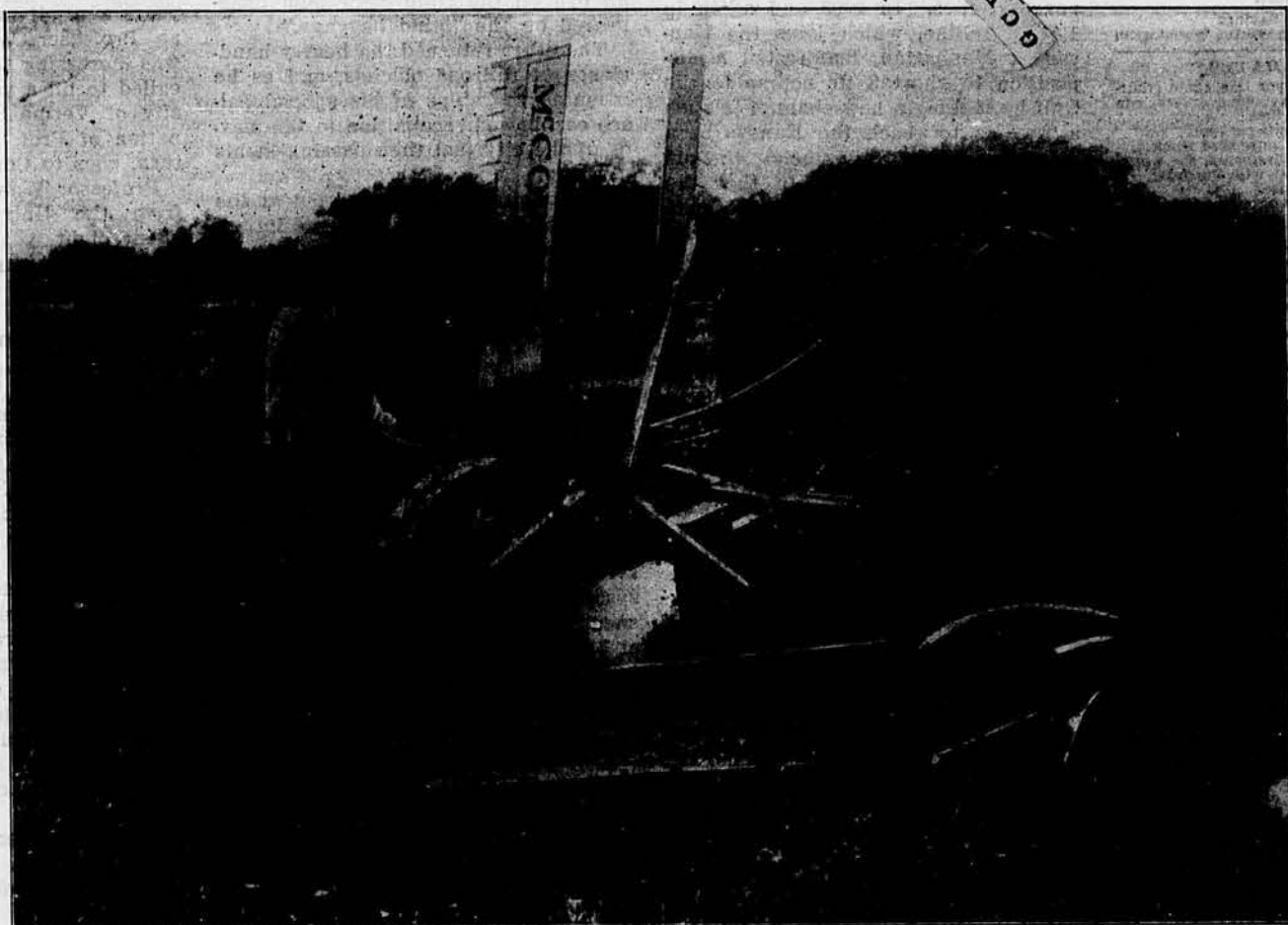


KANSAS FARMER

Volume XLVI. Number 24

TOPEKA, KANSAS, JUNE 11, 1908

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Harvesting Alfalfa Seed

At the Fort Hays Branch of the Kansas Agricultural College Experiment Station

See article, "Growing Alfalfa for Seed," page 672.

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The kind of weather that has prevailed in Kansas is productive of a great growth of grass, alfalfa, etc., but not much can be said in its favor as harvest weather.

To imagine that the heavy rains that have fallen in Kansas during the last few weeks indicate a permanent change in the climate would be about as unwise as to assume that a Kansas river would not overflow its banks even if the Weather Bureau should give notice of a sufficient rise to cover the bottoms.

The International Live Stock Exposition will be held this year from November 28 to December 5. General Manager B. H. Heide has been very active and the prospects now are that this activity will result in a bigger and better live stock show than Chicago has ever seen. Announcements will be made in regard to this great show at the proper season.

The many friends of Prof. Henrietta W. Calvin, of the Kansas State Agricultural College, will be interested in knowing that she has recently been elected professor of household economics in Purdue University, Lafayette, Ind. Her great capacity for work, her complete knowledge of the subjects to come under her charge, and her experience will enable her to make a brilliant success in her new field.

CONCERNING ANCIENT EGGS AND SOME OTHERS.

When an egg is good it's good; when an egg is bad it's bad indeed. Experience of the ancients proved to them that after the hen had spent a few days and nights of brooding attention to an egg it mattered little as to the quality of that egg for culinary purposes whether it had or had not originally been capable of hatching into a chick. Experience of the modern storekeeper proves that after an incubator has devoted a few days' ardent attention to an egg it matters not that such egg "candles out," the epicure does not like it.

It, therefore, transpires that the storekeeper complains to the minions of the State Board of Health that incubator eggs are not good. The State Board of Health, therefore urgently

suggests to producers of eggs that all incubator eggs, all that have received prolonged attentions from the mother hen, and all that have passed the days of their youth be provided decent burial rather than that they be sold to the unsuspecting storekeeper.

The authorities remark in this connection that the penalty for selling spoiled eggs is that the offender "be fined in a sum not to exceed fifty dollars, or be imprisoned in the county jail not exceeding 100 days, or be both fined and imprisoned, in the discretion of the court."

THE FLOOD.

The Kansas River—commonly called the Kaw—has been very high for several days. Its principal branch, the Republican, and other tributary streams, especially the Blue, have been behaving very badly. The greatest damage thus far reported is at Manhattan, where the waters are said to have covered a breadth of several miles. In 1903 and again in 1904 the Blue, which joins the Kansas at Manhattan, manifested a disposition to shorten its course to the Gulf by making a new channel in such a way as to reach the Kansas at a point some three miles below the old junction. Reports indicate that the Blue is this time making good its former threats. In making this change the Blue, which is a considerable stream, necessarily does serious damage to several farms.

At Topeka the Kansas overflowed both banks. On the north side an old depression, apparently an ancient bed of the river, passes through North Topeka. From the settlement of the country until 1903 the present channel has carried the water. In 1903 the water broke over and carried away the Union Pacific Railroad embankment which crosses the upper end of the old river bed, washed away houses and other buildings, drowned a good many people, and inflicted very great damage in many ways.

There was considerable talk at that time about making an embankment sufficiently high and strong to resist any flood that might come against it. An embankment was raised along the portion of the low ground that is within the city limits, but for some reason the still lower portion just north of the city received no attention. The railroad embankment held against the present flood until it had about reached its greatest height and then broke. The water rushed through the streets of North Topeka in great violence.

Fortunately the warnings of the U. S. Weather Bureau and the urgent suggestions of the city authorities had caused nearly all of the inhabitants of North Topeka to go to higher ground after removing their furniture and carpets from all ground floor rooms.

The flood culminated at Topeka at about 2.30 o'clock on Tuesday morning. The height above low water was 27.28 feet. This is 5.42 feet less than the height attained in 1903.

At this writing, Tuesday noon, the fall has been about four inches and still continues. The Weather Bureau expects a rapid increase in the rate of subsidence.

All railroads reaching Topeka were put out of business with the exception of the Santa Fe. This road had to send its east-bound passengers around by Emporia.

The fine potato fields of the valley are doubtlessly variously affected by the overflow. One grower who had out 115 acres of potatoes stated to the writer that he would lose forty acres but that the reduction of the crop in the valley would so react on the price that the product from the remaining 75 acres will probably bring quite as much as he would have received for the entire crop had there been no flood. This grower estimates that the returns for the crop of the valley will be as great as if there had been no catastrophe, but, of course, the cash will be differently distributed.

The occurrence of three overflows within less than five years ought to result in such precautionary measures as can readily be taken to confine the water to the channel of the river. While such great floods as that of 1903 may not easily be controlled, yet the damages may be greatly reduced, while the destructive effects of such serious rises as those of 1904 and 1908 may be almost eliminated by the expenditure of a reasonable amount of labor under competent engineering direction.

TWO MEN.

Two individuals stood on the station platform awaiting the incoming fast train. Physically they appeared to be equals. Their height was almost six feet, weight 190. Each had two hands, two feet, two eyes, two ears, a nose, and a mouth. Each had good digestion and abundance of strength. The one stepped aside from the crowd and as the train pulled in kept an eye on the train crew and disappeared on the "blind baggage."

The other returned the hearty hand-clasps of railroad officials, and as he mounted the steps of his special palace car, bowed recognition to the mayor of the city just then passing in his carriage.

The one would be routed out at the next station, but might succeed in getting on the bumpers.

The other would enter a luxuriously upholstered suite of apartments, finished in polished mahogany. There would be sitting-room, bedroom, bath, and kitchen, with ample service for the comfort and well-being of this man whose car would be cheerfully attached to any train and his convenience promoted in every way possible to the employees of the great railroad.

Why the difference?

These men both recently quit the service of one of the great railroad systems of the country. The one hopes soon to enter the service of another at \$1.50 per day. The other has passed from the position of general manager of one company at \$18,000 per year to the more important position of vice-president of the other at a larger salary.

These men had been boys together. They had lived on adjoining farms. They had gone to the same school. Their parents were not rich.

When the grasshoppers, in 1874, devastated the frontier on which these families lived, the one family applied for aid, bemoaned the hard luck, and wanted to find some easier place to make a living.

The other family sent the boy to town to gather up the washing of the bachelors. He took it home, helped his mother with the work, returned it to the owners, collected the pay, bought groceries and returned rejoicing. The section foreman on the railroad wanted a boy to carry drinking-water to his men. This other boy was happy at getting the job. A freight rustler was wanted at the little station. This other boy was again in luck and got the place. He did his work well, learned the use of the telegraph instruments, the system of accounts, and how to do the business of a station. There was a vacancy at a near-by station and this other boy got the place. He later obtained work in the train service. By close attention he earned promotion and without any "pull" of any kind except his own efficiency he advanced to higher positions.

As years passed this other boy appeared in the positions of road-master, division superintendent, general superintendent, general manager, and finally greatly to the regret of his employers, but with the heartiest expressions of their good will, he transferred to the position of vice-president of the rival system. Knowing ones say that the next change will place this other boy of 1874, this other man who stood on the station platform, in the presidency of the great system.

The question put by the Nazarine when a mother had asked preferment for her sons: "Are ye able to drink of the cup that I shall drink of, and

to be baptised with the baptism that I am baptised with?" is applicable to the case of these two boys and these two men. "Are ye able to do diligently the works of to-day?" Upon the character of the truthful answer to this question depended the difference in the plights of the two men who stood upon the same station platform, not so very long ago, in Kansas.

COMMISSIONER WASHBURN GOES TO VERMONT.

Perhaps there is no man in the West who has exerted such a power for good to the dairy interests in such a short time as has Hon. R. M. Washburn, State dairy and food commissioner of Missouri. Commissioner Washburn took hold of his work at a time when the dairy interest was very small in that State and through his industry and that of the State Dairy Association, Missouri has obtained a recognized place among the dairy States which she did not have a few years ago. It now happens that just as Professor Washburn's usefulness was increasing so rapidly, he has been called to fill a vacancy in the University of Vermont made by the resignation of Prof. C. L. Beach, who, in turn, goes to Connecticut.

Professor Washburn was graduated from the University of Minnesota about eight years ago. Since that time he has been occupied in practical dairy work as a member of the faculty of the Missouri University, which institution conferred upon him the degree of Master of Science. He was then appointed as the first State dairy commissioner of Missouri, and filled this position effectively until the Legislature changed the laws and created the office of State dairy and food commissioner, to which position Professor Washburn was immediately appointed.

It is an open secret that the newly-created State dairy commission of Kansas considered Professor Washburn most favorably when filling the office of State dairy commissioner. They were hampered however, by a very limited appropriation which prevented them making an offer tempting enough to secure Professor Washburn.

It has long been the ill luck of Kansas to lose from its Agricultural College and Experiment Station its best men because it was unable to pay them the salaries offered by more fortunate institutions. In the loss of Professor Washburn Missouri has had something of the same experience.

TOPEKA TO KANSAS CITY.

The country along the Union Pacific Railroad between Topeka and Kansas City is developing into an almost continuous potato field. On the south side of the river there is rather more diversity but the Irishman's favorite is greatly in evidence. When the writer made the trip last Friday the Kansas River displayed the proportions of a mighty stream while the clouds and showers which almost excluded the sunshine suggested still higher water.

While the rain of the morning resulted in standing water in the potato rows, by evening the admirable soil had dried sufficiently to permit the use of the cultivators which were then out in numbers. This kind of diligence has resulted in remarkably clean fields and thrifty growth of vines.

Potato bugs are numerous this season, and are reported to be doing considerable damage. In the fight against these, several two-horse spraying machines were seen. It is reported that manufacturers of sprayers have been utterly unable to supply the demand this season.

From Bonner Springs east, fields of cabbage and other vegetables vary the landscape of potato vines. Regent Taylor of the Agricultural College, who came aboard the train at Edwardsville, stated that cabbage is growing rapidly in popularity. The kraut factories contract it at seven dollars per ton. Yields of 12 to 25

tons per acre are reported. Since cabbage is produced and harvested with little labor compared with that required for potatoes the kraut crop is a profitable and popular one. As the train drew out from Edwardsville a cabbage-planter was passed. It was a two-horse machine and was operated by a driver and two boys. The boys occupied a seat near the ground and placed the plants in the narrow opening made by the forward part of the machine. This opening was filled and the soil was left level by the planter. The work proceeded as rapidly as a rather slow-walking team moved. Such an outfit should plant several acres in a day. The plants in the row behind the machine looked well, as did the rows previously planted.

In this rich valley, wheat, corn, and alfalfa are somewhat in evidence. The appearance of the wheat could not be improved. The corn was rather small and in places apparently having a severe struggle to keep from drowning. The alfalfa was luxuriant. In the fields in which harvesting was in progress the losses that result from "brittle" weather in haying time were evident. Some fields had not been cut. Mr. Taylor's alfalfa adjacent to the railroad had yielded its first crop and was ready again. Friend Taylor has turned his farming over to his son, a stalwart young Kansan who met his father on the arrival of the train at Kansas City. This leaves the former potato king a man of leisure, which means that he has now opportunity to devote, more than formerly, his rugged thought and efficient action to the interests of the public, whereat the public may well rejoice.

PLANNING A FAIR AT THE KANSAS CAPITAL.

It is announced by the officers of the Kansas State Exposition Company that it will hold a State fair at Topeka, September 7-12, 1908, and that arrangements are being completed for one of the finest displays of horses, cattle, swine, sheep, poultry, and other farm stock that has been seen in the State.

"I believe we shall have one of the best displays of live stock in the State," M. A. Low, president of the Exposition Company, said at a meeting of the executive committee last Monday. Secretary R. T. Kreipe, of the Exposition Company, also said that from the correspondence which he had received, he believed the showing of fine animals, those in which particularly farmers are interested, would be meritorious, and that every encouragement possible for the feature will be made by the executive committee having the management of the fair in charge.

At the meeting of the executive committee several special offerings were determined upon. For the best horse, stallion or mare to be judged by points of the class, a premium amounting to \$100, \$50 in plate and \$50 in money, will be offered. The same prize will go for the best cow or bull. For the farmers there will be an offering of a prize to the man having the best pair of draft horses, mares or geldings, shown in harness. Secretary Kreipe will give a prize to the man showing the best pair of mules and there will be prizes for those of the roadster class.

Regarded in the nature of a special inducement to the owners of live stock is the plan of the Exposition management to have the animals shown under tents. The owners of live stock say they like to show under canvas because "tops" are cooler and more airy for their animals. The cattle barn at the fair grounds is to be re-roofed and placed at the disposal of live stock owners so far as may be desired.

At the meeting last Monday the announcement of superintendents for practically all the departments was decided upon. They are as follows: General superintendent, H. A. Heath; class A, beef and dairy cattle, T. P. Babst; class B, draft horses, H. W.

McAfee; class C, light horses and ponies, D. O. Orr; class D, swine, C. E. Shaffer; class E, sheep and goats, C. E. Shaffer; class F, poultry, Thomas Owen; class G, dairy and apiary, Thomas Borman; class H, farm products, H. H. Kern; class I, horticulture, O. F. Whitney; class L, special premiums, not filled; class M, speed, J. A. VanVechten; farm machinery, grounds and buildings, R. I. Lee.

Secretary Kreipe was directed to correspond with Republican and Democratic National committees with a view to securing if possible William H. Taft and William J. Bryan to deliver speeches at the fair grounds during the progress of the fair.

Another interesting feature of the State fair period will be the reunion of the famous Twentieth Kansas regiment of the Spanish-American war to be held in Topeka September 9 and 10.

Some attractive special premiums are offered. For instance, Archias's seed store of Sedalia, Mo., will give \$10 in gold for best display of garden and farm products grown from the seeds of that concern.

The American Angora Goat Breeders' Association will give a silver cup to the best flock consisting of four Angora kids of either sex, the get of one buck bred by the exhibitor. Several other special prizes will be given and many others will come in before the opportunity for such ends.

An effort is to be made to secure a list of special attractions for the fair. It is stated that no fakes will be permitted and nothing that is suggestive of wrong. A string of fast horses also is in store for the fair.

The advance sale of single admission tickets will be forty cents and family tickets with six admissions will be \$2. Tickets for admission of delivery wagons for the week, deliveries to be made before 11 o'clock A. M., \$2. Private conveyance admission, 25 cents; autos, hacks, and express wagons, for the week, \$3. Exhibitors' tickets for the week will be \$1.50 each, and for the grand stand and quarter stretch, 25 cents. Single admissions, 50 cents; children under 8 years free, and over 8 and under 15, 25 cents.

GOVERNMENT HORSE-BREEDING STATION FOR KANSAS.

The daily press announces that Prof. W. L. Carlyle, dean of agriculture in the Colorado Agricultural College under whose direction the Government has been conducting its horse-breeding experiments for the purpose of creating an American type of carriage horse, is a possible successor to Director C. W. Burkett of the Kansas Agricultural Experiment Station who lately resigned to assume editorial management of the Orange Judd publications.

Director Burkett was the first man ever employed in the Kansas Station to devote his entire time to the work of the office of Director. Those Directors of the Kansas Station who preceded him were burdened with the double duties of Professor and Director. Dr. Burkett has set a pace which will keep his successor busy to equal and it is realized on the part of people of Kansas as represented by the regents, faculty, and alumni of the Agricultural College that a man of large brains and capacity must be chosen to carry on this work.

It is believed by those who know Dean Carlyle that he is such a man, and his reputation is an enviable one and such that Kansas could well consider him an acquisition if he were added to our working force of experimenters.

It is also believed that should Professor Carlyle be selected for this work in Kansas, Secretary Wilson would authorize the removal of the horse-breeding station from Colorado to Manhattan in order that Professor Carlyle should have continuous supervision over this very important work.

The government experiments for the creation of an American type of carriage horse are conducted at only two points in the Union. One of these

(Continued on page 670)

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Campbell's Manual Soil Culture.....	\$2.50
The Kansas Farmer.....	1.00
Regular price.....	\$3.50

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Reliable Poultry Journal.....	.50
Weekly Capital.....	.25
The Kansas Farmer.....	1.00
Regular price.....	\$3.25

Our Price \$2.00

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Review of Reviews.....	\$3.00
Success Magazine.....	1.00
The Kansas Farmer.....	1.00
Regular price.....	\$5.00

Our Price \$3.00

Special Offer No. 6.

Vick's Magazine.....	\$.50
Green's Fruit Grower.....	.50
The Kansas Farmer.....	1.00
Regular price.....	\$2.00

Our Price \$1.50

Special Offer No. 7.

The American Magazine.....	\$1.00
Review of Reviews.....	3.00
Woman's Home Companion.....	1.00
The Kansas Farmer.....	1.00
Regular price.....	\$6.00

Our Price \$3.75

Special Offer on Dailies.

The Kansas Farmer one year and any one of the following dailies for the price named.

Topeka Daily Capital.....	\$4.50	Kansas City Daily Star and Times.....	\$5.00
Topeka Daily State Journal.....	4.00		

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The Kansas Farmer one year and any one of the following weeklies for the price named below:

Breeders' Gazette.....	\$2.00	Inter-Ocean.....	1.25
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We will accept as payment for all arrearages and one or more years in advance, your check, your note, postage stamps, or currency, which ever best suits your convenience.

Address THE KANSAS FARMER CO., Topeka, Kans.

Stock Interests

Oats for Early Hog-Pasture.

I have a two-acre patch of oats, under hog fence, which I would like to pasture to hogs if I thought the waste would not exceed one-third the crop. Will you give some suggestions regarding the use of oats as a hog-pasture? A SUBSCRIBER.

Woodson County.

Oats make a splendid forage crop for hogs and if there is any shortage of pasture for them, I would most certainly advise getting them on to this two-acre patch of oats at once. Of course there will be some waste, but hardly to exceed one-third of the crop and this waste is partially balanced by the fact that no labor or expense is required to harvest the crop. We have sown oats and rape together in the experiment station yards for early hog-pasture with the best of results.

G. C. WHEELER.

Conference of Federal and State Officials Regarding Hog Cholera.

EDITOR KANSAS FARMER:—In order to avoid inaccurate reports of the recent conference of Federal and State officials at Ames, Iowa, to consider the prevention of hog cholera, the following statement has been given out.

In response to an invitation from Dr. A. D. Melvin, Chief of the United States Bureau of Animal Industry, Washington, D. C., experiment station representatives and State veterinarians from Middle Western States held a conference with representatives of the Bureau at Ames, Iowa, May 28 to June 4. This conference discussed the efficiency of a hog cholera vaccine recently developed by Doctors Dorset and Niles, of the Bureau of Animal Industry. Field tests of this vaccine in central Iowa, Missouri, Minnesota, Nebraska and Arkansas have proven its merits as a successful method of preventing hog cholera.

The method of manufacturing the vaccine and its practical application were studied and discussed by the visiting veterinarians. The opinion expressed was that this vaccine can be successfully used in the prevention and control of this disease. In order to simplify the methods of production and insure the careful preparation of the vaccine it was deemed advisable that the State experiment stations make ample provisions for this very important work.

The following persons were present: Dr. A. D. Melvin, Chief of the Bureau of Animal Industry, Dr. M. Dorset, Chief of the Biochemic Division of that Bureau, and Mr. H. J. Short, of the same Bureau, all of Washington, D. C.; Dr. W. B. Niles, in charge of the Bureau's field experiments in Iowa; Dr. R. R. Dinwiddie, State veterinarian, Fayetteville, Ark.; Dr. F. S. Schoenleber, experiment station veterinarian, Manhattan, Kans.; Dr. A. T. Peters, animal pathologist of the Nebraska experiment station, Lincoln; Director C. F. Curtiss and Drs. John H. McNeil and C. H. Strange, of the Iowa experiment station, Ames; Dr. J. W. Connaway, experiment station veterinarian, Columbia, Mo.; Dr. M. H. Reynolds, experiment station veterinarian, St. Anthony Park, St. Paul, Minn.; Dr. Paul Fischer, State veterinarian, Columbus, Ohio; Dr. C. E. Marshall, experiment station bacteriologist, Lansing, Mich.; and Dr. R. A. Craig, experiment station veterinarian, Lafayette, Ind.

R. A. CRAIG, Secretary.

The Importance or Value of a True and Correct Pedigree.

One of the most important things pertaining to the breeding of pure-bred stock is the correctness of the pedigree. As the true pedigree depends altogether on the honor and honesty of the breeder too much care can not be given to this part of the business. As I am only a breeder of pure-bred hogs, I will confine my few thoughts to the hog business.

In the first place a breeder must be

honest and reliable or the pedigree he gives is of no value whatever. Second: He must book promptly all important dates. First: The date of service. Second: The date of farrow and number and sex of the pigs farrowed. Next, the date of all transfers: it takes all this to make a correct pedigree.

Do not depend on memory: a person is sometimes mistaken when he depends on his memory for the date of breeding service, and often a litter is lost on this account. The farrowing date is too often neglected and sometimes it is very tempting to mark this date up a few days (or even a month) to suit the size and development of the pigs, especially in this case when they are a few days too old to show. Book the date promptly and be sure you are right. Do not put it off until the next day; you might forget it then. It is a custom with a few breeders (not many) to turn (one or) two boars out with their sows and book one or the other as the sire of the litters that come. It is too often supposed the older one or the strongest is the sire. This may be and it may not be. A breeder can not give a true "breeding certificate" and can not make a correct pedigree from this kind of mating. I have heard of two boars being kept by some breeders: one for serving and siring the pigs, and the other, of more popular breeding and with a great reputation, to receive the credit as sire. This surely would be a false pedigree and of no value as to the true breeding. Too much value can not be placed on a correct pedigree and too little on a false one.

The blood lines can be traced only by a true pedigree and the noted ancestors are only known by the correctness of the pedigree. If a pedigree is worth making at all it is worth making right and correct.

Let us all as breeders of pure-bred hogs be more particular to keep all dates promptly and correct: and not depend on our memory, (be it ever so good). And may we ever feel that the importance and value of a correct and true pedigree depends on our honor and honesty.

Oak Grove, Mo. E. E. AXLINE.

American Aberdeen Angus Breeders' Association.

Under the management of Secretary Chas. Gray the American Aberdeen-Angus Association seems to be prospering. During the month of May, 26 new members were added to the Association which makes one member for each working day and which helps to make up the total of 150 new members taken in during the first 5 months of 1908. This is 13 more members than were taken in during the entire 12 months of 1907 and is only 11 short of the record number enrolled in any one year before. Mr. Gray reports that the cash receipts for the month of May were 25 per cent greater than for the corresponding month of last year. Reports of the sale of Angus cattle are good and the old time breeders who have made such wonderful records with their exhibition and sale cattle and market-topping carloads of fat Angus cattle are still at it more enthusiastically than ever.

In connection with General Superintendent Heide of the International Live Stock Exposition, Secretary Gray is conducting a vigorous campaign among the packing houses to see if better care can not be taken of the exhibition car lots than was done last year.

Mr. Gray believes that the present high price of corn and the shortage of beef cattle which is indicated by the facts that the receipts of fat cattle at the leading live stock markets for May were lighter than they have been since 1886, all indicate that higher prices will be realized for pure-bred breeding cattle in the very near future. The price of pure-bred cattle has not been very consistent with that of beef cattle for some time, and the demand is already being felt for high-class breeding cattle with which to take advantage of the conditions which must be met immediately. The

FEEDERS AND SHIPPERS OF

Livestock

will find it to their interest to consult with, call on and ship to the old reliable

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high price of butcher's stuff this spring coupled with the high price of corn have served to increase the receipts and these have included many culls and fag-end pure-bred animals.

Mr. Gray sees a bright future for beef cattle and especially for Angus cattle.

Hog-Feeding in Oklahoma.

PRESS BULLETIN OKLAHOMA AGRICULTURAL EXPERIMENT STATION, STILLWATER, OKLA.

Though but a new State, Oklahoma stands well to the front in pork production. According to recent statistics she stands eleventh in order among the States according to the number of hogs raised, with 1,588,000 head. And not only have we large numbers of hogs, the quality is also very fair in the majority of sections. The improvement of no other class of stock has received so much attention in this State as the improvement of the hog. Though the horses and cattle are, generally, lacking in quality, yet the quality of our hogs is almost equal to that of those in any of the older States. Of course there is still room for great improvement but our farmers deserve credit for what has already been accomplished and we do not doubt that they will continue in the good work so well begun. Wide-awake men realize that with high-priced corn it is impossible to make good profits by feeding inferior stock and so they raise the class of hogs that will produce the greatest returns. The hog that requires 700 or 800 pounds of corn for every 100 pounds of gain is not wanted if hogs can be secured that will produce the same gain for 500 pounds of corn or less.

But even with the best improved hogs, the largest profits are not assured unless they are properly fed and managed. Throughout the corn belt, corn is the staple grain used in feeding hogs and it is usually the cheapest grain that can be used for this purpose. Yet when it reaches the prices which have prevailed during the past season, only the most judicious feeding can be practised if there be any hope of securing profitable returns.

