

KANSAS FARMER

Volume XLII. Number 28

TOPEKA, KANSAS, JULY 14, 1904.

Established 1863. \$1 a Year

KANSAS FARMER.

Established in 1863.

Published every Thursday by the
KANSAS FARMER CO., - - TOPEKA, KANSAS

E. B. COWGILL.....President
J. B. McAFER.....Vice President
D. C. NELLIS.....Secretary and Treasurer

SUBSCRIPTION PRICE: \$1.00 A YEAR

E. B. COWGILL.....Editor
I. D. GRAHAM.....Associate Editor
H. A. HEATH.....Advertising Manager

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



ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch). Continuous orders, run of the paper, \$1.54 per inch per week.

Special reading notices, 25 cents per line.

Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per agate line for one year.

Annual cards in the Breeders' Directory, consisting of four lines or less, for \$16.00 per year, including a copy of the Kansas Farmer free. Special rates for displayed live stock advertising.

Special Want Column advertisements, 10 cents per line of seven words per week. Cash with the order. Electros must have metal base.

Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price. To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

All advertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper free, during the publication of the advertisement. Address all communications to

KANSAS FARMER CO.,

116 West Sixth Ave., Topeka, Kans.

Table of Contents

Alfalfa seeding.....	716
Alfalfa turning yellow.....	716
Assistant secretary of agriculture, the.....	713
Barley for pigs, unthrashed.....	715
Blackbird, the red-winged.....	720
Bormus inermis for hay.....	715
Cabbage wilt.....	716
Cattle at the fairs, Aberdeen-Angus.....	719
Cattle at the World's Fair, public sale of.....	718
Chickens die, young.....	723
Chickens, worms in.....	723
Christmas, a pioneer (poem).....	720
Clay loam, crops for.....	715
Current tendencies.....	714
Dairy breeds, comparative tests of.....	724
Evergreen hedge.....	716
Fat cattle, the time to market.....	718
Forest-planting in western Kansas.....	717
Fruits and their preparation for use.....	722
Hatching talk, a practical.....	722
Home-making and home-makers.....	722
Iowa State fair—golden anniversary.....	718
Knitting lesson, the (poem).....	720
Late in the season, what to plant.....	719
Late season, crops for.....	726
Live-stock advertising, about.....	713
Markets, the.....	727
Memory (poem).....	722
Overflowed land, grass for.....	716
Over the border—a story of the Kansas pioneers.....	720
Raspberries and blackberries, time to set.....	716
Seed oats.....	715
Separating, loss of milk by.....	725
Shorthorns, color in.....	718
Sweet clover.....	715
Tax titles.....	714
Veterinary department.....	717
Weather report, the.....	727
Wool market, the.....	718
Young Men's Christian Association building at the Kansas State Agricultural College.....	714

The floods of the last week have been bad enough throughout the eastern half of Kansas. Loss of life has been almost avoided and destruction of property largely prevented by the exercise of wisdom in moving to safe places on the approach of the high water.

When we shall have learned to store surplus rainfall as we store products of our farms not needed at the moment when produced, average production will be greatly increased.

Experiments conducted by Dr. H. W. Wiley, chemist of the Department of Agriculture, to test the wholesomeness of borax and other food preservatives, resulted in the condemnation of these chemicals.

On another page of this paper will be found a communication from Willis W. McLean, general secretary of the college Y. M. C. A. at Manhattan, setting forth the purpose and progress of that worthy organization in the matter of a building for the accommodation of the work. Measured by the students' contributions the strength of the movement is such that it is sure to succeed. Others willing to make investments for the good of their fel-

lette County. Because of the excessive rainfall this season his section of the State has had three disastrous floods and he writes that they have been left entirely destitute of all farm crops, including alfalfa, on their 1,500 acres of cultivated land. Up to April 28 this land gave every promise of an enormous yield of all kinds of crops, but now the entire 1,500 acres is crop-bare. For years past Mr. Otis has demonstrated his ability as an agriculturist and his grit as a man, but it now seems that he is up against a proposition that will call for the best there is in him if he gets returns from this farm this year. He will do something, though, and it will pay to watch him.

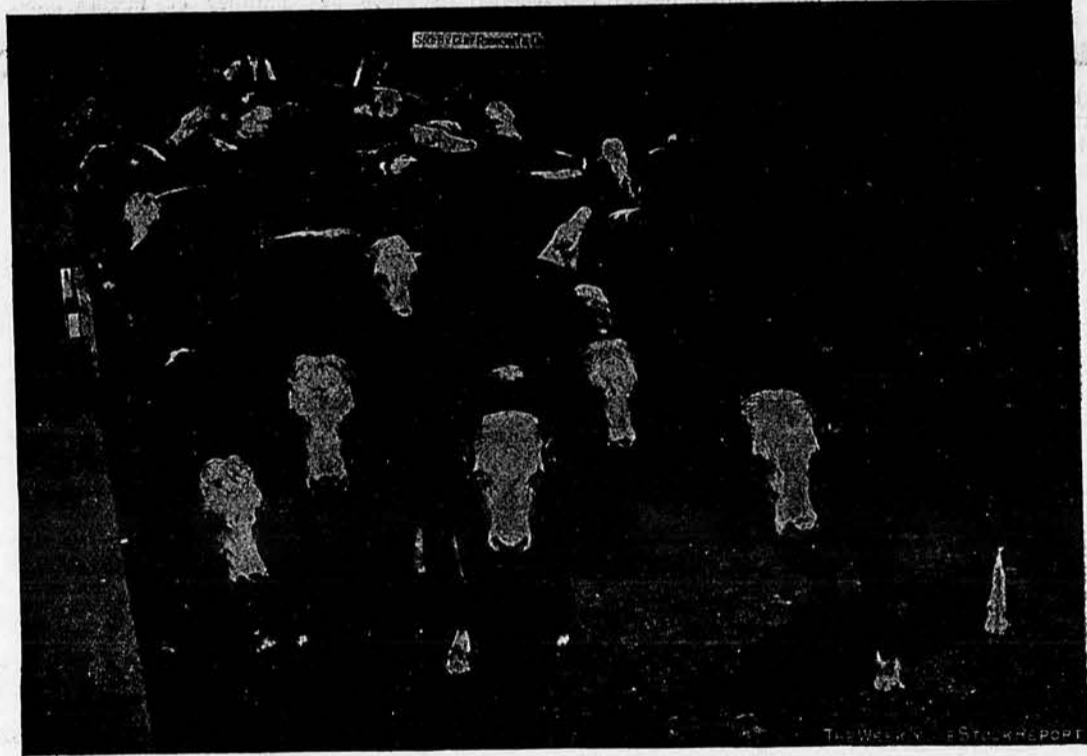
THE ASSISTANT SECRETARY OF AGRICULTURE.

Mr. Geo. F. Thompson, of Kansas, is now an aspirant for the office of Assistant Secretary of Agriculture, made

qualities much needed in the office of Assistant Secretary of Agriculture. He is now in the prime of life and is an indefatigable worker. He is a Kansas man and, after an intimate personal acquaintance with his work, which has lasted through a quarter of a century, we can not name a man who is better equipped for this important office than is Mr. Geo. F. Thompson, of Kansas.

ABOUT LIVE-STOCK ADVERTISING.

Advertising is just as necessary to success in breeding pure-bred live stock as is feeding. With good stock and persistent advertising success is sure. Without them failure is equally sure. A breeder can not expect to sell well unless people know what he has to offer. No merchant could do business without hanging out his sign. A sign is equally important to the breeder but he must hang it up in the agricultural and live-stock journal.



A Drove of Indiana Bees Sold at Chicago on June 27, by Clay, Robinson & Co., at \$6.40 per 100 lbs., Averaging 1,276 lbs.

low men, especially for the good of those who are to assume leading parts in directing movements of society will find here a fine opportunity.

Patrons of Husbandry are preparing for a great picnic meeting on July 18, at Wyatt's Grove, two miles west and two miles north of Scranton, to be addressed by Worthy Master Aaron Jones, of the National Grange, and Worthy Master E. W. Westgate, of the Kansas State Grange. Baseball, a merry-go-round, and a brass band are expected to add to the entertainment, although these attractions are not the most pleasing competition for the speakers.

Mr. D. H. Otis, formerly professor of animal husbandry at Kansas Agricultural College and dairy editor of the KANSAS FARMER, is now superintendent of the great Deming ranch in La-

vacant by the recent death of General Brigham. Mr. Thompson was formerly a student at the Kansas Agricultural College, from Cowley County. Later he was made a member of its faculty. After serving in the last-named capacity for a number of years, he resigned to take editorial management of the Manhattan Nationalist. From the editorial chair he was called to a position in the Department of Agriculture, where he gained promotion until he became its editor, which position he now occupies. In addition to his editorial duties, he has written a number of agricultural and live-stock works, notably a report on the Angora goat industry, which is the standard authority on that subject.

Both by ability and training Mr. Thompson is especially qualified for the duties of the office he seeks. He is a man of marked ability, both as an investigator and an editor—two

That is the only place. No breeder ever built up a first-class trade among his close neighbors. It is always the man who comes from a distance who buys.

These facts are generally admitted by the breeder, and yet, when trade is a little slow or the "dull" season is on, he sometimes wants to take down his sign. When he does this the public has a right to suppose that he has gone out of business and it at once proceeds to forget him. When he again hangs up his sign he has his work of establishing his acquaintance among buyers to do all over again. This costs time and money and he loses largely the prestige of his previous advertising.

When a man takes up live-stock breeding as his life work he should consider advertising as a necessary part of his investment and keep it up continuously. The reputation which he thus gains is a valuable asset.

An intermittent advertiser may be intermittent in his other business operations. Live-stock breeding is a safe and profitable business but it can not be successful without advertising. As well try to learn to swim in a correspondence school.

TAX TITLES.

EDITOR KANSAS FARMER:—As I have several tax deeds from the county treasurer I would like to know something of the law regulating tax deeds. How long before I can give a warranty deed? Some say five years, some one thing and some another.

Cowley County. JNO. T. STEWART.
The Kansas Statutes, chapter 158, section 160, provide that on selling land for taxes the county treasurer shall issue to the purchaser a certificate of such purchase. Section 167 makes further provision for the issuance of tax-sale certificates by the county treasurer at time of sale.

Sections 184 and 193-4 provide for redemption of lands sold for taxes at any time within three years of the date of sale.

Section 197 provides that if lands sold for taxes are not redeemed within three years of the date of such sale, the tax-sale purchaser shall be entitled to a deed to the same from the county clerk.

The Supreme Court held, 30 Kan. 240, that "Where different tax deeds for the same land are executed to different persons for the taxes of different years, the tax deed last executed for the taxes of the latest year will be paramount to the tax deed previously executed for the taxes of some previous year."

Section 204 provides that "Any suit or proceeding against the tax-purchaser, his heirs or assigns, for the recovery of lands sold for taxes, or to defeat or avoid a sale or conveyance of lands for taxes, except in cases where the taxes have been paid or the land redeemed as provided by law, shall be commenced within five years from the time of recording the tax deed, and not thereafter."

It thus appears that:

1. On sale of land for taxes, a certificate is issued by the county treasurer.

2. For three years after this sale the land may be redeemed without suit on payment as provided by the statutes.

3. At the expiration of these three years a tax deed is issued by the county clerk.

4. Suit against the tax-purchaser or any one holding under him must be commenced within five years of the date of the tax deed. This makes the period of comparative uncertainty of a tax title usually eight years from the date of purchase at tax sale.

Tax sales to be valid must be regular as to proceedings so that, at least until the expiration of the time limit of five years after issuance of tax deed, this kind of title is looked upon with more or less suspicion by examiners of titles. Up to the time of issuance of tax deed the mode of conveyance is by assignment; after the issuance of the deed such lands may be conveyed by deed, but the right to the land is subject to attack until the expiration of the five-years limit.

Any person dealing in tax titles should become entirely familiar with the statutes governing them and the proceedings under which they are issued. It is not within the province of an article of this kind to discuss all of the contingencies which may affect these titles nor to point out all of the precautions needful to be taken by the purchaser. These are embraced in rather lengthy statutes and are defined and pointed out in the voluminous decisions of the State Supreme Court. To illustrate the decisions of the Supreme Court we may cite the following:

In the case of *Edwards vs. Sims*, reported in 40 Kansas, 235, it was held that "The owner of land has five years after a tax deed upon it has been recorded within which to commence an action to set aside or to defeat or avoid the tax deed."

Again, in *Doudna vs. Harlan*, report-

ed in 45 Kansas, page 484, it was held that, "A tax deed valid upon its face, starts the statute of limitations to running when duly recorded, and after said statute has fully run in its favor such deed can not be overthrown except by showing that the land was not subject to taxation when listed therefor, or that the taxes have been paid, or the land redeemed as provided by law."

CURRENT TENDENCIES.

EDITOR KANSAS FARMER:—What is there to hinder the men of corporations who have made their millions out of the earth's mineral products, such as gold, oil, gas, etc., from holding control, by purchase, of the land that produces such wealth, and buying a controlling interest in the corn- and wheat-belt lands and managing them on the trust principle, if they so desire? How much money can be controlled for such money-making schemes, either by renting or otherwise, without infringing on the rights of our fellow men who think that a quarter-section is enough for the educational, social, soul- and soil-purity of the land and its people?

Do you think that the working people of this country who live in homes not their own can be trusted with self-government? Since every census decade adds immensely to their number, should they be called upon to vote approximate equality next November, to limit land-ownership to a quarter-section or ten lots in a city, or one-half of each, by constitutional amendment? Is there any hope for a republic's redemption when more than half of its citizens are landless servants of their fellow men?

These being the facts, do the law-making portion of us decide to give self-government to our own people? Do we not then invite crime by withholding approximate equality from our most useful citizens? Can there be any greater guaranty of patriotism than a freeholder's home to fight for?

What political party has the courage to take up this, the cause of the people and the salvation of the republic? The public lands are the homeless people's heritage. Let them be sedulously guarded for homes to the people whose highest ambition is a happy home in the land of their birth.

Jackson County. THOMAS KEIR.

The majority of mankind seem anxious to work for somebody for wages or salary. A so-called "sure thing" seems more desired than to take chances in the competitive undertakings of life. The time when the young man was anxious to put his strong arm into the contest and win from nature things needful for himself and those dependent upon him, when the young woman, confident of this man's courage and strength, trusted her future in his hands, willing to climb mountains or ford streams with him, glad to take up the unending round of frontier duties with him, bearing the privations and hardships in the glad hope that the children will be well provided for and grow into sturdy men and women—that time is vanishing. In its stead are the shop and the clerical position under direction of big and little trust managers, and more applicants, both male and female, for these positions than there are places.

To acquire independence requires self-denial, frugality, self-reliance. To occupy one of the lower positions with a trust requires no power of initiative; its compensation is readily available; its work is routine and probably all of a kind.

On the other hand, there are ambitious, capable leaders who delight in the effort of organization and care not for ease, but court the strenuous life. Persons having little or much money to invest are glad to place it under the capable management of efficient and honest energy.

Thus we have some of the conditions which develop trusts. If our correspondent is able to see a probability of change from these conditions he can point to a probability of curtailment of the rush of all industries into

trusts. If these two types of human characteristics are to become increasingly prevalent, is there anything to prevent the organization of agriculture as well as all other industries under trust management and wage-worker plans?

The worker for wages or salary—especially the latter—rapidly loses the courage of self-confidence. He soon lacks, too, the discernment and business judgment necessary to the successful direction of an independent undertaking. By confining his activities to a single line of work he becomes narrow—at least in his powers—and may well distrust his ability to compete in the great world of industry and finance.

Thus it is that the causes of the conditions noted by our correspondent are augmented by their effects. Perhaps this is not a bright picture. More important—is it a true one? Is there any vote-cure for its undesirable features?


The KANSAS FARMER does not in any sense consider the development of these conditions desirable. From a patriotic point of view they are deplorable. The condition of society in which there are many independent owners of property—in which the individual works for himself and not for another—in which by bearing responsibility the individual becomes a full man and not a mere cog in a wheel of a complicated machine—that condition is best for mankind, is best for a republic.

In view of the tendency of the many to serve and of the few to manage, some have turned to cooperation as the alternative of trusts. In too many instances the cooperative schemer is only a lower type of the trust promoter, and, while possibly possessed of quite as much conscience, is in less restraint from capable oversight. Cooperation is good where honesty and capability of management can be secured, as in some notable instances in Kansas, otherwise it is surely doomed to failure or to exploitation. But cooperation, to be successful, requires the same kind of subservency on the one hand and leadership on the other that conduce to the organization and perpetuity of trusts.

The conditions of society which favor the development of the trust are fostered in many ways. The political aspirant finds the labor vote—the wage-workers' vote—an important one on account of its numbers. He, therefore, dwells on the interests of the wage-worker to the neglect of those of the owner of the small enterprise until the young man whose ideals are forming the position of the independent owner seems insignificant and that of the wage-earner, with its freedom from care, all important and desirable. The wage-earner, if thrifty, desires to lay by a portion of his earnings for a "rainy day." He dislikes the risks of investing it under his own care. Indeed, he has not time to give the necessary attention to investments. Besides, his savings are in small amounts which if not placed immediately beyond easy reach are sure to be spent. Again, if he enter the world of traffic he finds himself out-matched by the trained, sometimes, unscrupulous traders who make a business of this line of endeavor. The savings bank, therefore, gets the results of the laborers' frugality. The savings bank seeks to loan this money where it will be safe and yield a good increase. Some big or little trust not infrequently is the best customer. Thus the virtue of saving turns into a trust promoter. On the other hand, the rich and idle are anxious for remunerative investments free from care, and they give their money into the keeping of the strenuous and capable who become trust promoters or trust managers.

While the speculations of many trust promoters have been enormous and have brought disaster, the opinion still prevails that trusts by the very magnitude of their operations, can and do crowd small owners to the wall—that they can and do produce at less cost than the independent operator can. This opinion has been especially

Let Us Send You Our Book.
about good wheels and good wagons that will save you a lot of work and make you a lot of money—the
ELECTRIC STEEL WHEELS
—and the—
ELECTRIC HANDY WAGON.
By every test, they are the best. More than one and a quarter millions sold. Spokes united to the hub. Can't work loose. A set of our wheels will make your old wagon new. Catalogue free.
ELECTRIC WHEEL CO., Box 48, Quincy, Illa.



ELECTRIC

strong as to transportation and manufacturing industries, and it is creeping in as to farming. The thought is, therefore, growing steadily that the coming division of society will be into wage-earners, trust managers, and income eaters; the wage-earners' compensations ranging from the lowest for common labor through better pay for skilled labor, moderate for purely clerical work, through larger where there is greater responsibility, to liberal rewards for the few who bear the leading part in directing the enterprises so as to make them profitable, but with a continuing tendency downward for all subordinate employees.

Whether the declaration of any political party for arbitrary limitations on the development thus looked for could be more than wasted effort is doubted by the thoughtful.

The editor is free to say, however, that he does not expect the above outlined condition to become irrevocably established in the United States.

Miscellany

Young Men's Christian Association Building at Kansas State Agricultural College.

EDITOR KANSAS FARMER:—A movement has been started at the Kansas State Agricultural College for the erection of a Young Men's Christian Association building which will be located near the campus. At a mass meeting of the students held Sunday, May 22, a little over \$5,700 was pledged. There were three students who gave \$150 each and twenty-four who gave \$100 each. In the three weeks' canvass which followed among the students a little over \$8,800 was raised. The number of students who gave \$100 each is now thirty-four. In many respects the giving of the students was the most remarkable instance in the history of building movements in this country. An explanation for this may be found in the great need for such a building at the State Agricultural College and also in the confidence of the students in the efficient work of the Young Men's Christian Association in this institution.

It is proposed to erect a building of stone which will cost not less than \$25,000. This building will provide a center for the social life of the college, furnishing an attractive place for the young men to spend their leisure hours and keeping them from harmful influences. Many students who might otherwise feel homesick could here find good associates and clean, wholesome amusements. There is great need for a gymnasium in the college. This need will be met by the erection of a Young Men's Christian Association building with a good gymnasium and proper bathing facilities. Very few houses in Manhattan provide these facilities for the students. The good health of the students demands that there should be some place in which this great lack may be supplied.

Besides a reading room, a game room, social rooms, and a gymnasium, there would be rooms for the Bible-study classes and religious meetings of various kinds. The work which is now being done in the cultivation of the spiritual side of the student can be greatly extended by having an adequate equipment for such work.

(Continued on page 719.)

Agriculture

COMING EVENTS.

August 2, 1904—Kansas Good-Roads Association, Topeka, Kans.; Grant Billbe, president, Iola; I. D. Graham, secretary, Topeka.
 Oct. 17-22, 1904—American Royal Live-Stock Show and Sales, Kansas City, Mo.
 November 28-December 3, 1904—International Live-Stock Exposition, Chicago, Ill.

Seed Oats.

I would like to get some seed oats of some early-maturing, good-producing variety. Can you furnish them, and what will be the probable price? The Red Texas is the only variety raised here; they rusted badly the last few years. THEODORE MOORE.

Cowley County.

We have two other early varieties of oats besides the Red Texas, namely, the Kherson and the Sixty-Day oats, which produced better than the Red Texas variety last season, and this season this variety has produced a fair crop, probably equal to that of the Red Texas. We will have a little seed to spare of the Sixty-Day oats and perhaps of the Kherson. The Sixty-Day oats gave the largest yield (53.5 bushels per acre) of any variety grown in the trial of 1903. The Kherson variety also yielded well. This variety is similar to the Sixty-Day oats, the original seed of both varieties came from Russia. In a recent bulletin, the Nebraska Experiment Station has highly recommended the Kherson oats for growing in the western part of that State. Seed in quantity of this variety may be purchased from the Griswold Seed Company, Lincoln, Neb. I can not refer you to parties who can furnish you with seed in quantity of the Sixty-Day oats. We are increasing this variety and if we succeed in saving this year's crop, will probably have some seventy or eighty bushels, a part of which we will distribute in small quantities, not over a bushel to any farmer, but we wish to keep the most of these oats for our own use as seed another year. In sending this seed to farmers we shall require a report of the crop. The principal object in distributing the oats this year is to learn the adaptability and yielding quality of the variety in different parts of the State. A. M. TENEYCK.

Bromus Inermis for Hay.

Having noticed through the columns of the KANSAS FARMER that Bromus inermis is recommended for pasture purposes, would like to know something of its value as a hay crop. Is it equal to timothy, and when alfalfa is sown with it, do they both mature near enough together to make good hay? Can more than one crop of hay be obtained in one season? Would you recommend sowing for pasture where plenty of prairie pasture already exists, and for seed-raising purposes? Chase County. ALBERT ROGLER.

