN.

New Windsor, Md., Oct. 21, 1902.
THE DE LAVAL SEPARATOR Co., New York City.
Gentlemen:—I tell you the De Laval Cream Separator in a family comes next after the wife and children—even before the dog. I have used my "Baby" No. 2 on the farm just ten years (with hired help) and I am sure it has paid for itself five times over. Wouldn't think of owning three cows unless I had a separator, and I am no agent either. Very respectfully,
NATHAN H. BAILE,
Cashier First Nat'l Bank, and also a farmer.

TEN YEARS OF USE WITHOUT REPAIRS.

South Plymouth, N. Y., March 4, 1903.
THE DE LAVAL SEPARATOR Co.
Gentlemen:—I have used my machine 10 years without any repairing or any expense. Will have to have it repaired soon. Please send me a catalogue of your modern machines.
Truly yours,
M. C. STEWART.

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The Old Way



The heavy old milk cans are covered with dust. All piled up in grim array. Their mission is ended—on the shelf let 'em rust. We work in the EMPIRE WAY.

The Cat is Watching.

Tabby, of course, does not understand why it is so. Perhaps she remembers the days when Molly thought it was a day's work to wash the cans and pans they kept the milk in. Molly knows though that it is the

Empire Cream Separator

that lessens the work and keeps all the profits of the dairy right at home. The sweet milk is left for feeding your stock. There is money in most separators, but the most money in an Empire. It is the simplest in construction, the lightest running, the easiest to clean—the most profitable in every way. We have a book that tells you why. Get it.

Empire Cream Separator Co.,
Bloomfield, N. J.
Western Office, FISHER BUILDING, CHICAGO.



absolutely necessary for the success of the dairy to keep records. The reasons are, first, we know what we are doing, and this is essential to the success of any business. Second, in the improvement of the herd we know the unprofitable animals and breed for better ones. This is the most important point in improving the herd. All of our high-grade animals of to-day have been brought to that place only by the keeping of perfect records and referring to them from time to time. It is impossible for any man to make a success of any business if he does not know what he is doing.

Success in such cases is like hunting a needle in a hay stack. It is there but you never find it. Therefore we see that the profit of dairying lies wholly and solely in the keeping of records.

The Choice of a Cow. How, When, and Where to Find Her.

W. W. STANFIELD.

The cow is the basis of the dairy. With good cows the dairyman is often enabled to realize a profit on his investment although he may lack some one or more of the usual advantages in the way of cheap feeds, location, and modern appliances. With poor cows, how-

Throwing Butter Away

by the old method of skimming milk is rank folly. With a National Cream Separator you can save 80 per cent. of the butter-fat you are now throwing away. It separates both warm and cold milk, light or heavy cream and skims practically clean. We send it Free for 10 Days trial. Let you test it—see for yourself the saving it makes. If not satisfactory, send it back—we pay all costs. Catalogue free. National Dairy Machine Co., Newark, N. J.

ever, all these advantages will not enable him to succeed. Thus we readily see the necessity of having the best cows to have the greatest success.

The selection of a first-class dairy cow calls for a thorough knowledge of her characteristics, and while there are no iron-clad rules governing these, (Continued on page 423.)

The Poultry Yard.

Chicks Dead in the Shell, and Bowel Trouble.

EDITOR KANSAS FARMER:—Chicks dying is the only thing that prevents 100 per cent hatches. I can remember back to forty years ago when hens made about the same average as they do now. I remember a certain gate post that I had for a mark when disposing of the eggs that the hens failed to hatch. Breaking the eggs to see what was in them was never thought of then or is it yet, but when it comes to running incubators, it is a different thing.

I have seen people hatch 80 per cent and 90 per cent of the fertile eggs and worry over 10 per cent and 20 per cent dying in the shell, yet the same party would perhaps innocently admit that the incubator did better average work on all the eggs than the hens had.

This is just this about it: When 80 per cent of the fertile eggs hatch and 20 per cent do not hatch, it is evidence in itself that something is wrong with the 20 per cent or they should have hatched also. Why not mix in a little cool reasoning in comparing incubators with hens and do away with the unjustified prejudices. Good incubators equal good hens but neither can hatch unhatchable eggs. If all fertile eggs were hatchable, then we would simply waste time in selecting strong, vigorous cockerels and hens. There would be no use nor sense in selecting fresh eggs, neither would freezing or overheating them before they were put in the machine effect them.

These are stubborn facts and not a single reader of this paper will dispute them, yet many will continue to throw the eggs that the hens can not hatch at the gate post and make a post mortem examination of the eggs that are left in the incubator; and, still more, they may unconsciously select eggs for the hens, and fill the incubator with most any kind to make up the numbers.

Bowel trouble with little chicks means most anything. There are perhaps a dozen causes and as many preventives, while the real cures are very scarce. Bowel trouble goes with nearly every little chicken ailment, in fact, it is about all the indication that we have of a sickness in a chicken. There are other indications with it, such as pegging around "as if on stilts," drooping wings, and persistent sleeping, but it is very seldom that chicks all without bowel trouble, in fact, there is not much to a new chick except the digestive organs.

The causes for bowel trouble in some instances trace back to the weak condition of the flock that laid the eggs, or the care of the eggs before they started to incubate, or the lack of ventilation, or the hen sitting too close, or not close enough. It might be traced back to the most common cause for bowel trouble, which is overheating, or over chilling. Either cause is followed by fevers, and chills, and bowel trouble. I am convinced that overheating brings it on more often than any other cause. When a chick is over-heated and goes through a sweating process it gets sick, has chills and wants to be mothered just like any other sick baby, and nine times out of ten we apply more heat, or, in other words, we apply more poison.

Little chicks have sleepy nerves on their backs and if they can get their backs against something and if the heat generated by their bodies is largely confined to their bodies, they will grow fat in weather that is quite cool without much additional applied heat. The plan of applying heat enough to make the chicks contented without a cover is contrary to their natural makeup. Those who read this article will make no mistake in thinking these things over.

Then, I want to speak of sunshine, "the medicine for all life whether animal or vegetable." I have seen small chicks—and so have you if you are an observing poultry-raiser—leave the hen or brooder and bask in the sunshine even when it is quite cool. Sunshine in the chicken business is like sunshine in the farming business. Poultry-raisers can not make the sunshine but they can have the coops so arranged that the sunshine does them good. A great many recognize the good in sunshine and apply the principle to the brooders. This is a bad plan, the glass that would allow the sunshine to enter would admit the cold when the sun was not shining.

Now about feed. It is not in line with nature to feed a great deal of soft,

wet food. Too much of it would effect the digestive organs. The crow is a grinding mill, and the natural foods are small seeds, grains, a little grit, and a touch of something that would be a substitute for bugs and worms. Bowel trouble (as stated is nearly the whole thing, and 99 per cent of it is due to other things than the food. Clay County, Neb. M. M. JOHNSON.

Raising Small Chicks.

EDITOR KANSAS FARMER:—My experience is that chicks 2 weeks old are half raised, as far as mortality goes; of course, rats, minks, and skunks, also some of the family cats do not care whether the chicks are 2 weeks or 4 weeks old. Right here I will mention that cats sometimes are very cunning and get away with lots of little chicks before they are suspected. Yes, cats kill rats, but for poultrymen one good rat dog and a spade is worth a dozen cats. This is my experience, and that is what I am writing about.

We should not undertake to raise chicks among rats; kill the rats, and, as a precaution, have the brooder house or coops some distance from barns, cribs, and other rat harbors; and, still more, the brooders and coops should be rat-proof and the dog encouraged to make war on all "varmints."

I am confident that not over 50 per cent of the chicks hatched out ever reach marketable age. In some instances perhaps 10 per cent escape and live, and in other instances where care and watchfulness is the rule 80 to 90 per cent are raised.

A little more about rats; they often do their greatest damage in daylight, pick the chicks up in the weeds or wherever they can get them; keeping the weeds mowed down is a precaution, and especially so around the barns and cribs; eternal vigilance is the price of success in the little chick business.

The same method will do for minks and skunks as recommended for rats. A few steel traps, a trusty dog, and a shotgun will discourage the hawks and crows.

Now about feed. The kind of feed is most always blamed for little chicks' ailments. I think the greatest number of experienced poultry-raisers will coincide with me in saying that bowel trouble and other small chick ailments are more often due to other causes than the kind of feed; overheating, over-chilling, wet and cold, etc., are the vital obstructions to success. Mites and lice are blood-suckers and I will repeat it again that coops and brooder houses for small chicks should be some distance from the old vermin-breeding hen-houses and other buildings.