Corn alone is not a good ration for hogs. The growing animal requires a certain proportion of muscle-forming material along with the fattening nutrients of the food. From the farmer's standpoint, the important functions of the protein are the production of lean meat, tendons, wool, hair, and building up and maintaining the vital organs of the body. The carbohydrates and fats are used in the formation of fat and in the production of the heat and energy of the animal body. Corn is rich in the fat-forming compounds, but is deficient in protein and consequently the best results can not be obtained by feeding it alone. Even when hogs are considered fairly well matured and are simply being fattened, experiments have demonstrated that better results are obtained by feeding a ration containing a higher percentage of protein than is contained in corn. Of course the price of the different food stuffs obtainable will influence the feeder in making his selection and there may be

conditions, such as low priced corn and high priced concentrates, that would justify him in feeding a ration consisting entirely of corn.

During the summer months, there is probably no cheaper ration than corn and alfalfa pasture in the districts where alfalfa can be grown successfully. Even where alfalfa does not do well, there are other pasture crops such as wheat, rape, cow-peas, soybeans, etc., which are valuable adjuncts to corn. But many farmers may be so situated that they find it advisable to buy some commercial food to supplement corn in preference to growing pasture crops.

This station has just completed a hog-feeding experiment conducted for the purpose of determining the relative value of several different food stuffs as supplements to corn. Thirty head of Duroc-Jersey and Poland-China hogs were selected and these were divided into six lots of five each. The following rations were fed:

Lot I. Cornmeal.

Lot II. 7 parts cornmeal, 1 part Armour's meat-meal.

Lot III. 11 parts cornmeal, 1 part Armour's meat-meal.

Lot IV. 4 parts cornmeal, 1 part cottonseed-meal, alternated every other two weeks by cornmeal alone.

Lot V. Cornmeal, alfalfa hay (ad libitum.)

Lot VI. Cornmeal, cow-pea hay (ad libitum.)

In this test the cost of making 100 pounds of gain in each case was as follows: Lot I, \$8.01; Lot II, \$8.94; Lot III, \$4.73; Lot IV, \$6.38; Lot V, \$5.88; Lot VI, \$6.67. These results show a very wide variation and a very expensive gain for Lot I. The hogs in this lot were somewhat off feed during part of the experiment, but that is just what is likely to happen when hogs are fed only corn.

The Healing of Wounds.

GEO. H. GLOVER, D. V. M., VETERINARIAN COLORADO AGRICULTURAL COLLEGE.

Animals on the farm are continually being injured by accidents that happen in a thousand different ways. Barb wire cuts are most frequent and a word or two of advice as to the proper treatment in the hands of farmers will not be amiss. The first thing, to gain a correct understanding of a sane and effective method of treating wounds, is to remember that nature does the healing and that remedies applied are simply for the purpose of assisting nature. The right mental attitude in this respect will tend to eliminate a thousand and one nostrums which are tried in rapid succession in the belief that there is somewhere, if it could only be found, a specific remedy with magical influence to bring about the desired recovery in a marvelous way. Mankind has been diligently seeking such remedies for thousands of years and is still keeping up the search. It is time that such a view of the situation, which is based purely upon superstition, should be eliminated and that we should get down to principles based upon scientific research, and instead of groping blindly in the dark seeking the

"where." Let us always be ready to inquire "why."

The ordinary wound will heal of itself if not interfered with. This interference may be from germ infection, parasites, or too much meddling with various applications on the part of man. Now, let us suppose a case. A horse has a badly lacerated leg from contact with a barb wire. The first thing to do, of course, would be to stop the bleeding. This can be accomplished by a tight bandage of clean, white muslin, tied directly over the wound or above it. Often the bleeding artery will protrude, and a thread can be run under it with a needle and the artery tied. Do not use flour, dirt, or cobwebs or anything of that sort on the wound; they are unnecessary and may produce a dangerous infection.

Having stopped the bleeding, remove the clots of blood and cut off the ragged edges of muscles with shears. A pan of antiseptic solution should be provided. One of the best and cheapest antiseptics on the farm, good for man or beast, is creolin. Add a teaspoonful of this to a pint of water that has been boiled. Place the knife, shears, etc., in this solution, and wash the hands before beginning. After having cleaned out the wound, wash it thoroughly with the antiseptic solution. See that there is good drainage from the wound at the bottom. Do not allow it to start healing with a pocket that will hold pus. As it is practically impossible to keep a wound on a horse antiseptic, it is not advisable for the farmer to tie up the wound; leave it exposed to the air and apply the antiseptic wash several times a day. Three good antiseptics are, corrosive sublimate, which can be purchased at the drug stores in tablets all ready for use; formalin, and boracic acid solution. After about a week, it is well to change to dry dressing, a powder composed of equal parts of boracic acid, charcoal, and iodoform makes a very good dry dressing. Clean, air-slaked lime, powdered over the wound twice daily, is very satisfactory. The so-called "proud flesh" is only unhealthy granulation. It is seldom advisable for the farmer to interfere with this condition by using caustics; the results are usually disastrous; better in this case to call in a qualified veterinarian. If maggots should get into the wound a little turpentine or chloroform will help bring them to the surface where they may be picked out. I did not mention sewing up the wound, for the reason that in case of the ragged barb wire cut it is very seldom worth while to do so.

A wound, to heal properly, must be gotten perfectly clean and free from germs from the start and then kept clean. Remember that it is largely a matter of keeping dangerous germs out and giving nature a chance. Too much interference is often the cause of tardy healing of wounds.

The Poland-China Hog.

ERS' INSTITUTES, COLORADO AGRICULTURAL COLLEGE.
H. M. COTTRELL, SUPERINTENDENT FARM-TURAL COLLEGE.

The Poland-China hog is an almost perfect meat-making machine. It is not excelled by any breed of any kind of live stock for converting feed into flesh.

It has a voracious appetite, a good digestion and is lazy—not using much of its energy in useless travel or excitement. It does well under any condition where food is abundant. It will stand heavy feeding and considerable neglect.

The Poland-China is an easy feeder and is quick maturing. When properly handled it is ready for the market at any time after six months of age, whenever the price is right.

It is a typical lard hog, with a thick, short, massive body, fine quality of bone, hair, and skin, small, fine head, and short legs. It is thick fleshed, with heavy shoulders and hams and broad, thick loins.

The meat is fine grained but with too large a proportion of fat on the matured animal. The Colorado Packers find that when the Poland-China is marketed fat at 190 to 220 pounds

live weight, the meat is fully up to the requirements of the best markets. Above these weights there is too much fat.

The chief fault of the Poland-China is that many strains, through overfeeding of corn, are poor breeders, having only one to four pigs in a litter. Such pigs are usually choice feeders but the number is too small to make it profitable to keep the sow.

Where the sows are selected from prolific strains and fed muscle- and bone-making feeds, they are as prolific as those of any breed. Three Poland-China sows on the Colorado Agricultural College farm, had last spring, thirty-one live pigs.

In selecting Poland-Chinas for breeders choose hogs that are from prolific strains in both the sire and dam. They should have the typical qualities as described above. Be careful to get animals with wide, roomy shoulders and with slightly arched backs.

Importance of Live-Stock Industry to the Agriculture of a Country.

EX-SENATOR W. A. HARRIS, BEFORE THE KANSAS IMPROVED STOCK BREEDERS' ASSOCIATION.

In my experience with farm live stock, and my travels in this country and abroad I have been impressed with the tremendous magnitude of some mistakes that have been made by those who went before us, and that are being unfortunately repeated by those of the present day and generation, and that is partially represented by the title that has been assigned to me. When I was a boy and a young man, I was very familiar with that part of the old State of Virginia which was called the "tidewater" part of the State, a tremendous part of the State where they began farming in an early day. Tobacco was literally money. They raised tobacco when they starved to death for something to eat. Tobacco was the currency, and all that part of the State was devoted, and a good part of it is still being devoted, to the cultivation of the one crop of tobacco. There never was any stock in that country. There never was any live stock industry at all.

When you go down to Georgia—past North Carolina down into South Carolina, Georgia and around into Alabama and Mississippi—everywhere there you see the worn, scarred hillsides where the soil has been cultivated and scratched and worn out in the effort to produce what is the money crop of that region—cotton. Everywhere the land has been exhausted, and it is a sad, lamentable

spectacle to see these farmers reaching out for new ground to clear up, and pass through the same process.

Up in the Dakotas and Minnesota I have seen the same process going on in the way of raising wheat, wheat, wheat, always wheat, nothing but wheat. They are beginning to realize that difficulty there. Nature is beginning to rebel. The land is beginning to refuse to produce a profitable crop. Here in this new State of ours, which had originally more fertility than almost any State in the Union, we see a great many go on raising corn. I know of one field that has been in corn ever since 1844. I know, in Leavenworth County, a number of fields that have been in corn ever since 1865, when I first saw the County. We get into the habit. Our grandfathers raised corn, our fathers raised corn, and we raise corn. That is the kind of rut that the people of this country are getting into in a great many localities.

STOCK FARMING IN GREAT BRITAIN.

Now, in 1892 I made my first trip abroad that I had ever had the opportunity to take, and in traveling over that wonderful little island of Great Britain there was absolutely nothing that struck me with such profound astonishment, such great admiration for good qualities, as the intelligence and the patriotism—put it even upon that high ground—of the English farmer. I have walked over lands there that had been practically cultivated and farmed for a thousand years, and they were still as fertile, apparently, as they had ever been. I saw throughout England and Scotland more grass in proportion to the area enclosed and used as farm land, than I have ever seen anywhere. Even Kansas, new State as she is, doesn't show the proportion of grass that Great Britain does. It is grass that you see everywhere. It is live stock that you see everywhere. You are never out of sight of a flock of sheep; you are never out of sight of cattle, and as for the numbers and breeds they have produced by their intelligence, you all know it is unexampled in the world. Mr. Ingalls uttered not only a beautiful poetic expression but a profound economic truth when he said "Grass is the forgiveness of nature." It has preserved the soil of Great Britain more than all the best fertilization that could be maintained. It is the idol of the English farmer. In a lease for an English farm, (I understand it to be invariably the case,) you find a severe penalty to be paid by the tenant if he breaks up a piece of sod land.

IMPORTANCE OF RAISING GRASS AND LIVE-STOCK.

I happened to notice the seal of the Department of Agriculture the other day. I have seen it hundreds and thousands of times, but never noticed it particularly, but it utters the truth that agriculture is the foundation of all manufacture. Agriculture is the foundation of all prosperity, in this country more especially. This is a great agricultural country, and its prosperity not only in this generation but in all generations to come will depend upon its possibilities. Now agriculture can not exist unless the soil is preserved. To that end grass is absolutely essential, and to the farmer we can reverse the Scriptural idea that all flesh is as grass. What the farmer means when he speaks of grass, is that he has something that he proposes to convert into flesh. Live stock is the only industry, like the turtle in Hindoo mythology, that is capable of going on indefinitely without deterioration.

I want if I can, to call your attention to the importance of putting more and more of our land into grass, and when I say grass I mean scientifically and properly put in, of course. At one time—it was a good many years ago—I used to boast that I had sowed annually more blue-grass seed than anybody in Kansas. I came out to Kansas an enthusiast on blue-grass, and I have been an enthusiast ever since. I believe that experiments that are being made show that this which we recognize in this latitude as most valuable of all grazing grasses, can be grown clear out to the middle of the State. When I came to Kansas we thought it could be grown only in the border counties of the State. We have got to carefully cultivate it. Prairie-grass is a very nutritious grass but it is easily grazed out. Now, I happened to see a bulletin the other day from the Department of Agriculture speaking of the necessity for carefully putting in grass on conditions that had simply been worn out. It recommended the disk harrow and it recommended other methods. I regard as a thing that ought to be thoroughly discussed and understood all over this State, the importance of putting land into grass, and the production of meat of all sorts.

There are in Europe about four hundred million people that are now practically dependent upon foreign sources for their meat supplies. Our great rivals in the stock business are Australia and Argentina. At present Argentina is one of the most superb stock countries in the world. They

(Continued on page 684.)

"Pittsburgh Perfect" Welded Fence

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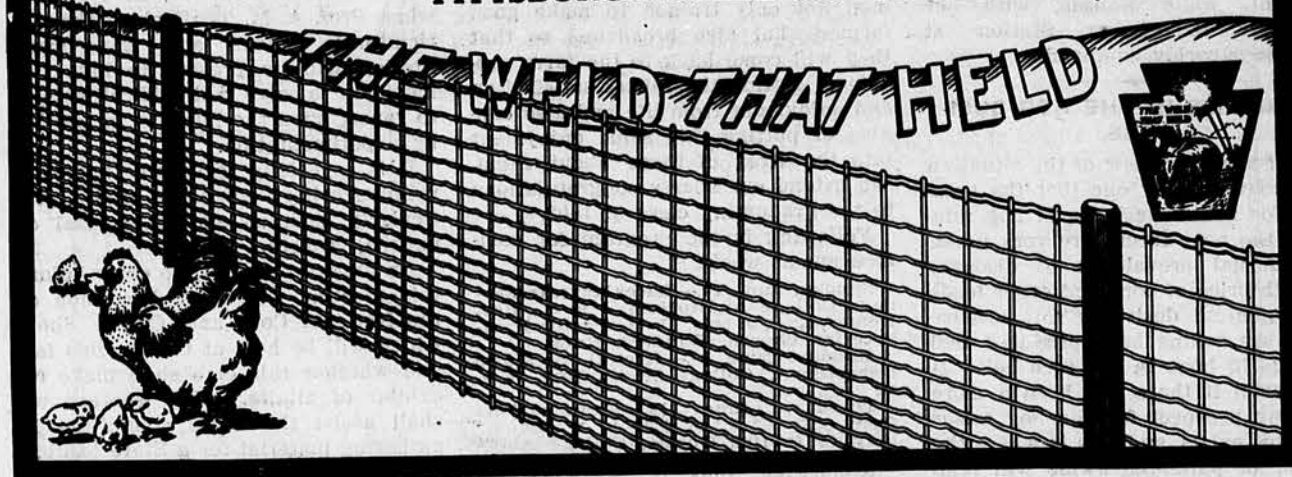
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PITTSBURGH STEEL CO.—PITTSBURGH, PA.



GOVERNMENT HORSE-BREEDING STATION FOR KANSAS.

(Continued from page 667)

is Fort Collins, Colorado, which was selected because of the personal qualities of Professor Carlyle which seemed to point him out as the best man for the work in the West and the other in Vermont which is the home of the Moran horse on whose blood lines these experiments are based. The Government stud at Fort Collins now numbers about 60 horses and this would be a very decided accession to the live stock represented at the Kansas Agricultural College and Experiment Station. It seems that the Colorado Station has almost no land that is available for use in this horse experiment, while Kansas, with her 4,500-acre Experiment Station at Hays, is superbly equipped.

PROSPECTS IN THE HOG BUSINESS.

A conservative view of the situation must convince any one that the prospects for active business in hog raising in the near future are very great. The unusual prevalence of disease; the high price of corn and other feeds and a general desire to sell because others are selling have produced real shortage in hogs in the corn belt. It is doubtful if there has been a more flattering prospect for the hog raiser than now exists, and this is where the breeder of pure-bred swine will reap his harvest.

New breeders are starting in the business, older breeders need new blood and the farmers must have hogs; all of these will be customers of the man who has breeding hogs to sell.

Although the rains in Kansas have been detrimental to farming operations it is hardly possible that the crops have been so delayed that Kansas will not have another one of her bumper crops.

As the writer sees the situation a crop failure is the only thing that can prevent great activity in the pure-bred hog market in the near future. The hog man who breeds and sells good stuff will have to meet a larger demand this fall than he has met in years past, and the prices will be better.

OFFICIAL CROP ESTIMATES.

The Crop Reporting Board of the Bureau of Statistics of the Department of Agriculture last Monday issued a bulletin estimating the area sown to spring wheat to be 3.7 per cent more than the area sown last year, indicating a total area of about 17,710,000 acres, or 631,000 acres more than sown last year. The condition of spring wheat on June 1 was 95 per cent of a normal as compared with 88.7 on June 1, 1907, and 93.2 the June 1 average of the past ten years. The figures for the important States follow:

STATES.	Acres.	Condition.
Minnesota.	5,356,000	95
North Dakota.	5,899,000	97
South Dakota.	2,956,000	97
Washington.	998,000	93

The condition of winter wheat on June 1 was 86.0 per cent of a normal, as compared with 77.4 on June 1, 1907, and 81.0 the June average for the past ten years. The condition in the important States is as follows:

STATES.	Condition.
Kansas.	78
Indiana.	92
Illinois.	88
Nebraska.	86
Missouri.	84
Ohio.	92
Pennsylvania.	92
Oklahoma.	85
California.	65
Texas.	84
Michigan.	91

The area sown to oats is estimated to be 0.6 per cent less than the area sown last year, indicating a total area of about 31,644,000 acres, or 193,000 acres less than last year. The condition of the oat crop on June 1 was 92.9 per cent of a normal as compared with 81.6 on June 1, 1907, and 88.9 the June 1 average for the past ten years. While the figures show a lower con-

dition in Kansas than in any other State, it must be remembered that these figures are for comparison of the condition in each State with a standard for that particular State. Thus 78 for Kansas should not be compared with 86 for Nebraska but with former figures for Kansas. It will be found when the harvest returns shall all have come in that Kansas will have contributed far more than any other State to the world's loaf.

K. S. A. C. COMMENCEMENT.

Next week, June 14 to 18, is commencement week at the Kansas State Agricultural College. Our State Agricultural College is turning out young men not only trained to make good farmers, but also broadened so that they will come back to the farm capable of getting the fullest satisfaction and enjoyment from life and also capable of putting this same enjoyment into the lives of those about them. We extend our hearty congratulations to the graduating class of 1908.

Following is the program for commencement week:

Sunday, June 14.—Baccalaureate Sermon, College Auditorium, 4 P. M., Rev. Robert E. L. Jarvis, D. D., Pastor Presbyterian church, Winfield, Kans.

Monday, June 15.—Recital by Music Department, College Auditorium, 8 P. M.

Tuesday, June 16.—Examinations from 8:35 A. M. to 2:40 P. M.—Senior Play to Invited Guests, College Auditorium, 8 P. M.

Wednesday, June 17.—Examinations from 8:35 A. M. to 11:50 A. M.—Business Meeting Alumni Association, 2:00 P. M., Class and Society Reunions, 3:30 to 6 P. M., Triennial Alumni Address, College Auditorium, 8 P. M., Ernest F. Nichols, '88, Professor of Experimental Physics, Columbia University, New York.

Thursday, June 18.—Annual Address, College Auditorium, 10 A. M., Dr. Albion W. Small, Dean of Graduate College, Professor of Sociology, University of Chicago; Presentation of Diplomas; Cadet Band Concert, College Auditorium, 2 P. M.; Military Drill, 3 P. M.; Triennial Reunion of Alumni and Invited Guests, Young Men's Christian Association Building, Corner Fremont and Eleventh streets, 7:30 P. M.

TO THE MAN BEHIND THE COW.

Any subscriber to THE KANSAS FARMER, whether new or old, who sends us \$1 before July 4, 1908, for subscription or renewal, will be presented with one year's subscription to Kimball's Dairy Farmer if he so desires. Kimball's Dairy Farmer is published at Waterloo, Iowa, in the heart of the dairy district. It is a live and up-to-date paper for those interested in dairy farming, and is well worth the price asked for its subscription.

If you desire this excellent paper order at once by sending your dollar to The Kansas Farmer Company, Topeka, Kans.

Kansas State Board of Health.

EDITOR KANSAS FARMER:—The health laws charge the State Board of Health with the general supervision of the health of the people of the State. This has been construed to mean that they should suggest ways and means for the prevention and suppression of communicable diseases; (naturally the means of cure are left to the practicing physician).

Accordingly, there have been prepared pamphlets along the line of prevention and restriction of the diseases most dangerous to the life and health of the people, viz., tuberculosis, typhoid fever, diphtheria, scarlet fever and small-pox. Effort has been made to present the facts in a simple way, free from technical or scientific terms, in order that every one may readily understand the subject matter treated therein.

The question confronting the department is how the people may be advised that such pamphlets have been prepared, and how they may be placed in the hands of those who may be interested. It was thought we might have the support and assistance of the newspapers in this work, and have therefore mailed you sample copies under separate cover, with the request that you kindly announce in your next issue that we will be pleased to furnish copies of any or all of these pamphlets upon request, by sending in name and address.

We have also prepared a booklet entitled "Kitchen Tests," in which is set forth some simple tests for the detection of some of the more common adulterations of foods, which will also be sent upon application.

These pamphlets are being placed in each of the county normal institutes this year, as a part of the course of instruction to teachers.

Very truly yours,

S. J. CRUMBINE,
Secretary and Chief Food and Drug Inspector. Topeka, Kans.

The Shawnee Alfalfa Club.

The next meeting of the Shawnee Alfalfa Club will be held on Saturday afternoon, June 27, at 2 o'clock when Prof. A. M. TenEyck of the Agricultural College and Experiment Station will be present to help the members to solve their difficulties and to report upon the information gained by experimentation.

It is especially requested that each member bring a sample of alfalfa, particularly such as show abnormal or unusual growth.

An important matter to come before this meeting will be a discussion of the National Corn and Cereal Show which will be held at Omaha this fall and whether this club shall make an exhibit of alfalfa. Also whether we shall assist the State committee in gathering material for a State exhibit.

It is understood that the National Association will be able to offer some prizes for alfalfa and it is hoped that the Kansas Association will give prizes for Kansas alfalfa.

It may seem worth while for the only alfalfa club on earth to be represented in this great show by club exhibits of alfalfa.

Field Notes

LIVE STOCK REPRESENTATIVES.

L. K. Lewis.....Kansas and Oklahoma
A. L. Hutchings.....Kansas and Nebraska
Geo. E. Cole.....Missouri and Iowa

Mr. F. J. Searle, who owns the East-side Dairy Farm Holsteins, Oskaloosa, Kans., states that he received more inquiries from his advertisement in THE KANSAS FARMER than from all the other papers put together. There is certainly a vast market for good Holsteins in this territory, but it seems to require time to educate the farmers up to the idea and it is more profitable to break away entirely from the beef breed where one is interested in dairying. This is not because of any prejudice against the Holstein, but because so many farmers do not yet seem to realize the real value of specially-bred dairy stock. Mr. Searle has a very fine herd of butter-bred Holsteins and can furnish almost any kind of stock at this time.

One of the events of the year in the East is the annual sale of Jersey cattle made by the Hood Farm at Lowell, Mass. These cattle are owned by the C. I. Hood Company, proprietors of certain remedies and the herd includes a considerable number of very fine and imported animals. At this sale there were representatives from fifteen States, and one buyer from Bogoda, Ecuador, South America. The animals were dispersed as follows: Thirty-three in Massachusetts, sixteen in Pennsylvania, seven in New Hampshire, six in Illinois, five in Vermont, five in New York, three in Connecticut, two in Iowa, and one each in Maine, New Jersey, Wisconsin, and the District of Columbia. Five of the imported animals averaged \$391 each, and they are practically of the same breeding as those are owned by R. J. Lincolnton of Holton, Kans.

C. O. Anderson of rural route No. 3, Manhattan, Kans., has made a reputation as a breeder of Duroc-Jersey swine. In regard to his present crop of pigs and his prospects he writes as follows: "My hogs are all in good, healthy condition, and my spring crop of pigs are doing well. I have already commenced to tip some of the earliest pigs. My trade has been largely among my old customers who have come back to me for more pigs. Among the spring pigs are some exceptionally good boars which will surely make the buyers feel that they have got their moneys worth at the low price I am offering them. Remember that my motto is 'Satisfactory hogs or money returned and charges paid both ways.' A number of well known men from Manhattan, among whom were Prof. R. J. Kinzer of the Agricultural College, and Col. L. R. Brady, the well known live-stock auctioneer, were out looking over my herd yesterday. I believe the express agents at Manhattan would say that I ship more hogs than the breeders of all other breeds combined. I have never yet had a hog returned to me because it was not satisfactory. I want to sell a few of my best trained boars now,

HORSE OWNERS! USE

GOMBAULT'S CAUSTIC BALSAM.

A safe, speedy and positive cure. The safest, best BLISTER ever used. Removes all bunions from Horses. Impossible to produce scab or bluish. Send for circular. Special advice free.

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Modern, fire proof, only American Plan Hotel in the city. Centrally located, 15th and O Sts.

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DEATH TO HEAVES
NEWTON'S Heaves, Cough, Dis-temper and Indigestion Cure. A veterinary remedy for wind, throat and stomach troubles. Strongly recommended. \$1.00 per can, of dealers, or exp. prepaid. The Newton Remedy Co., Toledo, Ohio.

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For getting in foal from 1 to 6 mares from one service of a stallion or jack, \$8.50 to \$6.00. Safety Impregnating Outfit, especially adapted for getting in foal so-called barren and irregular breeders, \$7.50. All goods prepaid and guaranteed. Write for Stallion Goods Catalog. CRITTENDEN & CO. Dept. 31, Cleveland, Ohio.

HENRY W. ROBY, M. D.
Surgeon,
730 Kansas Ave., Topeka, Kans.

some of these are extra good ones, sired by King I Am 61817, and foundations of up-to-date breeding. I also have a few that were sired by the grand old prize winner, Gold Fish 7549, who was the sire of many of the noted winners at the leading fairs. I also have some good ones sired by Von Billie K. 42579, a son of Billie 20873, the sweepstakes boar at Nebraska State Fair. His dam, Betsey Maid 30392, was first in class at the same show. The March pigs sired by E's Kant Be Beat and out of Ruth Wonder are large, growthy fellows.

A Dairy Cattle Improvement Association.

In several States of the Union, notably Iowa and Illinois, there have been organized dairy cattle improvement associations which have for their objects the encouragement of dairy farmers in the use of pure-bred dairy stock and the finding of a market for such stock in behalf of the breeders. This is not a breed organization in any sense but all dairy breeds are represented alike. It is believed that such an organization would be of immense value to Kansas and it is suggested that if the farmers who are interested in the production of milk will get together at the next meeting of the State Dairy Association or at the meeting of the Kansas Improved Stock Breeder's Association, such an organization could be effected to their immense advantage.

In order to show how the dairymen of Iowa have developed this idea into successful operation, we give herewith the constitution and by-laws of the Iowa Dairy Cattle Improvement Association:

ARTICLE I.—NAME.
This organization shall be known as the Iowa Dairy Cattle Improvement Association.

ARTICLE II.—PURPOSES.
The purpose of the Association shall be to improve the dairy cattle of the State by the use of pure-bred sires and the most thorough knowledge of breeding and caring for dairy stock.

1. By distributing literature bearing upon dairy breeds to farmers who are interested or likely to become interested in the industry.

2. By securing the cooperation of all men interested in dairy stock in the State.

3. By encouraging cooperation among all dairy breeds showing absolute fairness to each.

4. By securing better conditions for dairy cattle at the State Fair.

5. By securing a dairy superintendent for the State Fair at the earliest possible moment.

6. By preparing and systematically distributing to the agricultural and local papers of the State articles that will promote the interest in this work.

7. By holding an annual meeting in order to discuss topics of general interest and benefit to dairymen.

ARTICLE III.—MEMBERSHIP.
SECTION 1. Any reliable person of the State actively interested in dairying shall upon the payment of a \$1 initiation fee and \$1 a year dues shall be entitled to become a member of this Association.

SEC. 2. Honorary membership may be conferred upon any one interested in dairying by a two-thirds vote at any meeting of the Association.

ARTICLE IV.—DUES.
There shall be a regular initiation fee of \$1 and an annual fee of \$1 from each member.

ARTICLE V.—OFFICERS.
SECTION 1. The officers of this Association shall consist of a president, one vice-president for each of the six dairy breeds and a secretary-treasurer.
SEC. 2. The officers of the Association shall be elected at the annual meeting.

and shall hold their office one year, or until their successors shall be elected.

ARTICLE VI.—DUTIES OF OFFICERS.

SECTION 1. It shall be the duty of the president to preside at all meetings; to enforce the due observance of all rules; to appoint all regular and special committees and labor for the best interests of the organization.

SEC. 2. The vice-presidents shall guard the interests of their respective breeds, and, in the absence of the president, assume his duties.

SEC. 3. The duties of the secretary-treasurer shall be to keep careful records of all transactions of the society, collect all moneys due, pay out the money of the Association on the written order of the president, and labor for the welfare of the Association.

ARTICLE VII.—AMENDMENTS.

This constitution may be amended at any annual meeting by a two-thirds vote of all members present or represented.

BY-LAWS.

ARTICLE I. The officers of this Association shall be elected by ballot at the annual meeting.