For the first two or three seasons after seeding, Bromus inermis makes excellent hay, equal to timothy in feeding value and the hay is well liked by stock. We finished putting up our brome-grass hay last week. Grass seeded a year ago last spring stood three and one-half feet high and yielded at the rate of 2.42 tons per acre; grass seeded last fall yielded 1.29 tons per acre. The hay was good quality, being more leafy than timothy. A plot of Bromus inermis and clover made an excellent stand and growth, yielding 1.5 tons of hay per acre. Another plot of Bromus inermis and alfalfa made a good growth, giving a yield of 1.42 tons per acre. Although in these trials the Bromus inermis alone has apparently given the largest yield, yet the combination plots of clover and Bromus inermis and of alfalfa and Bromus inermis will yield a second crop later in the season, while usually the Bromus inermis alone does not make a sufficient growth to give a second cutting of hay, although it makes sufficient growth to furnish excellent fall pasture. I believe, also, that the combination meadows will be more permanent and produce profitably for a longer period than the Bro-

mus alone. It would be my recommendation to always seed clover or alfalfa with Bromus inermis, whether the purpose is to use for meadow or pasture. The Bromus inermis, like all true grasses, exhausts the fertility of the soil, while clover or alfalfa, as you know, increases the fertility of the soil and acts as a feeder to the common grasses when the legume is grown in combination with grasses. Usually Bromus inermis gets so sod-bound after four or five years that it does not grow much in height and it becomes unprofitable for hay.

The first crops of alfalfa and Bromus inermis mature near enough together so that they cut well for hay. But the alfalfa makes a quick growth again, producing a second crop before the Bromus inermis has made very much of a growth. With clover, however, the second crop allows considerable growth of Bromus, although Bromus will not mature a full growth at the second cutting.

Only one crop of Bromus seed can be harvested in a season. It would seem to me to be a profitable crop to grow for seed at the present prices. An average yield for the first three or four years is 250 to 300 pounds of seed per acre, which retails at present at 12½ to 15 cents per pound.

Bromus inermis will furnish far more pasture in a season for the first few years of its growth than will prairie-grass, and although I do not know that I would recommend breaking up the prairie-grass in order to seed Bromus inermis, yet it may be advisable to try to start it in the prairie pasture by disking and harrowing, sowing the seed early in the spring; or better, it may be used to seed down the older lands which are becoming exhausted and need a return to grass. Bromus inermis should not be used as a permanent grass but rather as a grass in rotation with other crops.

A. M. TENEYCK.

Crops for Clay Loam—Unthrashed Barley for Pigs.

We are endeavoring to farm a piece of irrigated land in California and are desirous of learning what we can about the growing of Kafir-corn on a heavy clay loam soil that bakes very hard after irrigation, forming a crust which it is difficult for the young plant to break through, and which breaks up very lumpy when disked or plowed.

Can you send us any bulletins that will help us in contending with those conditions? In order to save thrashing bills, which are unusually heavy with us, we are contemplating feeding Kafir-corn heads unthrashed to pigs, and would like to have any information you can give us as to the advisability of doing so.

As we can raise a crop of barley and Kafir-corn on the same land in twelve months (from November to November), and as we wish to avoid the expense of thrashing barley, we would like to have any information you can give us as to the advisability of feeding common barley heads unthrashed to pigs. J. C. FORTNER.

Chicago, Ill.

If the heavy clay loam which you describe can be kept from baking until the Kafir-corn has sprouted and broken through the surface, I believe that you can grow the crop successfully on this land. The Kafir-corn, however, starts slowly and must have good soil conditions during its early growth. I think the only way to determine whether you can grow the crop successfully is to try it, perhaps not beginning on too large a scale. We have made no experiments relating to the growing of Kafir-corn under the conditions which you have named.

For answer regarding the harvest and feeding of Kafir-corn and barley, I have referred your letter to Professor Wheeler, of the animal husbandry department.

A. M. TENEYCK.

The question of feeding Kafir-corn heads not thrashed to pigs is one which has not been answered by any experimental tests. Kafir-corn has

been fed both ground and whole, wet, dry and soaked. Excellent results have been obtained by feeding the whole corn in troughs, pouring either water or skim-milk over the grain at feeding time. I see no reason why hogs would not do as well on the heads as on the whole seed. It would require a good, clean feeding floor, however, that grain be not wasted.

The feeding of wheat in the sheaf was tested experimentally and reported on by the Oregon Station and the results of this experiment will undoubtedly apply to the feeding of unthrashed barley. In the experiment referred to, sheaf wheat was fed in comparison with a grain mixture of chopped wheat, shorts, and oats. The results of this trial at the Oregon Station shows that the pigs on sheaf wheat consumed only about one-half as much grain as the others and made only one-third the gains. The report states that the pigs spent three and four hours daily separating the grain from the straw and even with this amount of labor were unable to secure grain enough to make satisfactory gains.

From this experiment I would think that it would not be advisable to attempt to make unthrashed barley the sole grain ration for pigs which are being prepared for market.

G. C. WHEELER.

Sweet Clover.

Of what value is sweet clover as a fertilizer? Is it as good as red clover, or better? Is it of any value for pasture or hay? Is English blue-grass better for hog pasture than red clover or alfalfa; which is the best of the three, or would you advise a mixture of all three? Would English blue-grass or red clover be likely to make a stand and root enough to stand the winter if sown in August? I think that is the best time to sow alfalfa but have always sown red clover in April. Please answer through KANSAS FARMER. W. W. BOYLAND.

Lyon County.

Sweet clover has some value as a fertilizer but it is probably not equal to clover or alfalfa in this respect, and it is certainly a much less desirable and profitable crop to grow. Compared to alfalfa or clover, it has very little pasture or hay value. Cattle can be made to eat it but they do not like it. If cattle are turned on sweet clover early in the spring when there is no other green food to be had, they will eat it and it seems that they like it better after they have learned to eat it. Its apparent food value seems to be similar to alfalfa, but the fodder contains a bitter principle which gives a bad taste to the hay or pasture. Some farmers appear to be able to use sweet clover to some advantage, but usually it is considered a weed and of no value for feed. On very poor land which will not start clover or alfalfa successfully, sweet clover may be used in order to introduce humus into the soil and improve the soil texture, in preparing the land for seeding down to clover and alfalfa or grasses.

Red clover or alfalfa will make more productive pasture of greater feeding value for hogs than the English blue-grass. However, if the purpose is to produce a more or less permanent pasture, it may be advisable, as you have suggested, to sow a little English blue-grass or Bromus inermis with the clover or alfalfa. As to whether clover or alfalfa should be used, will depend somewhat upon the adaptation of the soil and climate to the growth of these crops. Where alfalfa does well, perhaps it is to be preferred as it will make a more permanent pasture than red clover, but a combination of all three, grasses, clover, and alfalfa, should make an excellent pasture.

English blue-grass and alfalfa may be safely seeded in August or early fall. As a rule, it is best to seed clover early in the spring but on a well-prepared seed-bed in a favorable season for growth, such as the present season, I would not hesitate to sow clover in August in combination with

THE EUREKA INDESTRUCTIBLE FENCE POSTS.

FIELD POST Made where used. Superior for beauty, convenience and durability. Costs very little more than oak or locust, and will last for all time. Reliable county agents wanted. Address with stamp. ZEIGLER BROS., Hutchinson, Kans.



PAGE GATE FRAMES

are solid wrought iron, not angle iron or gas pipe. Page Woven Wire Fence Co., Box 47, Adrian, Mich.

WELL DRILLING MACHINES

Over 70 sizes and styles for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on sills. With engine or horse power. Strong, simple and durable. Any mechanic can operate them easily. Send for catalog. WILLIAMS BROS., Ithaca, N. Y.

THE LARGEST AND BEST LINE OF WELL DRILLING MACHINERY in America. We have been making it for 20 years. Do not buy until you see our new illustrated Catalogue No. 41. Send for it. It's FREE.

F. C. AUSTIN MFG. CO., CHICAGO

WELL DRILLS

With one of Loomis' late improved machines you are sure of large profits on the capital invested. They are the leaders in this line. Certainly the greatest money-earning Well Drilling Machinery made in America. Address LOOMIS MACHINE CO., Tiffin, Ohio.

\$10.00 Sweep Feed Grinder. **\$14.00 Galvanized Steel Wind Mill.**

We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.

CURRIE WIND MILL CO.,
Topeka, Kansas.

BE YOUR OWN AGENT

Buy fence from the makers. **Advance Fence** is made right and sold to you direct. We allow no agents, middlemen or dealers to take part of your money. We allow you **60 DAYS' FREE TRIAL** and freight paid to your depot. Send at once for Free Fence Book telling all about our fencing and giving prices. **ADVANCE FENCE COMPANY,** 8718 Old Street, Peoria, Illinois.

Weber Gasoline Engines

generate most power at least expense and in form best adapted to small or large purposes. Every thing from the 2½ horse Jr. to 300 h. p. Engines. All money earners, built to last, absolute in safety. No skilled engineer or license required. Any intelligent person can operate. Preferable to steam for many reasons. Catalog shows why. Write for it.

WEBER GAS & GASOLINE ENGINE CO.,
Box , Kansas City, Mo.

Go Below

for pure water. Use the **National Well Drilling Machine**, equipped with automatic well pumping device. For drilling for water, oil, gas or mineral. All sizes for all depths. Address **National Drill & Mfg. Co.** 2277 Palmetto Bldg. Chicago. Minn.

IT TELLS YOU ALL ABOUT

the lands of Indian Territory; how you can lease, rent or buy them; it tells you about the laws, both U. S. and tribal; about the taxes, the schools, the people, and the resources. It is the only book ever published on Indian Territory that has not a line of advertising in it. It is recommended by government officials as reliable. If you are thinking of visiting or moving to the southwest this book will be of inestimable value to you. It is up-to-date; has 250 pages, 60 fine half-tone engravings, and a large colored map of Indian Territory and Oklahoma. Send \$1 to-day and receive a handsome cloth-bound book that will tell you all. Send to **COMMONWEALTH PUB. CO.,** Oklahoma City, Okla.

When writing advertisers please mention this paper.

grasses and alfalfa. Usually clover sown in the fall will not stand the winter, but when sown in the latter part of the summer so that it can make a fair growth before fall, it should stand the winter all right. It will be best not to pasture the crop this fall but leave the growth which takes place for a cover during the winter.

A. M. TENEYCK.

Alfalfa Seeding.

Will you please give me information in regard to alfalfa seed? I want to sow a patch of alfalfa this fall but can not get any good seed in this neighborhood. Can you tell me where I can obtain good seed? In the KANSAS FARMER, seed is advertised in Wallace and Finney Counties. Would seed grown in these counties do to sow in Nemaha County?

What is the least quantity of seed I can use per acre, and still get a good stand? The ground I want to sow it on is in oats now; I will cut these for hay in a day or two and then plow the land deep as soon as possible. After this, I will harrow often to pulverize and pack the soil and sow some time the latter part of August or first part of September after a rain. I can get some seed here that germinates 50 per cent but do not like to sow that kind of seed.

F. SCHAAF.

Nemaha County.

As a rule it would be best to sow home-grown alfalfa seed, provided the seed is of good quality, but I believe that I should prefer to sow the Western-grown seed rather than to sow the poor seed which you have mentioned. There is some objection to sowing on unirrigated lands Western-grown seed which has been grown under irrigation. As to whether such seed produces seed less hardy for growing on unirrigated lands than does seed produced on unirrigated lands, I am unable to state, and can find no experiments along this line. If the Western seed is fully developed and bright, sound seed which will germinate well, I would not hesitate to seed it, especially in Nemaha County, where the weather conditions are not apt to be too dry for the best development of alfalfa. The general experience has been that Western-grown seed is more hardy than Eastern-grown seed, and that so far as climatic conditions are concerned, seed grown in Western Kansas will produce good alfalfa in Nemaha County. As a general rule, however, I should prefer to use seed grown on unirrigated land for seeding on unirrigated land; but between poor seed and seed perfectly developed and of good quality, I should choose the best quality of seed.

With good seed on a well-prepared seed-bed in a favorable season, good stands have been secured by sowing six pounds per acre. A number of alfalfa-growers throughout the State are not seeding more than ten pounds of good seed per acre. At this station this spring we sowed five or six pounds per acre, and have a fair stand, where ten or twelve pounds were sown the stand is excellent. It would always be a good plan to test the germination of the seed, and in case of poor seed, such as you mentioned, twice or three times the amount of seed should be sown as would be required of the best quality of seed.

The preparation of the seed-bed is a very important part in getting a start of alfalfa. The plan which you have described for preparing a seed-bed is a good one. If your land is inclined to be light, it would be advisable, especially if the weather turn dry in the latter part of the summer, to sub-surface pack the ground immediately after plowing, in order to firm the soil at the bottom part of the furrow. A seed-bed for alfalfa should not be too deep and mellow. The surface should be mellow, but below the depth at which the seed is sown the soil should be rather firm—not hard. This gives the best condition for sprouting the seed and starting the young plants. The cultivation should be sufficient to clear the land of weeds, leaving a clean, mellow surface. By preparing the land in this way several weeks or months before seeding, you are able to choose a time for seeding when

the soil is in the best possible condition to germinate the seed.

A. M. TENEYCK.

Alfalfa Turning Yellow.

I write to you for some information about a piece of alfalfa that was sown last fall. I got a good stand (I sowed it in August), and it came through the winter all right and seemed to grow well in the spring, but when it was about eight or ten inches high the leaves began to turn yellow. I thought that maybe too much rain and cloudy weather was the cause, so I cut it down and got about a ton from two and one-half acres. It has been about three weeks since I cut it.

The second crop has grown up about four or five inches and there are more yellow leaves in it than in the first crop; it looks as if it were dying. The land that this is planted on is on the north side of a creek, the land has slope enough so that no water stands on it. It is a black loam soil with a clayey subsoil.

I disked the land before I put the alfalfa in last fall and got it in good shape. What seems strange to me, this alfalfa does not stool as it should but grows up in little fine stalks. What is wrong and what can I do to remedy it?

E. L. GEBHART.

Doniphan County.

Your alfalfa is evidently affected with the disease known as "leaf spot." The extremely wet season favors the development of this disease, also the disease tends to attack alfalfa which is in a feeble or unthrifty condition. The soil conditions also have something to do with the prevalence of this disease. The disease is apt to be more injurious in low, poorly drained spots, along tree- and hedge-rows. Perhaps your land is sub-irrigated too much by the seepage from higher ground. Alfalfa will not thrive on too wet land.

Is alfalfa grown successfully in your locality? It may be that the soil lacks the alfalfa bacteria; the feeble condition of the plants would indicate this. If the bacteria are lacking, the alfalfa will continue to dwindle and die out. It is my judgment, however, that the extremely wet season has a great deal to do with the unthrifty condition of the alfalfa. At this station we lost the fall seeding almost entirely by winter-killing, and it is possible that although your alfalfa did not winter-kill, that the plants came through in a weakened condition, for which reason they are easily injured by disease and unfavorable weather conditions.

Your method of frequent cutting as soon as the leaves have turned yellow is perhaps as good a remedy as can be recommended. Later in the season, after it turns drier, it may be advisable to disk and harrow this field. If the soil is compact and soggy, it will be a good plan to disk and harrow it after the next cutting, provided it is not too wet. Perhaps the plants need more air; it often happens that alfalfa and other plants turn yellow and cease to thrive when the soil becomes compact and soggy (by reason of too much rain), which shuts the air out of the ground. The presence of the air in the soil is perhaps as necessary to the growth and development of crops as the presence of water.

If upon examining the roots of the alfalfa you find no tubercles, it is evident that the alfalfa bacteria are few or lacking, in which case it may be a good plan for you to get a little soil from an old alfalfa-field in which the alfalfa is known to be in a thrifty condition, and scatter the same over the whole or a portion of your field, using the disk or harrow to mix the infected soil with the soil of the field.

I have made these several suggestions, not knowing what would be the best to do, but believe that you will try one or more of the plans suggested, according to your judgment.

A. M. TENEYCK.

Grass for Overflowed Land.

I wish to get some advice in regard to something that I can plant or sow on rich, river-bottom land that the river backs out over from one to six feet deep and remains on the grounds from one to six days, usually in May or

June. I am advised to sow redtop. Can I rely upon it?

My land is free from stumps and is covered with smartweed four feet high. Are these weeds of any value for hay?

J. M. GRAHAM.

Muscogee, I. T.

(Continued on page 726)

Horticulture

Evergreen Hedge.

EDITOR KANSAS FARMER:—Please inform me through your interesting paper what is best suited for an ornamental and partially protective evergreen hedge for our vicinity, Eastern Kansas, on a farm. How would Amoor Privet do in Kansas?

AN INTERESTED SUBSCRIBER.

Anderson County.

So far as tested the common red cedar has given best results when an evergreen ornamental hedge is wanted. Common lilac has been used with good results but is not evergreen.

The Privet in question is probably Ligustrum Amurense. It has been seriously killed back in very severe winters, and has been hard to restore to good appearance. It has been rather less hardy than the California privet, Ligustrum Ovalifolium, but even this species has been winter-injured two or three times in the past ten years.

ALBERT DICKENS.

Time to Set Raspberries and Blackberries.

EDITOR KANSAS FARMER:—When is the best time to set out raspberries and blackberries? Do they do well if set in the fall, and if so, what time?

Johnson County. E. R. BIGELOW.

Raspberry and blackberry plants may be set either in fall or spring; if set in fall they should be set fairly late to insure the wood being well ripened. A light mulch of hay or straw should be given to prevent too frequent freezing and thawing.

As a rule, best success has attended spring setting, but plants should be set as early as the ground can be well worked.

ALBERT DICKENS.

Cabbage Wilt.

EDITOR KANSAS FARMER:—What is the matter with early cabbage when the leaves turn yellow and wilt and often the whole plant dies? These do not lack water or cultivation, and the ground has been in cabbage for three years.

D. H. WELCH.

Stafford County.

I am unable to determine from the description what is affecting the cabbage, but your last statement indicates the treatment. Rotate the crop. All the troubles to which cabbage heads are heir are more liable to be serious when the crop is grown for a number of years upon the same soil. From the description it may be club root, or cabbage root-maggot. If the former, an examination of the roots will show the roots much swollen and distorted with enlargements or "clubs" upon some parts of the roots. About the only successful treatment reported is that by Professor Halstead, of New Jersey, of air-slaked lime used at the rate of seventy-five bushels per acre. In localities where this disease is serious some crop other than cabbage must be grown for a number of years before it is safe to plant cabbage the second time. The fungus is also found upon the roots of some common weeds so that clean culture is a part of the treatment.

If it is the cabbage maggot, the maggots are likely to be found about the younger roots, and if very numerous are almost certain to cause the loss of the crop. A plan recommended by Professor Lodeman is to inject a teaspoonful of bisulfide of carbon just underneath the plant, avoiding contact with the roots as much as possible. After applying, press the soil about the plant to prevent the escape of the fumes. If neither of these troubles

\$500 REWARD FOR WOMEN

WHO CANNOT BE CURED.

Backed up by over a third of a century of remarkable and uniform cures, a record such as no other remedy for the diseases and weaknesses peculiar to women ever attained, the proprietors and makers of Dr. Pierce's Favorite Prescription now feel fully warranted in offering to pay \$500 in legal money of the United States, for any case of Leucorrhoea, Female Weakness, Prolapsus, or Falling of Womb which they can not cure. All they ask is a fair and reasonable trial of their means of cure.

Their financial responsibility is well known to every newspaper publisher and druggist in the United States, with most of whom they have done business for over a third of a century. From this fact it will readily be seen how utterly foolish it would be for them to make the above unprecedented and remarkable offer if they were not basing their offer on curative means having an unparalleled record. No other medicine than Dr. Pierce's Favorite Prescription could possibly "win out," as the saying goes, on such a proposition. But they know whereof they speak. They have the most remarkable record of cures made by this world-famed remedy ever placed to the credit of any preparation especially designed for the cure of woman's peculiar ailments. This wonderful remedy, therefore, stands absolutely alone as the only one possessed of such remarkable curative properties as would warrant its makers in publishing such a marvelous offer as is above made in the utmost good faith.

"I want to tell you of the great improvement in my health since taking your 'Favorite Prescription,'" says Mrs. H. S. Jones, of Forest, N. C. "When I began its use I was a physical wreck and had despaired of ever having any health again. Could not sit up all day. I noted a great improvement before the first bottle was used. Was suffering with almost every pain that a woman is subject to; had inflammation of ovaries, painful and suppressed periods, and other symptoms of female disease. After taking six bottles of 'Favorite Prescription,' I felt like a new person. Can ride horseback and take all kinds of exercise and not feel tired."

If you are led to the purchase of "Favorite Prescription" because of its remarkable cures, do not accept a substitute which has none of these cures to its credit.

If you are looking for a perfect laxative try Dr. Pierce's Pleasant Pellets.

WORLD'S DISPENSARY MEDICAL ASSOCIATION, Proprietors, 663 Main Street, Buffalo, N. Y.

FARMS For rich farming and fruit-growing Write J. D. S. HANSON, Hart, Mich

STARK best by Test—78 YEARS. We PAY CASH WANT MORE SALESMEN Weekly Stark Nursery, Louisiana, Mo.; Huntsville, Ala.

ALFALFA New crop bright, clean, vital seed. Write for price. **SEED GEO. H. MACK & CO.,** Garden City, Kans.

KANSAS CITY Business College N.E. CORNER TENTH AND WALNUT STS. For Catalogue, Address, C.T. SMITH, Pres. 413 Arlington Bldg., Kansas City, Mo.

The Kansas Wesleyan Business College

Largest and best equipped Business College west of the Mississippi; highest standard, national reputation. Seventeen professional teachers. Positions guaranteed to all competent Stenographers and Bookkeepers from our school. Graduates sent to all parts of the world. Tuition low. Board Cheap. For Journal address

T. W. ROACH, Supt., SALINA, KANSAS

\$5.18 BIG REFRIGERATOR. Finest zinc lined hardwood refrigerator only \$5.18, equal to most \$10.00 refrigerators. For our immense line of refrigerators and ice chests, the most improved styles, greatest capacity, greatest ice savers, description of our perfect dry cold air circulation, binding guarantees, trial offer, etc., write for our FREE REFRIGERATOR CATALOGUE. **SEARS, ROEBUCK & CO.,** CHICAGO, ILLINOIS.