A good feed for small chicks can be made as follows: Take 2 quarts coarse corn-meal, ½ pint coarse sand (or fine broiler teeth grit), ½ pint fine-cut leaf scraps; mix and bake as a corn cake, only bake it about twice as long or just as dry as you can, then crumble it up fine and feed it once each day. For the other feeds provide nicknacks in the way of cut wheat, steel-cut oats, common fan or mill tailings, some millet seed and some curd cheese, light bread soaked in milk and squeezed dry is good for them, and regardless of the cautions we sometimes see, dampened corn-meal in light doses is good. The writer can remember forty years ago when corn meal was a popular diet for small chicks and the mortality was not so great as now; however, the nature of the situation suggests that the natural needs of small chicks are a variety and lots of exercise in procuring it. M. M. JOHNSON.

Duck Eggs.

EDITOR KANSAS FARMER:—Will you or some of your readers please answer through the columns of your paper, whether or not duck eggs are injured for hatching by washing. I have been told they are but would like to know of some one who had had experience. Riley County. ELSIE M. ROBINSON.

Catarrh Can Not Be Cured

with LOCAL APPLICATIONS, as they can not reach the seat of the disease. Catarrh is a blood or constitutional disease, and in order to cure it you must take internal remedies. Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces. Hall's Catarrh Cure is not a quack medicine. It was prescribed by one of the best physicians in this country for years, and is a regular prescription. It is composed of the best tonics known, combined with the best blood purifiers, acting directly on the mucous surfaces. The perfect combination of the two ingredients is what produces such wonderful results in curing Catarrh. Send for testimonials, free. F. J. CHENEY & CO., Props., Toledo, O. Sold by druggists, price 75 cents. Hall's Family Pills are the best.

POULTRY BREEDERS' DIRECTORY.

PURE-BRED POULTRY—Silver Wyandottes, Buff Wyandottes, Dark Brahmas. Write for terms to M. D. King, Minden, Neb.

FOR SALE—Eggs from prize-winning Barred Rocks, the best I ever owned; my yard contains the first prize cock of the State show 1903; also first prize cockerel and one 93 point cockerel. Eggs \$3 per 15, \$5 per 30. A. C. Rait, Junction City, Kans.

S. C. B. LEKHORNS. Fine strain. Eggs \$1 per 15. J. A. Kauffman, Acme, Kans.

EGGS FOR HATCHING—From my "Superior Strain" of Barred Plymouth Rocks, noted for size and quality. Fourteen years careful exclusive breeding. 15 eggs, \$1; 30 eggs, \$1.50. E. J. Evans, Box 21, Fort Scott, Kans.

WHITE, LIGHT—White Plymouth Rocks, the prize-winners at the Kansas State Poultry show, 1903. Remarkable for clear white plumage united with exceptional size and shape. Eggs from our best matings \$2.50 for 15. Usher & Jackson, 1735 Clay St., Topeka, Kans.

BARRED PLYMOUTH ROCK EGGS—\$1 for 15. For further information address Mrs. Ada Ainsworth, Eureka, Kans.

BARRED ROCK EGGS—15, \$1.00; 45, \$2.00. J. P. Dam, Corning, Nemaha county, Kans.

EGGS FROM STANDARD BRED Silver Wyandottes, 100 for \$4. Mrs. J. W. Gause, Emporia, Kans.

FOR SALE—Barred Plymouth Rock eggs, from the best mating. 15 for \$1, or 50 for \$3, 100 for \$5. Mrs. George Manville, Agency, Mo.

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

JAMES BOTTOM, breeder of Black Langshans. Eggs \$1.00 per setting. Onaga, Kans.

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FOR SALE—Light Brahma cockerels, \$1.00 each, four for \$3.00. WANTED—White Holland turkeys. Nellie E. Stallard, Sedan, Kans.

HIGH-CLASS POULTRY—Silver Wyandottes, White Wyandottes, and White Plymouth Rocks. Eggs for hatching, 13 for \$1. R. F. Meek, Hutchinson, Kans.

FOUR young litters high-bred, pedigreed, Scotch Collie pups, for sale. Book your orders quick. Walnut Grove Farm, Emporia, Kans.

COCKERELS—Indian Games and Black Langshans, farm-raised, price \$1 each, if taken soon. H. Baughman, Wymore, Neb.

SILVER LACED WYANDOTTES—Exclusively the American Beauties. Choice birds. Sixteen years a breeder. Eggs \$1.50 to \$1 per 15. D. Tennyson, Frankfort, Kans.

B. P. ROCK EGGS—15, \$1.50; 100, \$4. Mrs. J. W. Holsinger, Cottonwood Falls, Kans.

PURES. C. B. Leghorn eggs, 30 for \$1; entire new blood. Orders promptly filled. F. P. Flower, Wakefield, Kans.

BARRED PLYMOUTH ROCK EGGS—\$1 per 15. Correspondence solicited. J. A. Sawhill, Edgerton, Kans.

TWO YARDS S. C. B. Leghorns. A few choice cockerels for sale, \$1 each; 15 eggs, \$1. John Black, Barnard, Kans.

BLACK LANGSHANS—Pure-bred and fine. 15 large, brown eggs 75c. T. E. Whitlow, Moran, Kans.

BARRED ROCKS—Only. Heavy boned, vigorous stock, unlimited range. Eggs carefully and securely packed. 100, \$4; 15, \$1. Adam A. Wier, Clay Center, Neb.

FOR SALE—White Wyandotte eggs from my Chicago 1902 winners, \$1 per 15. George Getty, Syracuse, Kans.

BARRED PLYMOUTH ROCK EGGS—From fine flock Hawkins strain, 15 for \$1.50; 45 for \$3. Annie Wynkoop, Bendena, Doniphan Co., Kans.

EGGS—At \$1 per setting from our White Plymouth Rocks or White Wyandottes that will produce fine stock. W. L. Bates, 1829 Park Ave., Topeka, Kans.

NEOSHO POULTRY YARDS—Established in 1882. Buff Orpingtons, Rose Comb R. I. Reds. Eggs, \$1.50 for 15. A few Buff Orpington cockerels for sale; prices reasonable. Our birds do not all score one hundred points, but we have some good ones. J. W. Swartz, Americus, Kans.

Eggs—For hatching, from White Plymouth Rocks, scoring 94 to 96½. Cockerels direct from U. R. Fisher's pens. Eggs, \$2 for 15; \$3.50 for 30. Also from Blue Barred Rocks, line bred for 12 years, scoring 90 to 93. Write for descriptive circular to Herbert Johnson, Chanute, Kans.

EGGS FROM GEM POULTRY FARM are sure to hatch high-scoring Buff Plymouth Rocks. No other kind kept on the farm. 15 for \$2; 30 for \$3.50. Satisfaction guaranteed. M. B. Turkey eggs, 11 for \$2. C. W. Peckham, Haven, Kans.

WHITE WYANDOTTES EXCLUSIVELY—Eggs—15, \$1; 50, \$2.50; 100, \$5. MRS. E. F. NEY, Bonner Springs, Kans.

COLLIE PUPS AND B. P. ROCK EGGS—I have combined some of the best Collie blood in America with pups sired by Scotland Bay and such dams as Handsome Nellie and Francis W. and others just as good. B. P. Rock eggs from exhibition stock; none better; 15 years' experience with this breed. Eggs \$1.50 per 15. Write your wants. W. B. Williams, Stella, Neb.

SCOTCH TERRIERS—Finest bred in this country. Father Prince, the champion of Scotland, and sire of Nossage Foxglove, one of the champion imported Romany Ringlet, best service at our kennels. G. W. Bailey, Beattie, Kans.

WINNERS—White and Barred Rocks. Send for circular. Burton's Poultry Yards, Fort Scott, Kans.

EGGS—From Rose Comb White Leghorns, \$1 for 15. MRS. JOHN HILL, Vinland, Kans.

TWO GIRLS hatch 2,183 chicks; one woman 716; one man over 2,000. New System again beats incubators. Booklet free. F. GRUNDY, Morrisville, Ill.

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Eggs, Eggs, Eggs For hatching from my prize-winning stock of S. C. Brown and S. C. White Leghorns, \$2 for 15; \$5 for 40. H. C. SHORT, Leavenworth, Kans.

SNOWFLAKE POULTRY FARM—R. C. W. Leghorns, W. Wyandottes, W. Guineas. Eggs \$1.50 per 16. Mrs. Winnie Chambers, Onaga, Kans.