ART. II. The president and secretary shall be ex-officio members of the executive and program committees.

ART. III. The president shall have the power to call special meetings at such times as seem to him necessary or on the request of ten members.

ART. IV. The time and place of the annual meeting shall be determined by the executive and program committees.

ART. V. The meetings of this Association shall be governed by Robert's Rules of Order.

Live Stock Organizations in Kansas.

Kansas State Board of Agriculture, F. D. Coburn, secretary, Topeka.

Kansas Bee Keepers Association, O. A. Keene, secretary, Topeka.

Kansas Berkshire Breeders' Association, H. R. Little, secretary-treasurer, Hope.

Kansas Corn Breeders' Association, L. E. Call, secretary, Manhattan.

Kansas State Dairy Association, I. D. Graham, secretary-treasurer, Topeka.

Dickinson County Shorthorn Breeders' Association, H. C. Hemmenway, secretary, Hope.

Kansas Draft Horse Breeders' Association, Prof. R. J. Kinzer, secretary, State Agricultural College, Manhattan.

Kansas Duroc-Jersey Breeders' Association, Carl P. Thompson, secretary, Garrison.

Kansas State Exposition Company, R. T. Kreipe, secretary, Topeka.

Kansas State Fair Association, A. L. Sponsler, secretary, Hutchinson.

Forest Park Live-Stock Breeders' Association, B. A. McQueston, secretary, Ottawa.

Glasco Live-Stock Show Association, G. H. Bernard, secretary-treasurer, Glasco.

Kansas Good Roads Association, Prof. Albert Dickens, secretary, Kansas Agricultural College, Manhattan.

Hodgeman County Cattle Growers' Association, Chas. E. Jackson, secretary, Jetmore.

Kansas State Horticultural Society, Walter Wellhouse, secretary, Topeka.

Kansas Improved Stock Breeders' Association, H. A. Heath, secretary-treasurer, Topeka; I. D. Graham, assistant secretary, Topeka.

The Improved Stock Breeders' Association of the Wheat Belt, Chas. M. Johnston, secretary, Caldwell.

Marshall County Hereford Breeders' Association, F. W. Preston, secretary, Blue Rapids.

Plainville Breeders' Association, S. R. Tucker, secretary-treasurer, Codell.

Kansas Poland-China Breeders' Association, L. D. Arnold, secretary, Enterprise.

Kansas State Poultry Association, Thos. Owen, secretary-treasurer, Topeka.

Kansas Branch of the Red Polled Cattle Club of America, Jno. E. Hmshaw, secretary-treasurer, Emporia.

Rice County Improved Stock Breeders' Association, H. L. Lees, secretary, Lyons.

Shawnee Breeders' Association, I. D. Graham, secretary-treasurer, Topeka.

Shawnee Alfalfa Club, I. D. Graham, secretary-treasurer, Topeka.

Kansas State Swine Breeders' Association, I. D. Graham, secretary-treasurer, Topeka.

Southeast Kansas Improved Stock Breeders' Association, H. E. Bachelder, secretary-treasurer, Fredonia.

Kansas State Veterinary Medical Association, Dr. Hugh S. Maxwell, secretary-treasurer, Salina.

Kansas Auctioneers' Association, Col. L. S. Kent, secretary, Hutchinson.

Who Wants These Holsteins?

The growth of the dairy business has been so rapid in Kansas that a very greatly increased demand for specially bred dairy cattle has resulted. This office is besieged with inquiries as to where such cattle may be had and, in order to better reply to such inquiries, we have opened up negotiations with breeders further East who are now compelled to veal their bull calves that are needed in Kansas for herd headers.

We now have an offer of an entire herd of 9 Holstein cows, from 2 to 5 years old; 4 calves about 4 months old, and 1 yearling bull, all registered and with extended pedigrees. The owner lives in New York State and is in other business, so he must sell his cattle. They might look good to some Kansas man at the price offered.

Allen's Poland-Chinas.

G. W. Allen, of Tonganoxie, Kans., is one of the conservative Poland-China breeders of Kansas, and when we say that he is conservative we do not mean that he is not possessed of the progressive spirit in the art of breeding hogs, but on the other hand he is alive to the needs and demands of the business of the present time.

Mr. Allen has exercised much care and judgment in the purchase of sows to place in his herd from which to raise pigs of that breeding and finish that will fill the wants of those who want the best of this character of live stock.

The boars that are at the head of the herd are the immediate offspring of some of the most illustrious families of the Poland-China breed.

The blood of Meddler, Corrector, and Chief Perfection 2d, are strong factors in this herd, the three herd boars being sired by these hogs.

A promising crop of pigs of early spring farrow are coming on and doing fine and if nothing happens to hinder them from now on they will constitute one of the attractive offerings that will go through the public auction ring this fall.

The Missouri Auction School.

The Missouri Auction School, of Trenton, Mo., will open their mid summer term the first Monday in August.

President Carpenter is enrolling students every day, and the prospects are very flattering for the greatest session in the history of this growing institution.

This is the largest school of its kind in the entire country, and any young man who is contemplating a career in the auction field will find it worth his while to investigate the opportunities offered by this school.

Cures Eczema.

New York.—Evidences of the wonderful Eczema cure effected by Tarsen continue to pour into the International Laboratories from all over the country. This distressing malady seems to have met its master in Tarsen, the lately introduced specific which is applied on the parts thus affected.

It is the greatest cure that has ever been perfected for facial troubles, blackheads, pimples and for itching and running eczema. The International Remedy Co., 1123 Broadway, New York city, will send a free trial treatment to all requesting same.

The Test of Time.

Year in and year out the International Harvester Company of America continues to do business and is distributing more McCormick, Champion, Deering, Milwaukee, Osborne, and Plano harvesting machines than ever before.

The International Harvester Company has the best equipped factories in the world for the manufacture of harvesting machines. This enables them to make a higher quality machine than

any of their various competitors. The money back of this company makes it possible for them to install the latest and most up-to-date money saving machinery which the smaller manufacturers can not do.

While the various machines are all made up by the one company, or rather by the respective divisions of the one company, they are sold by different agents throughout the country, and the line not only includes harvesters, but mowers, rakes, corn harvesters, wagons, binder twine, gasoline engines, and practically everything in the line of agricultural implements. It is always a part of good judgment to order things before you actually need them so as to have them ready and thus avoid delay in getting your order filled at the busy season. Be sure to read the advertisement of the International Harvester Company of America in this issue, and if you would like to secure a catalogue of any one of the machines, or all of them, for that matter, go to the local International dealer—he will supply you and answer all questions cheerfully.

A Good Opportunity for Young Men and Women.

The men and women who are at the top to-day are those who made the most of their opportunities when they were between the ages of sixteen and twenty-five. If you could follow their careers, you would find that most of them equipped themselves with a good business education—that is, they found it profitable to attend a good business college. Such a course fits them for practical work and makes them capable of stepping right into the machinery of any business and making good. Some young men and women on the farm, or in small country towns think they do not need this kind of an education, but whether they finally become farmers they will find that nothing they have learned in the past will prove so valuable to them later on as a proper business education.

In another column we are publishing an advertisement for the Gem City Business College. This is one of the leading schools in the Central West, and in many of the larger cities can be found graduates from this college who are holding important, high-salaried positions. In one bank alone in

KANSAS GRAND FAIR CIRCUIT.

Frank E. Smith, Iola, Kans., Circuit Secretary.

Coffeyville, Kans., August 11-14—A. B. Holloway, secretary.

Chanute, Kans., August 18-21—A. E. Timpane, secretary.

Iola, Kans., August 25-28—F. E. Smith, secretary.

Ottawa, Kans., September 1-4—Carey H. Porter, secretary.

Topeka, Kans., September 7-12—R. T. Kreipe, secretary.

Leavenworth, Kans., September 15-18—M. B. Hamilton, secretary.

Independence, Mo., September 22-26—W. H. Johnson, secretary.

Paola, Kans., September 28-October 2—G. R. Reynolds, secretary.

St. Louis there are thirteen graduates from this school.

The Simmons Hardware Co., St. Louis, employs nearly a score of G. C. B. C. graduates.

The Missouri Life Insurance Company, St. Louis, employs eight or ten G. C. B. C. students.

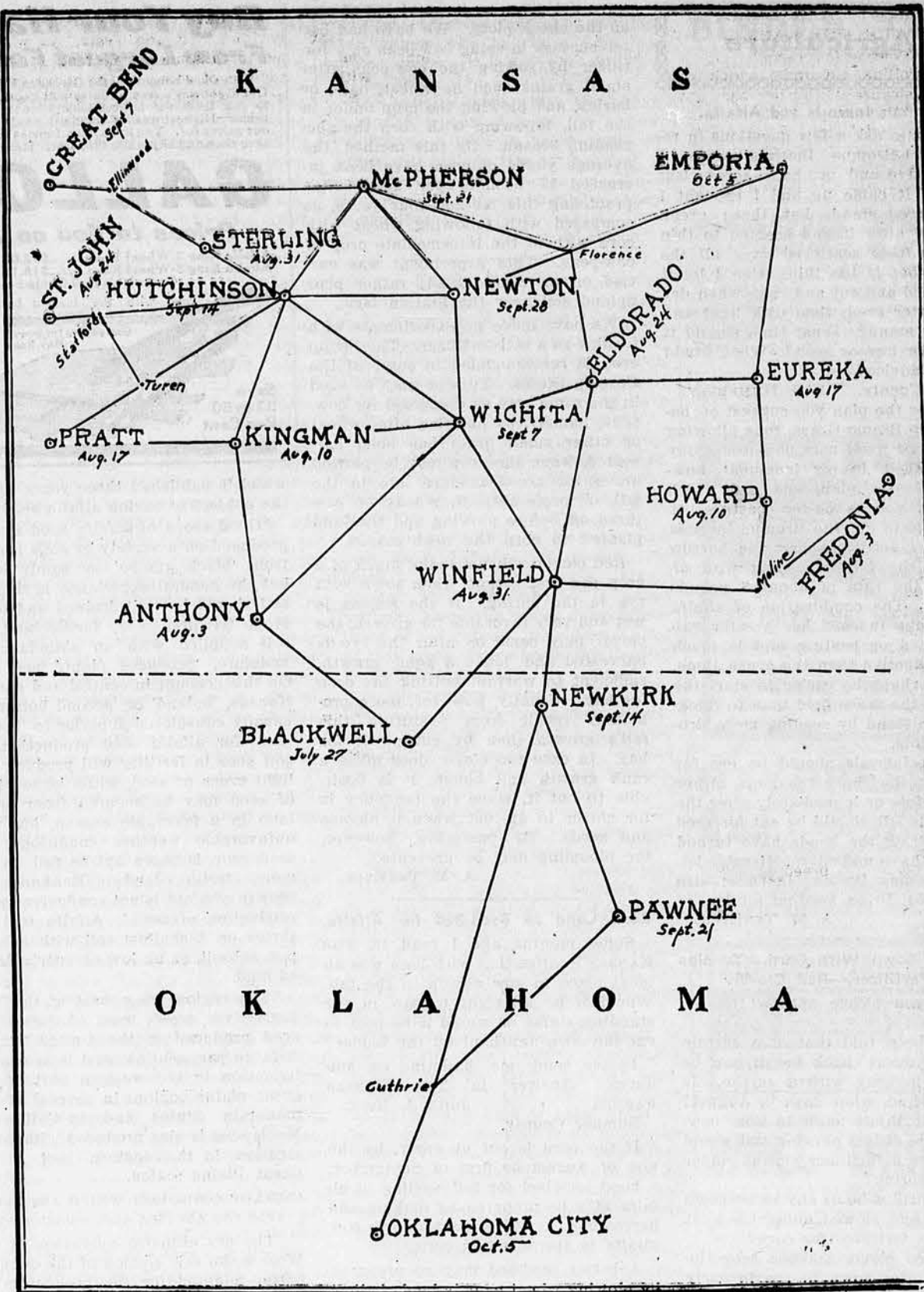
One bank in Kansas City, Mo., employs twelve students of this school.

The Quincy National bank has all G. C. B. C. graduates, except the cashier. The president, vice-president, bookkeepers, tellers and clerks all being graduates of the Gem City Business College.

The Collins Plow Co., Quincy, employs practically all G. C. B. C. students—secretary, bookkeepers, bill clerk and stenographers.

More than 100 business colleges in the United States employ G. C. B. C. graduates as teachers of the commercial branches in their schools.

The school building is especially equipped and in fact is like a big mercantile institution—pupils are taught actual business transactions, so that when the course is completed the pupil has had a practical training. Being located in a medium-sized city, board and room expenses are moderate. Read their beautiful 68-page illustrated catalogue and get full information. It contains many letters of recommendation from pupils who are now in positions. The demand for pupils of this school exceeds the supply, therefore every scholar is assured of a good position after finishing at this school.



Map of the Kansas and Oklahoma Fair Circuit.

Agriculture

Bromus Inermis and Alfalfa.

I wish to ask a few questions in regard to Bromus Inermis grass. I sowed five and a half acres last spring. It came up and I thought I had a good stand, but those green bugs got after it and seemed to thin it out. It is scattered over all the ground, but is too thin. Can I let it go to seed and cut and rake when dry and scatter seed, then disk light and help my stand? What time should it be cut for hay or seed? What would be your advice?

Pratt County. J. S. HUMPHREY.

Perhaps the plan you suggest of maturing the Bromus Grass, thus allowing it to reseed itself may be successfully accomplished. In my judgment, however, a better plan, and one which will give you a better pasture or meadow is to cut the Bromus Inermis for hay or seed and disk and harrow early in the fall, reseeding with alfalfa at the rate of about 8 pounds per acre. The combination of alfalfa and Bromus Inermis has greater value for feed or pasture and is much more productive than the grass alone. It will perhaps be easier to start the alfalfa in the grass field than to thicken up the stand by seeding more Bromus Inermis.

Bromus Inermis should be cut for hay about the time it blooms, either a little before or immediately after the bloom falls. It should be cut for seed when most of the heads have turned brown. I have mailed you circular letter on seeding Bromus Inermis; also circular No. 10 on seeding alfalfa.

A. M. TENEYCK.

Cow-Peas Sown With Corn.—Turnips as Fertilizer.—Red Clover.

Would you please answer the following:

I have been told that at a certain time in August buck brush can be killed by mowing with a scythe. Is it true? If so, what days in August?

Would it injure corn to sow cow-peas at time of last plowing and would they pay as a fertilizer plowed under the next spring?

Would turnips be of any value sown on upland and plowed under the next spring as a fertilizer for corn?

Would red clover make a crop the first year after sown in rye in early spring?

M. A. HALL.

Douglas County.

It is generally true that all kinds of brush and young growth of trees and shrubs are more apt to be killed by cutting in August than in most any other month of the year. This is probably due, largely, to the fact that just at this time the wood-growth for the year has been nearly completed, but little storage has been made in the buds or in the roots to renew the growth another season. If the brush is cut or suckers removed from stumps at this time, the new growth is not nearly so apt to start as if the cutting is done at some other season of the year.

As to just what time in August will be best to cut the brush, will depend upon the season and stage of maturity of the brush or other young growth. Perhaps cutting any time during hot, dry weather in August would have the desired results; preferably cut early in the month rather than late.

We have experimented with planting cow-peas in corn, at the last cultivation for several seasons. The cow-peas have made a fairly good growth and must have some value as fertilizer which should result in larger yields from succeeding crops. However, our results show that the corn crop with which the cow-peas are planted has usually been decreased in yield compared with the check plots in which no peas were planted. The peas apparently exhaust the available moisture and plant-food which should be used by the corn. On the average, therefore, for four years, the plots which have been planted to cow-peas

have not given so large yields of corn as the check plots. We have had better success in using cow-peas as a fertilizer by sowing the cow-peas after small grains such as wheat, oats, or barley, and plowing the crop under in the fall, following with corn the succeeding season. By this method, the average yields of corn have been increased 12 bushels per acre (after practicing this method four years, as compared with following wheat with corn without the intermediate crop of cow-peas. This experiment was carried on on rented land; rather poor upland soil near the Station farm.

We have made no experiments with turnips as a soil fertilizer. The turnip crop is recommended in some of the Eastern States. Turnips may be used in the same way as described for cow-peas, namely, by planting after wheat or other small grain has been harvested, when the crop may be plowed under for green manure late in the fall, or preferably, they may be pastured off before plowing and the land planted to corn the next season.

Red clover will not make much of a crop the first season when sown with rye in the spring. If the season is wet and very favorable for growth, the clover may come on after the rye is harvested and make a good growth, sufficient to warrant cutting the crop for hay. Usually, however, more profit may result from pasturing this fall's growth than by cutting it for hay. In case the clover does make a rank growth and bloom, it is desirable to cut it, since the tendency is for clover to die out when it blooms and seeds. By pasturing, however, the blooming may be prevented.

A. M. TENEYCK.

Corn Land as Seed-Bed for Alfalfa.

Some months ago I read in THE KANSAS FARMER that corn land was an ideal place to sow alfalfa in the fall. Would it be all right to sow in the standing stalks or would it be best to cut the corn and haul off the fodder?

Please send me bulletins on Manures. Answer in THE KANSAS FARMER.

JOHN A. ROSE.

Sumner County.

If the corn is cut up early, by the last of August or first of September, a good seed-bed for fall seeding of alfalfa may be prepared by disking and harrowing. It is not advisable to sow alfalfa in the standing corn.

A better seed-bed may be prepared by plowing wheat or oats land shallow immediately after harvest, and harrowing and disking occasionally until the last of August or first of September when the alfalfa should be sown. Millet also makes a good crop to precede the fall sowing of alfalfa. Corn land is better adapted for spring sowing.

I have mailed circular No. 10, giving information regarding the seeding of alfalfa. Have also mailed circulars Nos. 2, 3, and 5, on manures, fertilizers, and the rotation of crops as related to maintaining soil fertility.

A. M. TENEYCK.

Growing Alfalfa for Seed.

At our county alfalfa meeting there were some untruths disseminated and in order to correct the same, will you answer the following questions through THE KANSAS FARMER: Which is the best cutting of alfalfa to save for seed, the second or third? Many save the second cutting for seed, while others thinking they get more hay from the second than the third save the third for seed. Will river-bottom land grow as much seed per acre as upland? What is the most approved method of saving seed? Cure in field and thrash from field or stack well and thrash after alfalfa has gone through the sweat?

ALFALFA GROWER.

Shawnee County.

There is perhaps no exact answer to your first question. As to whether the second or third cutting is best to save for seed will depend upon several conditions. I can do no better than quote from bulletin 134 of this Station,

Buy Your Hay Machinery Direct From Largest Factory at Wholesale Prices

We've just bought out the Cascaden Mfg. Co.'s famous Alfalfa King Line of Hay Machinery. Get Galloway's free circular and catalog on the Best Hay Machinery made—sold direct to you from the largest factory—(not mail order house) at actual lowest wholesale prices—Highest quality standard goods better than your dealer has to charge double our prices for. You know this famous line, so buy from this advertisement now and save time and buy while they last. Here are

GALLOWAY'S

Prices to You on 30 Days' Free Trial

Alfalfa King 2-Wheel Rake.....\$12.00	Alfalfa King 4-Wheel Rake.....\$23.80
Alfalfa King 3-Wheel Rake.....\$18.75	Alfalfa King Overshot Stacker.....\$29.90
Cascaden's Full Circle Steel Hay Press.....\$133.40	

Deal with the biggest factory—Protected by \$25,000.00 Bond Guarantee—Write today.

Galloway's Improved Hay Rake
Wm. Galloway Company
Manufacturers
388 Jefferson St.
Waterloo Iowa

Save
33 to 60
Per Cent

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\$29.90

Can
Ship
Quick

Over-
shot
Hay
Stacker

which I published three years ago on the subject of saving alfalfa seed.

"Good crops of alfalfa seed may be produced on a variety of soils ranging from 'black gumbo' to 'sandy loam,' but the general experience is that the soil should be well drained and of average fertility. Very fertile land, and soil supplied with an abundance of moisture, 'produces plant,' not seed. On this account in central and eastern Kansas, 'upland' or 'second bottom' is usually considered superior to 'bottom land' for alfalfa seed production. A soil poor in fertility will produce only light crops of seed, while large yields of seed may be secured from fertile land in a favorable season, but with unfavorable weather conditions, the seed crop is more apt to fail on the more fertile land. 'Rankness in growth of plant is not conducive to the production of seed.' Alfalfa will not thrive on a shallow soil with a hardpan subsoil, or on low or poorly drained land.

"The region lying west of the Missouri river grows most of the alfalfa seed produced in the United States. A large part of this seed is grown by irrigation in the western part of the great plains region, in several of the mountain States and in California. Much seed is also produced without irrigation in the eastern part of the Great Plains region.

CLIMATIC CONDITIONS WHICH ARE FAVORABLE FOR ALFALFA SEED PRODUCTION.

"The dry climatic conditions of the West make this section of the country better adapted for the production of alfalfa seed than the more humid regions of the central and Eastern States. The best quality of seed and the largest crops are produced in an arid climate by irrigation. The supply of water and the weather conditions during the growing period of the crop largely determine which crop to save for seed. Any one of a season's crops may produce good seed provided the soil and weather conditions are right for growing and maturing the seed. About the same time is required to produce a crop of seed as is required to produce two crops of hay. In the irrigated districts of Colorado and Western Kansas the first crop is often saved for seed, the practise being not to irrigate this crop, thus causing a medium but thrifty growth of plant, which, with the favorable weather conditions prevailing in the arid regions, usually seeds well.

WHAT CROP TO SAVE.

"On the whole, especially in the more humid regions, the second or third crop is more often saved for seed than the first crop, mainly because more favorable weather conditions prevail in the late summer and early fall for maturing the seed. Also, because the insects which may help to fertilize the blossoms are more numerous in the latter part of the season. Only in the Southern States is it possible to use a later crop than the third for seed.

"In those latitudes where the third crop may mature seed before cool weather and frost, the choice between the second and third crop for seed is decided mainly by the weather conditions at and before the blossoming period. If the supply of moisture has

been moderate and the alfalfa has made a proper growth and little or no rain falls during the blossoming period, the second crop will likely seed well. However, if the second crop is rank in growth, or heavy rain falls just previous to or when the alfalfa is in bloom, it is best to cut for hay. In the non-irrigated area of the semi-arid portions of Kansas and other Western States drouth is apt to prevail in the latter part of the season, by which the growth of the third crop is greatly reduced, causing only a small development of seed. In such districts the second crop should be saved for seed, or perhaps the first crop, especially on dry uplands which may produce only one good crop (the first crop) in a season. In Northwestern Kansas and Nebraska it is doubtless safest to use the second crop for seed, as the third crop is apt to be caught by frost while immature. In central Northern Kansas a farmer must usually decide early whether to save the second or third crop; if the third crop is to be saved for seed it is best to cut the first and second crops a little early, giving as much time as possible for the third crop to mature. The early cutting for hay may give not only an earlier but more vigorous growth to the third crop, insuring a large production of seed in favorable seasons.

"Some growers state that the third crop should be preferred for seed because it blooms more evenly and matures more evenly and in a shorter period than the second crop. If this is a fact, it may be largely due to the favorable weather conditions which are more apt to prevail during the season of the year when the third crop is growing and maturing. When it can be successfully done, using the third crop for seed has an advantage over using the second crop in that it allows the harvest of two good hay crops, while if the second crop is harvested for seed only one crop of hay is usually secured that season, the growth after the seed crop being insufficient as a rule, in the sections of Kansas named, to produce hay.

"On the other hand, when the third crop is matured for seed sufficient growth of the alfalfa usually takes place after removing the crop to give a good winter cover, and it is the general report by those who practise this plan, that taking the third cutting for seed does not exhaust the alfalfa plants so much as taking the second crop for seed, and a similar observation is made as regards the seeding of the first or second crop, some growers reporting that when the first crop was allowed to mature seed there was little or no growth after the seed was removed, during the balance of the season.

"Insect pests, as the grasshopper and web-worm, are also factors in determining whether the second crop, or any crop, may be safely saved for seed. The web-worm is more likely to attack the second crop, but in Southern Kansas the third crop is also apt to be injured by this pest.

METHODS OF HARVESTING ALFALFA SEED.

"A crude method is to cut with a mower and rake into windrows the

same as hay. Handled in this way, much seed may be wasted. If the alfalfa is mowed in the morning, when the dew is on, and raked immediately there is much less shattering of seed. If cut during the heat of the day, to prevent the shelling and waste of seed, men should follow the machine with forks, moving the cut alfalfa out of the way of the team and the machine. When provided with a buncher or windrower attachment, the mower does better work and may be economically used. There is some objection to leaving the alfalfa in loose bunches or in open windrows, and unless the weather is very favorable and the purpose is to thrash at once, it is best to follow the mower closely, placing the alfalfa in larger piles or cocks, about what a man can lift at one forkful, thus avoiding pulling the bunches apart in loading, which would cause the pods to break off and the seed to shatter. Also, if the alfalfa is placed at once in the cock in this way, the seed is prevented from bleaching so much, and the straw settles and sheds rain and is preserved and cured better than when in the loose bunch or windrow, and well-cured alfalfa straw is said to have one-half the feeding value of alfalfa hay.

"The self-rake reaper is in common use, and is an excellent machine with which to harvest the alfalfa seed-crop. The gavels are dropped from the platform out of the way of the horses and the machine. Usually men follow with forks and lay three or four gavels in a pile. These bunches shed rain and preserve the seed and straw in better condition than the single gavels, and the seed does not shatter so badly in handling the larger compact bunches as in handling the smaller ones.

"Some few growers cut the crop with a header, leaving the alfalfa in windrows across the field. This method is only satisfactory in a dry season, when the alfalfa is thrashed or stacked at once, as soon after harvest as possible. Many western growers harvest alfalfa with a binder. The usual practise has been to remove the binder part, but leave the packers on and throw the bundles out loose, dropping in bunches by use of the bundle carrier or bunching with the fork, as already described in the use of the self-rake reaper. In recent years, however, many prefer to bind the alfalfa in bundles and shock the same as wheat or other grain. The advantage claimed for this method is that it requires less help, since one man may do the harvesting and put the crop into the shock if help is scarce; the alfalfa may be cut a little green. Then the seed does not shatter so readily, and the straw may cure and keep better than when put up loose.

"When bound and shocked the alfalfa should stand a couple of weeks, until dry enough to thrash. If put into the stack, thrashermen prefer to have it loose, as bundles are more apt to be damp and tough, but if fully dried when stacked, alfalfa should keep well in the bundle. It is suggested to stack with layers of straw between layers of alfalfa, in order to take up the moisture.

"The common practise when it can be done, is to thrash from the field as soon after harvest as the seed is dry enough and the straw fully cured. This is often desirable in order to secure seed for fall sowing and is the safest and most economical method of handling the crop in a favorable climate, if a machine can be secured. If a machine can not be secured and the weather conditions are favorable for stacking, better put into the stack at once when the crop is cured than to run the risk of damage by wet weather. A single rain will not injure the alfalfa much if it is well bunched or cocked, but continued wet weather causes the seeds to swell and perhaps sprout, and when the pods dry they burst, thus allowing the seed to shatter.

LOSS FROM UNFAVORABLE WEATHER.

"Some growers estimate that half the seed is lost in this way by a few days of unfavorable weather. Also, if the

crop is allowed to lie in the field for a long time there is more or less loss of seed from the effects of heavy dew and damage from mice and insects, and the longer the alfalfa lies in the field the easier the pods break off and the seed shatters when it is finally handled and stacked or thrashed. The largest amount and the best quality of seed may be secured by stacking or thrashing the crop as soon after cutting as it is in fit condition.

OTHER LOSS.

"The loss of seed in thrashing may be prevented by spreading a canvas under the machine or along the stack in order to catch the shattered seed and the bolls which break off; also, care must be taken to handle the alfalfa carefully in pitching and loading. Large growers of alfalfa often stack the seed crop in the field with the sweep-rake and hay-stacker. Those who practise this method usually cut with the mower and leave in bunches or windrows, drying the alfalfa quickly and stacking as soon as possible. This is a rough way to handle the crop and occasions more or less loss of the seed, but where a large area is handled it may be more profitable to handle the crop in this way than to handle it by a slower method and run the risk of damage from wet weather. When the alfalfa is left in gavels or bundles, as thrown off by the harvester, it should be taken up with a barley fork. There will be less shattering of seed, however, if the alfalfa is in small, compact bunches, not too heavy to be lifted at one forkful.

DO NOT STACK UNTIL CURED.