H&R
Revolvers
are noted for their absolute safety, accuracy, and durability. Avoid inferior substitutes. Sold direct where dealers will not supply.
Harrington & Richardson Arms Company, Dept. 48, Worcester, Mass. Makers of H. & R. Single Guns. Catalog for postal.

seems to be the cause, a sample of the crop sent with roots and some soil will be necessary to determine the trouble.

ALBERT DIOKENS.

Forest-Planting in Western Kansas.

A PAPER READ BY R. S. KELLOGG, OF THE BUREAU OF FORESTRY, AT THE TWENTIETH SEMI-ANNUAL MEETING OF THE KANSAS STATE HORTICULTURAL SOCIETY, HELD AT DODGE CITY, KANS., MAY 11-12, 1904.

The forest planting along the eastern border of the Great Plains, which began years ago, has resulted in abundant success. Agriculture is pushing steadily westward, however, and where in 1873 the buffalo held almost unmolested sway, a single county raised nearly four million bushels of wheat in 1903. The cattleman succeeded the buffalo, but he in turn will be dispossessed until much of the "short grass country" is under the plow. Given a soil having the great depth and fertility of that in Western Kansas, together with an average precipitation of nearly twenty inches, even though it be somewhat periodic, it is safe to predict that American ingenuity and perseverance will eventually conquer. The sod-house days of 1887 are past, and there is now a healthy, steady growth. The present settler comes here with a knowledge of conditions and the determination to master them. Improved methods of cultivation and drouth-resisting crops are being tried. The cattleman has found that he can raise sorghum and Kafir-corn practically every season, and that it pays better to feed his stock during the winter than to let them "rough it through" in the old-fashioned way. In the creek and river valleys, alfalfa is being grown without irrigation clear to the Colorado line, and with the alfalfa go the dairy cow and the cream can.

It is not necessary to enter upon any discussion of the causes of the well-nigh total treelessness of the plains. Whatever may be the reasons for the absence of natural forests, experience has proved that to a considerable degree, artificial ones may be made to take their places. The generally accepted ratio is that for the most successful agricultural conditions, one-fourth of the country should be forested. There is little likelihood that half this amount will ever be attained in Western Kansas. Yet the planting that will be done as the State increases in age and wealth will be sufficient to greatly modify the landscape and supply many domestic purposes. In favored localities, commercial returns may be expected; elsewhere the recompense to the planter will take the form of increased comfort and convenience.

The most extensive early plantings were on the timber claims. They generally resulted in failure because of wrongly chosen species and neglect. The man who made a timber-culture filing did so to get a quarter section of land, not because he cared for trees or knew anything about them. If he could evade the law and prove up without any trees whatever, he was quite likely to think himself that much ahead. There were some well-planted and conscientiously cared-for claims; they speak for themselves today. The majority, however, came to little or nothing, and after various modifications, the law was repealed in 1891.

The planter now plants because he wants trees and realizes their value, consequently he will be more careful in his choice and give more after attention than did his predecessors. A close examination of the country leaves little room for doubt concerning the success of forest-planting in Western Kansas, if the species are intelligently selected and properly cared for. It is hoped that this paper will furnish some beneficial information along these lines. The attempt has been to make it conservative and practical rather than theoretical. It is written wholly from a non-irrigation standpoint, not because the writer does not believe in irrigation wherever possible, but because there is little prospect that the large upland areas of the region ever will be irrigated. Since

it is safe to say that the majority of the forest-tree planters will not irrigate, the methods and species suited to their needs are described. Those who are so fortunately situated as to have artificial water can get correspondingly better results with the same species, besides having others that can not be grown at all without irrigation.

WHERE TO PLANT.

In a naturally treeless region, there is need for planting almost everywhere. Trees should be planted around houses, sheds, corrals, and garden patches for protection and ornament; planted in groves for posts, fuel and the numberless uses which a stick of timber supplies; planted in parks and along streets because trees are a great factor in making a town a "good place to live in;" planted in school-house, church, and courthouse yards so that public buildings shall not suffer by comparison with private ones, and planted for commercial purposes wherever possible, since a good plantation will afford a steady income, aside from much pleasure and convenience.

While general soil conditions vary little throughout Western Kansas, there is abundant room for selection of situations in which to plant. Trees, like other forms of vegetation, respond quickly to good soil and moisture. The species which will grow on the uplands may be depended upon to do as well or better in the valleys, but the reverse case is far from being true. Hundreds of failures in upland planting in Kansas and Nebraska have resulted simply because the cottonwood, willow, soft maple, and box-elder of the lowlands were expected to thrive in the drier situations. Some trees, the elm and hackberry for instance, which grow naturally along watercourses, do well under cultivation on the upland, while others found in company with the hardy species fail entirely when the change is attempted.

(Continued on page 723.)

The Veterinarian

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the inquirer's postoffice, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kans., or Dr. N. S. Mayo, Manhattan, Kans.

Blood Spavin.—I have a 9-months-old filly in good condition that has a swelling on the hind legs just opposite the hock. I first noticed it three weeks ago. What can I do for her? Will it hurt her for farm work? A. R. Louisburg, Kans.

Answer.—The term "blood spavin" does not mean much of anything. It is sometimes applied to a bog spavin where the swelling comes on the front and outside of the hock joint. It is also applied to an enlargement of the veins which pass up over the inside of the hock joint. You do not describe the location of the enlargement distinctly enough for me to tell what it is, nor do you state whether the colt is lame. I am inclined to think that the trouble is a bog spavin or thoroughpin, which is an enlargement of the sac around the joint or underneath a large tendon back of the joint, caused by a large amount of synovia or joint oil. I think she will probably outgrow it largely, and it will probably not injure her for ordinary work. I would advise using some iodine ointment. Use a little ointment, rubbing it well in, once daily until the skin begins to get sore, then withhold a few days and repeat; use but little ointment but lots of hand rubbing.

Lame Mare, Balking.—I have a 3-year-old filly, broken this spring, that has been worked pretty hard for a colt. A few days ago after a day's work I noticed she was lame, only stepping about half as far with the right front leg as with the other. After a few days' rest she seems to go

ZENOLEUM
Famous OOAL-TAR Carbolic Dip.
For general use on live-stock. Send for "Piggies' Troubles" and "Zenoleum Veterinary Advisor" and learn its uses and what prominent stockmen say about it. Books mailed free. All druggists, or one gal., express paid, \$1.50; 5 gal., freight paid, \$6.00.
ZENOLEUM DISINFECTANT CO., 61 Bates St., Detroit, Mich.

all right except when put to work the trouble returns. There is no soreness or enlargement but hard pressure on point of shoulder seems to cause finching. I am almost compelled to work her. What can you suggest?

We also have a 4-year-old Colorado mare that we can not work. As soon as we hitch her up she will lie down and nothing but the severest treatment will make her get up, and as soon as we start again she will go down. We have whipped her, poured water in her nose, mouth and ears, shut off her wind, etc., but nothing seems to do any permanent good. What would you suggest? A. H. D. Newton, Kans.

Answer.—I am inclined to think that the filly has what is called "shoulder slip;" that is, the large muscle which passes down over the point of the shoulder has a tendency to slip toward the outside when worked. She ought to have rest, and at any rate, if you expect to cure her, she must have light work. The collar should be so arranged with pads, that very little, if any, pressure will come on the point of the shoulder. If properly cared for, she ought to recover in time.

Regarding the balky mare, I have had so much and varied experience with balky horses that I can hardly make a suggestion. If I could find a man who thought he could break her I should trade her off if she were mine. Of all forms of balking, a horse that throws itself is one of the worst. A plan that works pretty well, if you have lots of patience, is to sit on her neck and hold her down until she is ready to go when you let her up. I would be prepared to spend the whole day and take a good book to read while treating her. Sometimes you can treat them very well by coaxing them. After hitching and before starting give her some lumps of sugar to eat. Whatever treatment is pursued it will take quite a long time to overcome the difficulty if she ever does entirely.

Poll Evil.—We have a large grey horse 11 years old which we bought last winter. He has a swelling behind his ears. The swelling started about nine months ago, right where the mane comes. It is now extending downward and backward. It seems to give him great pain. We are working him but he is getting quite thin. What do you think is the trouble and what can we do for him? J. G. Neosho Rapids, Kans.

Answer.—From your description I think your horse has poll evil and it will have to be opened, cleaned out thoroughly, burned out with butter of antimony, using a swab, and then washed out once daily with an antiseptic. I send you a press bulletin by mail that will give treatment.
N. S. MAYO.

Seven Great Colleges

Chillicothe Normal College, Chillicothe Commercial College, Chillicothe Shorthand College, Chillicothe Telegraphy College, Chillicothe Typewriting College, Chillicothe Pen Art College, Chillicothe Musical College.

\$130 pays for 48 weeks board, room rent, tuition and carfare as per schedule. For free catalogue address ALLEN MOORE, PRES., Chillicothe, Mo.

Indian Beadwork Outfit OR AN Egyptian Diamond Ring

FREE

Send Us No Money.

Simply write for 15 packages Rubber Mending Tissue which we send on trust, post-paid; sell it to your friends at 10 cents per package and send us the \$1.50 collected and we will ship you, FREE, PREPAID, your choice of Indian Beadwork outfit, Egyptian Diamond Ring, Base-ball set, Lady's Fine Locket and Chain, Printing Outfit, or any other article selected from Premium list sent with the Rubber Mending Tissue. We trust you with the goods and take back all you cannot sell within thirty days. Write to-day.

SOUTHERN MERCANTILE CO., Dept. 65, Houston, Texas.



ADVERTISING ADVICE FREE

TO every subscriber to White's Class Advertising I will undertake to advise regarding the preparation, execution, and the best methods of handling newspaper advertising in all class lines that have to do with Agriculture. If you need a catalogue, booklet, a design, illustration, mailing card, art or editorial work relating to your advertising, I will give advice free. Send 10 cents stamps or silver, for sample copy White's Class Advertising—better than an Advertising College Course. Address

FRANK B. WHITE

Counselor at Advertising "At It Seventeen Years"

900 Gaxton Bldg. Chicago, Ill.

Dunaway Stack Anchor

Prevents the Top of the Stack Blowing Off. . . .



Screws in like a corkscrew. Cheap; economical; money and time saver. Saves its cost many times over every year. Does away with the old way of holding the tops of hay and grain stacks on by using rocks or other heavy weights.

Price per Dz. \$1.50

If your dealer hasn't it, order direct from us.

C. B. POKE MFG. CO

Manufacturers of Cowboy and Acme Animal Pokes and the Dunaway Stack Anchor.

1013 E. 18th St., KANSAS CITY, MO



"Hay Press Hints"

If you are interested in hay or straw baling machinery we want you to have our catalogue "Hay Press Hints." We give information in this book that will be of benefit to any one contemplating the purchase of a baling press.

What we have to say about power, the control of the press, how to get out the most work with the least effort, and the many little points which mean so much to the man whose money is to pay for the machine and whose men and horses are to work it, is so important that you can't afford to buy without having read it.

Our presses have been on the market over thirty-seven years. The reputation we have established in that time is a valuable asset in our business. You can rely on our representations.

Write to-day for our guarantee and terms and five days' free trial plan. Use this coupon and save the trouble of writing a letter, or a postal will receive careful and prompt attention.

GEO. ERTEL CO., Quincy, Ill.

GEORGE ERTEL CO., Quincy, Ill.:

Please send me your book "Hay Press Hints" FREE, as advertised in Kansas Farmer.

Name

Postoffice

Route No. Co. State

The Stock Interest

THOROUGHBRED STOCK SALES.

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

July 19, 1904—L. M. Monsees & Sons, Smithton, Mo., twenty-fifth semi-annual sale of Jacks, Jennets and horses.

August 2, 1904—Harry Sneed, Smithton, Mo., Duroc-Jerseys.

August 10, 1904—Prize-winning Poland-Chinas, F. M. Lall, Marshall, Mo.

September 7, 1904—Combination sale Aberdeen-Angus, Peoria, Ill., W. C. McGavock, Manager.

October 6, 1904—Poland-Chinas, William Plummer, Barclay, Kans.

October 13, 1904—C. O. Hoag, Mound City, Kans., Poland-Chinas.

October 17, 1904—Poland-Chinas, E. E. Axline, Oak Grove, Mo.

October 18, 1904—American Royal Show and Sale by American Aberdeen-Angus Breeders Association, Kansas City, Mo., W. C. McGavock, Manager.

October 25, 1904—Duroc-Jerseys, J. B. Davis, Fairview, Kans.

October 26, 1904—Sabetha Combination Sale, Jas. P. Lehr, Manager, Sabetha, Kans.

October 28, 1904—Leon Calhoun, Potter, Kans., Poland-Chinas.

October 28, 1904—Combination sale Poland-Chinas at Clay Center, J. R. Johnson, Manager.

November 1, 1904—W. B. VanHorn & Son, Poland-Chinas, at Overbrook, Kans.

November 17, 1904—Central Missouri Shorthorn Breeders Association Sale at Moberly, Mo., E. H. Hurt, Secy., Clifton Hill, Mo.

December 1, 1904—International Show and Sale by American Aberdeen-Angus Breeders Association, Chicago, Ill., W. C. McGavock, Manager.

December 5 and 7, 1904—Chas. W. Armour, Kansas City, and Jas. A. Funkhauser, Plattsburg, Mo., Herefords at Kansas City.

January 25, 1905—G. A. Munson, Maxwell, Iowa, Duroc-Jerseys.

February 1, 2, 3, 4, 1905—Percherons, Shorthorns, Poland-Chinas, Wichita, Kans.; J. C. Robison, Towanda, Kans., Manager.

February 16 and 17, 1905—Chas. M. Johnston, Manager, Caldwell, Kans., Combination sale of registered stock.

February 22 and 23, 1905—Shorthorns and Poland-Chinas, N. F. Shaw, Manager, Plainville, Kans.

The Wool Market.

The wool market at the seaboard is showing more life, the volume of business transacted in Boston during the past month being the largest which has been noted for some time. This is a natural consequence of the reorders which have been received lately by a number of the mills, and the preparations which they are making for the light-weight season. Consumers have, in a number of cases, fought hard against paying any higher prices for wool, but there is no denying the strength of the raw material market and those who have been successful in securing any sizable lines have been obliged to come up somewhat in their ideas of values, and have paid slightly better prices than they would have paid a month ago.

The current level of values at the seaboard, however, is still considerably lower, in proportion, than that which has been established in the interior by the wool trade for many of the new clips, and there must be much more of an advance in Eastern markets before many of the new wools can be turned at any profit. Some of the early shorn wools of very light shrinkage have been taken by consumers at prices which net the seller a small margin of profit, but these were secured by the trade when prices in the interior were relatively considerably lower than those which have been paid recently in the interior.

To a considerable extent, it is a waiting game, both with the wool trade and the consumer. The latter, although showing more interest in wool than for some time past, is talking very conservatively as to the future of the goods market, although some of the cheap light weights which have thus far been opened have been at prices fully equal to or slightly in excess of those realized a year ago; but not for a month yet will it be definitely decided on what basis the bulk of the business in light weights is to be done; and in the meantime the consumer is not disposed to buy any more wool than he needs. He has apparently come to a realization of the fact, however, that he is not likely to secure wools at any cheaper price than those now current, in view of the depleted stocks of old wools, and the very strong position of affairs abroad.—Shepherd's Bulletin.

Color in Shorthorns.—XV.

EDITOR KANSAS FARMER:—I will now take up the winners in the Shorthorn classes at the last American Royal Show at Kansas City, and show up their colors and the colors of their ancestry.

The winner of first prize in class for bulls 3 years or over, was Nonparell

of Clover Blossom 53672 (roan). His sire and paternal grandsire were roans, bred in England. His maternal ancestry for three generations are all red.

Second, Young Dainty 154039 (red). Sire and dam are red. Of the next, or second generation, one is read, a little white; one red with white marks; two are red. Of the third generation, five are red; two are red and white; one is roan. Of the fourth generation, eight are red; one red a little white; one red and white; three are roan; three are of colors unknown, because not recorded in our books.

Third, Tillycairn 150069 (red). His sire and dam are roans, bred in Scotland. His two grandsires and four great grandsires are roans. His grandams and great grandams are of unknown colors.

Fourth, 198th Duke of Wildwood 148143 (red); all his fourteen ancestors in first three generations are red but one, a red roan. Of his sixteen ancestors in fourth generation, nine are red; one is red, some white; one red, white marks; three roan; two of colors unknown.

Fifth, Acomb Duke 18th 142177 (red). His sire and dam are red. His grandsires are red. One grandam is red and one is roan. Seven of his great grandparents are red and one is red-roan.

Sixth, Nonparell Baron 157330 (roan). His sire is red-roan, and dam red. One grandsire is roan, the other red with white marks. One grandam is roan, the other an English cow, color unknown.

Seventh, Ewalt 141687 (red, a little white). His sire and dam are red. His two grandsires are one and the same bull and red with white marks. One great grandsire is the same bull as his grandsires, and red with white marks. Two of his great grandsires are one and the same bull and red. One great grandsire is red and white. His two grandams are red. Two of his great grandams are one and the same cow and red. The other two are also red.

Eighth, March On 163976 (red). Sire and dam are red. Both grandsires are red. One grandam is red, the other light roan. One great grandam is red. The other three are English cows, color unknown. Two great grandsires are red; one is red a little white; one is roan. D. P. NORTON, Morris County.

The Time to Market Fat Cattle.

It is generally recognized as one of the fine points of the beef-producing business to know just the right time to market cattle. There are a number of points to be considered. Buyers favor the steer that is fully ripe or finished in condition, but discriminate against the over-ripe or the steer lacking in condition. From the feeders' standpoint it is, therefore, an expensive and useless process to make a steer too fat. Again, the most desirable carcass from the dealer's or butcher's standpoint is not necessarily the one that makes the highest percentage of dressed beef. Such steers usually carry too high a proportion of waste fat. When the steer is sufficiently fat, therefore, to make as high a quality of beef as he is capable of making, and when at the same time he is sufficiently fat to satisfy the buyer that he will dress a good percentage of beef and fat, there is little to encourage the feeder to carry him further. This seems to be the best time to market cattle.

There are always a few steers lacking in quality and condition in large consignments. Strictly choice feeders are not by any means plenty on any feeding-cattle market, and it has been the universal experience of cattle-feeders that there are always a few cattle, even among the choice and fancy kinds, that do not mature quite so quickly as others, and then some cattle do not seem to feed well, and for reasons which even the most expert are unable to determine.

Desirable fat steers should have the appearance of being packed with fat as fully as they can be, and yet possess smoothness and evenness of covering.

Smoothness, as opposed to patchiness, is always attractive to buyers.

We are strong advocates of getting cattle on feed slowly and of never feeding an excessively heavy grain ration. We believe that this system of feeding is attended with more economical gains and a better distribution of fat throughout the carcass, both of which factors, it must be conceded, are very important, because the cheaper grains affect vitally the feeder's profits, and the smoothness or even distribution of fat not only helps the feeder to get a better price for his cattle than would otherwise be possible, but also this better distribution of fat actually adds to the value of the carcass from the butcher's point of view? Not less than six weeks should be consumed in getting cattle unaccustomed to grain on full feed. Feed the cattle all the hay they will eat—preferably clover or alfalfa hay—at the beginning of the feeding period. This for a 2-year-old steer will be approximately fifteen pounds. Not over five pounds of corn should be fed at the start, and this should be increased steadily, but very gradually, while the proportion of hay will as surely decrease.—Herbert W. Mumford, Professor of Animal Husbandry, University of Illinois, in Tribune Farmer.

Public Sales of Cattle at the World's Fair.

Auction sales of cattle will be held at the World's Fair during the period of the cattle show and under the auspices of the breed associations directly concerned. Public sales have been arranged for the dates named by the following associations interested:

Aberdeen-Angus.—American Aberdeen-Angus Breeders' Association, Thomas McFarlane, secretary, Pedigree Record Building, Chicago, Ill., Wednesday, September 14, 1904.

Galloway.—American Galloway Breeders' Association, Charles Gray, secretary, 17 Exchange Ave., Chicago, Ill., Friday, September 16, 1904.

Hereford.—American Hereford Breeders' Association, C. R. Thomas, secretary, Live Stock Exchange, Kansas City, Mo., Wednesday, September 21, 1904.

Holstein-Friesian.—World's Fair Holstein-Friesian Association, R. W. Maguire, secretary, 5737 Bartmer Ave., St. Louis, Mo., Friday, September 23, 1904.

Jersey.—American Jersey Cattle Club, J. J. Hemingway, secretary, No. 8 West 17th St., New York City, Tuesday, September 20, 1904.

Red Polled.—Red Polled Cattle Club of America, J. McLain Smith, secretary, Dayton, Ohio, Thursday, September 15, 1904.

Shorthorn.—American Shorthorn Breeders' Association, John W. Groves, secretary, Union Stock Yards, Chicago, Ill., Friday, September 23, 1904.

Iowa State Fair—Golden Anniversary.

Fifty years ago a small band of progressive Iowa farmers and farmers' wives got together at Fairfield and determined that the then young State of Iowa should have a State fair. They made a small beginning and held a fair at Fairfield, where was organized the Iowa State Agricultural Society, long since given a legal status in the State and now, by law, the State Agricultural Department. In an age of celebrations of centennials and semi-centennials it is appropriate that the semi-centennial of the Iowa State Fair should be celebrated this year by Iowa people with a State fair that can not be surpassed anywhere in the world. This is the high aim and purpose of those who are planning for the Iowa fair of 1904. To make the occasion noteworthy it is proposed that there shall be a reunion of all those who assisted in the formation of the first fair or attended the same, and especially of the exhibitors. Not very many, it will be anticipated, will be found to attend this remarkable reunion; and yet, Secretary Simpson has already received letters from a number of those who would be eligible to participate in this gathering. The first State fair probably drew from at most a dozen counties in the southeastern part of the State, and most of the persons who attended live there now. But the names of the survivors will be secured as far as possible, and a reunion be arranged for all who can attend the semi-centennial of the State fair organization.

FROM MAKER TO USER

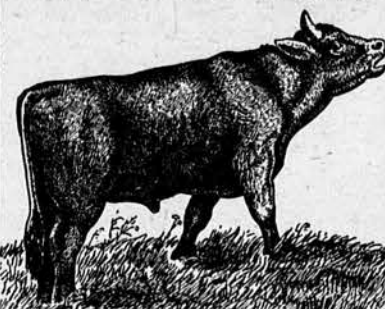
BUY DIRECT FROM MAKER
SAVE DEALER'S PROFITS
Finest Line and Highest Grade of Goods in U. S. at no greater cost than ordinary kind. We make these goods ourselves. Money can buy no better. Our 20 years reputation stands back of every purchase made.