SILVER LACED WYANDOTTE eggs 5 cents each, farm raised birds exclusively seven years. Mrs. M. A. Hall, R. 7, Winfield, Kans.

Rose Comb Brown Leghorns Exclusively. Farm raised. Eggs per setting of 15, \$1. Incubator users write for special prices in 100 lots. P. H. MAHON, R. D. No. 3, Clyde, Cloud Co., Kans.

Sunny Summit Farm Pure-Bred Poultry. Silver Spangled Hamburgs, American Dominiques, S. C. and R. C. Brown Leghorns, Barred and Buff Rocks, S. C. Black Minorcas, Mammoth Bronze Turkeys. Eggs \$1 per 15; turkeys \$2 per 9.

VIRA BAILEY, Kinsley, Kans.

BLACK MINORCAS

Biggest Layers of Biggest Eggs. Eggs for hatching, \$1.50 per 15. Also at same price eggs from choice mating of Light Brahmas, Dark Brahmas, Black Langshans, White, Silver and Golden Wyandottes, Barred and Buff Plymouth Rocks, S. C. White and Brown Leghorns, Rose Comb American Dominiques, Houdans, White Crested Black Polish, Buff Laced Polish. C. JONES, Leavenworth, Kans.

Pure-bred Light Brahma Eggs For Sale. EGGS from our first pen headed by a cockerel scoring 94 points, and twelve extra fine pullets, for \$2 per setting of 15. Eggs from birds having run of the farm, \$1 per 15. Can furnish large orders for setting incubators on short notice as we have a large number of laying hens. Our stock is first-class and sure to produce 1 results that will please you. Address F. W. DIXON, Holton, Kans.

Save Your Little Chicks By feeding Mrs. Pinkerton's Chick Food. Send for circular telling how to feed and raise little chicks successfully. ANNA L. PINKERTON, Clay Center, Nebraska.

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DUFF'S POULTRY Barred Plymouth Rocks, White Plymouth Rocks, Buff Cochins, Partridge Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, Brown Leghorns, and Belgian Hares. First-class Standard Stock of Superior Quality. Stock For Sale. Eggs in Season. Write Your Wants. Circular Free.

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The Choice of a Cow.

(Continued from page 421.)

experience and observation have taught us that the majority of them conform more or less closely to certain peculiarities of form and disposition fully as marked as those of the so-called beef breeds. Owing to the abnormal development of the milk-producing organs, certain parts of her body have an undue amount of work to perform, hence these parts are overgrown in an extreme degree, while other parts, because of their inactivity and lack of nourishment, do not attain the normal size. This results in that class or type of unusual producers that is inclined to be narrow in front and wide and deep behind. This is the general form of the dairy type, the relation of which to production has been the subject of many experiments that have shown it to be one of the best guides in the selection of the dairy cow; hence the more highly developed this wedge-shaped appearance the better the cow for dairy purposes.

Milk is made from food consumed by the cow. With a large development of the digestive organs by means of which the cow is able to consume a great amount of feed the cow could not be a good milk-producer. Her back and ribs should be long and prominent. This tends to enlarge the cow's storage capacity for food. The chest should be full and deep, thus giving evidence of strong circulatory organs. This is of importance as the milk is derived directly from the blood.

Another essential feature of the dairy cow is the large development of the nervous system. The dairy cow should have what is known as the nervous temperament. This does not mean that the cow is irritable or excitable, which really indicates lack of nervous control, but on the contrary it means an animal full of nerves, one that has strong nerves that give tone to the various organs of the body. The animal of nervous temperament is one that is sensitive and active, giving all the regions the greatest vitality and all the organs the greatest productive power. A broad, intelligent head and a prominent back indicate nerve force. The lean appearance of the typical dairy cow is an indication of the power of the nerves to divert the greater part of the food content of the blood to the production of milk.

Aside from the requirements already mentioned the most important consideration is the udder. The udder is the special organ of milk secretion. The size, shape, and texture of the udder are the best indications of its development. Length is an important feature as it insures a long line of absorption. The quarters should be evenly developed, the teats just large enough to fill the hand and yield milk easily but never leak. When empty, the udder should nearly lose its form and appear to consist of folds of soft, pliable, and elastic skin.

In addition to these salient characteristics some of the minor features should be observed. The hair should be fine and silky, the skin soft and fine, and the milk veins large and tortuous. After all outside appearances have been noted, the next consideration is the actual test of the cow's milking qualities. To estimate the value of a dairy cow when giving milk there is no method so satisfactory as the actual records made with a Babcock tester and the scales. Having a record of the weight of milk yielded, the percentage of butter-fat, the duration of the milking period, and the period of pregnancy, together with the amount of feed consumed, the value of the cow for dairy purposes may be accurately determined. But in a majority of cases where one could select a cow no such records will have been kept. A composite test of milk may be taken and the average quality determined by a test. By taking into consideration the quantity given at the time of selection along the lines indicated, the best cows for immediate profit may be chosen.

Care in the selection and breeding has resulted in the production of several breeds of cattle that are noted for their ability as milkers and power to transmit this ability to their offspring. By choosing cows from such breeds, the dairyman may by breeding and selection raise from them other cows equally good, or perhaps better than the first. These dairy breeds have been developed along special lines. Thus the Holsteins have been developed for quantity of milk rather than quality, and where quantity of milk is desired without regard for quality the Holsteins would probably have the preference. The Jerseys are noted for richness of the milk produced.

The power to produce a large quantity of milk of excellent quality determines the profitable cow. A cow does not usually reach her prime until her third or fourth calf, although she gives evidence of her good qualities from the beginning of her milking career. The dairyman may, therefore, choose a cow whose ability has been proven. Such cows may be found here and there in all parts of the country. One of the most profitable cows owned by the college is one picked up on a range in western Kansas. While typical dairy animals may be found here and there in all classes of cattle, the preferable plan of selection of dairy cows is by systematic breeding and feeding.

The Blue Valley Creamery Company's New Building.

Information comes to us to the effect that the Blue Valley Creamery Co., St. Joseph, Mo., has lately purchased a site for a new building made necessary by its rapidly growing business. The site purchased is known as the Fowler homestead which has been an historic spot in St. Joseph for many years. It was originally owned by a Mr. Fowler who purchased it fifty-six years ago and built thereon his log cabin. The ground is now occupied by the Occidental Hotel which will be vacated at once in order that the work of erecting the new \$40,000 building may be begun. The site cost \$15,000, and the building which will be erected thereon will be especially constructed for the use of the creamery company. This structure will be 120 feet front on Main Street by 140 feet on Jule Street and will have a switch track of the Chicago and Great Western Railway extending through the alley at the rear of the building. Thoroughly up-to-date machinery will be installed and the creamery will be modern in all respects. Contracts have been let to furnish light, heat, and power for the building by the local light and power company. While this company has its headquarters in St. Joseph it derives a large share of its patronage from Kansas and Nebraska. On the completion of its new building it will be in better position than ever to take proper care of its rapidly growing business.

Right Vehicles at Right Prices.

Time was when to afford one's self a neat, comfortable, and serviceable conveyance meant an expenditure of from \$125 to \$250. The family carriage or the young man's buggy was then a luxury to be enjoyed by but few. But times have changed in this regard. If one but gets into the proper buying channels so that he avoids payment of cumulative profits to jobber, dealer, and agent, in other words, buys from a well-established, reputable concern which makes shipments direct from the factory to the user, a first-class vehicle is within easy reach of every one who can lay any claim to being well to do. Old-time exorbitant prices are still prevalent in many quarters. They are a necessity where goods pass through so many people's hands and must be made to pay so many profits. But happily now purchasers are not compelled to pay them. There are other places to buy, getting the same quality of goods at great reductions in price. A vehicle concern such as we have in mind is the Marvin Smith Company, of Chicago. It is doing much to popularize the prices of all classes of good vehicles and buggies, phaetons, surreys, carriages, etc. The illustration shows a standard, well-made, serviceable, stylish buggy which they are selling for \$58.20. Local dealers everywhere would claim to be making a rare bargain on this same vehicle at \$100. This is but one of a long line of vehicles, comprehending every purpose and style which this house is selling at such prices as readers have doubtless noted from their advertisements regularly seen in our columns. Dealers argue that by patronizing them you have the opportunity to examine and make choice before buying. This does not compensate for the high prices charged. The fact is, that the company named ships anything you may select from their complete vehicle catalogue, showing many times over the varieties and styles the local dealer carries, without any payment in advance, and permits full and free examination without obligation to purchase if not satisfactory. The house is perfectly reliable. Dealing with them is as safe and practically as prompt as with local dealers. They make it possible for every one to own a good conveyance by paying only reasonable prices. There is no necessity at this day of paying more than their prices. It does not bring better quality. We commend the house heartily to readers who have under consideration the purchase of a conveyance of any sort.