"Care should be taken not to stack or thrash when the straw is too green or tough and the seed not fully dry. It requires even more time to properly cure the seed crop of alfalfa than it does to cure the hay crop; the stems are largely stripped of leaves and cure slowly and pack closely in the stack. If stacked green, the alfalfa is sure to heat and thus injure the vitality of the seed. If thrashed green or damp, much seed will be lost, since it will not hull properly, and if damp seed is stored in bulk it will heat and spoil. To cure the alfalfa fit to stack, from three to seven days of favorable weather are required, and a longer period if it is thrashed from the field. When bound and shocked the crop should have a couple of weeks of drying weather to cure before stacking. It is safest to put into narrow stacks, and it is also a good plan to mix with layers of dry straw, especially if the alfalfa is bound and there is any indication that the straw is damp or green in the middle of the bundles. The straw improves the ventilation of the stack and absorbs the excessive moisture. The practise of using straw in this way, however, is seldom practicable—better stack only when fully cured.

"When alfalfa is stacked, unless thrashed at once, within two or three days after stacking, it should be allowed to pass through the sweat before being thrashed. This requires several weeks or months. The best plan is to cover the stacks well to prevent damage by rain, and thrash late in the fall when the weather is dry and cool.

KIND OF THRASHER.

"Farmers differ in their opinion as to whether it is preferable to thrash with a huller or with a common grain separator provided with a huller attachment. Some growers favor the use of the latter machine because the work can be done more rapidly. As a rule, however, when farmers have a chance to use both kinds of machines, and compared their work, the huller is preferred. Although it takes longer to thrash with a good huller, yet with a good crop, enough more seed may be secured to amply pay for the extra time and expense required; in fact the owner of a huller will often pay something for the privilege of thrashing over, again, the straw stacks left by the common separator. Among the machines, used, the Bidsell huller is well recommended; also, the Advance thrashing separator with huller at-

tachment receives favorable mention. One farmer who has used both machines prefers the Advance thrasher to the huller."

The bulletin from which the above is quoted is out of print but a new bulletin on alfalfa is being prepared which will include this matter with a great deal of new material on alfalfa culture. This bulletin should be ready to distribute in July or August.

A. M. TENEYCK.

English Blue-Grass.

EDITOR KANSAS FARMER:—In this part of the State, English blue-grass has fallen into such disrepute that people are now going to the foolish extreme of not sowing any, even if they received the seed gratis. I have found this grass of some value still.

If sown during the winter months on any ground not too densely sodded, it will "catch" nicely without being covered and without any other attention.

I have sown it in a worn-out pasture which I desired to reclaim for meadow, and have been highly pleased with the result. It grows well and keeps the weeds down where there is not enough prairie-grass, and as this grass comes back, the English blue-grass gives way.

In the ravines it has killed out the ironweeds and other obnoxious weeds; in old roads and ditches it has stopped the rolling dirt and wash. In fall and spring it has afforded good pasture. I am sure that if it were sown in the roads and fence rows it would prevent the growth of weeds that are ever busy in seeding the farm.

The matter of sowing in winter may seem odd; it is nature's method, and it is the only method, and applies to Kentucky blue-grass as well.

You may sow a half-dozen times during the spring, summer, or fall without covering and fail, but try once in winter and succeed.

There are thousands of farmers in this State who declare that tame grasses will not grow or thrive here. They know (?) this, for they have never sown a seed of tame grass on their farms. Kansas is as much the home of tame grasses as any other State, and where they have failed to give satisfaction it is either because we have erred in sowing or in preparing the ground, or both.

Some grasses will not grow on ground so compact as not to admit rain, or so depleted as not to produce corn or wheat. Some people are dissatisfied with any grass that is not as persistent in growing, and as ravenous in wrenching sustenance from the earth as sorghum.

JOHN G. ELLENBECKER.

Marshall County.

Making Hay.

BY A. M. TENEYCK, PROFESSOR OF AGRONOMY, KANSAS STATE AGRICULTURAL COLLEGE AND EXPERIMENT STATION, MANHATTAN, KANS.

The hay crop ranks second in value of all the crops grown in the United States, corn taking first place according to the government reports. However, the crops from which hay is made are more valuable than statistics can show. The reports fail to take into account the great value of grasses, clover and alfalfa as fertilizers of the soil. Hay crops must be grown on every farm in rotation with other crops in order that soil fertility may be maintained and to insure a profitable and permanent agriculture in any country.

But hay may be a very profitable crop to grow for its own product. In fact hay crops must be grown at a profit, else farmers might neglect to grow these crops that are so necessary to the soil. It is important, therefore, not only to know what hay crops are best adapted for growing in a certain locality, soil, or climate, and to understand the best method of seeding and culture for such crops, but the hay should be harvested and saved in such a manner as to secure the largest amount and best quality of product. "Making hay" is no com-

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mon work, and the writer hopes that the plans and suggestions given in this pamphlet may be of value to many Kansas haymakers.

CUTTING THE HAY CROP.

The common hay grasses and legumes differ somewhat in the stage of maturity at which each should be cut to make the best quality of hay, and farmers and feeders are learning that this difference in quality means not only a difference in market value but also a difference in feeding value.

ALFALFA.

Alfalfa should be cut for hay just when it is coming into bloom. Several experiments conducted at the Kansas Experiment Station and at other experiment stations have shown that alfalfa hay has a higher feeding value when cut at this early stage of maturity than when cut in full bloom. It has also been observed that when cut at the beginning of the blooming period the next crop starts quickly and there is no delay in the growth of the alfalfa.

It appears that as the alfalfa approaches maturity the young shoots start again from the crowns of the

plants. If the crop is not harvested until in the full bloom or past bloom these young shoots may be cut off, thus checking the growth of the alfalfa and delaying the harvest of the next crop. By taking due care to always cut alfalfa as soon as it starts to bloom it is often possible to secure an extra cutting in a season, above what might be secured if the cuttings were made at a later stage in the growth of the crop.

The leaves of alfalfa are much richer in protein than the stems, and the leaves drop off and shatter worse in cutting if the plants are allowed to become too mature before harvesting. For feeding horses it is often recommended, and may be advisable, to allow the alfalfa to become more mature and to reach full bloom before cutting. The more mature hay may be safely fed to horses with little danger of injurious effects which sometimes occur from feeding the immature hay.

CLOVER.

To make the most palatable hay of the highest feeding value from clover, it should be cut just when it is in full bloom with a few of the blossoms turning brown. Cut before this stage the hay will be lighter and more washy, especially if fed to horses; while if the crop is left until the clover is too mature, many of the leaves will be shattered or lost in harvesting, and the leaves are the most nutritious part of the clover, containing nearly two-thirds of the protein in the plant.

TIMOTHY.

To make the most palatable hay, timothy should be cut just as it is coming into bloom, and when grown in combination with common red clover it is necessary to cut the crop early in order to secure the clover before it has become too ripe to make good hay. The hay cut at this stage is best for feeding cattle and sheep. Timothy should not be allowed to stand until in full bloom, since, if cut at this stage, the hay will be dusty and especially objectionable for horses.

To make the best hay for horses timothy should be cut at the stage called "second bloom," which is really just when the grass has about ceased blooming and most of the blossoms have fallen, there being only a few blossoms left at the tops of the heads. When cut at this stage the greatest weight of hay is secured and probably the greatest amount of nutrients, but the hay is more woody and less palatable than timothy cut earlier or just before it comes into bloom. The maturer hay, however, is relished by horses and is considered superior to the less mature hay because less washy.

OTHER GRASSES.

Orchard-grass, Western rye-grass, perennial rye-grass, English blue-grass, and Johnson grass quickly lose in palatability when nearing maturity, and should be cut for hay before the blooming stage. Other grasses, such as Bromus Inermis, Redtop and Tall Oat-grass retain their good qualities longer and make good hay if cut when in full bloom or after the blossoming stage.

It may be stated as a general rule that all grasses should be cut for hay at about the blossoming period, either a little before or at the beginning of the blossoming stage or directly after the blossoms have fallen, the earlier cut hay being desirable for feeding sheep and cattle, especially milch cows, while for horses the later cutting is to be preferred, as described above.

The annual cereal grains, such as barley, oats and emmer, and also sowed sorghum and Kafir-corn, make the best hay if cut when the grain is in the milk or soft-dough stage.

ANNUAL LEGUMES.

Cow-peas should be cut for hay when the first pods are beginning to turn yellow. Soy-beans must be left so long, but are ready to cut for hay as soon as the pods are well filled; if left until too mature the leaves drop

or shatter in harvesting, decreasing the palatability and the feeding value of the hay. Field peas and vetches make hay of good quality if cut when the pods are about fully formed and some of the seed is beginning to ripen. CURING THE HAY CROP.—EFFECT OF SUN AND WIND.

The most important factor in making good hay is favorable weather. Hay exposed to excessive rains, especially hay from leguminous plants, such as clover and alfalfa, is greatly injured in quality and feeding value. Every farmer knows that hay is injured by rain and dew, which causes it to bleach and mold and takes from it the natural aroma and palatability essential in hay of good quality, but not all are aware that hay which is cured too much in the sun not only bleaches and loses leaves by becoming too dry but also loses in palatability and often in weight.

When curing hay of any kind the aim should be to expose it to the sun no more than is absolutely necessary. The curing should take place to the greatest possible extent through the action of air and wind, as hay cured in this way retains its natural color and other good qualities which make it nutritious and palatable to stock.

The best hay is therefore made by curing largely in cocks rather than while spread over the ground in the swath or windrow, exposed to the sunshine. Hay in the swath and windrow is also more exposed to injury by rain and dew than hay in the cock. On account of the shattering of leaves and the greater tendency to bleach, the loss in curing clover or alfalfa hay in the swath or windrow is apt to be greater than the loss from curing grasses in this way.

The writer would especially urge the importance of quality in hay. Good quality, as indicated by the bright-green color of well-preserved hay, will readily add a dollar or two per ton to the selling price, and there is an equal advantage to the farmer and much more satisfaction, both to the live stock and to the owner, in feeding prime hay on the farm.

BUNCHING AND COCKING.

Hay cures more evenly and thoroughly in the cock than in the swath or windrow. If left too long in the swath the leaves become thoroughly dry while the stems may still retain a large amount of moisture. Such hay will not cure fully and evenly and is often put into the stack in a partly cured condition. If hay is raked before the leaves are dry and placed in cocks the leaves continue to pump water out of the stems, thus allowing the hay to cure out fully and evenly.

Alfalfa hay well cured in the cock in this way will keep perfectly in the stack or mow, while when cured in the swath and windrow alfalfa is often stacked in such condition that it will burn or spoil in the stack. Also, the greater shattering of the leaves which must take place by curing alfalfa or clover in the swath and windrow makes the hay less palatable to stock and less nutritious than hay which has been properly cured.

WINDROW CURING.

Although it is doubtless true that the best quality of hay may be made by curing in the cock, as described above, yet it is also a fact that a large part of the hay made in the United States is cured in the swath and windrow or in shocks made by bunching the hay with the horse-rake. When a farmer has a large amount of hay to put up and little help with which to handle it, it becomes necessary to do the work in the most rapid and economical way; putting up the hay directly from the windrow is not only labor-saving but enables the hay-maker to do the work rapidly so that the danger from losses by exposure in unfavorable weather are lessened and he is enabled also to harvest the crop when it is in the best condition to make hay.

In the Central States it is common to cure timothy and clover in the swath and windrow and put it on the wagon by means of the hay-loader,



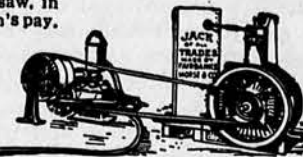
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which makes the work more rapid and does away with the hard labor of pitching hay.

In the large hay-fields of the Western States, both of alfalfa and prairie grass, the common method is to use sweep-rakes, by which the hay is taken directly from the windrow and hauled to the stacker.

Where a large amount of hay is made it is almost necessary to handle the crop by some such method, and the method of curing hay in cocks is more applicable to the small farmer and to those regions where the market value of the product makes it profitable to handle it in this more expensive way.

GOOD METHODS.

These general suggestions may be given with reference to making clover or alfalfa hay: As soon as the dew is off in the morning, start the mower; when the hay has wilted somewhat run over it with a tedder if the crop is heavy and needs lifting; after an interval of a few hours, before the leaves have begun to get dry and brittle, rake the hay into windrows.

If the plan is to cure in the windrow, allow the hay to remain this way, in good weather, for a day or two, when it may be put into the stack or mow. If the plan of curing in cock is followed, the hay should be placed in small cocks soon after raking, when it will be necessary for it to remain in the field for three or four days of drying weather before it is ready to put into the stack.

Some alfalfa growers start the mower late in the afternoon, cutting until dark, raking the hay the next afternoon, and bunching or cocking as described above. Good hay may be made in this way since the dew does not blacken the green alfalfa and even a light rain during the night may not greatly damage the hay in the swath, which has not begun to cure.

There is some objection to this method, however, in that the dew falling on the green hay in the swath seems to favor the development of white mold in such hay in the cock or in the stack. Cutting only during the forenoon after the dew is off is perhaps the preferable method, provided the farmer can handle the crop rapidly enough in this way.

Hay is much more apt to be injured by the moisture on it than by the moisture in it. This should be an invariable rule: That hay should not be raked or bunched or placed in the stack or mow when there is moisture on it either from dew or rain, because such hay will almost surely mold in the cock and is very apt to heat and blacken or burn in the stack.

Grasses cure much more quickly than alfalfa or clover. The length of time required for curing grass hay will depend upon the kind of grass, its maturity, and the weather conditions. In good weather most grass hays may be cut one day and stored the next, or it is even possible to cut grass in the forenoon and put it in the stack in the afternoon.

Because of this rapid method of handling it is not necessary to cure grass hay in the cock in good weather. In showery weather, however, it is a very good plan to rake the hay rather green and cock it and allow it to cure, as already described, as grass hay will shed rain much better in the cock than will clover or alfalfa, and will usually receive little injury from rain when put up in this way.

HAY CAPS.

It is now becoming quite a common practise in the more humid sections where the method of farming is intensive rather than extensive, to protect the alfalfa and clover hay in the field by covering the cocks with canvass or paper caps, which are manufactured and sold to be used especially for this purpose. There is little question regarding the practicability and economy of such a practise on small farms, and there is little question also but that the same method may be profitably used when alfalfa is put up in a large way, especially if the plan is to bale the alfalfa from the field. The canvas covers are doubtless to be preferred since they may be more durable and are more easily handled and stored than the paper caps.

STORING THE HAY.

Hay should preferably be stored in sheds or barns. Grass hay sheds the rain better than clover or alfalfa, and may be stored out of doors with little loss provided the stacks are well made and covered, but a good hay-shed, when it is needed, is a profitable investment on any farm.

When the hay is fed on the farm the aim should be to store it in a convenient place so that it may be conveyed to the live stock with the least amount of labor. If possible, the hay should be stored and the live stock fed under the same roof to avoid the expense of handling the hay a second time and the loss from the shattering of leaves and heads which usually accompanies a second handling.

METHODS.

The most rapid way of putting up hay is by the use of sweep-rakes and sweep-stackers or swinging stackers, but this necessitates stacking the hay in the field in the immediate vicinity where it is made. This method of putting up hay is cheap and rapid and is adapted to the large prairie and alfalfa meadows of the Western States, from which the hay is largely sold. On the average farm the practical method is to load on wagons and haul to the stack or mow, when the hay rapidly removed from the load and dumped into the mow or stack by means of the hay-fork or the hay-sling.

Slings are often preferable to hay-forks for unloading hay, on account of the cleaner and more rapid work which may be done by the use of the sling. For barn or shed storing a carrier and track is usually most convenient, while for field stacking some form of hay-poles with the pulley and rope is in general use, either with or without the track.

Hay should not be stacked on the ground, but on an elevated bottom made of poles and brush. Hay stacked directly on the ground, with no air-space beneath the stack, will spoil at the bottom, and if the hay is green or unevenly cured it is apt to burn or spoil when there is no ventilation beneath the stack.

Great care should be taken to keep the middle of the stack full so that when the hay settles the slope will be outward towards the edges of the stack in order to shed the rain. There is no better grass-covering for stacks than marsh hay, but when the stack is finished and topped out one should not fail to bind on the cover with good hangers of wire attached to stones or heavy sticks of wood on either side of the stack. As a rule, canvas or board stack-covers are troublesome

and expensive and not to be recommended; a farmer might better build a good hay shed rather than to use such temporary means of protecting the stacks from rain.

STORING GREEN.

A new method of harvesting and storing alfalfa is coming into use in Central and Western Kansas. The plan was first brought to public notice by Hon. J. W. Berry, Jewell, Kans., formerly a member of the board of regents of the Kansas State Agricultural College. His plan is to cut alfalfa as soon as the dew is off in the morning, rake it green and haul it in the same day it is cut, the only precaution being that the hay should be free from moisture other than that contained in the green stems and leaves.

He stores the hay in a shed, the bottom of which is elevated about two feet above the ground and covered with strips of board or poles with open spaces, allowing for free movement of air and good ventilation beneath the mow. The shed is large enough to store a single cutting of alfalfa from eleven acres of ground and only cover the bottom of the shed to the depth of four or five feet. The hay is spread over the whole shed bottom in an even layer and not tramped but left light and loose as it is thrown in. The second cutting of alfalfa is placed above the first, and the third above the second, until the shed is full to the top.

For five seasons Mr. Berry has put up the hay from this field in the manner described above, and each winter he has baled the hay and sold it at an average of two dollars per ton above the market price of good alfalfa hay. The hay stored and cured in this way has been greener in color and of better quality than alfalfa put up by the usual methods.

EXPERIMENTS AT THE KANSAS STATION.

A single experiment in storing and curing alfalfa by the method described above was undertaken at the Kansas State Experiment Station in 1905. The second and third cuttings of alfalfa were stored in a small shed above an elevated, well-ventilated bottom, in layers four or five feet thick, the third cutting being placed above the second as described above. When the second cutting was stored the weather was very wet and the alfalfa which was left in the field was entirely spoiled by the rains, but this green alfalfa which was put in between showers cured out almost perfectly, showing only a little moldy hay in the middle of the mow. During the harvesting of the third cutting of alfalfa the weather was very favorable and this hay cured out perfectly. During the last two years a number of farmers from different sections of the State have reported good success from putting up green alfalfa by the method described.

The curing of alfalfa stored in this way may be explained in the following manner: The heating of the hay causes the air in the hay to become warmer and lighter. The light air rises and the cooler, drier air from beneath the stack or mow is drawn through the hay to take the place of the warm, moist air which has been forced upward. Thus there is established a circulation of air which removes the moisture from the hay, preventing it from becoming too warm, and thus gradually curing it, retaining the natural green color of the alfalfa.

If the work is carefully carried out, the hay may be cured in this way without danger of burning or spoiling, but the difficulty will be, if this method becomes a general practice, that many farmers will be careless and will not have the stack or shed bottom raised or well ventilated, or they may pile the hay too deep or too tight; any of which conditions may result in a lack of ventilation and the hay becoming too hot, so that it will spoil or burn. Probably, also, the larger the area of the mow or shed, the more danger there will be of the hay getting too hot in the middle of the shed where the ventilation may not be sufficient to cure the hay rap-

idly enough to prevent the generation of too great heat.

Although it is possible to make prime hay by curing it in the shed, yet the writer is not yet ready to recommend this method for general use in harvesting and storing alfalfa. Doubtless the safer plan is to cure the hay in the field before stacking, but the trials described above are interesting and emphasize the importance of good stack bottoms and of elevated, well-ventilated bottoms in sheds and barns in which hay is stored. Perhaps the old method of piling the hay high in narrow bays is wrong; rather the hay should be spread over a large surface and not piled very deeply.

BALING.

It is necessary to bale all hay which is sold on the general market. Locally the farmer may sell a little loose hay, but loose hay can not be handled and hauled very far and sold with profit to the grower.

Probably the best time to bale hay is in the fall or winter after cool weather has come and other work is not pressing. Some are now practicing baling from the field, and on the large prairie meadows of the West this method of handling hay may be practical and economical. As a rule, however, baling in the field is too slow a method of putting up hay.

As already explained, it is necessary to harvest hay at the right time and store it rapidly in order to secure the best quality of hay. With prairie hay this matter of time in cutting and making is not so essential as with other grass-hays, alfalfa and clover. Not only does baling from the field necessitate slower harvesting of the crop, but the work is done at a time when labor is dear; also, hay baled from the field is perhaps more apt to spoil in the bale than if the hay were stacked.

BALE-CURED HAY ONLY.

It has been shown from the experiments conducted at this station that it is not advisable to bale alfalfa except when the hay is well cured and dry enough to stack. All hay which was baled green or in a partially cured condition spoiled in the bale. The following is quoted from bulletin No. 123 of the Kansas State Experiment Station, being a part of the report of the above-mentioned experiment:

"The question as to whether it will pay to bale cured alfalfa from the field depends upon the amount of hay that must be put up in a given time, the capacity of the press, the force or crew that can be kept at work, the facilities for handling and storing the baled hay, and the market price. If it is desired to ship the hay or sell it in the bale, it would seem advisable to bale it from the field, if the necessary help and machinery can be obtained, as in this way labor will be saved, and without doubt a larger percentage of the leaves will be retained, giving a better quality of hay than would result, as a rule, by baling from the stack. The main question is, whether the baling can be done fast enough to take care of the crop at the proper time and as rapidly as the hay should be put in the stack.

"With a large power press, having a capacity of fifteen to twenty tons per day, it will be practicable to put up alfalfa by baling it directly from the field. To handle hay economically in this way with a press of the above capacity without loss of time and with the least possible expense will require five teams and nine men, besides the necessary equipment. This assumes that the hay will be hauled to the baler by means of sweep-rakes and that the bales will be piled in the field, to be removed later.

"Such an outfit should be able to put up eighty acres of alfalfa, averaging one and one-fourth tons of hay per acre, in from five to six days of good weather. The same outfit should handle the crop on 160 acres in from ten to twelve days. Thus, it would take about two weeks of actual work, with favorable weather, to take

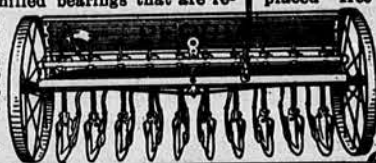
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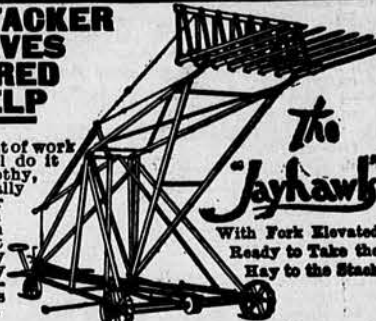
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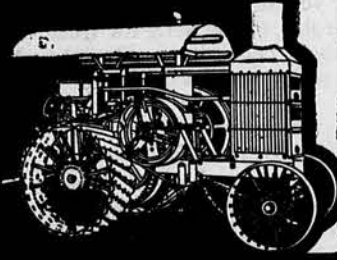


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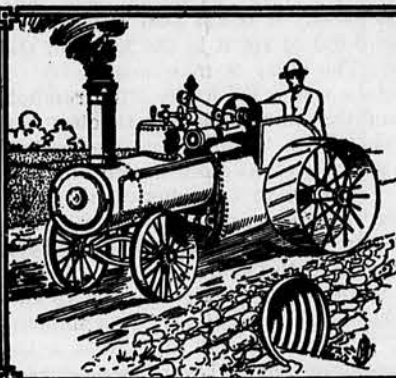


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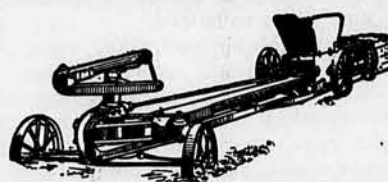
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Home Departments

CONDUCTED BY RUTH COWGILL.

DAY BY DAY.

I heard a voice at evening softly say:
"Bear not thy yesterday into to-mor-
row."

Nor load this week with last week's
load of sorrow.
Lift all thy burdens as they come,
nor try
To weight the present with the by-
and-by.
One step and then another, take thy
way—
Live day by day.

"Live day by day.
Though autumn leaves are withering
round thy way,
Walk in the sunshine. It is all for
thee.
Push straight ahead as long as thou
canst see.
Dread not the winter whither thou
mayest go;
But, when it comes, be thankful for
the snow.
Onward and upward. Look and smile
and pray—
Live day by day.

"Live day by day.
The path before thee doth not lead
astray;
Do the next duty. It must surely be
The Christ is in the one that's close
to thee.
Onward, still onward, with a sunny
smile,
Till step by step shall end in mile by
mile.
I'll do my best, unto thy conscience
say—
Live day by day.

"Live day by day.
Why art thou bending toward the
backward way?
One summit and another thou shalt
mount.
Why stop at every round the space
to count,
The past mistakes if thou must still
remember?
Watch not the ashes of the dying
ember.
Kindle thy hope. Put all thy fears
away—
Live day by day."
—Julia Harris May.

Permanency.

The idea of permanency in the city and in the country is growing. Americans are too changing. They have very little notion of staying with a thing and growing up with it, improving it, and putting into it one's own individuality and tastes. Too many farmers are contented to live on rented farms and treat the farm merely as a place to eke out a daily living with not a thought of making the farm better or of making a home both beautiful and comfortable.

This is a fatal mistake, fatal to happiness and prosperity. If one must live on a rented farm there is no reason why he may not improve his condition and the farm. He should farm it as if it were his own, with good sense and judgment. It will be money in his own pocket as well as its owners. But the sooner the farmer can possess his own farm and begin to make his own home upon it the better it will be for him and his family. There is a real joy in making a home, a little at a time perhaps, but keeping at it and doing it well as you go, with the thought that it is yours now and always, to be handed down to your children and children's children, around which sweet memories will cling, sentiments which will be cherished in the heart.

"A little farm well tilled" with a beginning of a little home is better than more land and an uncomfortable place to live and bring up the family. Make the home ever so slowly but well. Keep at it and do it for permanency and on a general plan that will in the end be what you want. If you can not make a large porch on the sunny side, make the porch foundation and floor, leaving the roof and pillars for some other time. But don't stop there. Plant vines, climbing roses, honeysuckles, and train them up trellises and you will have a bower of beauty and comfort, a place where the family will love to gather for rest and to visit. And so in every thing plan and work for the complete whole, the sometime house. But with each day mix in that happy ingredient—contentment, and add patience, for

after all it is love, contentment, and patience, that makes the happy home.

And so, young man and young woman, who are just beginning the married life, if you are so fortunate as to possess a few acres, select a place for your home carefully and plan your home as you want it in the end, if you can only build the kitchen. Make your kitchen complete, convenient in every detail, and plan to add the other rooms as you can afford it. There are lots of pleasure and fun to see it grow as the little ones come, making it necessary for more room. But build for permanency, build well, making the foundation the best and likewise every thing else, but save on the showy, ginger-bread effect, which may be added later if desired. Select a location suited to good drainage. Every year add to the beauty of your grounds; plant a shrub or tree and make the lawn more and more beautiful; and as the years are added, there will be also something else added that will make home happier and dearer. The time spent in making a home on the farm will not be lost. It will not detract from the value of the farm. What do you think, even if you do not say it, when you see a pretty home with its trees and its shrubs, "There lives a farmer who is energetic, who will make things pay."

A Story for Fathers.

Hjort Valdemir tells a little story in the "Circle" that should be read by every father. So often the father is domineering in his manner, and as the boy merges into manhood such a manner is very irritating and only does harm. It is apt also to plant the same kind of spirit in the heart of the son. The story is told thus:

"As a young lad I was often reminded of the commandment to obey my parents, both at home and at Sunday-school, as well as from the church pulpit, and boylike I frequently resented what the commandment called for in my own case, for although my father—who held the reins of domestic government—was entirely devoted to the welfare of his family, he was impetuous, headstrong, and sometimes a little domineering. There were dreadful moments when my fierce resentment of his despotism authority leaned dangerously near to hatred.

"One unforgettable morning, when my father relentlessly overthrew my reckless but long-cherished plans in a fit of what seemed to me sheer personal rage, I was driven to the wall, so to speak, for I was completely at his mercy. His displeasure took the form of stern ridicule as he stood before me with heated face and angry eyes commanding me to do an utterly humiliating thing. Again I heard that oft-repeated command, "Children, obey your parents." I was hurt to the quick, angry, defiant, and as bitter as a boy of twelve could possibly be. At the very highest tension of the scene, our good gray haired man passed on some industrious errand and paused one solemn moment to quote gravely, "Parents, provoke not your children to anger lest they be discouraged."

"The light in my father's eyes leapt into brighter flame, it seemed to me, as if he resented his servant's interference, then the flame went out and the angry redness faded from his face as he removed his hat and said in tones that I shall never forget, "My son, I beg your forgiveness."