100 Styles Hand Made STOCK SADDLES. 25 Styles Best SHOP MADE BOOTS. 35 Styles Built-to-Wear HIGH GRADE HARNESS. Buy nothing in our line until you get our New CATALOG, sent free.

SHIPLEY'S BOOTS AND SADDLES.

STOCK YARDS HARNESS CO.,
Chas. P. Shipley, Proprietor,
1539 GENESEE ST., KANSAS CITY, MO.

When writing advertisers please mention this paper.



KRESO DIP

FOR ALL LIVE STOCK SHEEP, SWINE, CATTLE, HORSES, ETC.

PREVENTS AND CURES PARASITIC AND SKIN DISEASES

Kreso Dip is a powerful germicide and disinfectant, an unfailing tick-destroyer and lice-killer. It cures scab, mange and other parasitic diseases; kills dog-fleas and poultry-lice; prevents disease and keeps away flies. It is scientifically prepared in our own laboratories, never varies in strength, and is always reliable.

NON-CARBOLIC, NON-IRRITATING, NON-POISONOUS

Easily prepared—just mix it with water! 1 gallon Kreso Dip makes 100 gallons ready for use.

TRIAL LOT, \$1.25 PER GALLON CAN, at your druggist's, or direct from us (charges prepaid). Special quotations on quantities.

Write for descriptive pamphlet—it's free.

PARKE, DAVIS & CO.

HOME OFFICES AND LABORATORIES: DETROIT, MICH.

BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Indianapolis, Minneapolis, Memphis.

Spavin and Ring-bone

Once hard to cure—easy now. A 45-minute treatment does it. No other method so easy, quick and painless. No other method sure.

Fleming's Spavin and Ringbone Paste

cures even the very worst cases—none too old or bad. Money back if it ever fails. Lots of information if you write. Book about Spavin, Ringbone, Curb, Splint, Bog Spavin and other horse troubles sent free.

FLEMING BROS., Chemists,
212 Union Stock Yards, Chicago, Ill.



Healthy Hogs

are raised by the use of the

IMPROVED DEWEY STOCK WATERER.

Every part perfect. Automatic shut-off. Also the ideal fountain for poultry. Simple, durable and cheap. Call on your local dealer and investigate. Do not fail to write us for Free Booklet. It will pay you to do so.

THE B-B MFG. CO.,
71 Masonic Temple, Davenport, Iowa.

PROTECT YOUR STOCK

Car-Sul is a Non-Poisonous, Coal Tar, Disinfectant Dip of unusual strength and efficiency, simply mixed with water, 2 parts to 100 and used on Hogs, Cattle, Horses, Mules, Goats and Poultry with Dip-tank, spray sprinkler, will quickly Kill Lice, Ticks, Germs and all Vermin; cure Mange, Scoury and Measles.

CAR-SUL DIP

IS GUARANTEED. Not to injure eyes, skin or hair. Is valuable in a hundred ways around house and barn; our free book tells all about it and gives price of dip tanks. Send for copy.

For sale at dealers or direct, \$1.50 per gal., prepaid. Lower price in quantities. Ad.

Moore Chemical & Mfg. Co.
1501-1503 Genesee St., Kansas City, Mo.

PREVENTS DISEASE

DEATH TO HEAVES Guaranteed

NEWTON'S Heave, Cough, Distemper and Indigestion Cure. A veterinary specific for wind, throat and stomach troubles. Strongly recommended. \$1.00 per can. Dealers, Mallor Ex. paid. The Newton Remedy Co., Toledo, Ohio.

Aberdeen-Angus Cattle at the Fairs.

Secretary Thomas McFarlane, of the Aberdeen-Angus Breeders' Association, has issued a preliminary catalogue of classifications, rules, premiums, etc., of this breed at the great fairs this fall. This little book is brim full of interest to breeders and exhibitors of this splendid breed of beef cattle. The book contains information in regard to the exhibition of Angus cattle at the World's Fair in both the breeding and range classes; the American Royal at Kansas City, the International at Chicago, and for nineteen State fairs. In all of which the association will offer special premiums. The book also gives full information about the sales of this breed to be held at Chicago and Kansas City. Write Secretary Thomas McFarlane, 17 Exchange Place, Chicago, for a copy of this catalogue.

Gossip About Stock.

Last fall at the Kansas State Fair at Hutchinson there was a strong showing of Berkshire swine. The young boar that won first in his class was Highclere Improved 66211, and his individuality was such that he won praise from breeders as being a credit to the breeder as well as to Mr. G. W. Rummel, of Lone Maple Farm, who owns him. To-day Mr. Rummel is advertising some choice gilts by Commander Nora 2d 59763 that are bred to Highclere Improved. Levers of this very useful and popular breed of swine can here secure some of this prize-winning blood by writing at once to Mr. Rummel, who will shortly have a fine lot of spring pigs of both sexes to offer.

McLaughlin Bros., in a recent letter, say that there are two great shows in France of National reputation and only two where Percheron horses are shown. One of these shows was held at La Ferte Bernard from June 16 to 19; the other at Le Mans from June 21 to 24. At the first show held under the auspices of the Societe Hippique Percheronne de France McLaughlin Bros.' stallions won first, second, third, and fourth in every stallion class except two; at the latter show, held under the auspices of the Government of France, their stallions won first, second, third and fourth in every stallion class without an exception. At both shows they won first in collection.

The statement for the month of June of the Union Stock Yards and Transit Company, of Chicago, shows that the total receipts of cattle for the six months ending June 30, 1904, were: Cattle, 1,570,707; calves, 157,058; hogs, 4,043,123; sheep, 2,084,532; horses, 67,927. Total number of cars of stock received the first six months of the year, 147,135, an increase of 500 cars over the same period last year. The increase includes 16,478 calves; 624,652 hogs; 288,219 sheep, and 1,530 horses. The average weight of hogs for the year 1904 was 209 pounds.

Clay, Robinson & Co. request us to say that although their advertisement does not appear in this issue, the schedule being suspended for one month, they will have considerable to say to our readers during the fall and winter months. Having the organization and equipment for rendering the most efficient service possible in the way of handling live-stock consignments and purchasing all classes of feeders on orders, they propose to let Kansas farmers know about it through the medium of their favorite journal. Clay, Robinson & Co.'s enterprise and up-to-date methods in pushing their own business certainly gives assurance that the interests of their clients will be equally well looked after.

Lord Mayor 112727 is one of the best known Shorthorn breeding bulls in the West. He was sired by Baron Lavender 2d 72610 out of Imp. Lady of the Meadow by Chancellor 68693 and was bred by Col. W. A. Harris. For several years he has been at the head of the Valley Grove Herd of T. P. Babst & Son, Dover, Kans., and Mr. C. W. Merriam, of Topeka, now has a few of his bull calves for sale. Calves of this breeding are none too common and are a bargain at the prices asked for them. Mr. Merriam also has some bulls sired by Golden Day 187219, another of the Valley Grove herd-bulls. These youngsters are from 11 to 14 months old and will be worth more money than is now asked for them in the fall.

Mr. A. M. Ashcraft, owner of the Mt. Pleasant Shorthorns, Atchison, Kans., is to be congratulated upon securing Harmony's Knight 218509 to head his herd. This bull was sired by the \$1,000 Knight's Valentine 157770, a richly bred Scottish Bloom and is just such a bull as will do a lot of good on the Young Marys, Galateas, and Sanspareils that compose the bulk of the female herd. Harmony's Knight was bred by T. P. Babst & Son, Auburn, Kans. Mr. Ashcraft has a bunch of young bulls sired by Acomb Duke 18th 142177, and Prince George 161300 for sale. Remember that some of these young bulls were sired by an American Royal winner. He also has some good females to sell. Mention the Kansas Farmer and write him.

Mr. G. D. Willems, owner of the East Reno Herd of Berkshires, Inman, Kans., has just sold his great herd-boar, Baron Beauty Jr., to J. P. Sands & Son, Walton, Kans. This boar has done excellent service in the East Reno Herd, as the many customers who have bought his get will testify, and his owner naturally regrets that he could not use him longer. However, he goes to a good home where his sphere of usefulness will be broadened.

ROCK ISLAND SYSTEM.

Through Tourist Sleepers to California

Rock Island Tourist Sleeping Cars are fully described in our folder, "Across the Continent in a Tourist Sleeper." Ask for a copy. It tells the whole story—describes the cars in detail; names the principal points of interest en route; shows when cars leave Eastern points; and when they arrive in California. A. E. Cooper, D. P. A., Topeka, Kans.

Young Men's Christian Association Building at Kansas State Agricultural College.

(Continued from page 714.)

The work of the Young Men's Christian Association in the Kansas State Agricultural College is greatly appreciated by the young man who comes for the first time to enter upon his college course. The association publishes a neat little booklet containing useful information about the college class-rooms, offices of professors, etc., and giving many hints to the new student as to how he can best get along during the first few days of school. Then, all new comers are met at the trains, assisted to find rooming places, invited to come around to the headquarters, which are rented by the association, and otherwise made to feel that some one is interested in them. The headquarters for the past year have been a large dormitory containing twenty-eight rooms for students and a large, attractive parlor with a reading-room and games. Socials are given the students from time to time. An employment bureau is maintained and many students receive aid of one kind and another. Regular weekly meetings are held every Sunday afternoon and are generally addressed by outside speakers, professors of the college and others. Regular courses of Bible study arranged for daily work are offered. There were fifteen different classes with an enrollment of 205 during the past year.

Altogether, this organization tries to meet the social and religious needs of the students and is a very valuable aid in upbuilding the moral life of the student.

WILLIS J. McLEAN,
General Secretary.

What to Plant Late in the Season.

CIRCULAR OF INFORMATION FROM FARM DEPARTMENT, KANSAS STATE AGRICULTURAL COLLEGE.

On account of the remarkably wet season many farmers have failed to get all their fields planted this spring, while the crops which were planted on much of the flat and more poorly drained land in the State have been drowned out by the excessive rains and a large part of the crops on the river and creek bottoms have been destroyed by flooding. The floods began early and are continuing late into the summer. In a large part of the State the weather has been excessively wet since early spring and there is little question but that the damage from rain and flood has been far greater than it was last year. Corn, which the farmers succeeded in planting, has as yet received little or no cultivation and is growing up to weeds; and moreover, at the present writing (July 8) the ripened grain is spoiling in the fields because for days and even weeks in some localities, the soil has been too wet to run a binder.

Kansas farmers have a right to feel discouraged; the season has afforded no "seed-time" and there is little promise of a successful "harvest." But there are no people in the United States who will more quickly rise above difficulties and disaster than the people of Kansas, and farmers whose crops have been destroyed or whose lands have been too wet to plant are seeking information regarding crops which may yet be planted with a fair chance of getting some produce from their lands this year. The farm department of this station is receiving letters of inquiry along this line every day. These letters are all carefully answered and it is hoped that some of the information and suggestions given may be useful to the inquirers and to others who may read the replies.

A great many crops may be successfully grown in Kansas, but for every crop there is a "seed-time" as well as "harvest-time," and if the seeding or the harvest is delayed beyond a certain proper period, crop failure may

result. Wheat, oats, and barley must be seeded early in the spring, else there is little use in planting them. The season for planting corn is not so closely marked, depending upon the variety of corn as well as the soil and season. Even by planting as late as July 15 there is a chance that certain early-maturing sorts, such as North-western Dent, King of the Earliest, Pride of the North, Early Longfellow Dent, and others of the class of ninety-day corn may mature a fair crop of ears, and in the southern part of the State such medium early varieties as the Leaming, Silver Mine, Early Mastodon, Farmers' Reliance, and Golden Dent may be planted with some hope of maturing corn sufficient to furnish grain feed for stock on the farm; at least such plantings will furnish a good quality of fodder.

At this station, Red Kafir-corn planted June 10, 1903, fully matured in 110 days. Planted as late as July 15, there would be little hope of fully maturing the grain before frost in this part of the State, but doubtless the crop would mature sufficiently to make some grain and a good quality of fodder. Kafir-corn is not injured by light frosts but will sometimes continue green and growing late into the fall, and on this account it is possible for it to mature later than corn.

Early Yellow soy-beans planted at this station last season on June 15, matured in 89 days. If this crop can be planted in the central and southern parts of the State in a good seed-bed, by July 15, it is likely to mature a good crop of beans before hard frosts. Cow-peas may be planted in July for the purpose of producing forage, but there are no varieties which are likely to mature, planted at so late a date.

The Common, Siberian, and Hungarian varieties of millet will mature sufficiently to make good hay in sixty days from planting and may be sown for forage as late as August 1. The German variety requires a little longer to mature for hay than the varieties named above, but in the trial made at this station last season the last-named variety gave the largest yield of fodder.

To produce abundance of forage for stock no better crops can be planted than cane or Kafir-corn, seeded broadcast or in close drills, sowing at the rate of 70 to 80 pounds of good seed per acre. At this station (sowed) cane planted June 24, yielded 7.7 tons of cured fodder per acre, and (sowed) Kafir-corn gave a yield of over 6 tons. Cane makes perhaps a little better quality of fodder than Kafir-corn. Seeded thickly the stalks grow fine and make fodder of better quality which cures out quicker and more fully than does the coarser fodder produced by thinner planting. Planted as described these crops will make good fodder in sixty days after planting, but the best fodder and the largest yields are produced when the crop is allowed to reach that stage of growth when the seed is in the dough, before cutting.

SEED UNPLANTED LAND TO GRASS OR ALFALFA THIS FALL.

The present season is demonstrating that Kansas farmers should not depend so much upon the grain and corn

Pink Eye Cure

Pink Eye cured in cattle and horses by the use of Thurston's Eye Water. Any case that is not relieved by its use, money returned. Price \$1.00. Enough for ten head in each can. Sent by mail on receipt of price. Address orders to

W. O. THURSTON, Elmdale, Kansas

Want Proposals From a Competent Farmer

The Board of Trustees of the Odd Fellows' Home, Liberty, Mo. Applicants will submit proposals, recommendations, and name all conditions in the application submitted, the same to be sent to the undersigned on or before July 30, 1904. The size of the farm is two hundred and fifty acres.

R. M. Abercrombie, Sec. and Treas. St. Joseph, Mo

ECZEMA CURE FREE

To prove to every person afflicted with Eczema, Salt Rheum, Tetter and all obstinate Skin Diseases that **Leopoldine** will cure the most obstinate, long-standing cases, we will send one box free to every sufferer. All we ask is that you send 10 cts. to cover the cost of postage, packing, etc.

EMPIRE REMEDY CO., Topeka, Kan.

The AUTO-FEDAN



The only successful self-feed two-horse power press made. Two men will bale more with this press than three will with any other. No danger in feeding. In baling 1,000 tons of windrow hay you can save the price of the machine in the expense of help.

The Auto-Fedan Hay Press Co.

Tenth and Jefferson Str., Topeka, Kansas.

crops. The most profitable crop growing on the farm this season is grass, especially where it can be harvested by pasturing stock. The weather has been unfavorable for haying and yet perhaps the hay crop may be saved in better condition than the grain crop. Grass and alfalfa give this advantage at least, they do not require planting every season, also these crops rest the land and improve the texture and fertility of the soil. There are few farms in Kansas where one-half the land could not be profitably kept in grass and alfalfa. To make the most out of this plan of cropping will require the keeping of some stock, but why not grow stock? Is there any surer method of getting profit from the farm than by turning the crops into dairy products, beef, pork, or mutton? This season when the wheat farmers' crop lays in the muddy field with a chance of being a total loss, when the corn farmers' crop is still unplanted or full of weeds, the stock farmers' cows are reveling in most luxuriant pastures, the flow of milk was never greater or of better quality. The young cattle are thriving on the rich grass and the hogs are growing fat on alfalfa. The stock farmer certainly has the advantage of you, brother grain farmer, this year.

The unplanted lands and the lands which fail to yield a crop may be readily put into condition to seed down to grass or alfalfa this fall. As soon as the rains cease, such land should be plowed, and thereafter cultivated occasionally to kill the weeds and put the soil in good seed-bed condition, and seeded about the first of September.

A. M. TEN Eyck.

ON CREDIT

Celebrated Century Fanning Mills

Stand without a rival in assorting grain and seeds, separates and grades grain and seeds of all kinds, cleans perfectly. Cash or easy monthly payments.

WE TRUST HONEST PEOPLE

Located in all parts of the world. Write for free catalogue.

CENTURY MANUFACTURING CO.,
Dept. 129 East St. Louis, Ill.

DON'T BUY GASOLINE ENGINES

—UNTIL YOU INVESTIGATE "THE MASTER WORKMAN." A two-cylinder gasoline engine superior to all one-cylinder engines. Costs less to buy and less to run. Quicker and easier started; has a wider sphere of usefulness. Has no vibration, can be mounted on any light wagon as a portable or traction. Weighs less than half of one-cylinder engines. Give size of engine required. Especially adapted for irrigation in connection with our centrifugal force pumps. (Sizes 2, 3, 4, 5, 6, 8, 10, 12 and 16 Horse Power.) High-grade Gasoline Engines, 2 to 6 horse power—adapted for Electric Lighting, Marine and Pumping purposes. Mention this paper. Send for catalogue: THE TEMPLE PUMP CO., Main, Meagher and 15th Streets, CHICAGO, ILL. This is our 44th year!

of course; but you had to call her Betty Baby so one would know which Betty you meant, for there was an Aunt Betty and a Cousin Betty in the family.

Polly and Bobby rode on as fast as they could to the end of the lane, and so Betty Baby was alone when she came up to the low bank close to the slough where the wild-plum trees grew, their boughs hanging low over the path.

And there Betty Baby stopped for she saw on the ground what Polly and Bobby had not seen—a poor, little, wet, draggled nest that had fallen out of a tree, and three little dead birds lying near, with one little naked bird that was alive and opened wide its yellow, hungry mouth.

"Oh, poorie, poorie, poorie!" mourned Betty Baby, and she sat down on the ground beside the sad nest, and forgot her horse and Bobby and Polly and everything but the little dead birds and the poor hungry one.

Betty Baby always said "poorie!" to everything that was little and helpless, and there Bobby and Polly found her, with the live bird in her hand, mourning "poorie, poorie!"

"Why doesn't their mother come?" said Polly.

"She's rained dead," said Bobby. "They haven't any mother! They haven't any mother!" said the children over and over, as they went back to the farm-house, Betty Baby dropping her tears on the naked birdling in her hands.

Grandmother Joy gave them a nice, clean, empty cage and made a soft nest for the baby bird; she said it was a red-winged blackbird, and might live and become a pretty pet.

And it did live. They all loved it, and it loved all of them, but it loved Betty Baby best. And because she loved it and pitied it so, and softly said, "poorie, poorie," to it so often, by and by the little blackbird would come to you when you said "poorie!" and that was the way "Poorie" came to be its name.

Poorie loved to eat from Betty Baby's hand, and to ride on top of her golden head, or to sit on her shoulder when she sat in her little chair.


His feathers were so black, they fairly glittered, and there were the loveliest bright scarlet spots on his wings. Sometimes he sang sweet, clear, short notes, like the tinkling high notes of the piano.

Wherever Betty Baby went Poorie went, and he was so much company for her that she did not follow Polly and Bobby about so closely as she used to do, and as they were older and stronger than Betty Baby they played together without her more and more, leaving her alone with Poorie even more than they really meant to.

So it happened that one evening at early supper-time the children came to the table without Betty Baby—and then everybody looked, surprised at the little vacant chair and remembered that Betty Baby had not been seen since early in the afternoon and neither had Poorie.

Nobody waited to eat supper; they all left the table, Jason going in one direction and Grandfather Joy in another, the children and Grandmother Joy rushing hither and thither, everybody calling and searching. But there was not a glimpse of Poorie, not a glimpse of Betty Baby. She was not asleep in grandpa's buggy, in the shed. Jason's tall toppling wood-pile, that Grandfather Joy had cautioned her about, had not fallen down; so she was not under that. She was not in the house, she was not in the garden, and she had not been seen over at Mr. Blodgett's, a quarter of a mile away, nor at Mr. Fletcher's.

Grandfather Joy and Jason came back to the steps of the sitting-room porch. They stood silent for a minute. Then Bobby heard Jason say in a low voice, "There's the lake, Mr. Joy," and heard Grandfather Joy answer, "Yes, Jason. Go and ask Mr. Fletcher to bring his boat around the bend," and then he knew they feared Betty Baby had fallen into the lake, and he turned and ran from the house with all his might.



Going Away This Summer?

If so, look over this list and see what the Santa Fe has to offer. It may be just what you want. If not, inquire of the undersigned, as lack of space prevents enumerating all rates and occasions on sale at present.

Chicago and Return, \$20.00—On sale daily, final limit returning October 31. Good via St. Louis and stop-over allowed in one direction, either going or returning.

Denver, Pueblo, Colorado Springs and Return, \$17.50—On sale daily, final limit returning October 31.

Glenwood Springs and Return, \$29.50—On sale daily, final limit returning October 31.

Sale Lake City and Ogden and Return, \$30.50—On sale daily, final limit returning October 31.

St. Louis and Return, \$7.60—On sale each Monday in June, final limit returning 7 days from date of sale.

St. Louis and Return, \$11.40—Good returning 15 days from date of sale.

St. Louis and Return, \$12.70—Good returning 60 days from date of sale.

Through sleepers from Topeka 4.30 and 8.30 p. m.

San Francisco and Los Angeles and Return, \$45.00—Account Annual Conclave Knights Templar. On sale August 15 to September 10, final returning October 23. Choice of going one way and returning another.

St. Paul and Minneapolis and Return, \$17.20—On sale daily, good returning as late as October 31.

Helena and Butte, Montana, and Return, \$60.00—On sale daily, final limit returning 90 days.

Buffalo, Niagara Falls and Chautauqua Lake Points and Return, \$28.85—Final limit returning 60 days.

Montreal and Return, \$33.55—On sale daily, good returning as late as October 31.

Mackinaw City and Return, \$27.30—On sale daily, final limit returning October 31.

Petoskey, Mich., and Return, \$25.25—On sale daily final limit returning October 31.

Very Low Rates to All Northern Michigan Points—Via steamer and rail.

Indianapolis and Return, \$17.75—Account National Prohibition Convention. Tickets on sale June 26 and 27, final limit returning July 15.

City of Mexico and Return, \$51.50—On sale first and third Tuesdays. Final limit returning 30 days. Liberal stop-over privileges allowed.

Cincinnati and Return, \$20.25—Account National Meeting Benevolent and Protective Order of Elks. Tickets on sale July 15-16-17, final limit returning August 18.

Boston and Return—Grand Army of the Republic Reunion. Very cheap rates to be announced later. Selling dates August 11-12-13, final limit returning September 30.