Illustration shows a standard, well-made, serviceable, stylish buggy which they are selling for \$58.20. Local dealers everywhere would claim to be making a rare bargain on this same vehicle at \$100. This is but one of a long line of vehicles, comprehending every purpose and style which this house is selling at such prices as readers have doubtless noted from their advertisements regularly seen in our columns. Dealers argue that by patronizing them you have the opportunity to examine and make choice before buying. This does not compensate for the high prices charged. The fact is, that the company named ships anything you may select from their complete vehicle catalogue, showing many times over the varieties and styles the local dealer carries, without any payment in advance, and permits full and free examination without obligation to purchase if not satisfactory. The house is perfectly reliable. Dealing with them is as safe and practically as prompt as with local dealers. They make it possible for every one to own a good conveyance by paying only reasonable prices. There is no necessity at this day of paying more than their prices. It does not bring better quality. We commend the house heartily to readers who have under consideration the purchase of a conveyance of any sort.

A Reminder of Home.

Mr. John F. Warwick, the American traveler and writer, states in a recent article that he had a severe attack of nostalgia or homesickness during his recent trip over the Trans-Siberian railway. He had traveled for days without seeing a familiar face or hearing a familiar tongue, and his spirits were at a low ebb. The train having stopped at a small water-tank station, with an unpronounceable name, Mr. Warwick stepped out of his car to get a breath of fresh air, and in the field at the side of the track he saw a sight that at once dispelled his homesick feeling. It was a Deering Grain Binder painted in the American national colors, and at the sight of this reminder of home and country, Warwick was himself again and retained his restored good spirits for the balance of the journey.

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THE MARKETS.

The Kansas City Live Stock and Grain Market.

Kansas City, Mo., April 6, 1903.

Heavy runs of cattle in the East had a depressing effect upon the early market here to-day, but the local demand was good and after starting out 10c lower, trade reacted, and by noon the market was steady to a trifle higher than the close of last week. Best steers were bid up to \$5.25. Hogs opened a little mean, in spite of moderate runs and a firmer provision market. Most sales were 5c lower, with the bulk running at \$7.20@7.32½. Tops brought \$7.40. Salesmen count on the market bracing later in the week. The mutton market held firm, spring lambs selling at \$10, clipped native lambs at \$7 and wethers at \$6.50 per cwt. George Burkett, of Reece, Kans., topped the cattle market to-day with a drove of Shorthorns.

There was another narrowing of the range between light weight butcher stock and heavy steers during the past week. On Thursday, Cunningham & Foster, of Hume, Mo., sold a bunch of 750-pound steers and heifers mixed for \$4.75, only 5c below the best price paid for heavy beefs. Desirable heifers are now ranging at \$4.45@4.50, cows at \$3.25@4, and 1,000 to 1,150-pound steers at \$4.50@4.75, while prime heavy steers are quoted at \$4.75@5.25. Top cattle of the week brought \$5.10 and weighed 1,818 pounds. They were consigned by P. Sheard, of Esbon, Kans. Jos. Bieger, of Saxman, Kan., sold 1,554-pound steers at \$5; B. Poston, Netawaka, Kans., 1,231-pound steers at \$4.85; Wm. Yost, Belton, Mo., 1,251-pound steers at \$4.85; and D. W. Cook, Beatrice, Neb., 1,403-pound steers at \$4.80.

The market for fancy feeding steers ruled firm at prices ranging from \$4.50@4.75. Charley McBain, of Columbia, Mo., bought a load of prime blacks at \$5.10, as high a price as the best of fat cattle brought. Stockers with quality are selling at \$4@4.75, but cull grades of Iowas may be bought as low as \$3.75. Receipts of cattle for the week aggregated 26,400 head, the same number as arrived during the corresponding period of 1902.

The hog trade showed moderate supplies, the local run amounting to 33,800 head, while the combined markets received 245,700 head. While numerically hog receipts are running below a year ago, the increased weight of swine being marketed really gives the packers more meat than when the runs were smaller. This served as a bearish factor the past week, a phase of the market utterly unexplainable unless the increased weight of offerings be taken into consideration. Compared with the preceding week, the hog market exhibits no appreciable change. Trade ruled a little swayback from day to day, going 10c up or down. Top swine sold at \$7.50. They were marketed by Bishop & Son, of Kingston, Mo. Good killing hogs are now commanding \$7.25@7.40. Prices range 50c higher than a year ago, and about \$200 higher than the ten-year average.

Spring lambs sold at sensational prices during the past week. H. B. Browning, of Linwood, Kans., secured \$11 for a bunch, and J. A. Raines, of Langdon, Kans., \$10 for a consignment. Shippers would do well to count on a decided drop in these prices by Easter, however. With a moderate run of 20,300 head, the sheep market again scored an advance during the week, the betterment ranging from 15c@40c. Woolled wethers sold up to \$6.75, Colorado woolled lambs to \$7.40, woolled ewes to \$6, and clipped stock to \$5.50. A double-decked load of 137-pound Colorado bucks, consigned by Phil. Sweetman, of Las Animas, Col., brought \$5.25, the record price at any Missouri River market for a full load of rams.

Another brisk horse market was had last week. The total receipts reached 1,500 head, and the auction supply 800 head. Drafts consigned from Iowa by Charles Rand, brought \$610 per pair, a record-breaking price in the local bull ring. Mules are selling as well as at any time this year and more supplies are needed. Fifteen to 15½ hand mules are wanted and \$100@140 is offered for the same.

Wheat gained a little during the week, but corn, owing to more liberal receipts from the country, declined about ½c. Cash wheat at Kansas City is worth: No. 2, 66¢@69c; No. 4, 61¢@63c; No. 2 corn, 36¼¢@37¼¢; No. 4, 34¢@35c; No. 2 oats, 33¢@34¼¢; No. 4, 30¢@32¼¢.

The produce and poultry markets held up well during the week. Green stuff is beginning to arrive from the country and the demand is enlarging. Eggs are worth 11¢@11½¢; hens 10½¢; springs 12c; broilers 1½ to 2 pounds, 15c; turkey hens 12c; ducks 11½¢; geese 5c; butter 19¢@25c.

The first car of stock to come to Kansas City from the Oklahoma terminus of the new Kansas City, Mexico & Orient, came in on April 2. It consisted of a load of hogs shipped from Carmen, Okla., by J. D. Simpson. Receipts of stock at Kanst City for the first quarter of the year show a total of 407,092 cattle, a gain of 73,300 over 1902; 454,578 hogs, a decrease of 254,000; 236,500 sheep, a gain of 80,100; and 24,409 horses, a loss of 3,000 head.

H. A. POWELL.

South St. Joseph Live Stock Market.

South St. Joseph, Mo., April 6, 1903.

Receipts of cattle last week, 8,380; previous week, 9,258; year ago, 6,947. The liberal marketing at all points and the lower trend of prices early in the week caused a decline in values here, but under reduced receipts and a strong demand, all of the break was repaired and light and medium weight steers showed an advance of 10c. The general quality was not as good as the previous week in that more unfinished heavy beefs were included than for weeks. Top for the week, \$5. Cows and heifers were in moderate supply and strong demand and prices advanced 10¢@15c, but the commoner kinds showed no change. Best heavy cows sold at \$4.75. The good to choice stock cattle of all weights sold readily and prices ruled firm, but the common and medium kinds sold 10¢@15c lower. Best heavy feeders brought \$4.75.

Supplies of hogs last week, 14,109; preceding week, 28,370; year ago, 33,579. Packers wanted the hogs, but they took advantage of every opportunity to break the market. Prices to-day ranged from

\$7.20@7.40, with the bulk selling at 7.27½@7.35.

Arrivals in the sheep department last week, 21,984; former week, 21,640; year ago, 17,223. Colorado, Kansas, Nebraska, and Missouri were the main contributors, with lambs in heavy majority and sheep in small quota. The trend of prices for the good fat lambs was upward and to-day Colorado spring lambs brought \$10 and Colorado lambs from \$7.60@7.65, which prices are the record figures for the Missouri River markets. The bad conditions of the markets east for mutton grades the greater part of last week caused a break of 25¢@35c for ewes and 10¢@15c for medium grades of wethers, but the good kinds sold steady. Top Colorado wethers, \$6.75 and ewes from the same State brought \$6.15.