"All the pent-up rage and injustice went from my hot heart in an instant. I wondered breathlessly how I could ever have cherished a moment's irritation against my good, lovable father. I was ashamed, sorry, speechless as I laid my trembling hand in the one that guided me so faithfully and tenderly to the borderland of manhood,

"A great many crowded years have gone by since that hour, and my father and the good gray monitor of peace have long slept in their quiet graves, but that moment still lives in my heart. I knew then that there would never again be a shadow between my father and me, and there never was, for although our wills clashed many times, the friction was always on the outside; within there was an unshakable confidence that all was well between us.

"I have heard a great deal about 'breaking a child's will and forcing obedience,' but very little concerning the parental command, "Provoke not your children to anger." Men that I have known intimately—good men, as the phrase goes—have hopelessly estranged their children—especially their sons—by a reckless abuse of authority. Hot-tempered, undisciplined, in spirit, they have abused their positions by giving way to the moment's irritability, by flinging a rough taunt at the boy whose misguided but painstaking effort needed parental attention and patience. Crude as the childish judgment seems to the adult mind, it is infallible in one instance—in the discernment of injustice and deceit. The bitter sense of personal injury resulting from unjustly enforced authority slowly turns to poison which permeates and blights the finest traits of childhood unless some marvelous grace of sweetness intervenes to check the deadly process."

Hygienic Cookery.

MRS. HENRIETTA W. CALVIN, PROFESSOR
DOMESTIC SCIENCE, KANSAS AGRICULTURAL
COLLEGE,
MEAT.

"Life evermore is fed by death
In earth and sea and sky,
And that a rose may breathe its breath
Something must die."

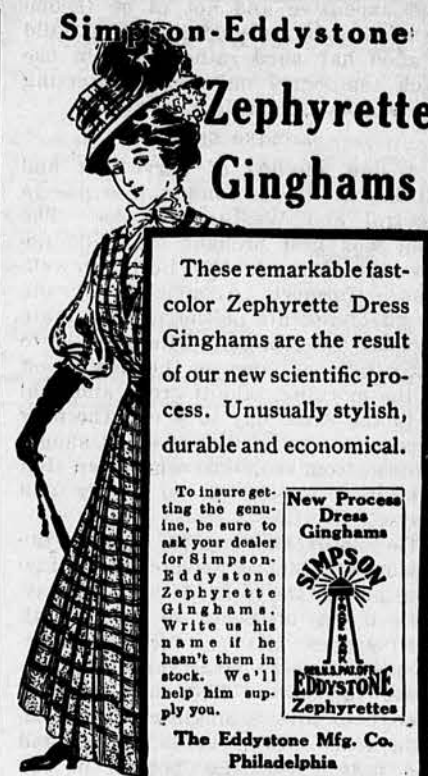
Of all foods from which the proteid required by the body may be derived, there is none which affords this type of nutriment in so desirable a form as meat. Unpleasant as is the thought of taking life, no vegetable substitute for meat has ever proven wholly satisfactory. The flavors—extractives—act as stimulants to the digestion, aiding the entire process, not only of the meat in which they are formed, but hastening the digestion of other foods. So completely is meat digested that there is little waste material remaining. The shorter fibered red meats, such as beef and mutton, digest more readily than the coarser, light-colored meats, like pork. Fresh meats digest more quickly than salt or pickled meats. The meat of young animals is more tender than that of old animals, but lacks in nutritive value and in flavor.

Beef is the most generally used meat in America. When the animal from which it comes is in prime condition the beef will be a bright red with flecks of fat in among the lean particles. The lean of meat is the muscle of the animal. Those muscles which during life do the most work will be the toughest and richest in flavor; those doing the least work, like the muscles along the backbone, will be tenderest, but will lack in flavor. By careful cookery the tougher cuts, which are always the cheaper, may be made tender, at the same time being well flavored and much more economical for purchase.

COOKERY OF MEAT.

Meat is affected by heat in the same way that eggs are altered; the proteid coagulates and hardens when heated to a high temperature. This coagulation of the proteids of the meats causes it to be somewhat more difficult to digest, but at the same time the high temperature develops the better flavor of the meat and encloses the meat in a hardened outer portion which prevents the escape of the juices. To prepare meat that the best flavor may be developed, the juices retained, and yet the meat kept tender and not overcooked, should be the object of the cook. Salt added to meat extracts the juices and causes a loss of flavor, unless the meat has pre-

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The Eddystone Mfg. Co.
Philadelphia

viously cooked long enough to have the outside coagulated.

In the following recipes the effort is first to seal over the meat with coagulated protein and develop the flavor with strong heat, then to lower the temperature and complete the cooking more slowly, that the final product may be tender.

PAN-BROILED STEAK.

Remove from the steak all bone, fat and cartilage. Oil the smoking-hot frying-pan with a small portion of beef fat. Place the steak in the pan and thoroughly sear on the under side, then sear on the reverse side. After both sides are seared, turn every ten counts until cooked. Lift onto hot platter and sprinkle with salt.

POT-ROAST.

Choose a compact piece of meat. Wipe with clean, damp cloth. Sear all surfaces, plunge in boiling water, and boil rapidly five minutes. Choose kettle to fit roast to avoid excess of water. Add one teaspoon of salt for each pound of meat, draw to the back of the range, and cook slowly until done, at least thirty minutes to the pound and thirty minutes "for the pot." During the latter part of the process leave the kettle uncovered, until all water is evaporated. Brown the meat in the kettle.

BRAISED BEEF.

Place in an earthen baking-dish which is provided with a close cover one-half cup raw Irish potato cut into cubes, one-half cup raw turnips cut into cubes, one-half cup carrots pared and sliced, one-half cup fresh tomatoes pared and cut up or one-fourth cup stewed canned tomatoes. Place upon these vegetables a four-pound piece of beef from the shoulder, neck, or round. Sprinkle over the meat two tablespoons flour, two of salt, add boiling water to half cover, place lid over utensil, and bake in moderate oven four hours. When the meat is done, lift onto a platter and thicken the gravy by the addition of two tablespoons flour moistened in four tablespoons milk.

LEFT-OVER MEATS.

Excellent preparations may be made from the cold, left-over meat, but care in seasoning and combination will be required. The meat should be reheated and served as soon as hot. If allowed to cook long it becomes tasteless and tough. Reheated foods are more difficult to digest than when freshly cooked, and are therefore not suitable for the sick or for those troubled with indigestion.

HASHED MEAT ON TOAST.

Two tablespoons butter.
Two tablespoons flour.
One cup liquid (milk or stock).
One-fourth teaspoon salt.
One-fourth cup chopped, cold, cooked meat.
One slice of toast.
Melt the butter, add the flour and

salt, and brown. Add the cold liquid slowly and cool until thickened. Re-heat the meat in the brown sauce and pour over the toast.

MEAT CROQUETTES.

Four tablespoons butter.
Four tablespoons flour.
One cup milk.
One-half teaspoon salt.
One and one-half cups cold, cooked, ground meat, loosely measured.
One egg.
One cup dry bread-crumbs.
Combine flour, butter, salt and milk, as in white sauce. Add meat to hot white sauce, spread in a dish, and cool. When cold shape as desired. Crumb, egg, and crumb again. Fry in deep fat and drain on crumpled absorbent paper. Serve hot, either with or without sauce. The egg should be beaten but slightly, and one tablespoonful of water may be added.

The Young Folks

THE ELEPHANT AND HIS SCHOOL.
The great white elephant left the show,
He said he was too refined;
The ways of a circus did not suit
His most superior mind.

"A creature as big and as wise as I
Should be teaching school," said he;
"And all the animal little folk
My scholars they shall be."

So into an empty schoolhouse near
He marshaled them all one day;
('Twas in vacation time and so
The children were all away.)

The kittens and puppies, the pigs and
geese,
Were put to work with a will;
But the squirrel and the fox to the
platform went
Because they would not keep still.

And then he began to teach his school
The various things he knew;
"There's much not down in the books,"
said he,
"That you ought to know how to
do."

And first he showed how to flap the
ears,
But their ears were far too small;
And then he showed how to wave the
trunk,
But they had no trunk at all.

The only thing that he taught his
school
That the scholars accomplished well,
Was when he called in the peanut man,
And taught them the nuts to shell.

The elephant soon dismissed his school,
And packed up his trunk to go;
"For, after all, my talents," said he,
Are best displayed in a show."
—Ellen V. Talbot, in St. Nicholas.

Uncle Joe as a Schoolboy.

"Joe Cannon and I used to sit side by side in the old industrial school at Bloomingdale back in the late forties. Joe's father, old Dr. Cannon, was a broad-brimmed hat and black-coated Quaker."

Exum Newlin, who for more than fifteen years has been the bell ringer of the Western Yearly Meetings, stood with his bell in hand as he recalled the old days.

"Why, I recollect," he continued, "just as well as though it was yesterday, that one day Joe looked up from his books and said, 'I'm going to Congress.' He wrote it on the blackboard and signed 'Joe Cannon.' It was recess time, and when Barnabas Hobbs, our teacher, called books again, he took about five minutes in commending Joe's high resolve and urging all of us boys and girls to work to high standards. Well, Joe has been there about thirty-five years.

"Joe was a good scholar and a bright boy. His father was a grand old type of the early Quakers. He was a physician who went where and when duty called. A call came one night when Sugar Creek was up, and he threw his saddlebags over his horse and started. The swollen Sugar Creek had to be forded. Well, sir, no one ever saw him again. His body was never found. He was one of the six founders of the Bloomingdale school."
—Indianapolis News.

From Immigrant Boy to Congressman.

When the returns came in on the night of November 8, 1904, announcing the election of Gustave A. Schneebell as congressman from the Twenty-sixth district of Pennsylvania, very few persons outside his district knew anything about the successful Republican

candidate in a usually Democratic stronghold. Mr. Schneebell, however, is not a stranger to the people in his section. They know him as a successful and wealthy manufacturer, employing hundreds of working men and women, a leader in banking enterprises, and a projector and builder of trolley lines in rural sections that needed them.

Gustave Schneebell was born in the town of Neusalz, province of Silesia, Germany. His father was a butcher, but business was poor in the old country. He had heard much about the wonderful new world across the sea, and so in 1864 the family emigrated to America and settled in Bethlehem, Pennsylvania. Three years later they moved to Nazareth, twelve miles away. That quaint Moravian town was not then connected with the outside world, even by railroad. An old-fashioned stage coach line ran between Nazareth and Bethlehem for the accommodation of travelers. Fourteen-year-old Gustave, however, trudged barefoot along the country road when he went to Bethlehem, the lumbering stage coach even being beyond his means. Not even in fancy was he permitted to see into the future when it would be his lot to build the first trolley line between the two places.

When he was fifteen years old, Gustave struck out for himself. He was given a position in a general store, where he earned his first dollar.

"When I received my first month's pay of twelve dollars," says he, "the money seemed to be more than five times that sum looks to a young man at present."

The young clerk found nothing but long hours and hard work. He rose at five in the winter to build the fire, and sweep out the store. He had to stay behind the counter until the last customer had left at nine or ten o'clock at night. There was no time for amusement or social pleasures.

Gustave had attended the schools in Germany until he was eleven years old and had laid the foundation of a fair education. He knew nothing of English when he came to America, but picked this up rapidly during the few terms he attended school here. His principal education, however, was accumulated in the difficult school of the world.

What little time he could find between waiting on customers he spent in study. Many a customer went away with parcels wrapped in paper on which the ambitious clerk had been practicing penmanship or working examples in arithmetic. A grammar, a history, or a spelling book could usually be found somewhere at hand, and the boy gave most of his spare time to a study of these.

In course of time opportunity came for him to enter the employ of a coal company. Business ability quickly won recognition for him in the new field, and outside of it as well, as, in a few years he was made the western representative of a Reading knitting mill. He traveled through the Western States for nine years, and when he decided to settle down his thoughts turned back to quiet, peaceful Nazareth. Thither he went, and has remained ever since. During his nine years' travels he had learned much about the knitting business, and had saved some money. Why not start a knitting mill in his adopted town? To think was to act, and in 1882 the Schneebell knitting mills began operations in Nazareth. At first it was a small concern, employing only twenty-five hands, but a clear business head and indomitable energy were behind the enterprise, and it prospered. In 1888 he began the manufacture of specialties that soon became as widely known in foreign lands as at home. This stroke brought him into prominence as a manufacturer, and his business as well as his bank account grew rapidly. Twice he was obliged to enlarge his plant until he was employing three hundred persons.

Seeing room for another industry in Nazareth, he built a large lace mill. Now the former barefooted boy employs five hundred people. Such a

thing as a strike has never been known in his factories.

Congressman Schneebell has been instrumental in the growth of his town. Cement mills were built, and several other manufacturing plants established, and a railroad found its way into the town. Through his influence, trolley lines were built to connect Nazareth with the outside world. Probably twenty-five miles of trolley lines Schneebell built extended over the country roads where he as a boy was driving cattle to the slaughter house. He was also instrumental in the organization of several banks at Nazareth. Previous to that time the town was obliged to do its banking with Bethlehem or Easton, each twelve miles away. This energetic, self-made man is connected with several other business enterprises, and he has demonstrated once more that "fortune and fame from no condition rise"—the fact that the barefoot boy of to-day may be the business leader and statesman of some future day.—Spare Moments.

The Little Ones

WILLIE'S HAPPY DAYS.

"Good morning world, how are you?"
Sometimes that's what I say
When I look out of the window
And night's gone far away,
And sometimes there's a robin
Out there that turns its head
As though it understood me
And smiled at what I said.

Sometimes I get to dreaming
I'm falling down somewhere,
Or that I'm in a corner,
Surrounded by a bear;
And, oh, I guess it's pleasant
To wake up then and say:
"Hello, old world, good morning,
You feeling well to-day?"

"Good morning, world, how are you?"
When boys get up and shout
That gladly from the window
It scares their troubles out.
When I forget to say it
There's nothing that goes right—
I guess the world can't like it
And has to show its spite.

My papa taught it to me,
And when I get up glad
And look outside and say it,
There's nothing that goes bad!
So hurry to the window
When you wake up, and say:
"Hello, old world, good morning,
You pretty well to-day?"
—S. E. Kiser, in Chicago Record-Herald.

The Story of Tony.

A wee, furry creature, not cat or puppy—"what can it be?" I ask the children who have brought their latest treasure to show me, for I live just across the street.

"Why, don't you know?" cries blue-eyed Sidney, as Agnes, a bit larger, holds fast a tiny, furry wad in her gingham apron.

I earnestly aver I can not even guess. Agnes's brown eyes fairly dance, but Sidney has been promised he may tell. "Why," he puffs, his breath coming quick; "It's a—'s a—shucks, it's a—" then he dolefully subsides.

Agnes quickly unfolds the mystery. "It is a ground-hog!" enjoying my look of astonishment. "Papa brought it to me from the mountains. It's gentle," as I drew back from the bundle of fur and claws.

At that time it would just about cram in a quart cup, with tiny brown "hands" and "feet," a flat, longish head, bright, sharp eyes, the ugliest little slim tail, a waddling walk resembling a bear, and a thick coat of gray fur. That was last spring. The baby "pig" thrived, ate enormously, squatting on his haunches like a squirrel, turning the food over and over rapidly in his forepaws as he ate, or standing up on his hind feet to examine things new to him, or if he was startled. If he heard any unusual noise he would stand up and listen intently, and still does, even when eating. He relished almost every eatable, but especially delighted in "roasting ears" and jelly. When given him jelly in a spoon, he ate noisily, licking the spoon carefully, turning it about with his paws.

He became very gentle, following the little children at their play, uttering a queer rumbling sound as he ran after them in his waddling way. But

The Story of a Medicine.

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A glance at the full list of its ingredients, printed on every bottle-wrapper, will show that it is made from the most valuable medicinal roots found growing in our American forests. All these ingredients have received the strongest endorsement from the leading medical experts, teachers and writers on *Natural Medicine* who recommend them as the very best remedies for the diseases for which "Golden Medical Discovery" is advised.

A little book of these endorsements has been compiled by Dr. R. V. Pierce, of Buffalo, N. Y., and will be mailed free to any one asking same by postal card, or letter addressed to the Doctor as above. From these endorsements, copied from standard medical books of all the different schools of practice, it will be found that the ingredients composing the "Golden Medical Discovery" are advised not only for the cure of the above mentioned diseases, but also for the cure of all catarrhal, bronchial and throat affections, accompanied with catarrhal discharges, hoarseness, sore throat, lingering, or hang-on-coughs, and all those wasting affections which, if not promptly and properly treated are liable to terminate in consumption. Take Dr. Pierce's Discovery in time and persevere in its use until you give it a fair trial and it is not likely to disappoint. Too much must not be expected of it. It will not perform miracles. It will not cure consumption in its advanced stages. No medicine will cure the affections that lead up to consumption, if taken in time.



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what a misnomer the name of ground-hog! I can not imagine why any one should give it that name unless taken from the noisy piggish manner of eating.

After a while "Tony" shed his coat, and for some time was perfectly naked, then the new fur came, glossy in appearance, but rather rough.

Then he began to fatten, and, little folks, when you think of the fattest thing you ever saw that could run or waddle, Tony was a little fatter. His coat was rich and dark on the back, lighter on the sides shading from gray to yellowish brown to his feet; he was a beauty.

Near the middle of August he began to dig his hole for winter quarters. He first began one across the alley under a neighbor's house, but he was brought home so much he finally dug a hole in the bank at the north side of the house. After this he became restless, quit playing with Agnes and Sidney, stopped lying under the dresser or behind a trunk "flatted" out, repelling any attempts at play. He worked in the hole carrying out the dirt and scattering it evenly out each way. Then began the task of making the new house comfortable; he carried many things in before the family realized what he was doing. One morning a cry rang out:

"Come here, mamma, quick! Tony's dragging my new jacket to his hole!" cried the scandalized Agnes.

Out jumped Sidney, through a brood of chickens, barely missing some of them, pushing Baby Marjorie to one side so that she fell with a wail; on he sped to be "in at the death," at last tumbling over his own tricycle, so that he sank in a miserable heap at his failure to "get there."

Mamma rushed out in time to see a sleeve disappear in the opening. She thrust the poker in the hole whose passage ran horizontally, but could touch nothing. After that they gave him newspapers, refuse garments and such things—an incredible quantity. For days this was kept up at intervals.

His appetite, which had been so gluttonous, now began to fall, and on the 10th of September, in the evening, he went into his house, closed it by pushing the dirt to the entrance, save a space in which you could place two of your fingers. That was the last of "Tony" apparently. Rains beat, storms howled, snows covered the place, but—

"The storms that wrecked the wintry sky, No more disturbed his sweet repose."

The hole was never "disturbed." As winter waned, February came in, with now and then a sunny day, people everywhere began to talk of "ground-hog's day." Some asserted that the third was the day, some the twenty-second, but when both dates passed, and "Tony" never came out "to see his shadow," knowing ones said he had been killed; had been caught by dogs last fall. Every day some eager questioner called over the telephone to know if the ground-hog had come out.

But on the second of March, nearly six months from the time he went in, he drew away the dirt from the entrance, leaving it clean and round as at first, but nothing was seen of him until the eighth, when he came out and was eating some little green leaves of weeds when found. He seemed a little timid at first, but soon showed no fear. The children brought him for my inspection; they were delighted beyond measure.

He was not so handsome, was thinner and shedding his coat. Now he is ravenous; it seems as if he will never get water enough to satisfy his thirst, and is running all over the house when he can get in. He usually comes out near noon and stays out till evening. He promises to be a good deal of trouble, climbing on the furniture and investigating the pantry and kitchen. A switch has been brought in, and when he climbs on the bed it is applied to his back, then he scampers away, I tell you!

Recently Baby Marjorie "boke" an egg on the bed; when removed a big



O. L. Chase
St. Louis, Mo.

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Farmers' Fairs in 1908.

The list of county fairs to be held in Kansas in 1908 is announced by Secretary F. D. Coburn as follows:

Allen County Agricultural Society—Frank E. Smith, secretary, Iola; August 25-28.

Barton County Fair Association—W. P. Feder, secretary, Great Bend; September 8-11.

Brown County, The Hiawatha Fair Association—George M. Davis, secretary; Hiawatha.

Butler County Fair Association—A. Shelden, secretary, El Dorado; August 25-28.

Butler County, Douglas Agricultural Society—C. R. Alger, secretary, Douglas; September 17-19.

Clay County Fair Association—Walter Puckey, secretary, Clay Center; September 1-4.

Clay County, Wakefield Agricultural Society—Eugene Elkins, secretary, Wakefield; first week in October.

Cloud County Fair Association—W. S. James, secretary, Concordia; September 15-18.

Coffey County Agricultural Fair Association—Charles N. Converse, secretary, Burlington; September 7-11.

Cowley County Agricultural and Live Stock Association—Frank W. Sidle, secretary, Winfield; September 1-5.

Cowley County—Eastern Cowley County Fair Association—W. A. Bowden, secretary, Burden; September 16-18.

Dickinson County Fair Association—H. C. Wann, secretary, Abilene; September 22-25.

Elk County Agricultural Fair Association—H. B. Terry, secretary, Grenola; September 23-25.

Finney County Agricultural Society—A. H. Warner, secretary, Garden City.

Franklin County Agricultural Society—E. M. Shelden, secretary, Ottawa; September 1-4.

Greenwood County Fair Association—C. H. Welser, secretary, Eureka; August 18-22.

Harper County, Anthony Fair Association—L. G. Jennings, secretary; Anthony; August 4-7.

Harvey County Agricultural Society—L. G. Harlan, secretary, Newton; September 29, October 2.

Jefferson County Fair Association—Ralph Snyder, secretary, Oskaloosa.

Leavenworth County Fair Association—Stance Meyers, secretary, Leavenworth; September 15-19.

Linn County Fair Association—O. E. Haley, secretary, Mound City; first week in September.

Marshall County Fair Association—W. H. Smith, secretary, Marysville.

McPherson County Agricultural Fair Association—D. H. Grant, secretary, McPherson; September 22-25.

Miami County Agricultural and Mechanical Fair Association—George R. Reynolds, secretary, Paola; September 29, October 2.

Mitchell County Agricultural Association—Ira N. Tice, secretary, Beloit; September 16-19.

Montgomery County, Coffeyville Fair and Park Association—A. B. Holloway, secretary, Coffeyville; August 11-14.

Nemaha County Fair Association—Joshua Mitchell, secretary, Seneca; August 26-28.

Neosho County, Chanute Fair and Improvement Association—A. E. Timpane, secretary, Chanute; August 18-21.

Ness County Agricultural Association—Thomas Rineley, secretary, Ness City.

Ness County, Utica Agricultural and Fair Association—R. C. Webster, Jr., secretary, Utica.

Norton County Agricultural Association—M. F. Garrity, secretary, Norton; August 25-29.

Osage County Fair Association—F. E. Burke, secretary, Burlingame; September 1-4.

Reno County, Central Kansas Fair Association—A. L. Sponsler, secretary, Hutchinson; September 14-19.

Republic County Agricultural Association—F. N. Woodward, secretary, Belleville; September 8-11.

Rice County Agricultural and Live-Stock Association—C. Hawkins, secretary, Sterling.

Riley County Agricultural Association—W. B. Craig, secretary, Riley.

Rooks County Fair Association—H. A. Butler, secretary, Stockton; September 8-11.

Saline County Agricultural Horticultural and Mechanical Association—B. B. Stimmel, Jr., secretary, Salina.

Shawnee County Kansas State Exposition Company—R. T. Kreipe, secretary, Topeka; September 7-12.

Sheridan County Agricultural Association—Frank A. McIvor, secretary, Hoxie.

Sheridan County, Selden District Fair Association—George W. Sloan, secretary, Selden; September 1-4.

Stafford County Fair Association—D. S. Mull, secretary, St. John; August 26-28.

Wilson County, Fredonia Agricultural Association—W. H. Edmundson, secretary, Fredonia; August 4-7.

yellow spot remained. Tony found it when plundering about and literally ate egg-spot, counterpane, and all, leaving a great big hole. Only to-day he was found burrowing in a candy-bucket full of grits in the pantry.

"That means the cow will feast on grits," quoth mamma ruefully.

He is not always so troublesome. Constitutionally afraid of strangers and strange objects, it is extremely difficult to get him to "show off"—as some unwise parents do their children—before strangers. No cat could be more frolicsome, rolling, racing, tumbling heels over head.

He has but four teeth, two upper, two lower, strong and quite an inch long, cruel-looking should he see fit to use them. He bites gently the little children in play, who are exceedingly fond of their interesting pet.

What may be the final fate of Tony can not be guessed, but we all hope with brown-eyed Agnes that nothing will disturb or molest this small bundle of bright eyes, gray fur and sharp claws that is exiled from his native mountains.—Mrs. Fannie J. Newman, in Christian Observer.

Miscellany

The Unlimited Possibilities of America.

Until we learn to think in billions we can not measure the meaning of the material development of the United States during the last quarter of a century; much less can we mentally grasp the potentialities which the coming years have in store for us. Our progress, however, has only been the pioneering work of clearing the wilderness, of plowing and planting amid the stumps and drain swamps.

Having an area 80 per cent as large as that of all Europe, we have no such vast, almost uninhabitable, regions as are to be found in portions of Europe. Nowhere in all our land are the winters so rigorous as to make the development of the country impossible. While we have 85,000,000 population against Europe's 400,000,000, we have eight times as much coal area; we have far more iron ore; we have a cotton crop worth annually \$300,000,000, while Europe has none! we have wheat and corn averaging annually about 3,400,000,000 bushels, against Europe's 2,200,000,000 bushels; we have 225,000 miles of railroad, against 195,000 miles for all of Europe; we are making almost as much pig iron as Europe, and mining over 60 per cent as much coal. What we are doing, however, is not so striking or remarkable as are the limitless potentialities which will enable us to do in the future far more—many times more—than all of Europe is doing.

The increase in the value of farm property, which between 1900 and 1906 amounted to nearly \$8,000,000,000, or but little less than ten times the aggregate capital of all the national banks in the United States, finds its explanation in the value of farm products. Between 1870 and 1907 the value of farm products had risen from less than \$2,000,000,000 to \$7,400,000,000, the value in the latter year being three and a half times as great as that in the former, although during the same time the number of

people engaged in agriculture has not quite doubled. The total number engaged in agriculture in 1870 was 5,992,000, and the total number at present is 11,500,000. This remarkable change is shown in the fact that the value of agricultural products per capita for all engaged in agriculture, which was \$286 in 1880, had been steadily rising until in 1907 it was over \$600 per capita.

How can a country so blessed by nature, a country which has already wrought so marvelously, halt for more than a moment? With mountains bursting with mineral wealth, with a soil of every variety know capable of doubling its entire output without an increase of cultivated acreage merely by the improved methods now being adopted, with the Great Lakes on the north, the Atlantic and the Gulf on the east and south, and the Pacific on the west, with the Mississippi and its tributaries splitting the very heart of the richest valley of earth, looking to Europe on the one side and to Asia on the other, our land has before it an advancement so stupendous as to dwarf into insignificance all that we have done. Broad indeed must be the vision of the men who, looking from some mountain peak, are able to peer into the future, and, seeing what it has in store for us, plan things big enough to meet its requirements.—The Manufacturers' Record.

Bulbs After Flowering.

JOS. MEEHAN.

The custom of having flower beds occupied the whole year through, first with flowering plants and then with bulbs, is now almost universal. Many beds are often started in early spring with pansies, followed later by the various bedding plants now in use. Then when frosts are near, the beds are remade and are filled with bulbs, so that they are filled the whole year through. Bulbs can be had at such a low price and are so beautiful when in flower, that their use seems to be more popular every year. The snow-drop and the crocus come the first, then the daffodil, the hyacinth, and the tulip; and beautiful these all look with the green of the grass and the budding trees and shrubs about them! What to do with the bulbs after blooming puzzles many. They are not as good to use again as they were. It is the young bulbs and offsets that flower in time and, though they bloom in time the same effect can not be had from them as from new bulbs. If one has a half waste piece of ground or a woods, the best thing to do is to plant the bulbs there. They may be set there at once on being dug up from the beds, preserving the tops unless they are ripened and dead, as the tops, so long as green, help toward perfecting the bulbs for further flowering the season to come. When the bulbs are ripe, which the dead tops indicate, they need not be planted at once unless desired, but may be spread out to dry for a day or two, tops and all, then the tops cut off and the bulbs be kept in a dry closet until fall and then be planted. But such second-class bulbs as these are, having flowered once, may just as well be set in their permanent places at once, nothing being gained by keeping them out of the ground until autumn.

Making Hay.

(Continued from page 676)

care of the crop on 160 acres, and with unfavorable weather interfering the period might be extended a week or two longer.

"It does not seem advisable to extend the cutting of one crop of alfalfa over a period of more than two or three weeks. Therefore, if the acreage is doubled it would be necessary to double the equipment and the number of men and teams required to handle the crop properly. In case the hay is stacked it would require practically the same number of men and more teams, but the work might be done more rapidly and a larger acreage could be taken care of by stacking than by baling from the field."