For full information relative to rates, connections, literature, sleeping car reservations, etc., address
T. L. KING, C. P. & T. A., Topeka, Kans.

Bobby meant to run and run so that he might never hear what dreadful thing had happened to Betty Baby. He ran through the raspberry garden, and the sweet-corn field, and the stubble field, and across the sheep corral, and across the old weedy "breaking" that Grandfather Joy had never planted, and away to the very further end of the "breaking," close to the slough.

All at once the setting sun threw great floods of yellow light over the prairie, and lit up the acres of wild sunflowers on the "breaking" and shone upon hundreds of bright red-winged blackbirds flocking among the sunflowers. As little Bobby plunged through, they flew up with a soft whirring of wings and went over into the tall grass of the slough—all but one.

All but one. That one sat alone on a sunflower stalk, looking at Bobby, tipping its head this way and that, and making short, sweet, distinct notes, as if it wanted Bobby to come.

It was Poorie! Bobby ran up to him crying, "Oh, Poorie, Poorie, where's Betty Baby? And then next minute he saw a little blue sunbonnet down in a tangle of wild morning-glories, right under the swinging sunflower; yes, there lay Betty Baby, asleep!

"I had a nice nap, like grandma," said Betty Baby, when Bobby woke her. Then she took Bobby's hand, and they ran as fast as they could, and Poorie flew along with them; and there they were, in the house, with Polly dancing, and Grandmother Joy crying joyfully, when Jason came back from Mr. Fletcher's and said he had brought the boat.

When they were all joyously sitting down to supper, Bobby said, in a tone of reproof, "You ought to've answered when we called, Betty Baby!"

But Betty said, sweetly, "How could I answered when I am asleep, Bobby Joy?"—Lucia Chase Bell, in Little Folks.

The velocity of the wind at the height of one mile above the earth is four times as great as at the surface.

"LIGHTNING RODS REDEEMED"

DODD, DOOLEY & CO.

... MANUFACTURERS OF ...

Pure Soft Copper Cable Lightning Rods

The only system of rodding indorsed by the Mutual Insurance Companies in state and national conventions. Be sure you get the genuine. Look for our trade mark, D. & S., on the end of every spool of our copper cable rod. We give a written guarantee to every customer, and our agents have our written certificate. Write for free book on "The Laws and Nature of Lightning and How to Control It." Address, **DODD, DOOLEY & CO., Topeka, Kans.**

WHITMAN'S BALING PRESSES

VICTORIOUS IN EVERY CONTEST.

The largest and most complete line of Balers in America. Highest award at World's Fair, Chicago; Paris Exposition, and every other contest. Not the cheapest, but guaranteed **THE BEST**. See our "New Model Steel Beauty" and "Universal" Presses for this season. Also manufacture large line of strictly first-class Farm Machinery. Send for Catalogues and prices. **WHITMAN AGRICULTURAL CO., St. Louis, Mo.**

A complete exhibit in Palace of Agriculture, Block 12.



The Missouri Pacific Railway

The World's Fair Line

7 DAILY TRAINS BETWEEN KANSAS CITY & ST. LOUIS 7

Leave Kansas City 6:55, 8:00, 10:10 a. m., 1:10, 9:15, 11:00 p. m., and 12:05 midnight. Ask for your tickets via this line from Kansas City; if you miss one train you will not have long to wait for another.

C. E. STYLES, A. G. P. A., Kansas City, Mo.
F. E. NIPPS, Ticket Agent, Topeka, Kans.

The Home Circle

CONDUCTED BY RUTH COWGILL.

MEMORY.

'Tis beauteous night; the stars look brightly down
Upon the earth, decked in her robe of snow,
No light gleams at the windows save my own,
Which gives its cheer to midnight and to me.
And now with noiseless step sweet memory comes
And leads me gently through her twilight realms.
What poet's tuneful lyre has ever sung,
Or delicatest pencil e'er portrayed
The enchanted, shadowy land where memory dwells?
It has its valleys, cheerless, lone and drear,
Dark shadowed by the mournful cypress tree;
And yet its sunlit mountain tops are bathed
In heaven's own blue. Upon its craggy cliffs,
Robed in the dreamy light of distant years,
Are clustered joys serene of other days.
Upon its gently sloping hillsides bend
The weeping willows o'er the sacred dust
Of dear departed ones; yet in that land
Where'er our footsteps fall upon the shore,
They that were sleeping rise from out the dust
Of death's long, silent years, and round us stand
As erst they did before the prison-tomb
Received their clay in its voiceless halls.
The heavens that bend above that land are hung
With clouds of various hues. Some dark and chill,
Surcharged with sorrow, cast their somber shade
Upon the sunny, joyous land below,
Others are floating through the dreamy air,
White as the fallen snow, their margins tinged
With gold and crimson hues; their shadows fall
Upon the flowery meads and sunny slopes,
Soft as the shadow of an angel's wing.
When the rough battle of the day is done,
And evening's peace falls gently on the heart
I bound away, across the noisy years,
Unto the utmost verge of memory's land,
Where earth and sky in dreamy distance meet
And memory dim with dark oblivion join;
And, wandering thence along the rolling years,
I see the shadow of my former self
Gliding from childhood up to man's estate.
The path of youth winds down through many a vale,
And on the brink of many a dread abyss,
From out whose darkness comes no ray of light,
Save that a phantom dances o'er the gulf
And beckons toward the verge. Again the path
Leads o'er the summit where the sunbeams fall;
And thus in light and shade, sunlight and gloom,
Sorrow and joy, this life-path leads along,
along.

—James A. Garfield.

Home-Making and Home-Makers.

However much good people may lament about the decadence and neglect of the home in the United States, this reproach does not apply to us in Kansas. Every year, more and more thought is given to the upbuilding of the home-life and is one of the things that has made and will make our State one of the powers to be reckoned with. The following from an exchange is so truly-spoken that it is with pleasure we quote it entire:

"To the true man or woman there can be nothing more agreeable on earth than the business of home-making; and all who are not home-makers miss the best part of their mission in life. Whoever makes a home, in the best sense of the word, is a real benefactor to the race; for every true home is the abode of joy, peace, happiness, and security to those that share in it, and exerts an influence that is incalculable for the amelioration of the whole human family. Many a prodigal has been led by the thought of home, and the makers of his own particular home, to repent of his sins and to change his course in life; and many an unfortunate one has been saved in the evil hour from suicide, or worse, by the tender recollections of home, a fond mother's prayers, an indulgent father's counsels, or a sister's or a brother's tenderness.

"Yes, whoever helps to make a true home confers a benefit on mankind that no man can fully estimate. Indeed, the influence of the true home for good is absolutely incalculable, and reaches many even that never enter its inner circle. Simply to get a glimpse of it is to receive an impulse

toward better things, to obtain a more exalted view of life, and to feel an access of faith in God and the immortality of the human soul. It is like a vision of the glories of the New Jerusalem and the everlasting habitations, and no one can be wholly bad who has seen such things.

"In most cases a man or woman is what his or her home influences have made him or her, and the homeless child is always at a disadvantage as compared with one who has a good home. The homeless child is indeed greatly to be pitied, being deprived of so much of life's sweetness and brightness, and knowing nothing by actual experience of a mother's gentle sympathy and a father's loving care, or of the innocent pleasures which kind parents know how to provide in the home circle, and which, far beyond anything else, make childhood the happiest period of life. The individual who starts out in life from a well-ordered home is quite sure to prove a useful member of society, for pleasant home associations inspire that confidence in a person which insures him success in any honorable undertaking.

"There are many things to be considered in genuine home-making, but the great essential, that without which everything else amounts to nothing, is unselfish affection in the home-makers. Selfishness and unkindness are the chief home-destroyers, and must be sleeplessly guarded against by those who wish to make and keep happy homes; for where either holds sway, true home life is an impossibility. Love and kindness constitute the tie that joins the members of the home circle in a joyous and harmonious union of souls and these all true home-makers will diligently cultivate. It is warm-heartedness, first, last and all the time, that the successful home-maker needs.

"Among the material requisites to home-making are an attractive abiding place and proper environment, which latter must include good air and light. Of course, there are many minor points of difference between a city home and a country home, while in all the more important particulars all true homes are alike. City homes, as a rule, do not offer as good opportunities as those in the country for exterior or lawn decoration. That, however, is of no consequence, as the rule applies to all homes, regardless of location, that they should be made as beautiful as circumstances will permit, after all reasonable considerations of air and light have been met. A beautiful home is a never-failing source of satisfaction both to the indweller and the wayfarer that may pass by.

"People of means and good taste may make their homes perfect dreams of beauty, but they can not well make home too beautiful, as long as the comfort and happiness of the inmates are sought and promoted. Surely money can not be expended to better purpose than in making and adorning a home for one's self and loved ones and furnishing it with all that is best calculated to foster in the inhabitants thereof a love of home, as well as a love of the true, the beautiful, and the good; and even poor people will best secure their own happiness by toiling and saving to acquire and embellish homes for themselves. There is a pleasure connected with home-making that is rare, rapturous and absorbing, and love of home is as noble and ennobling a feeling as can stir the human soul. We look for good things in a person in whom an ardent love of home has been developed, and hope for little from one who speaks indifferently or slightingly of his home. We do well for our children when we make happy homes for them, which they will naturally learn to love.

"But, after all is said about rare treasures of art and nature that may lend attraction to a home and its surroundings, it remains that the fairest home ornaments are bright, joyous faces; and where these are wanting, all else goes for little. Bright and joyous faces always accompany warm and loving hearts, which all true home-makers must possess. Hence all who intend making homes should look care-

fully into their own hearts; for only when these are right can they expect their home-making to prove satisfactory. Warm hearts make bright and cheerful hearths, but the warmest hearth can not thaw the icy heart. Love is the great home-maker, that makes even the drudgery of house-keeping a pleasure, and home life a foretaste of the bliss of heaven. One can not get too much love into one's home-making, but easily too little."

Fruits and Their Preparation for Use.

Cherry Pudding.—Soak and cook a half cup of tapioca in a pint of water until transparent. Have a pint of fresh pitted cherries in an earthen dish. Sprinkle them with sugar, pour over them cooked tapioca and bake for an hour in a moderate oven. Serve hot with or without cream.—Good Health.

Raspberry Shortcake.—One cupful and a half of flour, one teaspoonful of baking powder, butter the size of an egg, a little salt and a scant cupful of milk. Mix soft; bake in a breadpan from twenty to thirty minutes. Split lengthwise, butter, and spread each layer with sweetened raspberries. Serve hot with whipped cream.

Raspberry Slices.—Make a good puff paste, roll it out half an inch in thickness, cut it in strips half an inch in width, then cut into fingers of two inches in length, place these on buttered pans, the cut part up and some three inches apart and bake in a solid heat. They should be spread out very thin. When half baked draw them up, well dust them with powdered sugar and place them in a very hot part of the oven to glaze the sugar. When the sugar is glazed remove them to a cooler part to finish baking. When baked and cold put two together with raspberry jam between; press them together. They are then ready to dish up for a fancy dish of pastry. These may be varied by using other jams or jellies than raspberry, although raspberry is the correct jam.

JELLIES.

The fruit must be perfectly fresh, the sugar must be of good quality, and the jelly bags must be in perfect order. The real secret of good jelly lies in the repeated and thorough straining of the fruit juice.

There should be three sets of bags, one of double mosquito netting, one of fairly close cheese cloth, and one of firm white flannel. These bags must be triangular in shape, well sewed with double seams. A porcelain-lined kettle, a wooden spoon or paddle, a glass or tin measuring cup, and a large porcelain bowl furnish the necessary tools for making jellies.

The jelly glasses must be very clean and placed in a convenient spot, ready for immediate use when the jelly is done. The glasses should be filled nearly full, as the jelly will shrink when it cools. A silver spoon placed in the glass when the hot jelly is poured in, will prevent the glass from cracking. When the glasses are filled, they should be carefully wiped with a damp cloth and set away for a day or two.

The jelly must be covered with circles of brown paper cut a trifle larger than the surface and dipped in whisky. Over the tops of the glasses a larger circle of brown paper, plainly marked and dated, should be fastened with mucilage or string. Jelly must be made as air-tight as possible, and kept in a cool, dry, dark closet.

Currant Jelly.—Currants must be used before they are over ripe, and should not be picked after a rain. Look the currants over carefully, remove all dry or imperfect berries and leaves, but do not stem or wash them. Place the fruit in a porcelain-lined kettle over the fire and mash it with a potato-masher, as it heats. When boiling hot, remove from the fire and place in a mosquito netting bag. Hang the bag on a broomstick over a porcelain dish and let the juice drip. When cool enough to handle, squeeze the fruit in small quantities till dry, through a piece of cheese cloth. Strain the juice several times through wet cheese cloth and flannel bags until it is per-

YEAST
OF PURITY
TRADE MARK
AND EXCELLENCE
FOAM

Every loaf made with Yeast Foam is sweet and well-raised, good to look at and better to taste. It's the best of bread because it's raised with

Good Yeast

Yeast Foam is a wholesome, vegetable yeast. Bread made with it retains its moisture and wheat flavor until the last of the batch is gone.

The secret is in the yeast.
Each package contains enough for 40 loaves, and sells for 5c at all grocers. "How to Make Bread," free.

NORTHWESTERN YEAST CO. CHICAGO.

fectly clear, heating it again if it cools and thickens. Measure the juice, and allow one pound of granulated sugar to one pint of juice. Boil the juice for five minutes. Add the sugar, stirring until it is dissolved. Skim frequently. When the sirup is boiling hot, let it boil one minute. Longer boiling of jelly is unnecessary, although many rules require it. Have ready a large heated pitcher. Stretch over the top a square of cheese cloth wrung out of very hot water. Pour the jelly into the pitcher and fill the glasses immediately. This rule, if carefully followed, never fails to make delicious, clear jelly.

To vary the flavor, raspberries may be used with currants, in the proportion of two quarts of raspberries to six quarts of currants.

Raspberry, blackberry, strawberry, barberry, and goosberry jellies are all made in the same way as currant jelly, using no water.

Crab Apple Jelly.—Wash the apples and cut them in two, removing the blossom ends. Place them in a porcelain-lined kettle and add cold water to nearly cover, or until it can be seen about the fruit. Too much water makes the juice thin and necessitates longer cooking. Boil slowly, stirring often. When the fruit is reduced to a pulp, place it in a mosquito netting bag suspended over an earthen bowl. Press the bag gently, but do not squeeze it, as only the clear juice is used. The juice may be left to drip over night and the jelly finished the next morning, following the directions for making currant jelly.

Baldwin apples make a delicate pinkish amber jelly.

Quinces, plums, and peaches can be used to make jelly, using this same rule.

Green grapes make a tart, amber jelly, which is especially good to serve with meats. If among the green there are a few purple grapes, a claret-colored jelly results. When the grapes are fully ripe a purple jelly is made, which is sweeter than the green grape jelly. All grape jellies are made like crab apple jelly, excepting that less water is used.

Rhubarb Jelly.—Wash the rhubarb, cut it into inch pieces without removing the skin. Add very little water, only enough to start the fruit to boiling. Proceed as for crab-apple jelly.

Orange Marmalade.—Take equal weights of sour oranges and granulated sugar. Grate the yellow rind from one-half the fruit. Cut the oranges in two and remove juice and pulp with a glass lemon squeezer. Add the grated rind and juice of one or two lemons. Pick out all seeds and drain off the juice. Put it on to boil with the sugar. Let it come to a boil, skim and simmer for fifteen minutes. Add

the pulp and grated rind and boil for fifteen minutes. Pour into jelly tumblers. When cold, cover like jelly.

For the Preserve Closet.—Add seven pounds of red currants, well washed and stemmed, to half a pint of strong vinegar and half a pint of currant juice. Add three and one-half pounds of sugar and boil the whole over the fire until it becomes firm. It will take about an hour or an hour and a half. Stir it often so that it does not burn. About ten minutes before the currants are removed from the fire add two ounces of powdered cinnamon and one ounce of cloves. Turn the mixture, when it has been sufficiently boiled, into straight marmalade jars and seal it up like jelly.

Forest-Planting in Western Kansas.

(Continued from page 717.)

The experimental stage has passed, however, and now the planter can use species whose worth has been proven, whatever his locality. There are local depressions on the upland which catch considerable run-off, and so are suited to species which need more than the normal precipitation of the region. In such a place on the high upland of Wallace County, the writer was surprised one day to find a row of black walnuts, neglected in the sod, yet looking well and bearing nuts. It was the result of the haphazard planting of some settler who had long since departed and of whose sod house only a heap of dirt remained. The explanation was simple. A cattle trail and wheel tracks served to conduct the rainfall down the gentle grade to a shallow basin, and the instant the point was passed where water collected occasionally, only a few small stumps were left to tell the tale of drouth and disaster. Nearly every quarter section has some spot of an acre or more of this character, which could be profitably utilized for tree-planting. By putting the moisture-requiring species in the favored situations, and the drouth-resisting ones elsewhere, the planter's range of choice is extended with most beneficial results.

HOW TO PLANT.

For plantations of the common broadleaf species, one-year-old seedlings are best to use since they are easier to handle and much cheaper than older trees. They ordinarily run from one to two feet high, and have no branches to speak of, so that little if any pruning is required. If the ground has been well prepared and is moist, the setting can be done very rapidly. A man and a boy work well together. The boy carries the trees and hands them to the man as wanted. The latter sets his spade full length in the ground, throws the handle forward, sticks a seedling in behind the blade, removes the spade, steps firmly with both feet on the ground around the tree, and the operation is complete, the whole thing not taking more than half a minute. A number of seedlings can be carried in a bucket partially filled with water, or in a basket covered with a wet cloth covering the roots, the remainder of the stock being left heeled in until needed. The writer set out over 500 yearling honey locusts in this manner on March 30, 1903. They were nicely started when frozen back by the snowstorm of April 29, yet all lived but three and made an average height growth of three feet during the season. Another rapid method is to plow a furrow where the row of trees is wanted, lay them against the side of it, cover with a hoe and tramp firmly. The remaining dirt can be thrown back with a cultivator.

Of course it should be distinctly understood that these methods are only for the common broadleaf seedlings when the right conditions exist, and will result in failure when applied to larger trees or evergreens. The important thing in all cases is to have the soil come into close contact with the roots, otherwise the air will get in and dry out both soil and roots. It is a good practice to set deep enough so that when the operation is finished the trees stand in a shallow depression. This will catch the rain and materially increase the chances of

success in a dry season. An essential element in planting is suitable weather. Occasionally there are springs in Western Kansas when it is altogether useless to set trees unless water can be supplied whenever needed. The planter who raises his own seedlings can take advantage of favorable conditions, have his trees perfectly fresh and set when he pleases, or even let them wait until another season.

CULTIVATION.

Successful forest-planting on the plains where the rainfall is light and the evaporation great, depends largely upon the proper cultivation of the plantation. Nature has bountifully provided us with a deep, rich, easily worked soil which the farmer is learning how best to utilize. The abundant crops which are occasionally produced with the poorest methods of cultivation have tempted many to use more land than could be well handled, but experience is proving that for a succession of years there is no question about the increase in financial returns to be secured by better systems of culture. The wheat-grower formerly thought that if he plowed his ground once in two or three years he was doing well enough. Now he has discovered that it pays to plow every year. Similarly, the early tree-planters often set their trees carelessly and left them to struggle unaided with dry weather and native vegetation. Now the planter knows that trees, too, respond most encouragingly to good cultivation.

The object of cultivation is twofold: First, to prevent the growth of weeds and grass; second, to conserve soil moisture. The natural supply of moisture in Western Kansas is sufficient for the needs of several species of trees provided it is fully used by the trees and not allowed to escape through evaporation or to be diverted by weeds and grass. There is not enough to warrant any wasting of it. Before the trees are set, the ground should be thoroughly worked and put into good condition. Virgin sod, unless very sandy, should be broken and farmed to other crops for two or three years prior to the planting of the trees. Deep plowing, followed immediately by the harrow, saves moisture and makes the soil easily penetrable by the roots. After setting, cultivation should be shallow and frequent. An ideal method is a surface cultivation as soon as possible after every rain. The nearer this ideal is approached, the better the results will be. The dust mulch is the best mulch of all to save the moisture already in the ground, and to keep the soil in good condition to receive the next that comes.

The advantage to be gained by long-continued cultivation of a forest plantation makes a rather wide spacing advisable and with some species will necessitate some pruning of the lower limbs. The wide spaces between the rows, however, can be largely compensated for by setting closer in them. The common spacing of plantations under the provisions of the Timber Culture Act was 4 by 4 feet. Trees set this way could be cultivated for only a very short time. A 2 by 8 spacing gives the same number per acre and permits much more satisfactory cultivation. For species which need more room, a 3 by 8 or 4 by 8 spacing can be used at first, while with increasing age and size the space required for cultivation can be obtained by thinning. The less cultivation that is to be given to the plantation, the thicker the trees should be set. Where the soil moisture is not conserved by cultivation, the stand must be thick enough to finally establish forest conditions of shade and litter, if the plantation is to succeed. It is undoubtedly true, however, that on the plains, wider spacing and frequent cultivation will produce better trees than close spacing and little or no cultivation.

Aside from the preparation of the ground for planting, the plow has no place among trees and should not be used thereafter. Too often it is the case that the plantation is neglected until the weeds have formed a dense mass three or four feet high, and then,

in desperation, a plowing is given, not followed by a harrow of any kind. The plow leaves the ground rough, thereby greatly increasing the loss of soil moisture through evaporation; a dead furrow is formed between the rows, or the earth is thrown away from the base of the trees, and many roots are cut so that the root system is injured and the growth of sprouts encouraged. The man who is not willing to take proper care of his trees deserves to lose them, and quite likely he will.

The best tools for the preparation of the surface of the ground and subsequent cultivation are the Acme disk and dagger-tooth harrows, and the five-tooth cultivator. The Acme harrow is an excellent tool for shallow cultivation, and, used frequently enough, it is all that is necessary most of the time. Another thing in favor of the Acme is the ease and rapidity with which it works. The Western farmer, with his hundreds of acres of land and thousands of bushels of grain, has learned the value of a riding implement and rapid methods. He may ride an Acme harrow among his trees, and still be sure he is doing the best thing by them. The one-horse size is 3 feet 6 inches wide, and the two-horse, 6 feet 6 inches. Where the weeds have made a strong start, an ordinary cultivator may be put in, or a shallow disking given, but the disk should be set quite slanting or followed by a harrow to produce the best surface conditions. Dagger-tooth harrows are made in five-foot sections, so a single section and one horse may be conveniently used between the rows of trees. The five-tooth, one-horse cultivator requires the least space of any of the tools mentioned, and can be used when the rows are quite close together or after the trees have filled most of the space.