Lawrence Seed Market.

Lawrence, April 6, 1903.

	Per 100 lbs.
Alfalfa.....	\$2.00@2.00
Timothy.....	1.50@1.50
Kafir-corn.....	1.00@1.00
Kafir-corn.....	1.00@1.00
Red clover.....	1.10@1.10
English blue-grass.....	1.50@1.50
Cane seed.....	1.00@1.00
Millet.....	1.00@1.00

F. BARTELDSE & CO.

Special Want Column

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

CATTLE.

FOR SALE—Four registered Hereford bulls, 8 months to 2 years old. Hooper Monroe, Frederick, Rice Co., Kans.

WANTED TO SELL—Four registered Hereford bulls, cheap, of Anxiety strain. Yates Bros., R. F. D. 1, Agency, Mo.

FOR SALE—Registered Angus bulls—one 2-year-old. Address R. L. Milton, Stafford, Kans.

BOTTOM OUT OF PRICES—Shorthorn, bull and heifer calves, red with white marks, at \$50 net, the get of British Lion. D. P. Norton, Dunlap, Kans.

FOR SALE—10 head of registered Hereford bulls, 6 to 20 months old, good individuals, and in good condition. Visitors met at trains if notified. Farm 20 miles southwest of Wichita. A. Johnson, R. F. D. 2, Clearwater, Kans.

FOR SALE—A choice herd of registered Holsteins. Six heifers coming 3 years old, and one yearling heifer from first prize cow. A 2-year-old first prize bull from M. E. Moore's unbeaten 1901 show herd. E. W. Melville, Eudora, Kans.

FOR SALE—My herd bull, Baron Knight 134946, 4 years old, dark red, weight 2,200 pounds, got by Galant Knight 124468; also three Scotch-topped bulls, 14 months old, and a few cows with calves by side. J. P. Engel, Alden, Kans.

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

FOR SALE—A few young Hereford bulls from the Evergreen Farm herd, headed by Lee 121232. Address Pearl I. Gill, Great Bend, Kans.

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

FIVE HEREFORD BULLS FOR SALE—Never used in a herd, they are in fine fix, at a bargain for cowmen. O. L. Thistler, Chapman, Kans.

HORSES AND MULES.

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

FOR SALE—Cheap if taken soon, before putting on stand. Black Imported Percheron stallion, Sound and guaranteed breeder. J. C. Robison, Towanda, Kans.

FOR SALE OR TRADE—For young cattle, one Percheron stallion, sure foal getter. J. W. Holsinger, Cottonwood Falls, Kans.

LEAVENWORTH CO. JACK FARM—34 head of Jacks and Jennets on hand. O. T. Corson, R. R. 1, Lowmont, Kans.

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

SWINE.

FOR SALE CHEAP—Poland-China, boars and gilts; extra hams, backs, heads, spine, ears, black coats. Some show pigs. Satisfaction guaranteed. Address G. W. Harman, Ridge, Woodson Co., Kans.

FOR SALE—Tucumseh Wilkes, Poland-China boar, 17 months old. Also S. L. Wyandotte eggs. V. B. Howey, Topeka, Kans., R. R. 5.

FOR SALE—Eleven good Poland-China boars. H. W. McAfee, Topeka, Kans.

FARMS AND RANCHES.

SNAP No 7—160 acres, black soil, 90 acres cultivation, fair improvement, price \$2000. Farms any size, easy terms, prices low. Write your wants. Garrison & Studebaker, Florence, Kans.

GOING—Kansas homestead worth thousand dollars. Authorized government township, plat with choice quarters marked, two dollars. Kansas Location Co., Mullinville, Kans.

90-ACRE IMPROVED FARM—Also imported stallion for sale or trade for larger farm horse; must make season 1903 on farm. Fred Alexander, Olivet, Kans.

SOME BARGAINS in farm lands in Anderson County, Kansas, in farms ranging from 80 acres up. S. B. Hamilton, Welda, Kans.

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

Farms, Ranches, Wild, Mineral, Timber Lands—Sell, Trade. We control Millions of acres, Any State. Cheapest, Best. Describe wants. W. W. Gavitt & Co., Bankers & Brokers, Topeka, Kans.

SEEDS AND PLANTS.

CANE-SEED—California Silver Tip, choice seed. Growth medium height, heavy foliage, great seed bearer, having this year made 30 bushels per acre; 90 cents per 100, sacked, f. o. b. car, in less than 1,000 pound orders; 15 cents drayage per order. Amber at current rate. Asher Adams, Osage City, Kans.

100,000 BUSHELS Kafir-corn wanted. We have advanced the price; state quantity you have to offer, and will make you price. Also in market for Cane-seed, Millet-seed, Alfalfa-seed, Prairie Hay, etc. Kansas City Seed & Grain Co., Kansas City, Mo.

ALFALFA SEED—New, \$6.30 per bushel. J. W. Cook, Leoti, Kans.

CANE-SEED—Blending improved varieties; wonderful forage; \$1.80 per cwt., sacked. M. V. B. Kenyon, Downs, Kans.

SEND FOR price list of strawberry, raspberry, and blackberry plants to Wm. Brown & Sons, Lawrence, Kans., R. F. D. 9.

PLANTS—Strawberry, blackberry, raspberry, gooseberry, grape, currant, rhubarb, etc. J. C. Banta, Topeka, Kans.

SEED CORN FREE—Sample and circular telling how to raise more and better corn. John D. Ziller, Hiawatha, Kans.

ANY ONE wishing cedar-trees, please write Murray Weaver, Centerville, Lin Co., Kans.

FOR SALE—Golden Yellow popcorn, very productive, excellent for popping, very tender. Packet 6 cents; 7 pounds 50 cents. J. P. Overlander, Highland, Kans.

WANTED—Sweet corn wanted. Will pay a good price. Correspond with us. F. Barteldes & Co., Lawrence, Kans.

FOR SALE—300 bushels of sorghum seed. Brookover Bros., Eureka, Kans.

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

POULTRY.

I RAISE W. F. ROCKS EXCLUSIVELY—Owen's strain. Eggs for sale, 75 cents per setting of 15. These birds are large and very white, in quality unsurpassed. Mrs. Alvin Griffiths, Ozawie, Kans.

EGGS FOR SALE—At bargains. Write T. J. Puch, Fullerton, Neb. Buff Orpingtons, L. Brahmas, B. Langshans, W. Wyandottes, B. P. Rocks, and C. I. Games.

INDIAN RUNNER DUCKS—Strong, vigorous, gentle, great layers. Eggs, 15 for \$2; 30 for \$3. W. S. Hill, Great Bend, Kans.

BLACK MINORCAS—World's greatest laying strain, beautiful in shape, color and comb; grand winter layers. Eggs \$1.50 per 15. Address George Kern, 817 Osage St., Leavenworth, Kans. Circular free.

EGGS—From choice White and Golden Wyandottes, the best fowls for the farmer. Get our prices. Catalogue free. Write today. Blue Diamond Poultry Yards, Box 144, Concordia, Kans.

BARRED PLYMOUTH ROCK EGGS. The best, 15 for 75 cents. Satisfaction guaranteed. Ethel J. Williams, Agricola, Kans.

D. TROTT, Abilene, Kansas. Choice Barred Plymouth Rock eggs, \$1. per 15.

EGGS—For hatching from choice flock of Barred Plymouth Rock, \$1 per 15. Florence Ford, Moran, Kans.

PATENTS.

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

The Triangular Non-Dilution CREAM SEPARATOR

produces 20 per cent more cream than old process. No ice, chemicals, crocks, pans, complicated machinery or power. One operation strains, aerates and ventilates milk. Make money on each cow. Simple, inexpensive, indestructible. Has every merit of the higher-priced separators and many original features. Write for descriptive circulars and special offers to agents and farmers. Territory free.

MERCANTILE SYNDICATE, Dept. L, Kansas City, Mo.

MISCELLANEOUS.

CATTLE, HOGS, SWINE—Sale of registered Hereford bulls, 150 grade cows and 50 Poland-China hogs at Ruby Red Hereford Ranch, Cunningham, Kansas, Thursday April 16.