MARKETING THE HAY.

The most profitable way for the farmer to market hay is in the form of horses, beef, pork, mutton, or dairy products. Such products are easily taken to market, and the by-product from feeding the live stock—the manure which may be returned to the soil—is almost equal in value to the hay itself. Yet some hay must be sold in order to supply the demand for this product.

There is always a little local demand for hay, which may be supplied by those farmers who produce only a little more hay than is required for feeding on their farms. The farmer who grows hay in larger quantities must seek a market farther from home, and this requires that the hay be baled and shipped to the central markets in the large cities.

It is not easy to decide as to just which may be the best time to sell hay. Often the price of hay is higher in the latter part of the winter than during the previous months or immediately after the farmer turns the stock to pasture. Along in February and March there is apt to be a shortage in the supply of hay, and the large grower may often take advantage of the advanced price to gain an additional profit in the sale of his crop.

However, the factor which largely determines the price is the quality of the hay. Good hay will always command a fair price, and it has been the aim of the writer in the above discussion to call the attention of haymakers to some of the essential factors in the production of good hay.

(To be continued.)

Horticulture**Suggestions on Pruning.**

Pruning is a natural process. Hundreds of small limbs on the trees die every year and thousands of buds perish before they have an opportunity to develop into branches. This is nature's simple method of pruning, and she never interferes with the natural shape of the plant nor takes off larger limbs, leaving immense scars to heal over or long stubs to die back.

Man, following nature's example, modifies her methods according to circumstances and object to be accomplished. It is impossible to prune a given tree and to prune all the rest exactly the same; for there are no two trees alike and the very next tree may be so unlike that it will have to be pruned quite differently. The operator should, first of all, know what he is to prune before a single limb is cut off. He should study carefully the tree in front of him and then proceed to accomplish the particular object in view.

In pruning, it is well to keep in mind not to remove any more limbs than are absolutely necessary and to avoid, as much as possible, removing very large branches. The larger the limbs removed the larger will be the wounds and the longer these will take to heal over. The healing of the wounds is done by the cambium layer, which is the active growing tissue of the plant cylinder, pushing itself over the scar mainly from the upper side.

If the wound is small it will heal over during the growing season; if it is large it may take one or more years. The longer the wound remains exposed the more the wood will crack and dry out.

All the limbs should be cut off as close to the trunk as possible. Stubs from half an inch to three or more inches in length never heal over and should not be left. In some cases they may cause injury to the tree, as they die back into the wood of the main branch. If the trees are headed in always cut back close to a bud, for the reason that if a scab is left above the bud it will die back.

Dressing for wounds is sometimes necessary, especially for the larger ones. The dressing used ought to check the weathering of the wood and prevent any decay. A wound dressing should be durable. Paint and tar are very common materials, but lead paint is the best all-around dressing for common pruning wounds.—The Farm Press.

New Method of Killing Borers.

The Carolina poplar trees make most beautiful shade trees and as they grow to large size in a few years have been considered most valuable. As nurserymen have taken the precaution in most instances of taking cuttings for propagation from none but the male trees, planters of the Carolina poplar have not been bothered with cotton or seeds as in the case of our old timer, the cottonwood. For these reasons and many more we have been greatly disappointed to find the cottonwood borer attacking the poplar with fatal results. The poplar is even more soft than the cottonwood and these insects thrive in it and in a short time do much damage, frequently killing the entire top of a tree or causing some of the main branches to drop during windstorms, leaving bad-shaped tops, where the natural tendency of the tree has been to form a most symmetrical head.

As a preventive of the borers the washing of the trunks and large limbs with a heavy coat of whitewash or with a mixture of lime, salt and sulfur has been recommended, but this has been only partially effective and to be of any value whatever must be applied three or more times a year. When the borers have once become established the very simple but laborious method of digging each individual larva out of its burrow with a knife or probing into the tunnels with a soft wire has been the general treatment given and the only practical way to fight this enemy. All this applies to the borers which attack the ash, box elder, and other shade trees as well as to the apple and peach tree borers. However, in the case of the latter pests, the life habits are such and their preference for certain sections of the trees is such that the work can be done more effectively than with the cottonwood borer and at times the adult insect may be prevented from depositing the eggs by covering the crown with earth or by wrapping the trunks with paper or wire screen. The new remedy which we are about to describe is applicable to all kinds of borers and may be of great use in treating old hollow trees preparatory to filling their cavities with concrete to prevent further decay. The treatment consists simply in the injection of a chemical into the burrows or cavities which are supposed to be inhabited with borers or other insects or fungi. Carbon bisulphide is the chemical most easily applied and the gas which results when this is exposed to the air is the agency which deals death to all living creatures.

To treat a tree which is infested with the borers, take a small metal syringe, say one holding a half ounce to an ounce of the chemical. This amount would be sufficient to treat a dozen or more of the burrows. The carbon bisulphide is kept corked in a bottle and only a small quantity drawn into the syringe as needed. The point of the instrument is inserted in the tunnel as far as possible and the liquid injected, the in-



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strument withdrawn and the burrow at once closed with a little putty or paste of any kind. This gas at once fills every passage of the burrow and all crevices leading into the tree or outward into the bark and results in a thorough fumigation of the entire tunnel in which the worm may be ensconced. To treat large cavities or hollow trunks in which injurious insects or fungi may be at work on the interior where they could not possibly be reached either by a spray or by digging with any sort of instrument, the plan is about as follows: A shallow dish is placed in the cavity then the opening closed with a piece of tar paper or heavy building paper. Putty or paste is used around the edge of the paper to make it air-tight, then the syringe is filled with the chemical and by a thrust through a small hole with the point of it the contents are emptied into the dish, from which the gas rises to every part of the cavity. The hole through the tar paper is stopped by puttying when the syringe is withdrawn. The carbon bisulphide is inflammable and is also very destructive to life through being inhaled, so the greatest precautions are necessary in handling it. A much lighter vapor which may give better results in the treatment of large cavities is hydrocyanic acid gas which is the treatment frequently given nursery stock to prevent the spread of scale and other insects, but for the purpose of killing the borers in our fruit and shade trees, the use of carbon bisulphide is more practical and less expensive. The principles involved in the treatment as above described are precisely the same as in the treatment of prairie-dogs in their holes, where the liquid is rolled down into the burrow on a cob or a piece of horse manure and the hole immediately stopped with a sod or a shovel full of earth.—Ranch and Range.

Strawberry Culture.

The success of any crop depends to a great extent upon the preparation of the ground the season preceding. The strawberry season is now nearly over and if the plants are to be renewed next season the ground should be gotten into shape now. The following article by F. W. Beatty, in Successful Farming, is timely:

"As a preparation of ground for plants to be set out in the spring, plant to cow-peas the previous summer. When the peas have reached a height of about two inches, go over with a weeder to destroy weeds and form a soil mulch. After rains and at intervals should no rains occur, this weeding is kept up until the peas are about a foot high. There need be no fear about injuring the plants grown to this height as the loss from uproot-

ed and injured areas is slight in comparison to the good accomplished in destroying weeds and maintaining dust mulch.

"When in bloom, the peas are turned under about four inches. Ground is then harrowed and prepared for planting of rye. During the winter the rye is dressed with manure, and turned under about six inches in early spring. Prepare ground thoroughly and mark out 4-foot rows to receive the plants, set 30 inches apart. Some prefer the double-row system in which rows are set 16 inches apart with plants 30 inches apart in the row. After plants are established, spray every week with Bordeaux mixture and Paris green to keep down the leaf roller and prevent fungous diseases. Cut off runners and laterals during hoeing period. Cultivate once a week or every ten days, sometimes oftener when rains occur.

"Keep fruiting beds from two to three years. For winter mulching sow corn thickly and mow when about two feet high. A layer about three inches thick is put on the plants about November 1 to prevent injury from late dry spells and early freezes. Straw is preferable to the fodder when it can be had cheaply, but when too expensive to secure, the fodder answers the purpose quite well.

"In early spring as plants begin to grow, this mulch is loosened up with a pitchfork and pushed aside from over the plants to let them through and allow the soil to heat more quickly. The mulch is used for two years; after that time the leaves of the plants are mowed with horse mower, the mulch is also tilled and the whole field is burned over. After burning, a little soil is raked from the rows over the tops of plants as new roots are formed near the surface. The work of caring for the bed is then continued as given above."

A good permanent watering place for bees will mean much to the welfare of the apiary and will result in a considerable increase from the profit from the business. Every bee lost through accident, such as being blown away by the wind or washed away by the water of a ditch or creek is so much capital stock gone. A long board with a keg or barrel of water at one end makes a convenient watering place. The water keg should have a hole just large enough to allow some of the water to leak out and trickle down the board, sufficient to keep the board moist. Fresh water must be supplied every day or two, but this is a small job when attended to promptly. Bees which have a regular watering place at home will not be so liable to drink the poisonous mixtures with which fruit trees in the neighborhood are sprayed.

Dairy Interests

Model Dairy Farm and State Creamery at the Kansas State Agricultural College.

No other line of farming interest has attracted so much attention in recent years as dairying. As land values increase different methods of farming must be employed than those practised on cheap land. If dairymen in Holland can, on \$1,000 land, buy American feed and then ship butter to America and still make money, certainly Kansas farmers ought to prosper on \$50 and \$100 land when they can raise corn, clover, and alfalfa, the best dairy feeds in the world, and sell on a good home market.

FEEDING EXPERIMENTS.

The dairy department at the Agricultural College is working on some very practical lines. Professor Kendall has started a "model dairy farm" on forty-two acres of land and will work out two experiments, one to balance the other—to determine the cheapest method of feeding dairy cows, and to see how many cows may be maintained on that much land.

The experiment proper will begin with July. The dairy herd has been reduced somewhat and Professor Kendall wishes to build up the herd largely with Guernsey and Ayrshire breeds as he deems them hardy and adapted to Kansas conditions and also excellent dairy breeds.

The entire forty-two acres has been in blue-grass and 18.1 acres have been plowed and these plots will be used as follows: Plot 1, 6.6 acres, for corn silage; plot 2, 3.5 acres, for corn for soiling (feeding as cut); plot 3, 3 acres for cow-peas for hay; plot 4, 5 acres, for later corn silage.

From 11.6 acres he expects to have enough silage to fill two 80-ton silos. As he cuts the corn from plot 2 he will sow part to Kafir-corn for later soiling and part to cow-peas, sowing all of this plot to alfalfa in early September. A part of plot 1 or plot 4 will also be sowed to alfalfa and next year five acres will be taken from the twenty-four acres of pasture and put in corn for silage. The idea is to limit the pasture area and add to the acreage for soiling, ensilage, and alfalfa. We think the farmers of Kansas will be surprised at some of the results to be obtained from this experiment.

It has been necessary this year to buy twenty-four acres of alfalfa from nearby farmers and this is being cut and put in sheds. A new alfalfa shed is to be built for the later cuttings. It will be 34 by 60 feet with a 12-foot driveway. Several experiments will be conducted in the shedding, cost of unloading and mowing by hand, pitching from sides and from driveway, swing fork and with track from end of shed; also test as to keeping quality of hay put in the mow green, from cocks and without caps. Old railroad ties will be laid on ground across the shed and long poles lengthwise of shed across the ties.

A lean-to roof will be attached to south side of hay shed and the cows will eat from shed under this shelter in early fall, through movable racks, gradually eating into the mow, the ties and poles being removed as necessary for the whole length of shed, thus keeping a north protector for the whole winter. The shed will be sided on the north.

TESTS IN HANDLING MILK AND CREAM.

An interesting test is being made now with different kinds of milk buckets. With the Gurler bucket, which has a small top with two metal strainers, with absorbent cotton between, milk is kept for twelve hours at the same degree of acidity, right out on open shelves away from the ice, but in covered bottles, showing that the usual rapid souring of milk is largely due to dirt in the milk. The milk was of course strained from the buckets through the regular dairy

strainer, consisting of two metal strainers and a layer of cloth.

Tests are also being made by patrons of the creamery in different methods of handling their cream, cooling, etc. All cream is bought by the college creamery on a grading system, a certain price for first grade, two cents less for second grade, and six cents less for third grade. It is being proved to the patrons that it takes but little trouble to get all first grade and that they get a big price for their labor in this difference. Cream is bought regularly from patrons within twenty miles of Manhattan and any farmer may ship occasional cans or all his cream for a short time to the creamery for testing or to learn the advantages of the grading system. His cream is carefully and accurately tested and he is paid according to the test but on the basis of New York prices. No quotations are made, however, in advance. The farmer will get a statement of test and if he desires it, suggestions for improvement of his product will be made.

BUTTERMILK CONTEST.

For the purpose of helping the actual buttermakers of the State, Professor Kendall has inaugurated a buttermaking contest. Each buttermaker ships here a tub of butter; all butter is scored carefully, and the one having the best score receives a certificate. At the end of the year the buttermaker having the highest average score will receive a beautiful silver cup from the State Dairy Association. All butter is sold and the proceeds remitted to the buttermakers.

These are only a few of the many experiments now being conducted by the dairy department of the Kansas State Agricultural College for the advancement of dairying in Kansas. It will be impossible to do the highest type of work, however, in either experimental or instructional lines with the present small dairy building and the poorly planned dairy barn.

DAIRY PRODUCTS MUST BE SANITARY.

Dairymen will be interested in, and should take notice of the action Dr. S. J. Crumline, Secretary of the State Board of Health, is taking to secure the production of pure milk. He has prepared the kind of an ordinance he wishes to have passed by the various city councils over the State and is now sending copies of this ordinance out to his inspectors along with a circular letter telling what he wants done with it. In this letter he makes this startling statement:

"We are willing to assume the responsibility for the statement that it is our belief that from 10 to 15 per cent of the dairy cows in this State are tubercular. Recent investigations by this department have revealed the fact that much of the milk on the market is unfit for use by reason of the enormous bacterial content, occasioned in various ways, among which might be mentioned, first, filthy and dirty stables, which means dirty cows, much of which dirt gets into the milk during the process of milking, and second, the improper care of the cans and other milking utensils, and third, the improper or slow cooling of the milk, and fourth the age of the milk before marketing. It is therefore of the greatest importance that immediate and effective means be put into execution to eliminate the tubercular dairy cow and to correct the unsanitary conditions that surround much of our milk supply in the State."

Under the ordinance which Dr. Crumline has prepared and which he will attempt to have put into operation in cities all over the State it will be unlawful for any person to sell milk or cream within the city limits without first registering his name, place of business, and the number of cows in his herd. The city clerk will issue a license to him upon the payment of a fee of fifty cents a cow. The wagon used by the dairy will be numbered. Unless a license is issued each person selling milk or cream shall be liable to a fee of fifty dollars for his herd. It will be unlawful to sell skim-milk unless it is so labeled. It will be unlawful to sell watered milk, milk or

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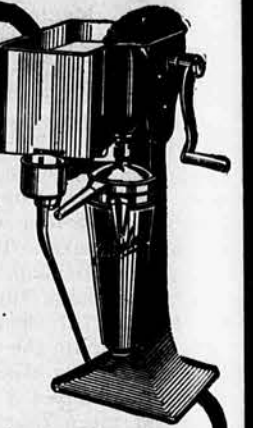
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cream which has been handled by any person suffering from contagious or infectious disease, milk from diseased cows, or milk from filthy cans, or milk in which preservatives have been used.

The ordinance provides for a milk inspector in each town who must prove his efficiency by passing an examination given under the direction of the State Dairy Inspector. The inspectors will be required to make inspections of milk and to send samples to the dairy commissioner at Manhattan in sealed bottles. He is authorized to make arrests if he finds that the ordinance is not obeyed. The penalties for violation of the ordinance are fixed at a fine not exceeding \$100 or imprisonment not exceeding one hundred days. Conviction will mean the forfeiture of the license.

In the ordinance Dr. Crumline defines unwholesome milk as follows:

"Milk produced from cows kept in an unsanitary, poorly lighted, or poorly ventilated stable, or produced by cows not kept clean or any milk obtained from cows that are fed on city slop or waste from the kitchen or refuse matter from any starch factory, decomposed food, stable manure, bedding, or any article of food which is fermenting or fermented, other than clean, well-cured silage; or milk stored in an unsanitary place, or milk kept or delivered in vessels not properly cleaned, or vessels which are rusted, or in wooden vessels. It shall be unlawful for any person to sell or offer for sale or exchange milk known as 'unwholesome milk.'"

What Some Colorado Dairymen are Doing.

The Colorado Agricultural College is collecting information in regard to the results secured by Colorado dairymen. A few records made in 1907 are here given:

Burke Potter, of Peyton, (altitude 6,800 feet), on a dry land farm, milked 16 cows and 6 two-year-old heifers and received for their cream \$1,550. He sold veal calves for \$50 and raised six heifer calves worth \$90 from his best cows. Total receipts of \$1,690, nearly \$77 per cow. He paid \$300 for bran, raising all the rest of his feed. He grows corn fodder, oat and wheat-hays and alfalfa.

H. L. Edgerton, Carbondale (altitude 6,200 feet), milked 20 cows and received for their products \$1,660 and for calves \$41.50; total, \$1,701.50, an average of \$75 per cow. Pasture, hay, bran and roots cost \$520, leaving \$1,181.50 for labor and profit.

H. H. Ewing, Fort Lupton (altitude 4,900 feet), milked 30 cows and received from the Colorado Condensed Milk Co., \$2,751.30, an average of over \$91 per cow. Pasture, hay and grain cost \$1,020, leaving \$1,731.30 for labor and profit.

The farmers around Elizabeth (altitude 6,400 feet), in the dry land sec-



A \$10 Separator

Would be about as much use to you as a \$10 cow

You'd never in the wide world think of trying to run a dairy with a lot of scrub cows, and you know full well it would be just throwing money away to have a separator that wouldn't skim all the cream. If you're like most farmers you've had to work hard for what you've got and you just can't afford to put your good, hard-earned dollars into a separator of any kind until you have at least seen the

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The only machine with combination of hollow and disc bowl—gives double capacity—the hollow bowl doesn't break the large fat globules—you know that means more butter from every gallon of cream you churn; or a better price if you sell the cream. There are a dozen points where the Peerless Separator is different from all others, and every single point of difference will help you to get more profit out of your dairy. Haven't room to tell you ALL about it here—but send for our catalog and look it over pretty carefully—it will be money in your pocket. Write us today while the matter is fresh in your mind.

Waterloo Cream Separator Company
Dept. C, Waterloo, Iowa

tion of Colorado, in 1907 shipped cream which brought them \$90,700 and received for milk sold to a cheese factory, \$10,000. The average income made by twenty dairymen was \$50 a year per cow, with no grain feed. In March, 1908, one farmer received \$212.04 for the cream from 23 cows and fed alfalfa hay only. He received 37 cents a pound for butter-fat.—H. M. Cottrell, Supt. Farmers' Institute, Fort Collins.

The Separator and the Railroad.

The separator and the railroad are two factors which work together for the good of dairy interests all through the newer countries. In Kansas, Nebraska, Oklahoma, the Dakotas, and parts of Missouri, dairying has been made possible through the cooperation of these two agencies. Large farms make local creameries inadvisable because it is difficult and expensive to deliver the product. The skimming station was the first solution of this, but for the same reason it did not pay. The farmer had to deliver his milk at the station the same as he would at the creamery. True, large quantities of cream would be handled at the central point, but the great problem was to make it

easy for the farmer to deliver the goods.

The hand separator was the real solution. At every railroad station today there is a market for cream. Large plants centrally located are within reach of practically all the farmers of the newer States. Cream has been shipped successfully from near the center of Kansas to Denver, Omaha, Sioux City, and other large towns draw from the remoter parts of States to the west of them.

Instead of receiving money once or twice a year, as do the grain farmers, they will have a regular monthly income. The hand separator will simplify the keeping of dairy cows and the milk check will take care of the farm expenses and the bank account.

—Kimball's Dairy Farmer.

Miscellany

Rates on Cream.

Sixteen of the largest butter manufacturers in the Mississippi Valley States began a gigantic battle against twenty transcontinental railroads and express companies on Wednesday, June 10, before Interstate Commerce Commissioners Prouty of Vermont Harlan of Illinois, in Chicago, in an effort to thwart the common carriers' plan to make a sweeping advance in rail tariffs on milk and cream, averaging from 66% to 125 per cent. It is the emphatic claim of these makers of butter that the enforcement of the proposed "excessive, unjust, and practically confiscatory" increase not only would imperil the investment of \$10,000,000 in creamery plants in several States, but would eliminate the net profit of less than one-half a cent per pound on the finished product and force the creameries to suspend business.

The annual production of the petitioning buttermakers who seek the permanency of protection from railroad rate increases temporarily given by an injunction issued by Judge Kohlsaat of the United States Circuit Court in September, 1907, is stated to be 150,000,000 pounds, which is more than one-quarter of the total output of the United States. These petitioners annually pay the farmers of Illinois, Wisconsin, Missouri, Iowa, Kansas, Nebraska, South Dakota, Minnesota, and Indiana something like \$50,000,000 for cream, and expend more than \$1,500,000 on railroad freight charges.

Counsel for the defendant common carriers have offered the suggestion that the buttermakers add the increase due to the proposed new tariff on cream to the selling price of the finished product. But the suggestion is denounced as unfair to the people and likely to result in extensive reprehensible substitution and adulteration.

The Kohlsaat injunction, first of its nature and a novelty, invoked by counsel for the shippers, in that it acted as a staying order against the common carriers, established the principle that the federal courts have the right to interfere in matters involving interstate commerce. Previous to this court order it had been customary for the railroads to notify the Interstate Commerce Commission of an advance in rates, which advance became effective in thirty days. Six other federal judges sustained the Kohlsaat contention by issuing similar staying orders on the roads.

The shippers can now have their innings to introduce testimony against the common carriers, intended to destroy the efforts of the latter to overcome the injunction and put into effect the alleged excessive tariffs. In the hearing before Commissioners Prouty and Harlan the creameries will be represented by ex-Congressman E. J. Hainer of Lincoln, Neb.; T. F. Doran of Topeka, Kans.; and Attorneys Mayer, Meyer, and Austrian of Chicago, while the defendants will be represented by numerous special counsel.

The petitioners show that with rates remaining stationary for fifteen years an enormous development in the agricultural States of the Mississippi Valley took place, the complainants having established more than 10,000 cream receiving stations and creameries in all the rich-farming States. The Continental Creamery Company, the Fairmount Creamery Company, the Beatrice Creamery Company, the Blue Valley Creamery Company, and many other similar corporations extended their enterprises and developed a gigantic business, to the great good of the territory that contributed material for the manufactured product. A territory with an area of thousands of square miles is made directly contributory by the improved fast express and refrigerator service of the common carriers.

It is also charged by the complainants before the Interstate Commerce Commission that the roads are guilty of a criminal conspiracy, and in violation of the Sherman anti-trust law, by all agreeing to put into effect the same increased rates on all of their lines. Another contention given great emphasis by the petitioners is that the railroads carry for the express companies for half the rate they carry for the public without giving any better service. This, it is asserted by the aggressive buttermakers, shows conclusively that the public is paying too much. "No surrender to the railroads" is the slogan of the buttermen that will be interpreted in legal phraseology in the Interstate Commerce Commission hearing.

The Chinch-Bug.

"Few insects, and certainly no other species of the natural order to which this one belongs, have caused such enormous pecuniary losses as the chinch-bugs. No other insect native to the Western Hemisphere has spread its devastating hordes over a wider area of country with more fatal effects to the staple grains of North America than has this one. But for the extreme susceptibility of the very young to destruction by drenching rains and to the less though not insignificant destructiveness during rainy seasons of 'parasitic fungi' on both adults and young, the practise of raising grain year after year in the same areas, as followed in the United States, would become altogether unprofitable."* During the last forty years it is probable that the chinch-bug has effected more damage to staple crops in Kansas than can be charged to any other one insect.

LIFE HISTORY OF THE CHINCH-BUG.

The insect passes the winter as an adult bug in bunches of native grasses, under leaves in woodlands and hedge-rows, under the leaf sheaths of corn-stalks, and under or in rubbish generally wherever it can find shelter. With the coming of favorable spring weather the chinch-bug emerges from winter quarters and flies away over wheat, barley, and rye fields and grass lands. Here it settles to the ground and thrusting its beak into the growing plants feeds upon the flowing sap (after its long winter fast). Soon the female begins to deposit eggs upon the soil, in cracks and crevices of the soil, and upon the bases and roots of the plants. It is said that a female may lay 500 eggs in a period of from ten days to two weeks. The eggs are oval, about three one-hundredths of an inch long, pure white when laid, but changing to reddish as the hatching time approaches. In about two weeks from the date of laying, the eggs hatch and the orange-yellow young crawl actively about, soon thrusting their tiny beaks into the tender parts of the plants, and feeding on the sap. Soon after the eggs begin hatching, adults, white eggs, reddish eggs, and orange-yellow young may be found together in infested fields. On the failure of food through ripening of the grain, the bugs of all ages set out on foot through ripening of the grain, the bugs of all ages set

*Bulletin No. 68, U. S. Dept. of Agr. Bureau of Entomology.

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That's what the De Laval shops have been doing since early in February, from seven o'clock in the morning until nine o'clock at night, with every available man, and new tools being added every week; while the material supplying shops have been running double force all day and all night.

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out on foot to find succulent plants suited to their taste, generally moving toward the adjacent corn fields. In the corn field they lay eggs for the generation that, reaching maturity before cold weather, passes the winter as already described. The chinch-bug requires, under normal out-door conditions, from 57 to 60 days to pass from freshly laid eggs to adults and produces two generations each year.

ENEMIES OF CHINCH-BUGS.

Owing to favorable or unfavorable weather conditions and to the absence or presence of natural enemies, the chinch-bug is sometimes present in devastating hordes and sometimes so rare as to do no appreciable damage. The period of abundant chinch-bugs is always followed by a time when they are comparatively rare, and that in its turn by another period of abundance.

Last fall the great abundance of bugs and the serious nature of the damage reported indicated that a period of chinch-bug trouble was at hand, and the reported injury to wheat and barley this spring has only served to strengthen the impression. The heavy rains occurring just as the hatching time have, however, destroyed many of the young, and if continued throughout the hatching period may do much to prevent later trouble. Parasitic fungi, thriving as they are under the unusual moisture and attacking both adults and young, are working toward the same end. Last fall not less than 25 counties lying mainly within the eastern part of the wheat belt reported chinch-bugs in serious numbers, and this spring at least twelve have reported the chinch-bugs injuring the wheat. It is, therefore, probable that, unless the damp, rainy weather continues throughout the hatching season and parasitic fungi take hold generally, the young bugs will, with the hardening of infested wheat and other grains, march into adjoining corn fields and do great harm. Unfortunately, the present knowledge of chinch-bug warfare shows there is no practicable method of destroying the bugs in the wheat save as nature herself, through the agency of dashing rains, destroys the hatching young and encourages the growth of parasitic fungi on young and old.

There is, then, danger that in many localities the chinch-bugs will march from ripening wheat into nearby corn fields, and the question is how to prevent this disaster. Fortunately, many experiments have been performed along this line and an abundance of data made available.

BARRIERS WHICH WILL KEEP THE BUGS OUT OF CORN FIELDS.

When the bugs set out in search of food the farmer can prevent them from passing into his growing corn or other grain by erecting and maintaining barriers between the field from which they come and the field toward which they are going. In general, there are two types of barriers—one, the dust line, especially useful in dry weather, and the other the petroleum or tar line, especially fitted for wet weather. The best type of dust barrier may be constructed as follows: plow a strip 6 to 10 feet wide between the infested field and the field to be protected; thoroughly and deeply pulverize the strip with a disk harrow; then reduce the surface to dust by dragging a brush or other instrument over it; drag a short log eight or ten inches in diameter, or a triangular trough, made by nailing two boards together and loading with stone, lengthwise along the dusty strip as near as practicable to the infested side until a deep furrow has been made; dress up the sides with a hoe so that no passageways may be left; dig postholes at least twelve inches deep in the bottom of this furrow at intervals of twenty feet. The bugs will collect in these holes, where they may be destroyed by pouring kerosene upon them. After a time the slope of the furrow-wall will be lessened by the dragging down of the dust particles under the many persistent feet and a new furrow should be constructed in the same way, parallel to the old. This procedure should be continued as long as the bugs keep coming.

This dust barrier will work perfectly so long as the ground can be kept thoroughly dusty, but its usefulness is destroyed by even a slight rain, which hardens the surface and allows the chinch-bugs to pass over without difficulty.