An excellent example of the extent to which cultivation can replace irrigation is furnished by the Rainbelt Experiment Station at Cheyenne Wells, Colo. The station was established in 1894 in a typical High Plains region. The elevation is 4,200 feet, with water 260 feet below the surface. The annual precipitation is about 13 inches. An apple orchard set in 1895 contains fine, healthy trees which have produced well. They are of the usual varieties common further east such as Ben Davis, Winesap, Genet, etc. The intention is to give two shallow cultivations monthly if possible. The tools used are a five-tooth cultivator, and a dagger-tooth harrow with the teeth set slanting. While less has been attempted with forest-trees at the station, there are some green ash a year older than the apples that are making good trees and young honey locust are promising well. Since such good results have been obtained with apple-trees, there is no doubt that the same method of cultivation would enable several species of forest-trees to be successfully grown.

The Pomeroy Model Farm, at Hill City, Kans., which has been practicing the "Campbell system" of cultivation since 1900, is a valuable experiment in methods applicable to the semi-arid regions. While the main object is the production of wheat and other farm crops, considerable has been done with trees. Besides various fruit varieties, Russian mulberry, soft maple, and white elm have been set. They are doing finely so far, although it is a very unfavorable situation for the maple and only fair for the elm. Cultivation is given as soon as the ground can be worked after every rain. An Acme harrow is generally used preceded by a disk in case the weeds get too much of a start.

In river and creek valleys where water is from 5 to 20 feet below the surface, cultivation is not ordinarily necessary after the trees get thoroughly established. The same is true in many places on the upland where there are shallow basins which catch the run-off from a considerable adjoining area.

In such situations, the supply may be increased by plowing furrows along slopes lying above the plantation to collect water which would otherwise be lost.

Mulching has been practiced to some extent, hay, straw, or manure being used. It is better to mulch than to let the weeds grow. The mulch also checks evaporation and keeps the soil in good condition. The complaint is sometimes made that long-continued mulching brings the roots too close to the surface, and then they are exposed if it chanced to be removed. The mulch certainly furnishes a convenient harbor for mice and all sorts of insects. The best mulch in all respects is the dust mulch secured by cultivation; while the most suitable place for the one of hay or straw is around trees set in the sod where it is inconvenient or undesirable to cultivate. Along a hedgerow, for instance, a mulch may be of much benefit.

Occasionally, field crops are planted between the rows of young trees, but the person who has any regard for their welfare will not so do. The trees need all the moisture and should not be forced to divide with other vegetation. Corn is especially harmful. The roots will spread both down and out for 4 or 5 feet and take much more soil moisture than do the young trees. If any crop is to be planted, it should be a short-lived one of the garden kind, either small truck or potatoes. Their roots do not spread far and are soon gone, while the return from them will be sufficient to pay for the cultivation which should be given to the trees were they planted alone.

A sure way to ruin a young plantation is to turn cattle into it. Even if the trees are too large to be broken off by rubbing, every branch within reach will go and forest conditions of shade and undergrowth be destroyed so that weeds and grass can easily get a foothold. The damage to large trees in situations where moisture is abundant is not so great and the protection furnished to stock in such a case may be of more value than anything else. The principal injury to older trees is by trampling. A heavy soil becomes packed so that it is nearly impervious to water, while a sandy one is worn away, leaving the roots exposed.

WHAT TO PLANT.

In order to succeed in forest-planting in Western Kansas, a careful selection of species is as important as good care. Many kinds of trees can not be made to thrive, no matter how much cultivation be given, and the planter must in some cases be content with what he can get rather than what he wants. Experience has thus far demonstrated that 15 or 20 species of forest-trees can be grown, and no doubt the number will be increased by future experiments. The many past failures have taught valuable lessons which are being heeded. Omitting the less-desirable species, those adapted to various situations and purposes may be classified as follows:

UPLAND SPECIES.

For upland planting under ordinary conditions, the honey locust, Osage orange, Russian mulberry, and red cedar are of superior hardiness and may be relied upon for good results. Next in hardiness come the white elm, green ash, hackberry, and Scotch and Austrian pines, all of which do very nicely when properly cared for.

VALLEY SPECIES.

For valley situations where the roots will eventually get the benefit of permanent water, all the upland species are excellent and to them may be added in many localities the cottonwood, box-elder, soft maple, black walnut, and hardy catalpa.

COMMERCIAL SPECIES.

In favorable situations where growth will be rapid, these species may be profitably planted for commercial returns: Osage orange, black walnut, Russian mulberry, hardy catalpa.

PILES NO MONEY TILL CURED. 25 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, some paid a cent till cured—we furnish their names on application.
DR. THORNTON & MINOR, 100, Oak St., Kansas City, Mo.

Sharple's Tubular SEPARATORS

WILL you buy a separator because the agent is a "good fellow?" Some people do. We hope such will read this. The Tubular talks for itself and is bought for itself.

If You Have a Brand New Separator not a Tubular, put it in the garret. We will sell you a Sharple's Tubular, guaranteed to make enough more butter than the other from the same milk to pay 25 per cent yearly dividend on the whole cost of the machine. You test them side by side.

Pierpont Morgan is hunting a place to put money at 6 per cent; here is a guaranteed 25 per cent to you. While this dividend pays your bills the Tubular makes your life more pleasant by pleasing your wife. A waist low milk vat saves your back. Simple bowl—easy to wash—the only one that is so. Automatic oiling; the only one that has. Easier to turn than others and safer. Catalog A-165 explains better.



Sharple's Co. Chicago, Illinois
 P. M. Sharple's West Chester, Pa.

In the Dairy

Competitive Tests of Dairy Breeds.

EDITOR KANSAS FARMER:—Enclosed I am sending you a statement of the results obtained during the first ten days of the dairy cow demonstration which is now being carried on in this department of the Louisiana Purchase Exposition. These dairy tests began June 15, and the figures sent you herewith include the average weight of each one of the 74 cows entered in these tests. Each weight is the average of the weights of each cow made on six consecutive days. These figures are to be used as the official weights of the cows at the beginning of the test. Similar weighings will be made of the cows at the end of the test. This is done for the purpose of determining the increase and decrease in live weight of each cow during the time she is taking part in the dairy cow demonstration.

The statements also show the weights of feed, milk, butter-fat and solids not fat, recorded for the first ten days of the test. These figures have been obtained by the representatives of the agricultural colleges and experiment stations under whose supervision the work is being conducted. I think you will find the records of great interest to your readers.

FREDERIC W. TAYLOR,
Chief, Department of Agriculture.
World's Fair, St. Louis, July 2, 1904.

If it's a

DE LAVAL

that's all you need to know about a

CREAM SEPARATOR

Send for catalogue and name of nearest local agent.

THE DE LAVAL SEPARATOR CO.

Randolph & Canal Sta., CHICAGO. General Offices: 121 Youville Square, MONTREAL.

1213 Filbert Street, PHILADELPHIA. 74 CORTLANDT STREET, NEW YORK. 75 & 77 York street, TORONTO.

9 & 11 Drumm Street, SAN FRANCISCO. 248 McDermot Avenue, WINNIPEG.

If you only knew how much more money you could make with an

Empire Cream Separator

on the farm, we don't believe you'd hesitate a day before buying one. Our books about the Empire Way of running the dairy are free. They point the way to bigger profits. Send in your name.

Empire Cream Separator Co.
Bloomfield, N. J. Chicago, Ill.
Minneapolis, Minn.

WEIGHT OF COWS AT BEGINNING OF TEST.—AVERAGE OF SIX WEIGHTS.

Each cow was weighed at the same time every day for six days at the beginning of the test.

DROWN SWISS COWS.

No.	Average weight.	Difference between highest and lowest 6 weights.
1.....	1211	74
2.....	1148	40
3.....	1311	22
4.....	1342	14
5.....	1433	38

HOLSTEIN - COWS.

6.....	1339	54
7.....	1365	88
8.....	1220	30
9.....	1183	70
10.....	1325	48
11.....	1269	38
12.....	1240	62
13.....	1297	48
14.....	1228	50
15.....	1165	100
16.....	1157	34
17.....	1201	52
18.....	1153	36
19.....	1194	58
20.....	1265	68

\$43.75 CREAM SEPARATOR

AT \$43.75 we furnish the highest grade CREAM SEPARATOR made, the strongest, simplest, lightest running, closest skimmer, MOST ECONOMICAL and most thorough hand cream separator made. For large illustrations and complete descriptions, for our special

30 DAYS' FREE TRIAL PROPOSITION

and the most astonishing offer ever made on any CREAM SEPARATOR. WRITE FOR SPECIAL CREAM SEPARATOR CATALOGUE. Address, SEARS, ROEBUCK & CO., Chicago, Ill.

JERSEY COWS.

21.....	944	16
22.....	949	34
23.....	1015	26
24.....	902	14
25.....	877	28
26.....	1011	18
27.....	898	22
28.....	888	25
29.....	754	46
30.....	947	22
31.....	941	16
32.....	827	14
33.....	904	10
34.....	818	14
35.....	916	34
36.....	1004	50
37.....	998	20
38.....	897	34
39.....	1001	16
40.....	845	28
41.....	870	50
42.....	742	24
43.....	965	32
44.....	1039	12
45.....	858	72

WANTED!!

Every reader of this paper who owns a few cows to send for our new catalog of

DAVIS Cream Separators

Sent free upon request. It will tell you why the Davis Separators are money makers for their owners.

THEY ARE GUARANTEED to separate THOROUGHLY and QUICKLY. Dairyman and farmers find the "Davis" the most economical piece of machinery on the farm. Let us send you full particulars about it.

DAVIS CREAM SEPARATOR CO.
54 to 64 N. Clinton St., Chicago.

SHORTHORN COWS.

46.....	1354	46
47.....	1133	64
48.....	1059	46
49.....	1309	56
50.....	1242	66
51.....	1359	70
52.....	1373	33
53.....	1246	30
54.....	967	10
55.....	1023	42
56.....	1107	42
57.....	1163	58
58.....	1243	26
59.....	1368	50
60.....	1266	28
61.....	1123	44
62.....	1212	42
63.....	1030	50
64.....	1336	34
65.....	1305	34
66.....	1057	48
67.....	1156	40
68.....	1141	36
69.....	1173	36
70.....	1217	36
71.....	1082	66
72.....	1142	14
73.....	1265	54
74.....	1129	24

CASH FOR EGGS.

POULTRYMEN AND FARMERS

If you produce a case or more of eggs per week it will pay you to ship them to me. Write for particulars. **J. H. PERRY.** Established 1886. 1433 Blake St., Denver, Colo. Reference, Colorado National Bank.

When writing advertisers please mention this paper.

Cows No. 36 to 45 inclusive have the average of five weights only because of irregular watering on one day. Results of the first ten days of the dairy cow contest at the Louisiana Purchase Exposition, St. Louis:

THE IOWA DAIRY SEPARATOR.

Skims milk HOT OR COLD. Skims cream RICH OR THIN. No separator on the market will skim at as wide a range of temperature as will the IOWA.

The only separator made that the bowl can be stopped immediately, thus saving valuable time in cleaning. Full information and description furnished on application.

W. G. DICKIE, Topeka, Kans.

Local Agents Wanted. General Agent for Northern Kansas.

ON CREDIT

Celebrated Century Centrifugal Cream Separators,

Cash or easy monthly payments. We trust honest people located in all parts of the world. Warranted for twenty-five years. Write for free catalogue.

Century Manufacturing Co.,
Department 128 East St. Louis, Ill.

WE GIVE YOU 30 DAYS FREE TRIAL and we save you from 25 to 50 because you don't have to pay any agents' commissions nor dealers' profits when you buy a

CLEVELAND Cream Separator

Guaranteed to cost less, turn more easily, make more money than any other. Try it and see. Don't keep it if you don't like it. Ball-bearings; aluminum separating device in one piece. As easily washed as a dinner plate. Catalogue free for the asking.

The Cleveland Cream Separator Co. 324 Hickox Bldg. Cleveland, O.

FROM OUR FACTORY TO YOUR FARM

Farming in Colorado, Utah, and New Mexico.

The farmer who contemplates hanging his location should look well into the subject of irrigation. Before making a trip of investigation there is no better way to secure advance information than by writing to those most interested in the settlement of unoccupied lands. Several publications, giving valuable information in regard to the agricultural, horticultural and live stock interests of this great Western section has been prepared by the Denver & Rio Grande and the Rio Grande Western, which should be in the hands of all who desire to become acquainted with the merits of the various localities. Write

S. K. HOOPER, G. P. & T. A.,
Denver, Colorado.

BROWN SWISS COWS.

Feed consumed by the five cows in this herd, pounds:

Table with columns for dates (16-25) and feed types (Alfalfa hay, Hominy, Malt sprouts, etc.) and a sub-table for Milk, fat, per cent, Solids, not fat, per cent.

WEIGHT AND TEST OF MILK.

Total weight of milk produced by the five cows during the ten days, 2,556.2 pounds. Milk produced per cow per day (average of the herd), 51.1 pounds. Total weight of butter-fat produced by the five cows during the ten days, 83.3 pounds. Pounds butter-fat produced per cow per day (average of the herd), 1.67 pounds. Total weight of solids not fat produced by the five cows during the ten days, 219.3 pounds. Pounds solids not fat produced per cow per day (average of the herd), 4.39 pounds.

Pounds butter-fat produced per cow per day (average of the herd), 1.26 pounds. Total weight of solids not fat produced by the twenty-nine cows during the ten days, 876.7 pounds. Pounds solids not fat produced per cow per day (average of the herd), 3 pounds.

Loss of Milk by Separating.

EDITOR KANSAS FARMER:—Please tell us through your paper what per cent does milk lose by separation? Say milk that makes around four pounds of butter to the 100 pounds of milk. Or, what per cent of milk should re-

HOLSTEIN COWS.

Feed consumed by the fifteen cows in this herd, pounds:

Table with columns for dates (16-25) and feed types (Alfalfa hay, Gluten meal, Green clover, etc.) and a sub-table for Milk, fat, per cent, Solids, not fat, per cent.

WEIGHT AND TEST OF MILK.

Total weight of milk produced by the fifteen cows during the ten days, 9,225.4 pounds. Milk produced per cow per day (average of the herd), 61.5 pounds. Total weight of butter-fat produced by the fifteen cows during the ten days, 308.1 pounds. Pounds butter-fat produced per cow per day (average of the herd), 2.05 pounds. Total weight of solids not fat produced by the fifteen cows during the ten days, 688.2 pounds. Pounds solids not fat produced per cow per day, 4.59 pounds.

turn from the creamery? M. J. STONES, R. F. D. No. 4, Waukomis, Okla. Mr. Stones' letter was referred for reply to Mr. T. A. Borman, of the Continental Creamery Co., who is secretary of the Kansas Dairy Association, and the best possible authority. His reply is as follows: "Referring to your inquiry, will say that it is customary among creameries to return to the patron 85 per cent of the whole milk he may deliver to the creamery or skimming-station. That is to say, in separating whole milk, cream to the amount of fifteen pounds is taken from each hundred

JERSEY COWS.

Feed consumed by the twenty-five cows in this herd, pounds:

Table with columns for dates (16-25) and feed types (Alfalfa hay, Silage, Corn meal, Bran, Oil meal, etc.) and a sub-table for Milk, fat, per cent, Solids, not fat, per cent.

WEIGHT AND TEST OF MILK.

Total weight of milk produced by the 25 cows during the ten days, 10,944.5 pounds. Milk produced per cow per day (average of the herd), 43.8 pounds. Total weight of butter-fat produced by the twenty-five cows during the ten days, 464.1 pounds. Pounds butter-fat produced per cow per day (average of the herd), 1.86 pounds. Total weight of solids not fat produced by the twenty-five cows during the ten days, 923.7 pounds. Pounds solids not fat produced per cow per day, 3.7 pounds.

pounds of skim-milk so separated. We know of instances in which skimming-stations are located long distances from the central churning-plant and from which stations it is desirable a very heavy cream be shipped in order to reduce the transportation expense per pound of butter-fat, and in which instances from such skimming-stations 90 per cent of the whole milk is returned, or ten pounds of cream is taken from each hundred pounds of milk separated. In hand-separator practice, creameries instruct the users of separators to take about one gallon of cream for

SHORTHORN COWS.

Feed consumed by the twenty-nine cows in this herd:

Table with columns for dates (16-25) and feed types (Alfalfa hay, Silage, Bran, Corn meal, Oil meal, etc.) and a sub-table for Milk, fat, per cent, Solids, not fat, per cent.

WEIGHT AND TEST OF MILK.

Total weight of milk produced by the twenty-nine cows during the ten days, 10,796.3 pounds. Milk produced per cow per day (average of the herd), 37.2 pounds. Total weight of butter-fat produced by the twenty-nine cows during the ten days, 365.4 pounds.

each ten gallons of milk, or about 8 1/2 pounds of cream from 83 pounds of milk. "There would be no difference in the amount of milk returned to the patron in general practice if his milk tested 4 per cent butter-fat or if it tested only 3.5 per cent butter-fat"



Young women may avoid much sickness and pain, says Miss Alma Pratt, if they will only have faith in the use of Lydia E. Pinkham's Vegetable Compound.

"DEAR MRS. PINKHAM:—I feel it my duty to tell all young women how much Lydia E. Pinkham's wonderful Vegetable Compound has done for me. I was completely run down, unable to attend school, and did not care for any kind of society, but now I feel like a new person, and have gained seven pounds of flesh in three months. "I recommend it to all young women who suffer from female weakness."—Miss ALMA PRATT, Holly, Mich.

FREE MEDICAL ADVICE TO YOUNG GIRLS.

All young girls at this period of life are earnestly invited to write Mrs. Pinkham for advice; she has guided in a motherly way hundreds of young women; her advice is freely and cheerfully given, and her address is Lynn, Mass.

Judging from the letters she is receiving from so many young girls Mrs. Pinkham believes that our girls are often pushed altogether too near the limit of their endurance nowadays in our public schools and seminaries. Nothing is allowed to interfere with studies, the girl must be pushed to the front and graduated with honor; often physical collapse follows, and it takes years to recover the lost vitality,—often it is never recovered.

A Young Chicago Girl Saved from Despair.

"DEAR MRS. PINKHAM:—I wish to thank you for the help and benefit I have received through the use of Lydia E. Pinkham's Vegetable Compound and Liver Pills. When I was about seventeen years old I suddenly seemed to lose my usual good health and vitality. Father said I studied too hard, but the doctor thought different and prescribed tonics, which I took by the quart without relief. Reading one day in the paper of Mrs. Pinkham's great cures, and finding the symptoms described answered mine, I decided I would give Lydia E. Pinkham's Vegetable Compound a trial. I did not say a word to the doctor; I bought it myself, and took it according to directions regularly for two months, and I found that I gradually improved, and that all pains left me, and I was my old self once more. — LILLIE E. SENECLAIR, 17 E. 23d St., Chicago Ill."

Lydia E. Pinkham's Vegetable Compound is the one sure remedy to be relied upon at this important period in a young girl's life; with it she can go through with courage and safety the work she must accomplish, and fortify her physical well being so that her future life may be insured against sickness and suffering.

\$5000 FORFEIT if we cannot forthwith produce the original letters and signatures of above testimonials, which will prove their absolute genuineness. Lydia E. Pinkham Medicine Co., Lynn, Mass.

Advertisement for 'GERMS KILLED—CANCER CURED' with text 'NO PAIN! NO SURGERY!' and 'Send Postal for 100-page Book, FREE, on the True Method of PERMANENTLY CURING CANCER WITH NO PAIN DR. E. O. SMITH, 2836 Cherry Street, KANSAS CITY, MO.'

Advertisement for 'Lincoln Business College' with text 'Our Graduates succeed because we prepare them to do something. Our Methods, Courses of Study and Equipment are Unexcelled. We help young people who desire to succeed. EXPENSES LOW COURSE THOROUGH. Write for Catalogue. LINCOLN BUSINESS COLLEGE, Lincoln, Neb.'

WHEN WRITING ADVERTISERS PLEASE MENTION THIS PAPER.

Grass for Overflowed Land.

(Continued from page 716.)

A combination of redtop, English blue-grass and Alsike clover ought to be well adapted for growing on the river bottom-lands which you describe. This combination will make good pasture and may be used for meadow. If your desire is to turn your lands into permanent pasture, a little Kentucky blue-grass and white clover may be seeded with the grass named above. I would recommend the seeding of about ten pounds each of the redtop and English blue-grass, with two or three pounds of Alsike clover. If the purpose is to use the lands largely for hay production, it may be best to sow about six pounds of timothy in place of the English blue-grass, since the English blue-grass matures earlier than redtop. Redtop will not be injured by ordinary flooding of land such as you describe, and Alsike clover is adapted for growing on wet lands.

Smartweeds are of no value whatever for hay. It would be my recommendation to plow these weeds under at once if they are not too large, or they may be cut before they seed and the ground plowed later. Cultivate the land occasionally until the first of September to keep down the weeds and put it in good seed-bed condition. The grass may be seeded early this fall but the clover should not be seeded until early next spring. Probably fall seeding on wet lands will be safer than spring seeding, although the grasses may be seeded with the clover in the spring on a carefully prepared seed-bed. It will be well, however, to clear the surface of weeds by thorough cultivation for several weeks or months before seeding. With such a season as the present one, such land may be seeded almost any time. If it should be plowed at once and well cultivated, I would not hesitate to seed in August. If the seeding is done early enough this season, the clover may be needed with the grasses. However, if the grasses are seeded early this season and the clover is seeded early next spring, the clover-seed will germinate and likely give a considerable crop of clover a year from next summer. Where it will grow it is always advisable to sow some kind of clover in a grass meadow or pasture. Even in old meadows or pastures, clover may be seeded early in the spring and covered sufficiently with the disk or harrow so that in a favorable season the seed will start and produce a considerable crop of clover the succeeding season. Clover acts as a "host plant" or feeder to the other grasses and is not only valuable in itself in giving a higher feeding value to the hay or pasture, but a larger growth of grass is produced by the effect of the clover as stated above. A. M. TENEYCK.

Crops for Late Seasons.

In consideration of the fact that farmers are so behind with their work, owing to excessive rains, I would like to ask a few questions which are common in this vicinity at present.

Is it too late to plant corn now for grain? Also German millet for hay? How long before it is too late to plant Kafir-corn for seed? C. F. BARTH.
Allen County.