AGENTS WANTED—Selling the "Climax Burner Rest." Can be sold in every family. Sample and descriptive circular, 10c. Mitchell Novelty Co., 60 Canby Bldg., Dayton, O.

PILES—No matter how serious the case, can be cured absolutely and permanently by LOMOLO TABLETS. A strong claim to make, but we can substantiate it; give us an opportunity of doing so by writing us. LOMOLO REMEDY CO., 280 Broadway, New York City.

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

AUTOMATIC WAGON JACK—Pulls the wheel out and puts it back; simple, strong, durable; very cheap. State rights for sale. Box 204, Chillicothe, Mo.

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

NORNY'S UNIQUE RESERVE LABELS—Are ornamental and a necessity for every housekeeper; 3 dozen labels, assorted, ready gummed for use, by mail, 12 cents. Mitchell Novelty Co., 60 Canby Bldg., Dayton, O.

FRANK J. BROWN, Topeka, Kans. Buys and sells real estate and mortgages.

The Stray List.

Week Ending March 26.

Elk County—G. J. Sharp, Clerk.

HEIFER—Taken up by J. C. Blair, in Longton, Elk County, Kans., February 27, 1903, one 3-year-old red heifer, muley; no mark or brand; valued at \$15.

Week Ending April 9.

Nemaha County—B. F. Eaton, Clerk.

HORSE—Taken up by J. F. Hawley, in Harrison tp. (P. O. Coffe), March 20, 1903, one bay horse, blind in left eye; also one bay horse, face and three feet white; valued at \$40.

DO YOU WANT \$85 to \$15 per month and board for your labor? Send 12 cents for valuable information concerning wages for different kinds of labor. Careful, attentive men can get above wages the year round. Prompt attention given inquiries about that in which you are interested.

James H. Endsley,

ELLENSBURG, WASHINGTON.

MEN OR WOMEN \$150 Per Month SALARY OR COMMISSION
Introducing our King Butter Separator and Aerator. Produces Creamery Butter from cream or milk, sweet or sour, in LESS THAN FIVE MINUTES. Every owner of a cow a customer. Write today for Sole Agency, stating territory desired. Our Free Sample and Salary proposition will interest you.
CURTISS-WILLIAMS CO., Dept. 96, Chicago, Illinois

W. J. WARNER, Pres. ENOS STEWART, Treas.
SOUTHERN MINNESOTA VALLEY LAND CO.,
304 Drake Block, ST. PAUL, MINN.
100,000 Acres Wild Prairie and Timber farm lands in central Minnesota
500 IMPROVED FARMS in Southern and Central Minnesota.
100,000 Acres in the Saskatchewan Valley, Canada.
We also handle Lands in Washington and Oregon.
For prices and descriptions call on the local agent or write to the Home office for circulars and printed matter.
304 DRAKE BLOCK. ST. PAUL, MINN.

Garden Spot of the Earth

The fertile soils of eastern Oregon or Washington yield, in overflowing abundance and in the highest perfection, every grain, grass, vegetables, and fruit of the temperate zone.

To enable these favored without expenditure of money, the Union



sons to reach localities necessary expenditure and money. Pacific has

put in effect very low rates and splendid train service, four trains leaving Missouri River daily for the Northwest. One fare plus \$2.00 for the round trip.

Tickets on sale April 7 and 21, May 15 and 19, June 2 and 16, 1903.

For full information, call on, or address

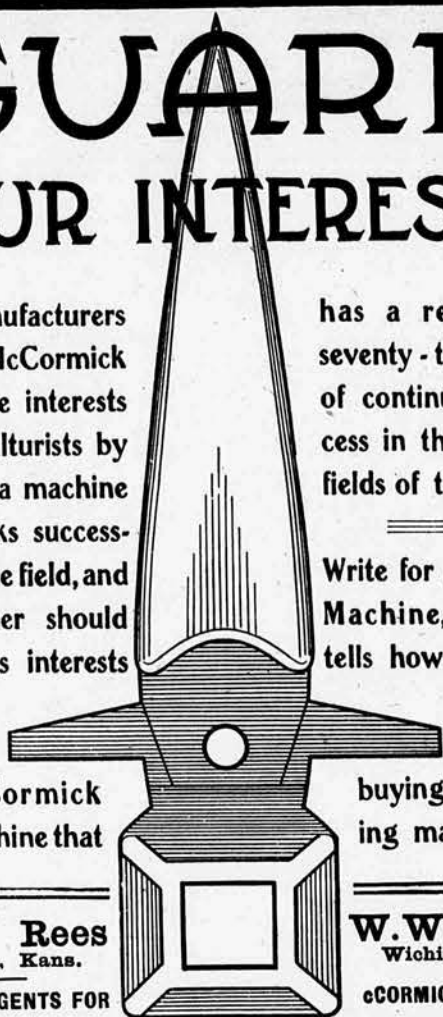
F. A. LEWIS, City Ticket Agent,
525 Kansas Avenue. Phone 53.

J. C. FULTON, Depot Agent. Phone 34

GUARD YOUR INTERESTS

The manufacturers of the McCormick guard the interests of agriculturists by building a machine that works successfully in the field, and the farmer should guard his interests by purchasing the McCormick—a machine that

B. L. Rees
Topeka, Kans.
GENERAL AGENTS FOR

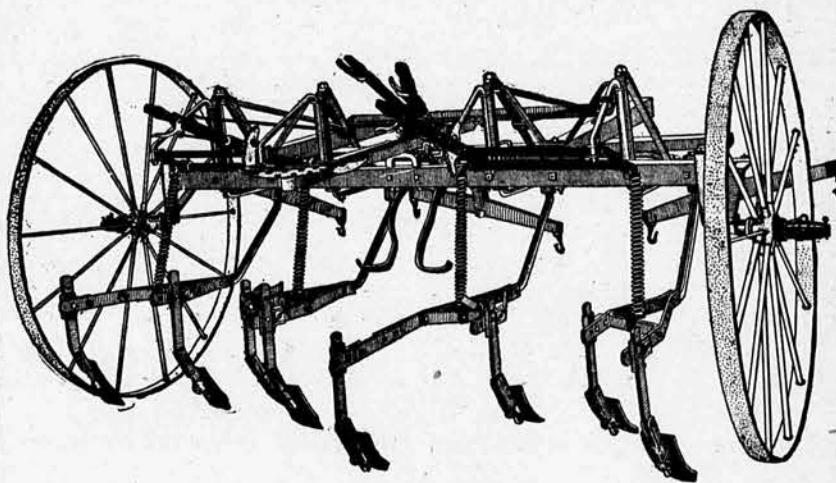


has a record of seventy-two years of continuous success in the harvest fields of the world.

Write for a "Model Machine," which tells how to guard your interests in buying harvesting machines.

W. W. Weeks
Wichita, Kans.
McCORMICK MACHINES

THE MIDLAND TWO-ROW ..SHOVEL CULTIVATOR..



If you are interested in the best and most modern ways of corn-raising you will use two-row Cultivators.

If you want the Two-Row Cultivator that has all the good features and is a success—you will buy a MIDLAND. This is the cultivator used by Hon. David Rankin, of Tarkio, Mo., the largest and most successful corn-raiser in the world. WRITE FOR CATALOGUE.

The Midland Mfg. Co., Kansas City, Mo.
Factory, Tarkio, Mo.

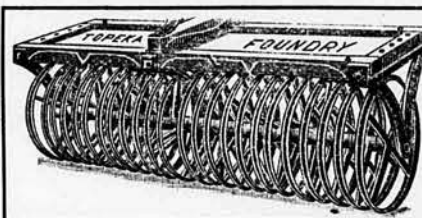
YOU WILL

NEVER LOSE A CROP

TOPEKA FOUNDRY PACKER.

A full stand and perfect seed bed guaranteed.

Packs surface as well as sub-surface.



Drouth defler.

Equal to one inch of rain.

Makes farming a SUCCESS.

..... Write for prices and circulars.

TOPEKA FOUNDRY, TOPEKA, KANS.

TOP SNAP.

Erhardt Arms Co.'s Single Gun.

Fine Decarbonized Blued Steel Barrel.

Pistol Grip, Walnut Stock Extra Heavy Nickel Plated Frame, Rubber Butt Plate

REBOUNTING HAMMER.

12, 16, and 20 Gauge, 30- or 32-inch barrel, choke bored for Nitro powder. weight about 6½ pounds, each \$4.

Send for Catalogue of all Guns and Sporting Goods.

Louis Erhardt & Company, Atchison, Kansas.



PUBLIC SALE!