The petroleum or coal-tar barrier may be constructed as follows: Pre-

pare a hard, smooth surface in any one of three ways—(1) by dragging a heavily loaded plank over a strip between the infested field and the one to be protected; (2) by plowing a back furrow and shaping it into a smooth-walled ridge with a furrow along its summit by running over it an inverted convex-bottomed trough of proper size; (3) by plowing a furrow and cleaning out the soft dirt; pour along the smooth surface so constructed a line of coal tar or crude petroleum about three-fourths of an inch wide, and keep this fresh so that the bugs can find no place to cross; dig post-holes at intervals of twenty feet along the infested side of the line. The bugs will not cross the line, but will collect in the holes, where they may be destroyed by pouring kerosene oil upon them. A man or boy can guard 80 to 100 rods of such a barrier, but he must be in the field early and late.

In regions where irrigation is possible, land sufficiently level, and soil of such a character that the water will remain in the ditches, an efficient barrier may be made by plowing a furrow between the infested field and the one to be protected, and keeping it filled with water over which a surface film of kerosene oil has been spread.

TIME FOR CONSTRUCTING BARRIERS.

It is not enough to know that these barriers are effective and how they are made. The farmers must know also when they should be constructed. This he can know with certainty only by careful observation of the chinch-bugs. If the wheat be free from grass and weeds, the bugs are likely to leave as soon as it hardens, but if it be full of grass and weeds, their going may be long delayed. If he finds the bugs very abundant, all preparations necessary to the construction of barriers should be completed. Then by keeping a careful watch he can tell when the insects are beginning to move and should lose no time in preparing the barriers. From this time forward he must attend to the barriers until the bugs cease to come. Should they get into the first few rows before they are noticed, the petroleum or tar-line barrier should be run between the infested and non-infested parts of the corn field and their further passage vigorously disputed.

By careful attention and the expenditure of a reasonable amount of time and labor in view of the object to be gained, the enterprising farmer can prevent the damage which would otherwise be felt in his decreased corn crop. Let those whose corn fields lie adjacent to bug-infested wheat fields be on their guard.

The chinch-bug may be attacked to advantage in its winter quarters, but that phase of the question will be treated at another time.

T. J. HEADLEE, Entomologist.

Kansas Experiment Station.

Guarantee of Deposits Law.

BY HON. A. C. SHALLENBERGER, ALMA, NEB.

I feel that this is one of primary importance to us as business men at this particular time and I am going to discuss it with you from the standpoint of the material interests of the banker. You have only to inquire of the average man outside of the country to learn that he is already a warm convert to the creed.

We all will agree that the primary object in the organization of a bank by its promoters is to make profit in the business. Bankers often discuss their interests upon a broader, more philanthropic and ethical plane but in the last analysis every one is engaged in the business to make money. The profit in the banking business is derived principally from the interest received upon the money of the depositors that is left for safe keeping. The capital and surplus are but rarely ever encroached upon for the purpose of making loans, hence it easily follows that increase of deposits means increase of business and that anything that will tend to enlarge

the deposit account and yet not increase too largely the expense item is a sound business proposition for any banker to look earnestly into. The banking business is two sided in that the interest of the depositor in opening his account is for his own immediate benefit and that of the banker in receiving it is for increasing his own peculiar profit. I believe that a careful study of the guarantee of deposit question will convince any fair minded man that it can be so managed as to protect and promote the interest of both the banker and the depositor.

As conservative business men bankers are prone to look upon any new idea with suspicion, yet oftentimes a question may come before us seemingly as a stranger, that is in fact only an old idea clothed in new garments and bearing another name. Our deposits are now guaranteed by both State and National laws. The capital stock of a bank and the surplus account and the individual liability of the stockholders are all guarantees to the depositor that his money shall be returned to him and are required of those organizing a banking corporation by the law of the land to be held sacred and inviolate and untouched for that purpose. The requirements as to capitalization and the establishment of a surplus are not exacted of bankers by the law that their business may derive profit from them but solely as a protection to the depositor who entrusts them with his money.

DEPOSITS ALREADY GUARANTEED.

A great many of our deposits are already guaranteed other than by the capital stock, surplus and stockholders' liability. The United States government deposits certain of its monies with approved national banks and every bank that obtains the favor is so proud of it that it invariably advertises it to the public in gold letters upon the windows of its banking office. But the United States government requires an absolute guarantee for the safe return of its money no matter how safe and solvent the bank may be that receives it. A great many State banks receive deposits from the county or the State in which they do business and guarantee the return of that money so received by the deposit of bonds and also pay interest upon the daily balances as shown upon their books. The banker who takes a deposit from his county, State or National government and guarantees its return by the deposit of bonds and further pays for it by the addition of interest does it because he believes it a profitable and proper business transaction. A portion of the money on deposit in almost every bank in the State of Nebraska is drawing interest as an inducement for its being left with the bank. By what rule of ethics do you decide that it is good business policy to guarantee the deposits of the State or the county upon which you pay interest and that it is bad business policy or unfair to in any way secure your other depositors who, in case of a loss, would be much less able to endure it and whose accounts as a rule are much more profitable to you than those more favored whom you guarantee. The only answer that I can make to it is that the county and the Nation compel the guarantee or you lose the business and your other depositors are more lenient, and, therefore, in my judgment, are the more entitled to consideration in this matter. The points that I want to impress clearly are that already deposits are guaranteed to a certain extent and so far as that guarantee extends, it is invariably a requirement of law and not because of any good intention upon the part of the bank and the proposition that we are considering here is whether or not we shall go a little farther and under the administration of the proper legal authorities we shall in some manner apply a guarantee system for the protection of individual depositors as we now so

willingly do to our State and National funds.

CONGRESS RECOGNIZES THE PRINCIPLE.

Every bill that has been offered to Congress or the State legislature, having in view the further security of the depositors of a bank than is now required by law, provides for the establishment of a guarantee fund by a suitable tax to be levied upon the banking corporations, prorated upon the amount of their deposits. This also is not a new banking principle when we consider it fairly. There is no banker who will dispute the fact that the bank note is a liability of the corporation that issues it as long as it remains in circulation. In principle, a National bank note in no way differs from the personal checks of the individual depositor on his bank except that the bank's note is in effect certified by the United States government by reason of its being guaranteed by the deposit of United States bonds by the bank which issues it. If a depositor has a credit of a thousand dollars upon the ledger of a National bank and presents his check and is paid five hundred dollars by the cashier, the bank still owes him a thousand dollars, five hundred in the shape of the bank notes in his pocket and five hundred on the balance upon its books. The law now requires that the bankers shall guarantee the five hundred dollars of indebtedness of the notes, yet the five hundred dollars upon the ledger is just as vital to the man who owns it as the money in his pocket and infinitely more profitable to the bank which holds it. Why shall we secure the one and not the other? From the banker's standpoint it becomes largely a question of the profit in the transaction. There can be no question as to the ethics or the morals in the case. If the ledger account can be made as safe and secure as the bank note with less cost to the banker for securing the account, than the note, as the law now stands, by what right or reason shall he withhold the security or refuse to uphold a law which shall require it?

Still following out the analogy between the bank note and the ledger account as a debt of the bank, we find that in Canada they have worked out the problem of the security of the bank note not by the deposit of bonds as the bank note and the government deposit is secured in the United States, but by the establishment of a guarantee fund which is raised by the levying of a tax upon the banks which issue them exactly as is contemplated that we shall levy a tax to secure the depositor's balances upon our bank ledgers under a deposit guarantee law. So we find that the primary principle of guaranteeing the debt of the bank is not new but is constantly practised at present by our largest and best established banks; that the bank note and the bank ledger account stand in exactly the same relation to the banker as a debit and that in other countries the bank note part of the debt is perfectly and automatically secured by the levying of a light tax which in no wise acts as a heavy load upon the banks. Surely any law that would provide a similar security for the ledger debt as is now provided by law in Canada and other countries for the note debt, is a summation devoutly to be wished for, is practical in its application and just to the depositor. In my judgment, instead of being an expense to the bank, such a guarantee would be a means of drawing deposits to it which would reimburse the bank many times over for any money cost that such a fund would put upon it.

PREVENTS PANICS.

A proper guarantee or insurance system would prevent panics and do away with runs upon banks. People do not make runs on banks because they need their money, but because they feel insecure. They don't want their money, they want safety. If they felt that their deposits were

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MADE BY R. E. DIETZ COMPANY NEW YORK
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insured and that they would be certainly paid back every dollar deposited in any bank, hoarding of money would be practically unknown and deposits would largely increase. The principal income of a bank is the interest derived upon its loaned funds. The banker wishes to loan as much credit as he can with safety. Greater deposits mean larger business and more profits. A banking system would never deteriorate under a plan that precluded panics and would insure the perfect confidence of depositors.

The discussion of bank deposit insurance is no longer academic. We are not exploring untried realms. The young State of Oklahoma has already put it into practice with good results. The deposits in the guaranteed banks are rapidly increasing showing that the money is being drawn from its hiding places in the stockings, under the carpets, inside the stoves and other familiar places of deposit in time of panics and is being returned to the banks where it is again available for business. The result is that the National banks, eager for the advantages to be obtained from this insurance, are asking permission to be allowed to conform to the State law and receive its benefits. Our present financial system is admirable in fair business weather. In troublous times it goes to pieces. The unprecedented action of the banks during the last panic saved the day and mitigated the evil but the banks can not run to cover every time a panic threatens. When they can not extend customary credit to manufacturers, merchants, and farmers, a frightful check may be placed upon the ordinary freedom of the banking business and the distribution of loanable funds to those who need them at any time. An experience such as we lately went through inevitably leads to universal hoarding of money.

PRIMARY PURPOSE OF A BANK.

The primary purpose and the ethical reason for the establishment of a bank is that the money of a community may be gathered together in a safe place for those who have idle funds on hand and that, consequently, those who need money may conveniently obtain it after it shall have been so gathered together by the bank. The ideal system of banking will make every dollar deposited in every bank absolutely sure of being returned to its owner. Does not the State and the Nation, in fact, take upon itself by implication the obligation to see that this shall be done by permitting under its sanction and charter the establishment of banks and thereby encouraging the use of its legalized depositories? Under such a system all the idle money would be gathered into the banking houses whereby the best interests of the owners of these funds would be conserved, which is absolute safety. Secondly, the other proper function of a bank would be promoted in the highest degree, that of being able to furnish loanable funds in the fullest and freest manner at all times to those who need them in the transaction of legitimate business. Such a system would insure the safety of the depositor and promote the greatest degree of prosperity and profit upon the part of the banker and business man.

COST OF GUARANTEED DEPOSITS.

Now a word as to the probable cost of such an insurance. A report of the comptroller of the currency shows

Weather Bulletin

Following is the weekly weather bulletin of the Kansas Weather Service for the week ending June 10, 1907, prepared by T. B. Jennings, Station Director.

DATA FOR THE WEEK.

	Temperature.			Precipitation.		
	Maximum.	Minimum.	Mean.	Departure from normal.	Total.	Percent of sunshine.
WESTERN DIVISION.						
Ashland.	93	46	74	...	4.10	83
Dodge City.	93	57	74	+4	2.38	68
Dresden.	91	53	69	...	0.50	...
Lakin.	100	46	76	...	0	...
Liberal.	98	57	...	...	0.70	83
Scott.	95	55	76	...	0.37	...
Ulysses.	98	41	73	...	0	100
Wakeeney.	92	55	71	...	1.07	...
Division.	100	41	73	...	1.42	84
MIDDLE DIVISION.						
Anthony.	88	53	70	...	2.84	...
Coldwater.	90	57	74	...	1.56	67
Concordia.	86	54	70	...	7.24	...
Ellinwood.	89	57	72	...	1.39	26
Ellsworth.	89	50	70	...	1.08	...
Hays.	92	53	72	...	2.97	44
Kingman.	99	58	72	...	0.75	41
Larned.	90	50	70	...	1.09	...
Macksville.	89	54	...	...	1.78	...
McPherson.	86	58	72	...	2.97	12
Marion.	86	60	72	...	1.31	...
Minneapolis.	83	46	69	...	5.13	49
Norwich.	88	60	73	...	1.58	37
Rome.	87	59	...	...	4.76	...
Salina.	88	58	72	...	1.96	...
Wichita.	85	59	72	+1	4.69	+3.53 40
Baker.	83	42	66	...	2.27	...
EASTERN DIVISION.						
Atchison.	87	56	70	...	0.67	44
Division.	92	41	71	...	2.69	40
Burlington.	87	60	72	...	4.21	43
Columbus.	87	58	73	...	2.68	41
Cottonwood Falls.	85	59	72	...	2.37	14
Emporia.	84	57	72	...	1.64	...
Eskridge.	84	55	68	...	2.16	50
Eureka.	87	59	72	...	3.68	...
Fall River.	87	59	72	...	6.90	50
Fort Scott.	83	57	72	...	3.21	38
Frederick.	86	60	72	...	3.97	50
Garnett.	85	57	70	...	3.59	59
Grenola.	84	58	70	...	6.81	36
Horton.	85	55	70	...	2.80	...
Independence.	86	60	73	...	3.84	50
Iola.	86	60	72	+2	2.77	+1.59 42
Kansas City.	86	57	70	0	0.75	-0.32 54
Lebo.	83	58	70	...	2.27	36
Madison.	87	59	...	...	3.66	...
Manhattan.	89	54	70	...	3.08	...
Ossage City.	88	50	70	...	3.09	59
Ottawa.	87	45	68	...	3.80	...
Pleasanton.	85	57	71	...	2.03	46
Sedan.	85	59	72	...	4.48	71
Topeka.	85	54	71	0	1.66	+0.48 60
Toronto.	88	55	72	...	5.95	...
Valley Falls.	83	57	70	...	1.31	28
Yates Center.	87	61	72	...	6.36	33
Division.	89	42	71	...	3.27	45
State.	100	41	71	...	2.83	49

DATA FOR STATE BY WEEKS.

April 13.	89	19	55	...	0.91	54
April 20.	92	30	60	...	0.79	53
April 27.	92	37	65	...	0.64	60
May 2.	78	15	49	...	0.08	62
May 9.	88	29	52	...	1.32	47
May 16.	95	37	67	...	1.12	67
May 23.	102	33	68	...	1.74	66
May 30.	97	40	69	...	1.33	64
June 5.	100	41	71	...	2.83	49

GENERAL SUMMARY.

The temperature was about normal in the northern portion of the State and somewhat above normal in the southern and western portions, the greatest departure occurring in the southwestern counties. There was much sunshine in the western portion of the State and much cloudiness in the eastern portion.

The precipitation was light in the extreme western counties but ample over the rest of the State. It was unusually heavy in Clark and Ford Counties and decidedly excessive in the central northern and the southeastern counties, being more than six inches in some of the latter and more than seven inches at Concordia.

EASTERN DIVISION.

Allen.—Temperatures were seasonable, but the cloudiness was excessive. Rain fell on every day of the week, and the total was 2.77 inches. The wind reached a maximum velocity of 38 miles an hour on the 4th.

Anderson.—Rain fell on every day of the week, the total being 3.56 inches. Three days were clear, two partly and two cloudy. Temperatures were seasonable.

Atchison.—The week was cool and cloudy, with 0.67 of an inch of rain.

Bourbon.—Showers fell on five days and a heavy rain on the 5th, making a total of 3.21 inches during the week. There was an unusual amount of cloudiness, but temperatures were slightly above normal.

Brown.—Showers were frequent and general during the week, the total being 2.27 at Baker and 2.80 at Horton. Temperatures were favorable after the fore part, but the cloudiness was excessive.

Chase.—Damp and cloudy weather prevailed, with a total of 2.37 inches of rain. There were no clear days during the week.

Chautauqua.—Nearly four inches and a half of rain were received. Three days were clear and four partly cloudy.

Cherokee.—This has been another excessively wet week, with no clear days. Temperature extremes were 58° on the 31st of May and 87° on the 4th and 5th of June.

Coffey.—The week was wet, 4.21 inches of rain falling at Burlington, and 2.27 inches at Lebo. Six days were partly cloudy and one cloudy.

Elk.—Rain fell on every day and but one day was clear. The total rainfall was 6.81 inches. The fore part was cool, the latter part much warmer.

Ellis.—Cloudy, threatening weather prevailed, with considerable wind and light hail on the 2nd and 6th. Nearly three inches of rain fell.

Ellsworth.—The week was very favorable. Timely rains on the 31st of May and 2nd of June amounted to 1.08 inches. Temperatures were seasonable.

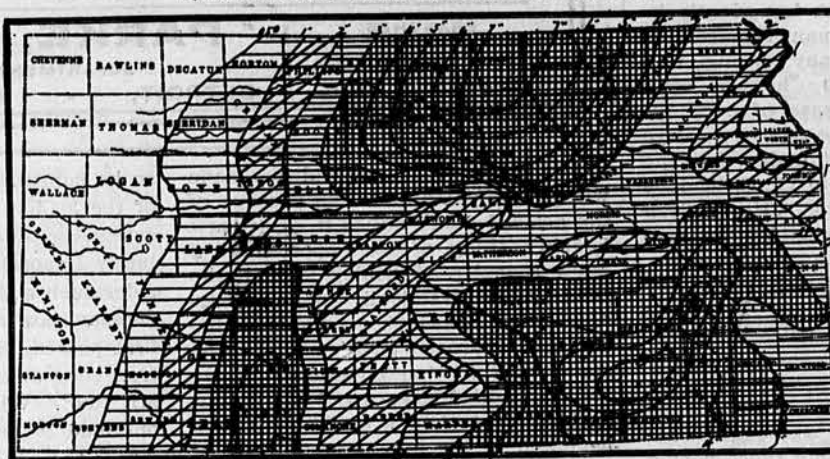
Harper.—Rain occurred on the 31st of May and 1st, 2nd, 4th, and 6th of June, the total being 2.84 inches. Kingman.—Very favorable weather obtained. The rainfall was 1.58 inches at Norwich and 0.76 of an inch at Kingman. High southerly winds were frequent.

McPherson.—Plenty of rain fell. Every day, but the last, was cloudy, and the latter part was quite warm and sultry. Temperature extremes were 60° on the 1st and 86° on the 4th.

Marion.—Rain fell on every day but Thursday, the 4th, aggregating 1.31 inches. The highest temperature was 86° on the 4th, and the lowest 60° on the 2nd and 3rd.

Ottawa.—A heavy rain of 2.61 inches fell on the 2nd, and rains, exceeding one inch, fell on the 31st of May and 5th of June. June 1st and 3rd were the only days on which no rain fell. Temperatures rose steadily as the week progressed, but the week was deficient in sunshine.

RAINFALL FOR WEEK ENDING JUNE 6, 1908.



Franklin.—Warmer weather obtained the latter part. Rain fell on every day but Wednesday, June 3rd, the total being 3.30 inches. Maximum temperatures were above 80° after June 1st.

Greenwood.—The latter part was warm and very sultry, and there was no clear days. Rain fell on five days, amounting to 6.90 inches at Fall River, 3.66 inches at Madison, and 3.63 inches at Eureka. Jefferson.—Rains were frequent, but no heavy precipitation occurred, the weekly total being 1.31 inches. Only one day was clear.

Linn.—Temperatures were seasonable, but the rainfall was excessive and the sunshine deficient.

Lyon.—Warm and sultry weather prevailed after the first two days. Rains fell on six days.

Montgomery.—This was the wettest week of the year, rain falling on five days and amounting to 3.84 inches.

Ossage.—Wet, cloudy weather prevailed. Heavy hail occurred on the 5th, and there was a high wind on the 6th.

Riley.—Rain fell on four days, aggregating 3.08 inches. The latter part of the week was warm and sultry.

Shawnee.—The weather was unusually wet and cloudy. There were only two clear days and no days were without rain. Temperatures rose steadily as the week progressed, the last two days being quite sultry, with a maximum temperature of 85° on each day.

Wabaunsee.—Showery and cloudy weather prevailed.

Wilson.—Rains fell on the 31st of May and 1st, 2nd, 3rd, and 5th of June, aggregating 3.97 inches. Easterly winds prevailed. Hail fell on the 5th.

Woodson.—Nearly six inches of rain fell this week. Temperatures were above normal at the close of the week.

Wyandotte.—Rain occurred on every day of the week, with thunderstorms on the 2nd, 3rd, 4th, and 5th. The fore part of the week was cool and gloomy, the latter part warm and sultry, the week having a decided deficiency in temperature.

MIDDLE DIVISION.

Barton.—Showers on four days amounted to 1.39 inches. High winds occurred on three days. Five days were partly cloudy and two cloudy.

Cloud.—The rainfall was unusually heavy. Rain fell on every day but the 3rd, being excessively heavy on the 2nd and 5th. The total was 7.24 inches. Temperatures rose as the week progressed.

Comanche.—Welcome rains on the 1st and 2nd amounted to 1.56 inches. These were the first soaking rains this season. Three days were clear, two partly cloudy and two cloudy.

THE BANKER'S INDIVIDUALITY.

The idea of a guarantee of deposits is opposed by some, because they fear that it would put all bankers upon the same level; that our individuality would be lost; that the old and established banker would lose any advantage or value that might belong to him because of his years of successful business, or would lower the standard of banking. A moment's consideration I think will convince us of the fallacy of this argument. The banking business must be built upon the principle that all banks are safe. The rock of refuge which sustained us throughout the panic of 1907 in Nebraska was the fact that all of our banks proved to be safe—none failed. Banking is only profitable where all banks are safe. Uncertainty or insecurity, or the fear of it merely, is disastrous to all. Take the banks in any community, for instance, our metropolitan cities of Omaha and Lincoln. We all believe and know that they are all admirably managed and safe and sound, yet they all have their individuality and their opportu-

ity to build their business along other lines than that of any question as to their individual soundness. It is the same with the merchant as with the banker. You have a number of commercial establishments in your city, all of them equally sound financially, yet their individuality is not lost in the least nor any proper method of building up their business denied to them. People will always have their preferences in banking and other reasons should determine men's choice in selecting their bank than that of the safety of their money.

POSTAL SAVINGS BANKS.

The bankers of this country are confronted by another question more vital to them than the question of a bank guarantee tax, and that is the postal savings bank question. Under the law which has now passed the senate and has the endorsement of the president of the United States and the postmaster general, the money deposited in a postal savings bank would not be subject to State or National taxes and would draw in-

(Continued on page 684.)

that in spite of all the losses in all the National banks to depositors, during the last forty years, a period covering the panics of 1873 and 1893, a tax of one-tenth of one per cent upon the deposits in the National banks during that period would have prevented a sufficient sum to have prevented a dollar of loss upon the part of any bank depositor. The expense to the solvent banks would not have been appreciable. In order to be absolutely sure I would advocate a tax of one-fifth of one per cent upon all the deposits in the banks of the country. Under such a law, the expense to a bank with a deposit of \$100,000 would be \$200 per year; on \$150,000, \$300 a year; on \$200,000, \$400 a year. The interest upon a loan of \$3,000 at 8 per cent annual interest would pay the tax upon \$100,000 of deposits; upon a loan of \$5,000, the interest return would pay the tax upon \$200,000 deposits. I do not believe there is a banker here before me to-day who does not believe that a system of insurance and guarantee that would absolutely safeguard the return of the

depositor's money would bring to the banker loanable funds that he does not now receive that would earn for him many times over the amount of expense that he might incur in order to provide for the safety of every dollar entrusted to his care. Bankers, at present, buy business in the shape of deposits in a much more expensive manner than is contemplated under such a law as I advocate. The average country bank in Nebraska pays each year to its depositors from \$1,500 to \$2,000 in interest upon time certificates. They pay 2 per cent upon the daily balances of the county treasurer. All of them who are under the fire of competition absorb and give away exchange to the amount of hundreds of dollars each year. In all of these cases the expenses are incurred solely to gain deposits. I believe that a proper guarantee system would bring to the banks as much new business that now escapes them as is secured by the expenditure in interest and exchange of an amount of from five to ten times as much as their guarantee fund tax would be.

Importance of Live-Stock Industry to the Agriculture of a Country.

(Continued from page 669.)

have an area almost a third as large as the United States. Two-thirds of that is rich, the average is as rich as the prairie lands of Illinois. Their beef is not of the same value, does not bring as much money as ours, but for the last six months the shipments of beef from Buenos Ayres exceeded those from this country, but there is no danger of the markets over there in Europe being glutted. Just a day or two ago I got hold of a little statement that shows what is the meat supply of those millions of people in Europe. The American consul general has reported that the consumption of horse and dog flesh has greatly increased in the German Empire. In the whole of Germany during 1906 upwards of 182,000 horses were slaughtered, an increase of over 20,000 in 1905. Complete figures relative to dogs were not obtainable, but the number slaughtered for food in 1906 was estimated at 7,000. Horse flesh is very generally advertised for sale in German newspapers. Advertisements for dogs to be slaughtered for dog meat are not unusual. The same thing is practically true in Paris, where horse flesh is generally advertised and markets are kept open for the sale of horse flesh. Now we have got to—or at least we ought to—make an effort to supply those people by keeping more of our land in grass, by raising more stock, and by finding an outlet for it, while at the same time we preserve the fertility of our own lands. If we do this we will hand down unimpaired the riches which we have here in this virgin country.

WHY GERMANY CAN NOT SUPPLY HER PEOPLE WITH MEAT.

Why is it that Germany—particularly Germany—is in such straits for food for her people? The price of beefsteak in Berlin is practically prohibitive, as a matter of course. Only the very rich can indulge in it. Now, Germany has shown us that she is anxious to take more of our meat products. I don't want to say anything that resembles politics, but I do want to call your attention to some business in which you are tremendously interested. You will remember when the Dingley tariff bill was passed I took a great deal of interest in it, and while I thought as a whole that the schedules were unreasonably high, terribly high, even for the most extravagant ideas for the protection of American labor, which is the underlying thought, I was largely interested in section 3. Section 3 provided that the President should have power to make treaties with foreign nations, by which the duties on some of their products coming into this country could be reduced for reciprocal reductions on their part. We offered to reduce, and we have reduced, quite recently the duty upon champagne about 20 per cent, and we offered to reduce the duties on cream of tartar, and we have offered to reduce the duties on statuary for reductions which we wish them to make. It was understood that our schedules were purposely made higher in order that there might be a margin upon which the President and Secretary of State could trade. That was declared to be absolutely true by Senator Dilliver on the 3rd of January, 1901. I think it was made to defend the attitude of Mr. Dingley when this thing had been denied. He said that it was true, and it was regarded as a proper and legitimate thing to do. When this bill was passed many members of the Ways and Means Committee of the House and members of the Finance Committee of the Senate spoke of section 3 as being the crowning glory of the bill; that it would enable us to adjust these tariff rates so as to encourage foreign commerce, so as to give nations friendly to us opportunity to make a trade by which they might take some of our surplus, and we could take more of what they had to spare. Unfortunately there was one clause in that section which I did not notice at the time. There was a line in that section which read, "Pro-

vided, such treaty should be made within two years after the passage of the act." I didn't notice it, or at least I didn't think of its importance. I knew that Mr. McKinley had all the negotiations practically made, or arranged for, by which a number of important reciprocity treaties were to be made with foreign countries. If we had one with France particularly, our agricultural products would have been benefited to the extent of millions of dollars a year. They would have taken that much more of our flour, our meat products, products of every possible description. Those treaties came to the Senate, and they laid there month after month. No amount of pleading with Mr. Hanna or Mr. Aldrich would permit those treaties to go before the Senate for consideration. At last the two years expired. I then saw what that meant. All these treaties fell dead, and the President was absolutely without any authority to negotiate treaties of this kind with any nation whatever, no matter what they might offer us. Germany began to take alarm, and when we finally offered a treaty that country agreed to it. It was first simply a treaty of reciprocity by which we agreed to reduce nearly all our duties. That was absolutely filled or appeared to be for a long time, but at the second session, when it was considered, there appeared one little line that wasn't there before. That was, "Provided that no reduction of duties upon sugar shall be made during the life of this treaty with any other nation." Germany regarded this as a direct slap at her. Her principal article of export was sugar. We have been paying more than double as much for sugar as any nation in the world. The world's price of sugar a month or two ago was 2.56 cents per pound. The average wholesale price in this country was 6.50 cents per pound. Germany thinks she has been unfairly treated. She then began to formulate a new system of tariff treaties. She went at it methodically, as she does everything. She had what she called an "autonomist" rate, an extraordinary high rate of duty. One that would absolutely bar out everything that we shipped to Germany. We could not ship her a pound of pork or a pound of beef. She let copper in free of duty, but all our other products were to be absolutely excluded. She had, however, another arrangement which she called "conventional" rates, and which are flexible. She soon had in operation treaties with seven other nations—continental nations. She said to us, On the first of March next our autonomist rates will go into effect. It is now nearly two years that she has shut out everything that we could produce. She said she was prepared at any time to take up the question of reciprocity. Mr. Roosevelt became very much interested in it. The Secretary of State, Mr. Root, whom I regard as one of the greatest men this country has produced, became very much interested. I suggested to him on one occasion that the simplest way to obtain authority was to have the Dingley law amended by reviving section 3, without this limitation clause—two years,

so he consulted with a large numbers of the leaders of the House of Representatives, and he found it was absolutely impossible to get them to consider such a thing as putting back the Dingley law as it was when it was first passed. I regard it as an act of treachery and bad faith, and so does Mr. Root. Why, he said these people obtained 20 per cent more by way of duties than they were entitled to, and now he says they scream louder than anybody when they are asked to give up one single cent.