There are a few varieties of corn, such as the North Western dent, Pride of the North, and Earliest Ripe, which will mature in about ninety days. Planted on July 15 with a favorable growing season, these varieties should mature a fairly good crop of ears by October 15. As a rule, we would expect to have frost sufficient to kill corn before that date at this station, but in your part of the country, doubtless you will not have frosts before that date. We have not been able to mature Kafir-corn in less than 110 days at this station; usually it takes a little more than 110 days to mature the Red Kafir-corn, which is the earliest variety. Planted by July 15, Kafir-corn would hardly mature by November 1. However, Kafir-corn is not injured by light frosts, and it is likely that a considerable crop of corn could be secured by planting at the late date named. In planting either corn or

Kafir-corn in July you will at least get a good crop of fodder and probably some grain.

German millet may be sown for a hay crop probably as late as the last part of July. Earlier varieties of the millet are the Siberian and Hungarian. At this station we have matured the last two varieties named to the hay-cutting stage in sixty days after planting. The German millet is as a rule, about one week or ten days later than the Siberian or Hungarian varieties.

One of the best crops to plant for fodder at this late date is cane, sown broadcast or in close drills. It will make a rank growth and produce a large crop of a good quality of hay. To get the best quality of hay, the cane should be sown thick, at the rate of about a bushel and a half of good seed per acre. Planted in this way (June 25) at this station last season, cane yielded at the rate of about seven and one-half tons of cured fodder per acre. Sowed Kafir-corn yielded at the rate of a little over six tons of cured fodder per acre. This cane was cut with a mower the last part of September, raked and put in large shocks, and left in the field until December, when it was hauled and stacked. Cane and Kafir-corn sown broadcast or planted in close drills will give a much larger yield of fodder per acre than millet. The objection to seeding cane or Kafir-corn broadcast this season will doubtless be that the land is weedy and the time too short to plow or disk sufficiently to prepare a good seed-bed. If it is not advisable to plant in this way, either one of the crops named will make good fodder by planting in rows and cultivating. If your purpose is the production of fodder, however, as it likely will be, considering the late date of planting, I would recommend to plant thickly in the drill-row. This will give a more leafy and finer growth of stalks and a better quality of fodder than will result from thinner planting. Planted in drill-rows in this way, the crop may be readily harvested with a corn-binder and shocked in the field the same as corn.

Perhaps much land will not be planted at all this season, or at least it will not produce crops. As soon as the rains cease, such lands may be plowed and put into condition for seeding to grass or alfalfa early in the fall. It will likely be a favorable fall for seeding grass and alfalfa and there are no crops which can be grown on the average farm to greater advantage than these as the present season is demonstrating. Half of every farm in Kansas may be profitably kept in grass and alfalfa. These are not only profitable crops to grow but are crops which rest the land and improve the fertility of the soil. The season, thus far, has been unfavorable for harvesting the hay crop, but no other crop has made so luxuriant a growth this season as grass, and the most profitable crop on the average Kansas farm has been pasture where the farmer has had sufficient stock to harvest the grass. The lesson which is taught by such seasons as the present one is that we should grow more grass and alfalfa and not attempt to plant so much of the land to small grains and corn. A. M. TENEYCK.

In another place we print Professor TenEyck's suggestions for late crops. In the same line of thought F. Barteldes & Co., the veteran seedsmen, whose advertisement of seeds for late sowing appears in this issue, ask us to say: "There is plenty of time to sow millet, sorghum, Kafir-corn, cowpeas, and fodder-corn, during the month of July, to make forage or fodder, and there is plenty of time to sow buckwheat and turnips during July and August."

In a personal letter to the editor, Mr. O. W. Dawson, of Great Bend—the county seat of the banner wheat county—says: "Farmers have been delayed with their wheat harvest for about two weeks by the wet weather, but it is all right now." The amount of grain that those Central Kansas

farmers can secure in a few days of fine weather, by the use of their headers, is almost beyond belief. Eight-hour or ten-hour days don't go there. Sixteen hours will probably hear the click of the cutter in the present emergency.

The Democratic National Convention, held at St. Louis last week, concluded its labors after an all-night session Saturday night. It nominated Judge Alton B. Parker, of New York, for President, and Henry G. Davis, of West Virginia, for Vice-President.

Judge Parker is Chief Justice of the highest court in the State of New York. He is a man of high character and first-class ability. He was put forward by the "reorganizers" of the Democratic party and is a "gold-standard" man as declared in his telegram to one of his friends at the convention. This telegram threatened to disrupt the convention, but, since the platform was silent on the money question, it was finally decided that Judge Parker's position was not out of harmony with the platform. Colonel Bryan finally accepted this view.

WHY BUY A CORN-BINDER

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



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

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

—to—
Green Corn Cutter Company.
TOPEKA, KANS.

Fully Protected by Patents.

From Factory to Farm NO AGENTS NO MIDDLEMEN

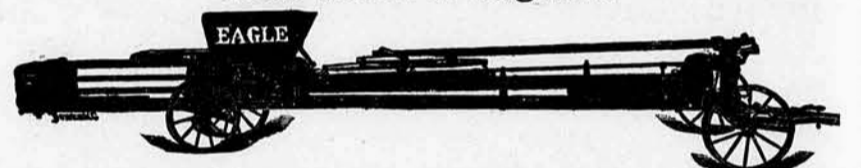
See what it means.

14 in. Steel Beam Plow, Double Shin best that money can build, only \$9.00	14 in. Imp. Lister \$17.75
12-in. \$8.75	14 in. Sulky Lister \$21.85
16-in. \$9.90	8-ft. Bako \$18.00
18-in. \$12.00	Sewing Machine \$9.00
Sulky Plow \$25	Best Sewing Machine
Gang Plow \$39	Gt. equal to any \$20
1000 other articles. Big Catalog Free. Special Catalogues of Buggies, Harness, Steel Ranges.	Best Walking Cultivator, 4 shovel and Eagle \$12.00
	Best Walking Cultivator, 4 shovel and Eagle \$15.25
	Improved Riding Cultivator, 4 shovel \$19.00
	Improved Riding Disc Cultivator, 6 Disc, \$25.00
	Corn Planter, complete, 80 rods wire, \$27.75. Address

HAPGOOD PLOW CO., 125 Front St., ALTON, ILL.
(Only plow factory in the United States selling direct to farmers at wholesale prices.)

EAGLE HAY PRESS

Self-feeder or Regular.



LIGHTEST DRAFT - GREATEST CAPACITY - ALL STEEL AND IRON

Write for prices

EAGLE MANUFACTURING CO.,

DALLAS, TEXAS

995 HICKORY ST., KANSAS CITY, MO.

COLORADO

AND RETURN

VIA

UNION PACIFIC

\$17.50

EVERY DAY from June 1st to September 30th, inclusive, with final return limit October 31st, 1904,

FROM TOPEKA.

Be sure your ticket reads over this line

INQUIRE OF

J. C. FULTON,
Depot Agent.

F. A. LEWIS, City Agt.,
525 Kansas Avenue.

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Worms in Chicks.

EDITOR KANSAS FARMER:—Please tell what is the cause of worms in chicks, whitish worms from one to two inches long? The chickens look well and healthy, except one rooster; his head droops, but he can hold it up if disturbed. I gave turpentine as soon as discovered. I. F. DELIMONT.

Phillips County.

Answer.—It is difficult to tell the cause of worms in chickens, almost as hard as to tell the cause of them in children. Some say there is some parasite in the ground that causes them, others that the chickens must feed on some putrid carcass or offal to cause them; but no matter what the cause may be, the main thing is to get rid of them, and the best remedy we know of is to dose them liberally with castor oil, then feed a little sulfur in their feed as a preventive. Turpentine would be good also.

Young Chickens Die.

EDITOR KANSAS FARMER:—I shall be very grateful if you will give me some advice in regard to my chicks, which are 1 week old. I had about 125 in a 200-chick brooder. Two days ago they began dying and I have lost about 40 since. Some of the sick have looseness of the bowels, others have not. They are sick from two hours to half a day before dying. I have been feeding oatmeal, corn-bread, and a little millet, with plenty of drinking water. Plenty of sand and a lump of charcoal are kept in the brooder. They are allowed to run outside the brooder. The brooder-house is a partly underground structure, having eight windows in the east side and in the south. There are two doors in the east also. The hens of the parent stock are mixed, Barred Rocks predominating. The cocks are White Rocks.

Barber County. FRED HUMPHREYS.

Answer.—Your method of feeding seems to be all right. You do not mention giving them any green food, but we presume they get that when they go outside the brooder. Feed being all right, we can look to the brooder for the cause. You say it is partly underground; this is apt to make it damp, and dampness is fatal to young chicks. If your brooder is not damp, then the cause of the mortality of the chicks may be unevenness of temperature. Either too much or too little heat is very hurtful to young chicks and causes derangement of the bowels in a short time. It is a hard matter to tell in figures the proper temperature at which to run a brooder, as so much depends on the outside temperature, but it is a safe rule to go by to so adjust the heat as not to cause the chicks to huddle together for warmth or to get overheated and debilitated. When the temperature is just right the chicks squat on the floor of the brooder in a contented manner and neither huddle nor pant. This condition can only be obtained by observation and experience. One great cause of death in brooders is overcrowding and lack of cleanliness.

The capacity of most brooders is overrated. Oftentimes a 200-chick brooder will only comfortably take care of 50 chicks. While it might accommodate a hundred or more for a day or two, they soon commence to grow and require more room; it is then that the death list begins to grow, until too soon the number is down to the capacity of the machine. It is far better to have four brooders to 200 chicks than one, and thus kill by overcrowding most of those you put in. As to cleanliness, you can not keep it too clean, and a lack in this direction will cause the chicks to die very fast.

A Practical Hatching Talk.

EDITOR KANSAS FARMER:—How to prevent chicks dying in the shell concerns us more than why chicks

die in the shell. I am not an incubator expert, just one of the common, everyday, busy people who has the incubator for a help, and finds it all that is expected of it, without any special instructions except those which accompany the machine.

My very first hatch gave me 96 per cent. The first ten successive ones gave an average of 92 per cent, and I have had 94 and 100 per cent ones since. I feel that with such results, either with the hen or incubator, one simply has nothing to complain of, especially when chicks are lively, perfect and healthy, as I find they are.

While I do not have trouble with chicks dying in the shell, I do not think it is a "happen so," nor am I going to try to give scientific reasons but practical results, and what I am pleased to call a commonsense view of the matter.

I am satisfied that the very first thing absolutely necessary to a good hatch is to have a healthy, vigorous flock, strongly mated with new blood having the same qualities of health and vigor.

Next select typical, well-formed eggs, rejecting young pullets' first eggs early in the season, always gathering carefully, not allowing them to chill, keeping in a comfortable place, and turning occasionally while saving the sitting.

Next thing is to have a good incubator; but if these previous precautions are neglected, no after amount of care can compensate.

Gradually heat the incubator to the point of adjusting the regulator, in accordance with the thermometer, run it a while before the eggs are put in to know that it is approximately correct, put in eggs and heat will come back gradually to the eggs and incubator and the regulated temperature, as the thermometer will show.

Have your incubator in a comfortable room, near where you pass around at your daily duties, so that you can give it the little attentions now and then so necessary to success, and yet hardly miss the time or realize it is an effort. If short of room, better take out almost any piece of furniture during the hatching-time, except the cook-stove and bed, for one must eat and sleep while the incubator goes on with the hatch, instead of sitting up with it.

Study the thermometer, lamp-blaze, and damper, and in extreme outside weather, averaging them for the degree of temperature you wish to run the machine at. Fill the lamp late in the afternoon, not evening, and thus you will be able to get the lamp-heat correct and to average up conditions. I only get up with my incubator a time or two the night of hatching to know that all is right.

The mission of the incubator is to save a busy woman's time and strength, and to multiply paying results, so by all means keep it in the house, the parlor is not too nice for it. It can be kept as clean and sweet as the center-table.

To manage the hatch, run at 102 to 103 the first three or four days, turning two or three times each day, provided the egg-chamber is warm enough. Take the tray entirely out and put on top of the machine, if the regulator comes outside of the incubator; if not, on a table. Be sure to have the eggs out of a draught and have the room comfortably warm. Turn the eggs with thumb and fingers, rolling them over half way. I use a cross on one side and a circle on the other so that I know when I have turned them.

Run from 103 to 104 the second week, turning eggs three or four or even more times during the day. Test out the infertile eggs about the tenth to twelfth days. Only occasionally leave the door open while turning the eggs and then the temperature must be plenty warm.

During the last week run at 104 as nearly as possible. A little higher occasionally makes a fine opportunity for turning, and if you gently roll the eggs four or five times a day the last week, you will be well repaid. Do not, however, turn the eggs but very little the last two days.

I hear some one say, "It must take an immense amount of time to turn those eggs." With the incubator near, and turning them often, one learns to do it quickly and deftly and hardly misses the time.

I reason thus for the excellent hatches I get, namely—the turning exercises the chick in the shell and this strengthens it. Airing when turning it alternately contracts the shell and, when putting it in the incubator, expands it, and this partial cooling and heating makes a tender shell and a strong chick and he gets out.

Some say, "Yes, the first half get out but the last half die in the shell." I have no trouble of this kind; my incubator takes care of the ventilation, moisture question, size of air cell, etc. I regard the following additional causes as reasonable if not scientific, for this trouble. When the eggs begin to pip and hatch, all conditions are all right for all to hatch, any one who has made a hatch knows that just before chicks come out they have so much heat of themselves that at times we must put out the lamp for a while—also that hatching is a process of evaporation of moisture, in a measure, while the chick is growing; and at time of pipping the moisture in egg-chamber and around chicks is correct, but we know that when nearly half of the chicks are out of the egg, a great deal of the heat they helped maintain is gone and much moisture is liberated in the egg-chamber, making its condition so moist and most likely too cool for the last half of hatch to get out under as favorable conditions, the moisture perhaps making shells a little tougher and hindering the ripening process a little, and if kept up too long will, in my mind, cause them to die in the shell. To prevent, take out first chicks when dry and spray and fluff them in flannel-lined baskets (one will not do), by a fire in a warm room; have everything ready to do it quickly and carefully remove shells, having turned up the lamp more and made the room warm before doing this. Continue to turn up the lamp to keep egg-chamber to 104 all the time while hatching; it is not hard to do if one begins soon enough.

From a lamp so low that it will hardly burn at the first of hatch it may be turned up until a high flame is needed at the last to maintain the heat and dry out the escaped moisture and continue the ripening process. Do not delay turning up lamp until temperature falls. I am convinced that this is the cause, at least, my real experience in getting excellent hatches confirm it, if the theory is not correct; and, too, I give a great measure of praise to the correctness of the incubator. MRS. ALBERT RAY.

Morris County. Koreans wear full mourning for their fathers. The dress is of hemp cloth, with hempen girdle. A face shield is used to show that the wearer is a sinner and must not speak to any one unless addressed. The costume is worn for three years, the shield for three months. This is worn for a father only; secondary mourning is worn for a mother, and no mourning at all for a wife. The hat is of wicker.

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 75c. Hall's Family Pills are the best.

The World's Fair.

In making your arrangements for the World's Fair at St. Louis, this summer, if you consider convenience and saving of time, you will take the Wabash Railroad, as it runs by and stops at its station at the entrance of the fair grounds, thus saving several miles' run and return, and the inevitable jam at the big Union Station. By all means consider the advantages of the Wabash.

POULTRY BREEDERS' DIRECTORY. TO GIVE AWAY—50 Buff Orpingtons and 50 Buff Leghorns to Shawnee county farmers. Will buy the chicks and eggs. Write me. W. H. Maxwell, 921 Topeka Ave., Topeka, Kans. BARRED PLYMOUTH ROCK EGGS, 50 for \$2.25; 100 for \$3.75. Adam A. Weir, Clay Center, Neb. SPECIAL SUMMER PRICES on my Superior Strain Barred Plymouth Rocks: 15 eggs, 60c; 30 eggs, \$1; 100 eggs, \$3. E. J. Evans, Box 21, Fort Scott, Kans. PURE S. C. B. Leghorn eggs, 30 for \$1; 100, \$3. F. P. Flower, Wakefield, Kans. FOR SALE—Eggs for hatching, from my 96 scoring Light Brahma and White Wyandotte pens at \$1 for fifteen. As I am now done setting, I have reduced the price just one-half for the balance of the season. There is no better stock anywhere. Mrs. J. R. Kenworthy, Cottage Home Poultry Yard Wichita, Kans. ROSE COMB RHODE ISLAND REDS—Superb in colors. Extra fine layers, mated for best results Eggs \$1.50 per 15. L. F. Clarke, Mound City, Kans. NIOSHO POULTRY YARDS, Established 1882. Breeder of Rose Comb R. I. Reds and Buff Orpingtons, scoring from 91% to 94% points, by Atherton. Eggs the balance of the season, \$1 per 15. Stock for sale after July 1. J. W. Swartz, Americus, Kans. S. C. BROWN LEGHORNS, exclusively. Eggs for sale from healthy, free-range stock. Satisfaction guaranteed. J. A. Kaufman, Abilene, Kans. B. P. ROCK EGGS—\$1.50 per 15; \$5 per 100; free range. Collie pups. W. B. Williams, Stella, Neb. BLACK MINORCAS—Biggest layers of biggest eggs. Fertile eggs for hatching, \$1.50 per 15; \$3 per 50; \$5 per 100. Also Light Brahmans, Black Langshans, Barred and Buff Plymouth Rocks, White, Silver and Golden Wyandottes, S. C. Rhode Island Reds, S. C. White and Brown Leghorns, American Dominiques, Hondans, White Crested Black Polish, Buff Laced Polish, Buff Cochins Bantams. Eggs from choice matings of above \$1.50 per 15. James C. Jones Leavenworth, Kans. FOR SALE—Eggs from Rose Comb Brown Leghorns, Silver Spangled Hamburgs, Barred Plymouth Rocks, White-faced Black Spanish, and Black Langshans. Write your wants. Charles W. Gresham, Bucklin, Kans. WHITE HOLLAND GOBBLEERS—From first prize stock, \$4 each. E. W. Melville, Eudora, Kans. SCOTCH COLLIE PUPS—Four more litters of those high-bred Collies, from 1 to 3 weeks old, for sale. Booking orders now. Walnut Grove Farm H. D. Nutting, Prop., Emporia, Kans. PURE WHITE WYANDOTTES for sale. Eggs for sale in season. \$1 for 15. Darby Fruit Co. Amoret, Mo. WHITE WYANDOTTES White ones, pure bred, and good layers. Eggs \$1 and \$1.50 per sitting. ALVIN LONG, Lyons, Kansas. GEM POULTRY FARM Stock and eggs for sale at all times; Buff Plymouth Rocks, Bronze Turkeys. Quality the very best. C. W. PECKHAM, Haven, Kans. White Plymouth Rocks EXCLUSIVELY. Three Grand Yards of the Best Strains in the Country. White Plymouth Rocks hold the record for egg laying over any other variety of fowls; eight pullets averaging 289 eggs each in one year. I have some breeding stock for sale at reasonable figures. Eggs in season, \$2.00 per 15, expressage prepaid anywhere in the United States. Yards at residence, adjoining Washburn College. Address THOMAS OWEN, Topeka, Kansas. POULTRY SUPPLIES Thanolice (lice powder)..... 25c Creo-carbo (lice killer)..... 50c Egg Maker..... 25c STURTEVANT'S Poultry Cure..... 25c Roup Pills..... 25c Medicated Nest-eggs..... 5c Conkey's Roup Cure..... 50c Buckeye Cholera Cure..... 25c OWEN & COMPANY 520 KANSAS AVE., TOPEKA, KANS. DUFF'S POULTRY All our Fine Breeders of this season, also Spring Chicks for sale after the first of June. Barred Rocks, White Rocks, Buff Cochins, Partridge Cochins, Light Brahmans, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, Black Minorcas, S. C. Brown Leghorns, and Belgian Hares. Buy the best now at the lowest prices. Write your wants. Circulars free. Choice Breeders and Show Birds. A. H. DUFF, Larned, Kan. MRS. GEO. L. BARBER, Saffordville, Kans. Will furnish Barred P. R. eggs from 94-point birds 15 for \$1.50. When writing advertisers please mention this paper.



A Well-made Well-fitting Harness
Improves the appearance of the horse and is an investment never to be regretted. I manufacture a complete line of custom-made harness. The work material guaranteed to give satisfaction. I now have a large and complete stock of harness as well as saddles of all kinds and grades. I make all my harness, and the prices range from \$12.50 to \$100. Every reader of this paper is cordially invited to inspect our stock, make their wants known and get our prices. All mail orders delivered at your home station free of charge. My stock the best, prices the lowest.

J. M. FRENCH,
718 Kansas Ave., Topeka, Kans

Rural Mail Many new routes will go in this year. We want name and address of every man who sends in a petition. **BOX FREE** to first one sending us full information. We will send a **BOND STEEL POST CO., ADRIAN, MICH.**

NICKEL RATE.
The New York, Chicago & St. Louis R.R. **NO EXCESS FARE ON ANY TRAIN**

Three Express Trains East Every Day in the Year. Pullman Drawing Room Sleeping Cars on all Trains. Trans-Continental Tourist Cars leave Chicago Tri-Weekly on Tuesdays and Sundays at 2:30 p. m. and Wednesdays at 10:35 a. m.

CHICAGO TO BOSTON WITHOUT CHANGE.

Modern Dining Cars serving meals on Individual Club Plan, ranging in price from 35 cents to \$1.00, also service a la Carte. Coffee and Sandwiches, at popular prices, served to passengers in their seats by waiters. Direct line to Fort Wayne, Findlay, Cleveland, Erie, Buffalo, Rochester, Syracuse, Binghamton, Scranton.

NEW YORK CITY, BOSTON AND ALL POINTS EAST.

Rates Always The Lowest.

Colored Porters in uniform in attendance on all Coach Passengers. If you contemplate a trip East call on any convenient Ticket Agent, or address,

JOHN Y. CALAHAN, Gen. Agt.,
118 Adams St., Chicago, Ill

UNEXCELLED SERVICE VIA



TO POINTS IN

Missouri, Arkansas, Tennessee, Alabama, Mississippi, Georgia, Florida

AND THE SOUTHEAST, AND TO **Kansas, Oklahoma, Indian Territory, Texas** AND THE SOUTHWEST.

The Famous Health and Pleasure Resorts, **EUREKA SPRINGS AND HOT SPRINGS, ARKANSAS,** Reached most conveniently by this Route.

Round Trip Homeseekers' Tickets at rate of ONE FARE plus \$2, on sale first and third Tuesday of each month.