SHORTHORN CATTLE



TO BE HELD ON THE

Graner farm, one and one-half miles north of Lancaster, Atchison County, Kansas,

TUESDAY, APRIL 21, 1903.

38 Head of Shorthorn Cattle—18 Bulls and 20 Heifers.

COL. JOHN DAUM,
AUCTIONEER.

For particulars,
write to.....

W. H. GRANER, Lancaster, Kans.

SILVER CREEK SHORTHORNS.

The Scotch bull, Gwendoline's Prince 180912, in service. Also the imported Scotch Missile bull, Aylesbury Duke. 100 head of the best Scotch, Bates, and American families.

J. F. Stodder, Burden, Cowley Co., Kas.

Republic County Herd Poland-Chinas

For Sale—A number of select boars of September farrow, with perfect markings, good bone and coat of hair; Sired by Moonshine 26959, the best breeding boar in northern Kansas. Also Rose Comb Brown Leghorn eggs \$1 per 15. For further particulars inquire of **O. B. SMITH & SONS,** Cuba, Kans. (Mention Kansas Farmer.)

Houdans Once Houdans Always.

HOUDANS EXCLUSIVELY.
Great Winter Laying Strain of Line-Bred Prize-Winners.

Won at Kansas State Poultry Show January, 1903, 1st and 2nd cock, 1st, 2nd, 4th and 5th hen, 1st 2nd, and 3rd cockerels, 1st, 2nd, 4th and 5th pullet, 1st pen, largest display scoring over 90 points in a class of 34; H. B. Savage, judge. Winners of grand sweepstakes prize, highest scoring pen over all varieties at Douglas Co. Poultry Show, Dec. 1902, C. H. Rhodes, judge. Winners of 70 association ribbons at six poultry shows, all these winners are of my own raising and entered personally, and now compose my best pen. I can furnish a limited number of sittings at \$2 for 15 eggs. W. L. Bullene, Elm Park Place, Lawrence, Kan.

PARAGON INSOLES—Relieves rheumatism, sore, tired feet, 25c. Paragon Foot-ease for perspiring feet, 10c per package. Paragon Mfg. Co., Poulan, Ga.



It Will Pay You

to write for the prices we are PAYING for BUTTER and CREAM. We furnish packages FREE, guarantee accurate weights and tests and buy any quantity any day in the year.

CHANDLER'S CREAM SEPARATOR

is all right and easy to wash and care for. I am making TWO POUNDS MORE BUTTER than when I used the centrifugal separator.

MINNIE M. STEEL,
Gridley, Kans., April 31, 1903.

Its qualities are too numerous to enumerate here. Price and description furnished upon application.

Do You Want a Good Position?

If you have a team and wagon perhaps we can arrange for you to establish a cream route for us in your locality at a good salary. No experience necessary.

O. F. CHANDLER CREAMERY CO.
410 West 6th Street, Kansas City, Mo.

FOR SALE

A South Dakota Home Cheap

My eight fine farms, large stock ranch and big store. Easy terms; good investment. Write to-day. Brule Co. Land Co., Kimball, South Dakota.

SEED CORN

Five Best Early Field Varieties in the World. Planted, tried, and tested in every county, without exception, in Iowa, Illinois, and Indiana, by more than Fifty Thousand farmers, during the last five years. Not a bad report from a single customer. Our sales of seed corn this season double that of any other growers, seed house, or seed firm in the world. "Ratekin's Pride of Nishna" yellow, "Imperial" White and "Iowa Silver Mine" are our three leaders, and will mature in any county in Iowa, or that latitude in from 90 to 100 days, good corn weather; Price \$1.25 per bushel, 10 bushels and over \$1.10. "Ratekin's Queen of Nishna, yellow, and Early White" mature 15 days earlier, price \$1.25 per bushel, bags free on board cars here, in all cases. Every bushel guaranteed satisfactory on receipt of same, otherwise to be returned at our expense, when purchase price will be refunded.

WHAT SOME OF OUR CUSTOMERS SAY:

103 1/2 Bushels Per Acre.
Lewis, Cass Co., Ia., Feb. 1, 1903.
J. R. Ratekin & Son, Shenandoah, Iowa.
Dear Sirs: We planted 15 acres to your "Pride of Nishna" and "Iowa Silver Mine" and we have just completed gathering it. On five acres which we measured, the yield was 103 1/2 bushels per acre, the remainder of the field was equally as good. With kindest regards, I am,
Sincerely Yours,
OLIVER P. MILLIS.

100 Bushels Per Acre.
Lancaster Co., Neb., Feb. 2, 1903.
J. R. Ratekin & Son, Shenandoah, Iowa.
Dear Sirs: You doubtless remember my order for 10 bushels of seed corn, sent you last spring. I found the corn all right and as good as advertised, especially your "Pride of Nishna" and "Iowa Silver Mine." Some of my crop from your "Silver Mine" went over 100 bushels per acre.
Yours Truly,
C. H. ARMANN.

ALL ORDERS SHIPPED SAME DAY RECEIVED. ADDRESS—

Ratekin's Seed House

Shenandoah, Iowa, U. S. A.

GRAPE VINES

the best vines of any locality in the U. S. An Immense Stock.

	1-Yr. No. 1	2-Yr. No. 1	1-Yr. No. 1	2-Yr. No. 1
BRIGHTON, large red, rich, sweet, best	\$4.00	\$30.00	\$6.50	\$55.00
CAMPBELL EARLY, early black	8.50	75.00	11.00	100.00
CATAWBA, large red; late, very good	4.00	30.00	6.00	50.00
CONCORD, well known "Old Stand-by"	3.50	25.00	4.50	35.00
DELAWARE, a most excellent red	4.50	35.00	6.50	55.00
DIAMOND, finest white; very early	4.00	30.00	6.00	50.00
IVES, black; fair quality, hardy, healthy	3.50	25.00	4.50	35.00
MOORE EARLY, large black; very early	4.00	30.00	5.50	45.00
NIAGARA, famous large white; good	4.00	30.00	6.50	55.00
WORDEN, richest, FINEST black, early	4.00	30.00	5.00	40.00
CURRENT, Fay, needs best of care	4.50	35.00	6.00	50.00
LONDON MARKET, best	5.00	40.00	6.00	50.00
GOOSEBERRY, Houghton, Old Reliable	5.00	40.00	6.00	50.00
Downing, large, good	6.00	40.00	6.00	50.00
Josselyn (Red Jacket) best new sort	6.00	50.00	8.00	70.00

A general assortment of Fruit Trees, including 250,000 Japan Plum and 1,000,000 Peach; Raspb'y, Blackb'y, Mulberry, 3 best varieties; Chestnut, Weir's Maple; Root Grafts and an extra fine stock of Apple Seedlings. Send for Colored Plate and Descriptive Circular of STARK STAR, best of all late grapes. We Pay Freight on \$12 orders, box and pack free.

STARK BRO'S NURSERIES & ORCHARDS, LOUISIANA, MO. Portland, N. Y. Dansville, N. Y. Atlantic, Iowa. Starkdale, Mo. Fayetteville, Ark.

MILLET AND CANE SEEDS

T. LEE ADAMS,
420 Walnut Street
KANSAS CITY, MO.
Landreth's Garden Seeds
Poultry Supplies.

Seeds

Alfalfa Seed A Specialty.
Alfalfa—the king of drought-resisting Forage Plants. Pure and fresh 1902 seed, plump and vigorous. In car or bushel lots. Also all other Field Seeds. Write us for prices.
MOORE & KINNISON,
Garden City, Kansas.

SEED CORN

WHY PLANT YOUR OLD SEED CORN?
IMPROVED GOLDEN BEAUTY will yield 80 bushels per acre and give you the HANDSOMEST, HIGHEST GRADE AND BEST SELLING Seed Corn known. See these prices: One bushel, 85 cents; two bushels, \$1.60; five bushels, \$3.75. TRUMBULL & Co., 1426-1428 St. Louis Ave., Kansas City, Mo.

J. G. PEPPARD MILLET
1101 to 1117 West 8th St.
(Near Santa Fe St.)
KANSAS CITY, MO.

CANE
CLOVERS
TIMOTHY
GRASS SEEDS

SEEDS

KUMLER & BUSCH

Dealers in all kinds of GARDEN and FIELD SEEDS
Send in your samples; ask for ours. 600-602-604 Mass. Street, Lawrence, Kansas.