For descriptive literature and detailed information as to rates, train service, etc., address **J. C. LOVRIEN, ASSISTANT GENERAL PASSENGER AGENT, KANSAS CITY, MO.**

When writing advertisers please mention this paper.

Your Heart.

When Your Heart Fails to Pump Your Blood, Trouble Results.

Have you heart trouble? You have, if you find it hard to breathe after walking up stairs, exercising, etc. If you have pain in your left side, in chest, back or shoulder. If you suffer from cold extremities, pale face, blue lips, dry cough, swollen ankles.

If you have fainting spells, breast pang, palpitation, redness of the face, discomfort in sleeping on one side.

The only scientific treatment for this whole train of troubles is Dr. Miles' New Heart Cure.

Dr. Miles' New Heart Cure is the prescription of a famous specialist, whose great success in treating obstinate nervous heart disease has made his name pre-eminent in the medical and scientific world.

The medicine will cure you. We know it. We want you to prove it. If first bottle does not benefit, your druggist will give you back your money.

"I have for several years suffered at times with heart trouble. I got so bad I could not sleep half the night, and had to sit up on the side of the bed lots of times to get breath. Three of my brothers have died of heart trouble, and I thought I was going the same way, but about two and a half years ago I got a pamphlet about Dr. Miles' New Heart Cure and thought I would try a few bottles. After using them I recovered, and have had better health since then than before for several years. I can heartily recommend them for heart trouble."—REV. JERRY HURT, Pastor Baptist Church, Hurt, Kans.

FREE Write to us for Free Trial Package of Dr. Miles' Anti-Pain Pills, the New Scientific Remedy for Pain. Also Symptom Blank. Our Specialist will diagnose your case, tell you what is wrong, and how to right it, free. **DR. MILES MEDICAL CO., LABORATORIES, ELKHART, IND.**

Great is Texas!

The Eyes of the World are Upon Her.

The Home-Seeker

Wants to know about her "Matchless" Climate and Her Cheap Lands.

The Investor

Wants to know about not only Her Cheap Land and Low Taxes, but as well, Her Wealth of Mine and Forest, and this is to let you know that the

The International & Great Northern,

Texas' Greatest Railroad.

Traverses more than a thousand miles of the Cream of Texas' Resources, latent and developed, and that you may learn more about the GREAT I. & G. N. COUNTRY by sending a 2-cent stamp for a copy of THE ILLUSTRATOR AND GENERAL NARRATOR, or 25 cents for a year's file of same, or by writing

D. J. PRICE,
G. P. & T. A., I. & G. N. R. R.,
Palestine, Texas.

WHEN IN CHICAGO

Stop at the **New Northern Baths & Hotel Combined**

8 floors. Fine new rooms. Meals a-la-Carte at all hours. **BATHS OF ALL KINDS.** Turkish, Russian, Shower, Plunge, etc. The finest swimming pool in the world. Turkish Bath and Lodging, \$1.00. Most inexpensive first class hotel in Chicago. Right in the heart of the city. Booklet on application. **New Northern Baths & Hotel**
14 Quincy St.—CHICAGO—Near State

OUR BIG STATION RIGHT AT THE GATES!



WABASH

—TO—

ST. LOUIS

"FOLLOW THE FLAG"

ONLY LINE TO **WORLDS FAIR** Main Entrance.

All trains from the West connect with the WABASH at Kansas City.

Ask your agents for tickets over the WABASH.

L. S. McCLELLAN,

Western Passenger Agent.

903 Main Street,

H. C. SHIELDS,

Trav. Passenger Agent.

KANSAS CITY, MO.

For People Who Are in a Hurry

The Rock Island System has an immense advantage over all other western railroads, as regards the location of its terminals in Chicago.

In addition to the La Salle Street Station—in the very heart of Chicago, and the largest and finest railroad station in that city—it has a station at Englewood, seven miles out.

This latter station is used by several eastern lines, as well as by the Rock Island. Here is where its convenience comes in: Suppose your train is a few minutes late. You get off at Englewood, walk across the platform and get on the east-bound train. It is a splendid arrangement for people who are in a hurry. It enables them to make connections with trains that they would have missed if they had taken any other line. Chicago trains leave Topeka at 6:15 a. m. and 3:35 p. m., daily. For reservations, etc., see



A. W. LACEY,
North Topeka.

A. M. FULLER,
C. P. & T. A. Topeka.

World's Fair Service and Rates



Through Pullmans to St. Louis Every Day

On No. 10
On No. 2
On No. 6
On No. 116

Which Leaves Here at 8:10 a. m.
East of Kansas City sleeper runs over Alton-Burlington Route.
Which Leaves Here at 2:50 p. m.
East of Kansas City sleeper runs over Alton-Burlington Route.
Which Leaves Here at 4:30 p. m.
East of Kansas City sleeper runs over Wabash Railroad.
Which Leaves Here at 8:00 p. m.
East of Kansas City sleeper runs over Missouri Pacific Railroad.

Low Rates to World's Fair.

Fifteen-Day Tickets cost \$11.40; Sixty-Day Tickets cost \$12.70; Tickets limited to December 15 cost \$15.20.

Very Cheap Excursion Rates.

Tickets good seven days, but honored only in coaches, \$7.60.

For descriptive literature, sleeper-car space, railroad tickets, etc.,

APPLY TO

T. L. KING, Agent., A. T. & S. F. Railroad, TOPEKA, KANSAS.

SHORTHORN CATTLE.

Shorthorn Cattle

For Sale—7 Scotch-topped young bulls, 40 cows and heifers, all red; 10 Aberdeen-Angus heifers; Duroc and Poland-China swine and Shetland ponies. Can ship via Missouri Pacific or Santa Fe railroads.

C. H. CLARK, COLONY, KANSAS

GALLOWAY CATTLE.

BUCKEYE GALLOWAY HERD

Royal bred and princely Galloway bulls. One 2-year-old, five 14-month-olds, sired by Kaylor 15613 out of Chillicothe, Lady Byrd, and Salvator—Garnett's Beauty for sale by GEO. L. BARBER, Saffordville, Kans.

GALLOWAY BULLS

FOR SALE CHEAP



20—2-year-olds, 30—yearlings. Females of all ages for sale. Address

W. R. PLATT & SON, 1613 GENESEE ST., KANSAS CITY, MO.

CLOVER CLIFF FARM REGISTERED GALLOWAY CATTLE.



Also German Coach, Saddle, and trotting-bred horses. World's Fair prize Oldenburg Coach stallion Habbo, and the saddle stallion Rosewood, a 16-hand 1,100-pound son of Montrose in service. . . . Visitors always welcome.

Blackshire Bros., Elmdale, Chase County, Kansas

ABERDEEN-ANGUS CATTLE.

ABERDEEN-ANGUS CATTLE AND PERCHERON HORSES

FOR SALE. All stock recorded. GARRET HURST, PECK, KANSAS.

SUTTON'S

Aberdeen-Angus Cattle and Large English Berkshires

If you want a first class individual, as well bred as money will buy, at a reasonable price, write or visit

CHAS. E. SUTTON, Russell, Kans.

ALLEDALE HERD OF Aberdeen - Angus Cattle.

The Oldest and Largest in the United States. Splendid recently imported bulls at head of herd. Registered animals on hand for sale at reasonable prices at all times. Inspect herd at Alledale, near Iola and La Harpe; address Thos. J. Anderson Manager, Iola, Allen Co., Kans., R. R. 2, or—ANDERSON & FINDLAY, Proprietors, Lake Forest, Ill

THE SUNFLOWER HERD PURE-BRED Angus Cattle

Herd headed by HALE LAD 80645. Herd numbers 250 head, the largest herd bred by owner in America. Stock for sale Address

PARRISH & MILLER, Hudson, Stafford Co., Ka s

RED POLLED CATTLE.

ENGLISH RED POLLED CATTLE—Pure-bred Young Stock For Sale. Your orders solicited. Address L. K. HAZELTINE, Route 7, Springfield, Mo. Mention this paper when writing.

COBURN HERD OF RED POLLED CATTLE. Herd now numbers 115 head. Young bulls for sale. Geo. Greenmiller & Son, Route 1, Pomona, Kans.

RED POLLED CATTLE AND POLAND-CHINA SWINE

Best of breeding. Write, or come and see CHAS. MORRISON, R. F. D. 2, Phillipsburg, Kas

RED POLLED CATTLE

Of the choicest strains and good individuals. Young Animals, either sex, for sale. Also Breeders of

PERCHERON HORSES AND PLYMOUTH ROCK CHICKENS Address S. C. BARTLETT, R. F. D. No. 5, Wellington, Kas.

POLLED DURHAM CATTLE.

RICHLAND POLLED-DURHAM HERD

Of Double-Standard Bred Polled—All large, square-built animals of best beef type, with cows extra large. Write D. C. Van Nice, Richland, Kans.

LUMP JAW NO CURE NO PAY

W. S. Sneed, Sedalia, Mo., cured four steers of lump jaw with one application to each steer; and J. A. Keessman, Osborn, Mo., cured three cases with one application to each. Hundreds of similar testimonials on hand. Full particulars by mail. Write to

CHARLES E. BARTLETT, Columbus, Kans

AUGORA GOATS.

ANGORA GOATS and SHORTHORN CATTLE Does, bucks and kids for sale by J. W. TROUTMAN, COMISKEY, KANS

LIVE STOCK AUCTIONEERS.

R. L. HARRIMAN

Live Stock Auctioneer, Bunceton, Mo.



Twenty years a successful breeder, exhibitor and judge of live-stock, together with eight years' experience on the auction block, selling for the best breeders in the United States enables me to give best service and secure best results for my patrons. Terms reasonable. Write early for dates.

JAS. W. SPARKS



Live Stock Auctioneer Marshall, Mo.

Twelve Years Successfully Selling all breeds of pure-bred live-stock at auction for the best breeders in America.

Posted on pedigrees and values. Reasonable terms for the best and most experienced service. Write me before fixing date.

LAFE BURGER, LIVE STOCK AUCTIONEER Wellington, Kans,



Five years of successful selling for some of the best breeders in the United States. Posted on pedigrees and values. Entire time given to the business. Write or wire for dates.

W. D. ROSS, Otterville, Mo., Live Stock Auctioneer.

Am selling successfully for the best breeders and stockmen. Terms reasonable. Write for dates.

J. W. SHEETS, Live Stock Auctioneer FREDONIA, KANS.

Twenty-five years' experience. Sales made anywhere on earth, and satisfaction guaranteed. Work begins when dates are booked. A Kansas man for Kansas sales. Write for dates and terms.

GEO. P. BELLOWS, LIVE STOCK AUCTIONEER, MARYVILLE, MO. Satisfaction guaranteed—Terms reasonable.

COL. BERT FISHER, Live Stock Auctioneer 119 W. Norris St., North Topeka, Kans.

Thoroughly posted on pedigrees. Ten years' experience. Satisfaction guaranteed. Write or wire for prices and dates. Also dealer in horses and mules. Ind. Phone 25. Bell Phone 22.

JOHN DAUM LIVE STOCK AUCTIONEER NORTONVILLE, KANSAS. Fine Stock a specialty. Large acquaintance among stock breeders. Sales made anywhere. Write or wire for dates.

CAREY M. JONES LIVE STOCK AUCTIONEER DAVENPORT, IOWA. Have an extended acquaintance among stock breeders. Terms reasonable. Write before claiming date. Office, Hotel Downs

Advertisement for Largest Optical Mail Order House in the West. Includes illustration of glasses and text: Gold filled 1.00. Eyes Examined Free by mail. Accurately.

Any style glasses for \$1. Write for free examination sheet and illustrated catalogue. Satisfaction guaranteed. R. H. Baker Co., 624 Kansas Ave., Topeka, Kans.

VARICOCELE

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

LADIES My Regulator never fails. Box FREE. DR. F. M. MAY, Box 31, Bloomington, Ill

BED-WETTING CURED. Sample FREE. DR. F. M. MAY, Bloomington, Ill.

HORSES.

Percheron Horses

HENRY AVERY & SON, WAKEFIELD, KANSAS.



Percheron Stallions and Mares COACH STALLIONS

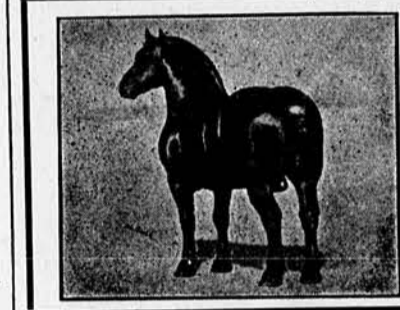
Big Black Mammoth Jacks and Jennets S. A. SPRIGGS, Westphalia, Kans.



Registered Stallions For Sale

15 HEAD AT SPECIAL PRICES CONSISTING OF

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



ROBISON'S PERCHERONS AND SHORTHORNS. J. W. & J. C. ROBISON, Towanda, Butler Co., Kansas. IMPORTERS AND BREEDERS.

Largest herd of pure-bred Percherons in the Southwest. Herd headed by Casho (45462) 27890, winner of first prize, Missouri and Kansas State Fairs 1902 and 1903; also headed first prize herd at recent American Royal. See our exhibit at St. Louis. Stock all ages for sale.

SHIRES! SHIRES! HEFNER HAS

10 Shire and Hackney Horses



On hand of last year's importation which he will sell on the following terms

One-half cash or bankable paper due in one year, with interest. Other half due when horse has earned it. You settle for one-half the horse only; the other half must run until the horse earns it. Just the terms you want. I mean to dispose of these horses at once to make room for October importation and I know the wide-awake buyers will be promptly on hand, as these horses are sure to suit. They are heavy-boned, massive, shapely horses, with hand, as these horses are sure to suit. Best of feet and action. These are 1,800- to 1,950-pound two good ends and a good middle. guaranteed a sure foal-getter. Remember, you take no horses, each and every one fully guaranteed with Hefner. My terms should convince you that my possible chances when you deal with Hefner. I know they will suit you. These are 30 per cent better than "Top-Notchers," and just the sort "peddlers" are selling at \$8,000 to stock companies. Form your own stock company and come buy one of these grand Shires for your own use. I know my horses are the genuine, honest, reliable sort and cannot fall to please you and give the most satisfactory results; hence these unheard of terms. Write for information. Do so immediately, as these horses will soon go on these terms and prices.

O. O. HEFNER, Nebraska City, Nebraska.

AMERICA'S LEADING HORSE IMPORTERS



The year 1904 opens with unprecedented victory. At the great Percheron show under the auspices of the Societe Hippique Percheronne de France held at La Ferte Bernard, June 16th to 19th., we won first, second, third and fourth in every stallion class with only two exceptions and first in collection.

At the great Annual show of France held under the auspices of the French Government at Le Mans June 21th to 26th, our stallions won first, second, third and fourth in every stallion class and first in collection.

Look for these grand horses in our exhibit at the St. Louis World's Fair Aug. 24th to September 3rd.

McLAUGHLIN BROTHERS, St. Paul, Minn. Columbus, Ohio. Kansas City, Mo.

ARMOUR HEREFORDS

Imported and home-bred animals of all ages with pedigrees full of the best blood lines. Herd headed by the great bull Imp. Majestic assisted by Imp. Bell Metal, Lord Prettyface, and Imp. Gipsy King. Fine breeding matrons and young bulls for sale at all times. A number of young bulls and heifers "DOUBLE IMMUNE" to Tick-fever for sale. Farm 3 miles south of Kansas City. Write for information. Address

CHARLES W. ARMOUR, Kansas City, Mo.

\$50,000 to Loan.

Wanted for investment, Farm Loans in Shawnee and adjacent counties. Partial payments allowed. No commissions. No wait, as it is home money. Call or write at once to

STATE SAVINGS BANK,
TOPEKA, KANS.



Gem City Business College

Affords its students every advantage and adopts the modern, practical idea in giving

A BUSINESS EDUCATION.

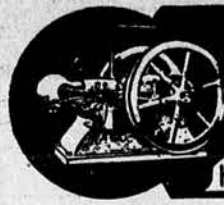
Attendance last year 1,400 students. 16 teachers, a \$100,000 school building. Thorough courses in Shorthand and Typewriting, Book-keeping, Actual Business Practice and Banking.

Good Openings Await Its Graduates. Write for new 64-page illustrated catalogue, free.
D. L. MUSSELMAN, Pres.,
Gem City Business College, Quincy, Illinois.

The Kansas State Agricultural College

offers a thorough training in Agriculture, Domestic Science, General Science, Mechanical and Electrical Engineering, and Architecture. There are short courses in Agriculture, Dairying, and Domestic Science for persons of mature years who cannot, for lack of time or means, take a long course. Admission direct from the country schools. A preparatory department is maintained for persons over eighteen who have not completed the common-school branches. Necessary expenses low. A practical education, such as this college furnishes, will increase your efficiency over two hundred fold. Catalogue free. Address

PRES. E. R. NICHOLS,
Box 50, Manhattan, Kans.



LIGHTNING GASOLINE ENGINE

NEW AND IMPROVED FEATURES SAVING EXPENSE
INCREASING POWER ALL SIZES WRITE FOR CATALOGUE
KANSAS CITY HAY PRESS CO 129 MILL ST. KANSAS CITY MO.

R. E. EDMONSON,
Live Stock Auctioneer.

Experience, earnestness, and a general, practical knowledge of the business, are my principal reasons for soliciting your patronage. Write before fixing dates.
423 Sheldley Bldg Kansas City, Mo.



KINGMAN STAR HAY PRESS.

The capacity, 10 to 15 tons per day. Easy draft, no breakages and the price makes it the press for you to buy. Send for our catalogue. Kingman-Moore Implement Co., 1212 West 11th St., Kansas City, Mo.

PREVENTS BLACKLEG

Vaccination with **BLACKLEGOIDS** is the best preventive of Blackleg—simplest, safest, surest. Each **BLACKLEGOID** (or pill) is a dose, and you can vaccinate in one minute with our **Blacklegoid Injector**.

Every lot tested on animals, before being marketed, to insure its purity and activity.
For sale by druggists. Literature free—write for it.

PARKE, DAVIS & CO.

HOME OFFICES AND LABORATORIES: Detroit, Mich.
BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Indianapolis, Minneapolis, Memphis.



Alfalfa Seed for Fall Seeding.

For many years we have made alfalfa seed a specialty, wholesale and retail. Seed is fresh and reliable.

MOBETH & KINNISON, Garden City, Kans.

J. G. PEPPARD ALFALFA MILLET, CANE SEEDS
1101-17 W 8th St. CLOVER
KANSAS CITY, MO. TIMOTHY GRASS SEED

SEASONABLE SEEDS.

(NOT TOO LATE, IF PLANTED SOON.)

We quote, delivered at depot or Express office Lawrence, no charge for sacks:

German Millet, per bu.....	\$ 1.00
Common Millet, per bu.....	.90
Siberian Millet, per bu.....	.80
Sorghum or Cane seed, per bu.....	1.25
Red or White Kafir-corn, per bu.....	1.00
Japanese Buckwheat, per bu.....	1.50
Silver Hulled Buckwheat, per bu.....	1.50
Navy Beans, per bu.....	2.50
Early Soy-beans, per bu.....	2.00
Cow-peas, Black and Clay Colored, per bu.....	2.50
Stooling Flour Corn for fodder, per bu.....	2.00
Sweet Corn for fodder, per bu.....	3.00
Alfalfa, Fancy quality, per hundred pounds.....	15.00
Alfalfa, Choice quality, per hundred pounds.....	14.00
Alfalfa, Prime quality, per hundred pounds.....	13.00
Turnip seeds, 1 to 5 pounds, per pound.....	.40
Turnip seeds, 5 to 10 pounds, per pound.....	.35
Turnip seeds, 10 pounds and over, per pound.....	.30

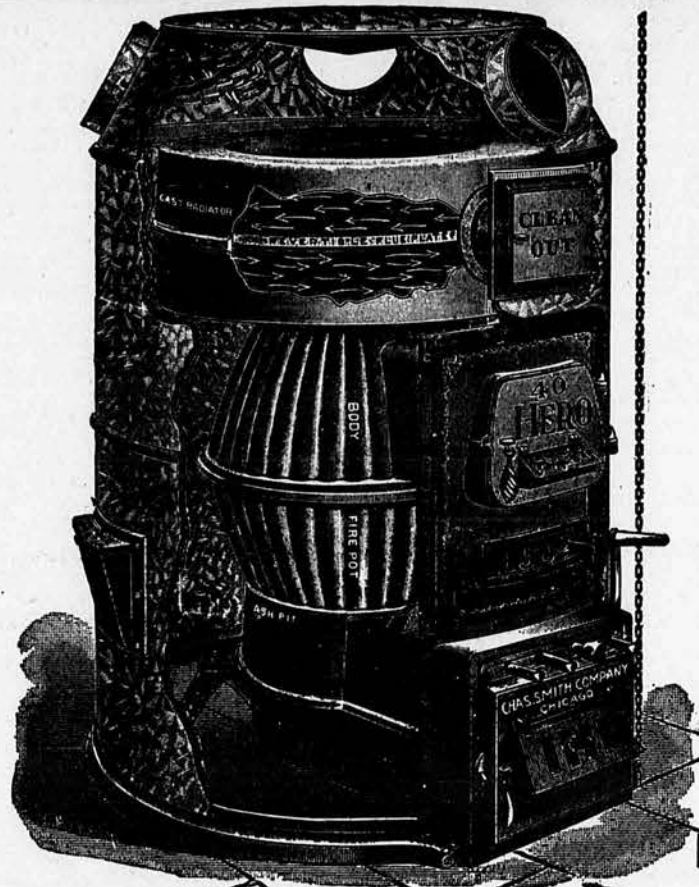
Turnip seeds by mail, postage paid by us. Per ounce, 10c; per one-quarter pound, 20c; per pound, 50c. Terms, cash with order.

KANSAS SEED HOUSE,

F. BARTELDES & CO., Lawrence, Kans.

Passenger Service Exclusively
MANITOU STEAMSHIP CO.
For the Tourist who desires to unite pleasure with comfort at moderate cost.
For those Seeking Health in the balmy and invigorating Lake Breezes.
For the Business Man to build up his shattered nerves.
Three sailings each week between Chicago, Frankfort, Northport, Charlevoix, Petoskey, Harbor Springs and Mackinac Island, connecting for Detroit, Buffalo, etc. Booklet Free.
JOS. BEROLZHEIM, G. P. A.
Chicago

ALWAYS ON TIME



THE HERO FURNACE
Standard of the West

Used in Thousands of Country Homes.

Will save you time, trouble and fuel, besides heating your house evenly in all parts.

Send us plans, giving size of all rooms.

CHAS. SMITH COMPANY,
104 Lake St., Chicago.