TREES

Ours have stood the test of 50 years.
Send for Catalogue.
600 Acres. 13 Greenhouses. Established 1882.
PHOENIX NURSERY COMPANY,
1250 Park St., Bloomington, Illinois.

Plant Trees for Posts

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

PETERS & SKINNER, North Topeka, Kans.



Guard Against Failure.

Plant Griswold's Seeds.

Our Garden Seeds are clean, fertile and select. They grow. They yield big and true to type. We have a personal interest in sending out the best, and we are mighty careful you get the best of what you want.

Our Seed Corn

Is free from frost, hand-picked, dry and well matured. We have the corn this year and the Sure To Grow kind. Write for our quotations. Get our big free catalog. Write now.

Griswold Seed Company,
Box A Lincoln, Nebraska.

The Kansas Seed House IS READY

with an unusually attractive and beautiful Catalog of good things in SEEDS, for 1903.

FREE copies for the asking. Their SEEDS are always Reliable, Fresh, and True to Name. All are Carefully Tested and to be Depended on for Best Results. Headquarters for ALFALFA. Get your supply while it can be had. SUPPLY LIMITED. We advise early buying to secure it. BROMUS INERMIS, MACARONI WHEAT, and the Wonderful RUSSIAN SPELTZ or EMMER. THREE TRIED GRAND NEW NOVELTIES. Millet, Cane, and all other Field, Farm, and Grass Seeds, in fact Everything that a First Class SEED House should keep. Write now for Catalogue.

F. BARTELDES & CO., Lawrence, Kansas.

TREES kept dormant till May 15th. Peach trees one year from bud, 1 and 2 cents each. Also Pear, Cherry, Quince. Circular free.
R. S. Johnston, Box 17, Stockley, Delaware.

STARK TREES best by Test—78 Years Largest Nursery.
Fruit Book free. We PAY CASH WEEKLY.
STARK BRO'S, Louisiana, Mo.; Huntsville, Ala.; Etc.

Trees That Grow
The best and hardiest varieties. See our prices. Grafted Apple, etc. Budded Peach, etc. Concord Grapes, etc. Black Locust Seedlings \$1 per 1000.
German Nurseries
We Pay the Freight. Illustrated Catalog, German or English free. German Nurseries, Carl Spendergast, Prop., Box 9, Beatrice, Neb.

HAVE You Got A DOLLAR?

It will return many fold if you invest it in one of our
Three Fruit Options
20 Budded Peach Trees, 25 Grafted Apples or 50 Concord Grapes, either one for the dollar. Only clean, well rooted, vigorous stock in Trees, Shrubs and Vines. English or German catalog and \$5.00 due bill sent Free. We pay freight on \$10.00 orders.
FAIRBURY NURSERIES, Box L, FAIRBURY, NEB.

ALFALFA SEED.

New Crop; thoroughly re-cleaned, evenly graded, no chaff nor waste to pay for.
BUY IT WHERE IT GROWS
nearest perfection and save money. Write for prices.
GEO. H. MACK & CO.
Garden City, Kansas.

GREEN RAPE costs 25 cents per TON.
Greatest, Cheapest Food on Earth for Sheep, Swine, Cattle, etc.
Will be worth \$100 to you to read what Salzer's catalog says about rape.
Billion Dollar Grass
will positively make you rich; 12 tons of hay and lots of pasture per acre, so also Bromus, Pencil, Speltz, Macaroni wheat for arid, hot soils, 63 bus. per acre. 20th Century Oats, 250 bus. per acre and Teosinto, Yields 190 tons Green Fodder per acre.
For this Notice and 10c. we mail big catalog and 10 Farm Seed Novelties, fully worth \$10 to get a start.
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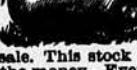
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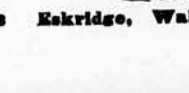
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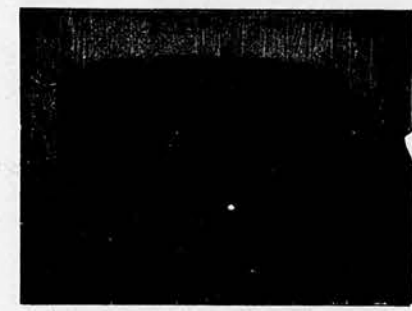
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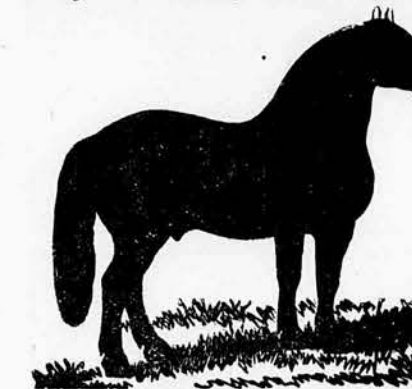


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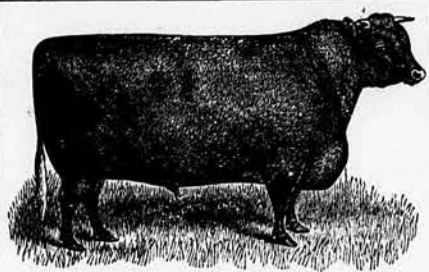
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Twenty-one of which are young Bulls
that include five Scotch and two of
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The 34 females include four Heifers
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Be sure and see them soon, as they are for sale at right prices and
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By Socrates 75813, perfectly marked and blocky.

150 GRADE COWS.

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Sows to farrow soon, or with litters by registered boars.

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WEDNESDAY, APRIL THE TWENTY-SECOND, 1903

70 Head==40 Bulls and 30 Cows and Heifers

Of the breed that has topped our greatest fat cattle markets, 14 years in succession and won three-fourths of the prizes in the fat cattle classes (where the breeds compete) at the International Exposition since the establishment of this show.

THE CATTLE ARE CONTRIBUTED BY

ANDERSON & FINDLAY, Iola, Kans.; R. S. WILLIAMS, Liberty, Mo.;
J. H. REA & SON, Carrollton, Mo.; J. B. WITHERS, Missouri City, Mo.;
L. F. HADLEY, Fors City, Mo.; J. M. DUFF, Midland City, Ill.;
W. D. REYNOLDS, Pattonsburg, Mo.; H. T. WOOD, Hunnewell, Mo.;
L. S. CROOKSHANK, Browning, Mo.; H. H. ANDERSON, Laredo, Mo.;
J. N. WRIGHT, Liberty, Mo.



It is the only Angus auction to be held at Kansas City, spring of 1903, affording the only opportunity that will be offered there, to secure bulls for the season's service, that will sire steers with the superior quality found only in an Angus. There are also desirable herd headers and females that will please older breeders as well as those desiring to found herds. . . . For Catalogue, address

W. C. MCGAVOCK, MANAGER, - - - - MT. PULASKI, ILLINOIS.

SALE BEGINS PROMPTLY AT 10 O'CLOCK A. M.



..Grand.. Combination Sale!



OF THE
SUNFLOWER

AND THE
ELM GROVE

HEREFORDS

SHORTHORNS

In the New Stock Sale Pavilion, at Manhattan, Kansas,
On Wednesday, April the 15th, 1903.

MR. D. L. TAYLOR, of Sawyer, Kansas, Owner of the SUNFLOWER HERD

Offers a draft of 23 Herefords, which consists of 19 Cows and Heifers and 4 Bulls. Thirteen of these cows and heifers are granddaughters of the great Don Carlos 33734; also Wild Tom 51592 and Corrector 48976 have daughters and granddaughters in this draft. Three of these bulls are grandsons of Don Carlos 33734 out of Anxiety dams and one bull is a son of Corrector 48976 out of an imported dam. These bulls are grand individuals and ready for immediate service.

MR. W. W. TAYLOR, of Sawyer, Kansas, Owner of the ELM GROVE HERD

Offers a draft of 26 Shorthorns, which consists of 19 Cows and Heifers and 7 Bulls, representing such blood as Cruickshank and other prominent Shorthorn strains. His herd bull, Roan Duke 159499, will be in this offering and 12 of his sons and daughters. Roan Duke is nearly Cruickshank with a sprinkling of Booth and Bates of the first order. He is descended from, or traces to, the great champion of England nearly 150 times.

All cows and heifers of both breeds are safe in calf. Some have calves at foot now.
The sale pavilion will be well heated for this sale.

FOR CATALOGUES
WRITE - - - - -

COL. L. R. BRADY, Manhattan, Kansas.

Col. Jas. W. Sparks, Col. L. R. Brady, Col. J. N. Harshberger, Auctioneers.