WHAT THE NATIONAL LIVE STOCK ASSOCIATION IS TRYING TO DO.

We have had organized in this country, originating with the live stock convention in Denver, the National Live Stock Association, two years ago last January, favoring reciprocal trade relations. It appointed a committee to take up the work to endeavor to bring about some way by which that great market would be opened to our meat products. Now, this committee that I spoke of has been strenuously at work. They first called a great convention at Chicago in which all sorts of industries were represented, but the agricultural and the live stock interests predominated. They prepared a platform which pledged the association to work for a maximum and minimum tariff; to work for a commission composed of experts that would recommend from time to time such changes in the tariff as are necessary, taking the tariff out of politics absolutely. I have had something to do with the formulation of two tariff bills, and it is lamentable to see how each man, knowing little or nothing about foreign trade relations, fights for what he thinks his particular district wants. The people are beginning to realize what some of these things mean. But I am advocating a common-sense view of some of our foreign trade relations. Whether we be Democrats or Republicans, we ought all join hands in seeing that it is done in a businesslike way; that it shall not be thrown bodily into the House of Representatives, where everybody will want to get some particular concession for his district, but that we will adopt that system which has been adopted by every other nation in Europe. That is, we should have a maximum and minimum tariff; we should have a commission of experts who will be always in session; who will be always prepared to go abroad and find out what the facts are.

THE PROPER SYSTEM OF AGRICULTURE.

In the maintenance of a proper system of agriculture it is absolutely necessary first that the work that you gentlemen are engaged in, breeding improved stock shall be carried on to the fullest possible extent. I think the time ought to come when no farmer in the State of Kansas would have anything on his farm but pure-bred animals, pure-bred chickens, and everything of that sort. It is not alone a question of dollars and cents; it is not alone what we might make from year to year, that is important, but there is a bigger, higher question. This country of ours, like England, a thousand years from now should still be capable of producing as much of the needs of human life as it is today. We should maintain its fertility. It is the highest kind of patriotism that we should do wise farming. Not simply the rotation of crops, but that lands should be in grass for hundreds of years. They have a saying in England that it takes a hundred years to make a gentleman, but it takes 300 years to make a sod, and it makes that little island the most beautiful that any human has ever resided on. They give attention to every detail. I saw no weeds except little ones; they were absolutely overshadowed by the crops. It is no wonder that no people in the world love their native land as the Englishman. It is not to be wondered at, and I think as most of us have that kind of blood in us, as we are largely descendants of that class of people, as we have been given the most superb domain the sun has ever shone upon, that it is our duty to have that kind of love for the farm. A man's farm ought to be like his sweetheart—nothing too good for it. There is no question about it. There are a great many other things we do in regulation of many things, but that I think is one of the great fundamentals that we have got to keep before us all the time.

Cottonseed-Meal.

Enclosed find a tag taken from a sack of cold-pressed cottonseed cake

100 POUNDS	
COLD PRESSED COTTON SEED CAKE,	
GUARANTEED ANALYSIS:	
Crude Protein.....	24.8 per cent
Crude Fat.....	7 "
Crude Fibre.....	15 "
Nitrogen Free Extract.....	27 "

giving the analysis of the cake. I would like to know the relative value

BLACK LEG VACCINE.

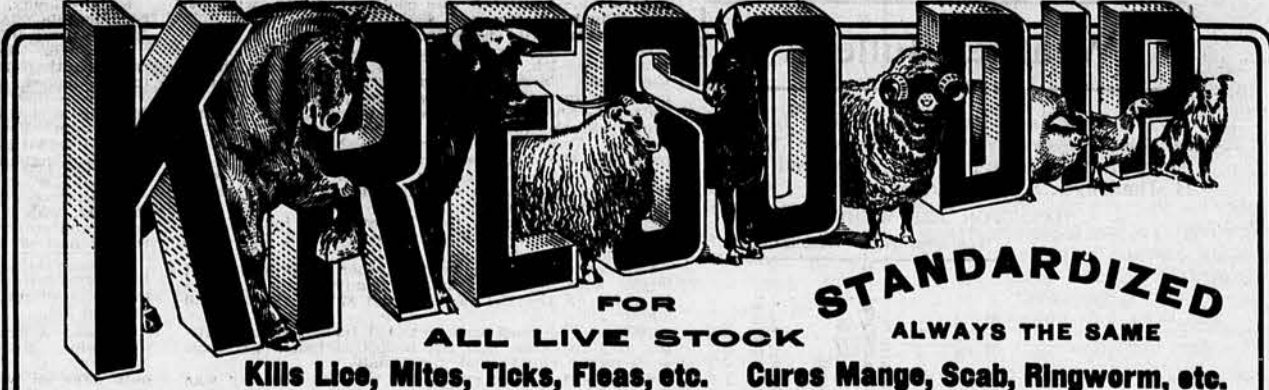
Pills, Cords and Powders—single and double. PRICES, single, 10 doses, \$1; 50 doses, \$4. Double, 10 doses, \$1.50. Largely and successfully used in America and abroad for 9 years.

Sorby Vaccine Company,

Sole agents for

Pasteur's, Cutter's, Bruschettini's & Merck's Vaccines and Serums.

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KRESCODIP

FOR ALL LIVE STOCK ALWAYS THE SAME

Kills Lice, Mites, Ticks, Fleas, etc. Cures Mange, Scab, Ringworm, etc.

EASY AND SAFE TO USE.

FOR SALE AT DRUG STORES EVERYWHERE. WRITE FOR FREE BOOKLETS.

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DEPARTMENT OF ANIMAL INDUSTRY,
DETROIT, MICHIGAN, U. S. A.

BRANCHES:

London, Eng. Montreal, Que.
Sidney, N. S. W.
St. Petersburg, Russia.
Bombay, India.

of cold-pressed cottonseed cake at \$28.50 per ton compared with corn at 60 cents per bushel for fattening 1- and 2-year-old cattle, using alfalfa hay at \$9.00 per ton.

W. S. BALL.

Republic County.

Ordinarily cottonseed-meal is used only as a complement to corn in cattle feeding. In total digestible nutrients corn is considerably superior to this cold-pressed cottonseed cake, concerning which you inquire. It contains, however, over twice as much crude protein as corn, corn being deficient in this material. The use of alfalfa hay, however, as roughage would supply the deficiency in protein so that there would be comparatively little reason for using the cottonseed.

The composition of corn is as follows: 10.3 per cent crude protein; 2.2 per cent crude fibre; 70.4 per cent nitrogen free extract, this being the starch of the corn; and 5 per cent crude fat; the remainder being water and a small amount of mineral matter. You will see in making a direct comparison the cottonseed has considerably more crude fiber, which is the less digestible part of the seed. The nitrogen free extract or starchy material is very high in corn. This is simply a fat nutrient.

At the prices you mention, considering the fact that you have alfalfa hay as a roughage, I would hardly consider it necessary or desirable to substitute very much cottonseed cake for corn. Two or three pounds daily will give variety to the ration and will induce rather better gains than the clear corn. Of course the probability of profits in feeding cattle these expensive feeds will largely depend upon what these cattle cost you in the feed-lot as feeders and the probable price which you will receive for them when marketed. A wide margin will be necessary with feeds at present prices.

G. C. WHEELER.

Discussion on Dual-Purpose Cattle at the Kansas Improved Stock Breeders' Association.

Mr. Potter: This is the same old straw that we have thrashed over these many years, this dual-purpose question. I wouldn't be surprised to see it come before an organization of agriculturists or farmers, but I supposed the leading thought in our organization here is blooded stock of the purest kind. Now, from that viewpoint I don't see how the dual-purpose comes in at all. If my friend Robison here had determined to raise dual-purpose horses we would never have seen those grand Percherons we see down at Wichita every year for sale. That isn't his idea, I am sure. He has certainly aimed at the best of the breed, and the same is true of our standard-bred cattle. If the standard-bred man aimed to get something that is a good, all-around "something" we would never have known what the idea was. For instance, I have a pretty complicated building that I want to erect and I come down here and say, "I am hunting a dual-purpose architect. I want some fellow that will go down and design my building and carry it through, everything, will tell me all about the different branches of this building that comes in. I want a man that has devoted his life to the construction of the kind of a building that I want. You get this dual-purpose idea. What do you want to accomplish? What does this breeders' association aim at? Why, we boast that we are having the ideals, and you can not get the idea from the dual-purpose animal. If you want to go into the dairy business and reach it in its most perfect manner you must raise an animal which has the best condition of makeup for the deposit of butter-fat in the place in which butter-fat should be deposited. I want to say, my beef friends, I am a beef-maker. I want to put beef where it will be most salable. I don't want a fat Jersey cow, or fat Jersey steer, I want a steer whose ideal is to give me the cuts of loin that will sell for the highest price, and as breeders I do not see

any room for this discussion. I am very much opposed to any ideal purpose conditions.

Mr. Dowling: I think our friend Potter is taking too narrow a view of this association, as I have understood it ever since I have been in here. Now I don't understand that this is a pure breeders' association. The very name of it implies "improved" breeders' association. Now, I am up here on a farm, and I wouldn't give very much for a cow just to get a steer from, because now the steer isn't worth very much after you have got him raised. I want a pure-bred Short-horn cow that will give a good mess of milk; that will pay her way. I have got a cow up there and I sold her calf for \$35 and then went right on milking her, and she paid her way. I don't think we ought to cut out a cow of that kind.

Mr. Sutton: This is a great big country. There is room for all of us here. But this dual-purpose proposition, of course a certain line of people may take it up and may think they are profiting by it, but I don't think you can name any dual-purpose machine that is a success. This is a day of specialty. If you want a surgeon to cut your leg off you don't want a doctor, you want a man that is right up in surgery. Mr. Blair says that the shows at Chicago have proven that the animal that may have been perfection on foot may be a failure when it comes to the slaughter test. In one case, the case of the Hereford steer, I have forgotten his name, he was a very wasteful carcass, but I think a great deal of that must be laid to his feeding. At the same show there was a Red Polled steer in the test, and when he was weighed he made a good showing but when it came to the slaughter test it was deemed by Mr. White as a very wasteful carcass. At the same show I heard Professor Shaw, who is quoted in this paper, call a lot of gentlemen who were breeding Red Polled cattle together, and say to them: "Gentlemen, you are aiming wrong. You have got all types imaginable in this ring. Are you trying to breed beef cattle or dairy cattle?" You have certainly got to choose one or the other. You must remember the one thing, that it takes so many pounds of corn and so many pounds of hay to make a pound of butter and it takes so many pounds of corn and so many pounds of hay to make a pound of fat flesh, and you can not put the same number of pounds into any one animal that lives and get the maximum of beef and the maximum of milk from that same feed. You have got to have a cow or steer that will specialize. It has either got to go into the milk pail or on his back. You have got to have so many pounds of nourishment in there to sustain the body, and then go on and make the pound of milk. They don't attain perfection in the cow that gives a large quantity of milk. As a rule she don't make beef.

Colonel Robison: Now, as Mr. Sutton began his talk he said this is a broad country. It is. There is room for all. How did he get this perfection in one of those lines; it wasn't born or created, it was brought up. The surrounding conditions and the skill of the breeder differentiated the old native cow and the native horse and the native hog. It run them in different lines. The question with this dual-purpose is, is there a demand for them? If there is a demand for a dual-purpose cow it is only right and proper that the dual-purpose breeder should fill that demand, and I believe there is a demand. I do not expect they will ever bring that dual-purpose to the highest perfection as a beef or as a dairy animal, but they will approximate both of them. They will make a cow that is wanted on the farm to raise the calf, to grow the steer, to feed, to make a good beef, and to furnish the family with another calf, or two or three. About the question of where to get that calf, there is no trouble. In all the cities, they have the Jersey, the Holstein, Short-horn, and Red Polled. You can select those calves and put onto that cow, if

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you do not want the milk in the family, and raise the calf to a good, thrifty condition. Mr. Sutton says that they must take in beef-making products, protein and the other combinations, to fill up and make beef. That is true, but every animal does not utilize the protein that is taken in for the same purposes, and not in the same economy. Some of them digest more cleanly than others, more fully, get all there is in the feed out of it, some of them less than that, and some of them have the faculty of laying it on in one part of the anatomy and some another. Now, we raise only a few of the top cattle. How many cattle are selling at 7 cents a pound in this country? Very few, and most of them do not pay, as it is very rarely that a 7-cent steer pays. There never was a steer fed that was fed to show at the International show in Chicago, or the Royal at Kansas City, at market prices that paid for the feeding of that steer. They fed it for glory; they fed it for show purposes, which was all right. The steer's mother or his father or his cousins did pay for the value of that steer taking the ribbon. Because he got the ribbon his blood was of more value. It was the same with this dual-purpose cow in those experiments in England and in this country. It shows that they did feel the need of the dual-purpose cow. The Rothschild herd is noted the world over, especially for the Short-horn and the Jersey. Now, I do not believe there is anybody here who will not admit that there is room for those two breeds. To bring a horse to the highest degree of perfection, we must keep him separate as he grows up. We must recognize the good that generation after generation of breeding has done for hundreds of years. Nine-tenths of all the Percheron horses in this country run back to old Gondolfin of Arabia. We know that since that time the running horse of England was used, the Brittany horse was used, and a very considerable lot of old Flanders, a great big, heavy horse was used, and they combined them all together in a breed known as the French Draft breed. They have differentiated since, and Mr. Dunham of this country made the first pedigree in France. They had no pedigree before. The improvement of the present Percheron horse comes from the American demand that was created there for it. The French people tried to fill that demand, and you know how well they have succeeded. We build up. The Shorthorn men, the Hereford men, the Jersey men, the Red Poll men, all of them will admit that they are improving that stock.

Mr. Shinn: Dual-purpose in no sense means a cross, if I know anything about it. There is use for the Jerseys, there is use for the Holstein, for the Shorthorn, for the White Face; there is use for the great horses, there is use for our Standard-bred, but they should not be crossed, they should be bred in line, and the very best line is the line that should be kept. Take Standard-breds, those noble, fine animals, eleven, twelve, thirteen hundred—what could be better in their place, and their place is filled very largely in Kansas, too.

Mr. Burton: I believe that there is a place for the dual-purpose cow. It is not necessary for me to say that I am a Holstein and Jersey cow man. I have owned but very few Red Polls, but among that few I have had some very good ones, and to be candid with

you, I am not sure but what the Red Poll cow is about the thing for the ordinary farmer, but for the dairyman she is not, and for the beef-raiser she is not. The cow is largely, as has been stated before, a machine, and the success of that machine depends largely upon the man or woman who runs it. Now, I was a little bit surprised at our friend Sutton, who took the position that you would feed the dairy cow and the beef cow about the same ration, so much corn, so much hay. To produce beef requires one kind of feed, to produce milk requires another kind of feed. I believe my friend Potter or Governor Glick might take a Red Polled cow from Wilkie Blair's herd. I believe that Governor Glick and friend Potter can make a success of raising beef from that cow, and I feel sure I can make a success of producing milk from that cow, but we will not feed alike. But there is a special-purpose cow and a special-purpose horse. I don't believe a dairyman in any country will make as much from the dual-purpose cow in the production of butter or cheese as he would if he should take a special-purpose cow, a Jersey or a Holstein. I believe the farmer don't make any great mistake when he gets a herd of Red Polled cows and treats them as Red Polled cows. He produces, perhaps, as much milk as he wants at the price he gets, and his calves sell well.

Senator Harris: I do not know how much time we are supposed to devote to this discussion, but I can hardly help saying a word or two, although it has been a long time since I have had the pleasure of talking to this audience. When we start in this discussion, we start with animals that have a dual function to commence with. Take the cow, as was said by the gentleman that just preceded me, of course there was a difference in the feed, but all over this broad country of ours are cows that are doing two kinds of work. As Mr. Robison said the demand is for cows that can do two kinds of work. The demand all over the United States is for a cow that will not only produce a calf, but will produce more milk than that calf can possibly take. It don't make any difference whether you think that is in the right direction or not. No cow east of the Missouri River to-day can justify her existence if she does nothing but produce a calf, and no cow east of the Missouri River can justify her existence if she does nothing but produce milk. I do not believe in cross breeding at all. We have got to have a cow that will not only raise her calf, but will be able to take another calf and raise that. I have seen Shorthorns raise three calves, and I believe they can be bred so as to do that. I have had cows make fourteen pounds of butter a week without any trouble and yet raise two calves. It can be done. It all depends on the way you handle her. Now, it seems to me we have got to differentiate between the way we handle the cattle, but we must recognize the fact that there is a demand all over this country for a cow that will do more than one special thing, just as there is a demand for a horse that will do something more than one thing. The great demand over the country is in the direction of what the Government is now doing for a general-purpose horse. They call it a general carriage horse, but it is really a general-purpose horse. It is pure-bred, but it is simply being developed by selection,

and I believe a great deal of good will come of it. For example, we all know the old Morgan horse. There was a horse that could go on the road and do creditable work, or he could go in the field and do his part of the work, and he possesses the greatest longevity of any breed of horses that we have ever had in this country. We have got to have cows that will do more than produce simply a single calf. There is a demand for the dual-purpose cow all over this country.

Guarantee of Deposits Law.

(Continued from page 683.)

Interest at 2 per cent per annum no matter how small the amount. These two provisions alone, in my judgment, would practically destroy the profit in a majority of the banks in the country districts of this State. Your deposits are largely gathered from a class of men who are not borrowers of you, but deposit their savings with you either because of interest received or for the purpose of safety. They are under no obligations to you whatever. They do not come to you at certain seasons of the year asking for credit, as men in commercial lines do and thereby placing themselves more or less under obligations to you, but they are absolutely at liberty to place their funds where they choose. You know, as a matter of fact, that you can not compete at present in the public estimation with Uncle Sam upon the score of security as a paymaster and 2 per cent upon balances offered by Uncle Sam would be more alluring to the average conservative depositor than a payment of 4 per cent would be upon your part and you would be compelled to pay it upon all of your deposits if you were to place yourself upon a par with the postal bank.

From the standpoint of the best interests of a community the gathering of the savings of a neighborhood into the postal savings bank would mean that these funds would be largely retired from use so far as the local borrower was concerned. The government may entrust the postmaster with the responsibility of receiving the people's money but would hardly empower him with the responsibility of passing upon the credit of those who might wish to borrow it. In my judgment it is futile to strive to stay the rising tide of public demand for postal savings banks with resolutions or political appeals. The public has already prejudiced the banker as a prejudiced juror and unwilling witness. It reminds me of the old lady who attempted to sweep back the Atlantic Ocean with mop and broom. No matter how much one might be tempted to try to fool people he should never try to fool himself. The ever-increasing demand for a postal savings bank law comes not because the government needs the money nor the people want to loan it to them, but is primarily and solely because of the fact that by reason of such exhibition as the banks were forced to make during the last panic and other panics, the people desire a surer paymaster and a more certain, sure and safe depository for their savings. Instead of permitting the movement to go on until it overwhelms the smaller country banks of the Nation whose profits would be largely absorbed by the enactment of a postal savings bank law, you should act before it is too late. Why fiddle while Rome burns? You may not desire a postal savings bank law or a guarantee law but it needs no ghost from the grave to tell us that you must seize upon one horn or the other of the dilemma, and instead of a law which shall gather the savings of a people in the smaller communities and carry them away into the coffers of the government depositories where they can never be available to the people who have contributed them, let us under government supervision and guarantee enact a law that will make the money of the people in every community deposited in their home banks as safe as a postal sav-

ings bank would be and thus keep the money in the channels of trade where it rightfully belongs, and available for the use of the community that has made possible the accumulation of these funds. The open advocacy of such a law by the united bankers of the State would do more in my judgment to firmly establish themselves in the good graces of our people and repair any injury suffered because of the last panic than any other measure under consideration.

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Poultry Notes.

The chances are that the 1908 crop of chickens will be very light. Reports reach us of great mortality among young chicks, owing principally to the severe wet weather we are having. The stock of old chickens is also being diminished at a great rate. This is caused on account of the high price of feed. The consequence of this will be better prices for poultry, both for young and old stock, though one can not complain of the present prices. The high price of beef has created a larger demand for poultry, for people find chicken much more economical at fifteen cents per pound than beefsteak at twenty-five cents per pound.

The feed trough, or rather the feed hopper, that is kept full of grain is the lazy man's method of feeding, and it is not only expensive because it induces the hens to eat at all hours of the day, but it causes them to fatten and become subject to disease, thus diminishing the supply of eggs. When feeding the hens with grain, let it be scattered wide and in plenty of litter, which not only prevents the greedy hens from securing more than their share, but compels all to scratch for it, thereby taking exercise and remaining in better condition for laying. The hopper system may answer for the growing chicks but will not do for laying hens.

Breeds of opposite characteristics will not blend. Experiments with the crossing of cattle, using the beef and the butter breeds, have not been satisfactory, while the man who would attempt to improve the fine Merinos by using the mutton breeds of sheep would be considered unwise. The attempts that have been made with poultry have been equally barren of results as with larger stock. Every farm furnishes abundant proof of this. As a rule, nearly all farmers have at times procured pure-bred fowls, but crossed the breeds, and the mixed, motley nondescripts, which can be seen on the majority of farms are the evidence of the attempts to secure vigor by crossing. They have no fixed characteristics, no two of them are alike in color and they do not pay as well as pure-breds. It is a waste of time and money to cross two pure-breds, expecting to realize the good traits of both breeds. Surely there are enough different varieties of fowls to suit all tastes and all requirements, without bothering with crossing in the attempt to get something that is unattainable.

A large number of cold-storage poultry, as well as cold-storage eggs, are sold, but buyers are beginning to recognize the fact that the fresh, home-bred article is better and is paying a difference, therefore, creating two distinct markets, "choice" and "inferior," and the question is left for the farmer to decide. The prospects of the farmer, so far as the profits from poultry are concerned, depend upon himself. With high prices for beef, the demand for the best poultry will not diminish, as there is a class of buyers who care nothing at all for the cost, if they can procure what they

desire. So long as the farmer neglects the proper breeding of his fowls, and relies on food only, he will be laboring at a disadvantage. Fresh eggs bring higher prices in proportion to cost of production, than any other article on the farm, and such being the case, farmers should have more poultry and eggs to sell, instead of devoting the whole of their time to crops which give no profit at all. Without proper appliances and proper buildings this can not be done to advantage, and the farmer should see to it that his fowls have at least a small share of the good buildings on his farm.

The Poultry Gazette Free.

Every reader of THE KANSAS FARMER is more or less interested in poultry. Perhaps in a poultry journal.

Any one who will send in \$1 for a year's subscription, new or old, to THE KANSAS FARMER before July 4 next will be given one year's subscription to the Poultry Gazette as a premium.

Sometimes the old ring-streaked and speckled hen will lay the best of any in the yard; but don't conclude that that always ought to be true. Breed does tell, in hens as well as in everything else.

"Dry" hens and those that lay ought not to be fed alike. Separate them and feed according to the business that is being done.

THE MARKETS.

Kansas City Grain and Produce.

Kansas City, Mo., June 8, 1908. There was very good trading in the grain pit to-day, but it was largely of a professional nature and the general tone of the market was very bearish. Every one wanted to sell and prices were lower all round the latter part of the day. There was a holiday in Europe and the domestic conditions controlled the market. The government report was made public a little before the close and it was bearish. Winter wheat was put at .86, against 77.4 June last year. This was a little less than expected. Spring wheat at .95 is high and is 7.7 points higher than June last year, and the combined indicate a total crop of about 720,000,000 bushels. With this showing there was a general disposition to sell. July wheat started the day steady and then sold up 1c when the market broke on realizing and declined 2c from the high point of the day and closed 1/4c lower than on Saturday. September also advanced a little the earlier part of the day, then broke and finally closed 1/4c off. Corn, in sympathy with wheat, was also lower and dull, but little trading in it one way or the other. July closed 1 1/4c lower and September lost 1c. Kansas City futures to-day and Saturday:

WHEAT.					
	Open.	High.	Low.	Closed to-day.	Closed Sat.
July	81 1/4	82 1/4	80 3/4	80 1/4	81 1/4
Sept.	79 1/4	80	78 1/4	78 1/4	79 1/4
Dec.	80	80	79 1/4	79 1/4	80

CORN.					
	Open.	High.	Low.	Closed to-day.	Closed Sat.
July	65 1/4	65 1/4	63 1/4	63 1/4	61 1/4
Sept.	61 1/4	61 1/4	60 1/4	60 1/4	61 1/4
Dec.	61 1/4	61 1/4-61	59 1/4	59 1/4	61 1/4

In store: Wheat, 746,000 bushels; corn, 9,300 bushels; oats, 11,200 bushels; rye, 1,900 bushels.

Wheat.—Receipts past 48 hours, 40 cars; shipments, 55 cars. Receipts same time last year, 60 cars; shipments, 67 cars. Inspections Saturday, 29 cars. While there was no especial life to the cash market to-day yet the demand was equal to the light supply. Prices, however, ruled lower, 1/2c under the influence of the high water and threatened floods. More favorable weather also helped to make buyers bearish. Wheat is now ready to cut in Texas and Oklahoma and the weather there to-day was fair. The government crop report was bearing, indicating a total yield of winter and spring of 720,000,000 bushels. No cables, it being a holiday in Europe and the United Kingdom. The visible supply in the United States and Canada decreased last week 1,641,000 bushels, but this had no influence upon the cash market, in the face of the bright crop prospects. The primary receipts were 515,000 bushels, against 335,000 bushels the same day last year; shipments, 319,000 bushels. Export clearances from the four Atlantic ports, 556,000 bushels. In Chicago July closed 1 1/4c lower and here the same option last 1/4c. By sample on track here at Kansas City: No. 2 hard, choice turkey, 1 car 96c, 1 car 95c; fair to good turkey, 1 car 94c, 3 cars 93 1/4c; dark, 7 cars 93c, 3 cars 92 1/4c, 2 cars 92c. No. 3 hard, choice turkey, 1 car 94c & yellow and ordinary 2 cars 89c, 2 cars like sample 88c, 2 cars 88c, 1 car like sample 87 1/4c, 1 car 87c. No. 4 hard, nominally 91@92c for turkey and dark; fair to good, 1 car 87 1/4c; ordinary 4 cars 86c, 2 cars 85c, 2 cars 84c, 1 car poor 83c, 1 car 82c, 1 car like sample 80c. Rejected hard, 1 car smutty 81 1/4c. Live weevil hard, 2 cars 83c. No. 2 red, nominally 94@96c. No. 3 red, nominally 92@94c. No. 4 red, nominally 83@82c. Durum wheat, No. 2, nominally 80@82c. White spring wheat, No. 2, 1 car 87c.

Corn.—Receipts past 24 hours, 45 cars; shipments, 21 cars. Receipts same time last year, 72 cars; shipments, 30 cars. Inspections Saturday, 25 cars. The market for this grain to-day as well as for wheat was lower and very uneven. The threatened flood conditions of the Kaw and Missouri River making both the railroads and elevator people very cautious and prices were very uneven according to the location of the corn. The market was called 1/2c lower than on Saturday. But at the prices there was a very good demand and by the close the offerings had been pretty well worked off. There was a holiday in Liverpool. The visible supply in the United States and Canada decreased last week 1,285,000 bushels. But this had no influence

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buys 15 eggs from Smith's laying strain of Barred Rocks the balance of the season. Eggs shipped as they come; choice. Choice breeders. Prices right. CHAS. E. SMITH, Route 2, Mayetta, Kans.

White Plymouth Rocks EXCLUSIVELY.

For 16 years I have bred W. P. Rocks exclusively, and have them as good as can be found anywhere. I sell eggs from first-class, high-scoring stock at live and let-live prices, \$2 per 15, \$5 per 45, and I pay the expressage to any express office in the United States.

Thomas Owen, Sta. B, Topeka, Kans.

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Choice pure-bred cockerels for sale. Write or call on

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

WHITE WYANDOTTE EGGS for hatching \$1 per 15 or \$5 per 100. Mrs. E. F. Ney, Bonner Springs, Kans.

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S. C. BROWN LEGHORN EGGS from our standard bred flock; sterling quality, rest of season \$1 per 30, \$1.50 per 60 or \$3 per 100. Our motto: Fine birds, moderate prices. L. H. Hastings, Quincy, Kans.

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STANDARD-BRED S. C. Buff Leghorns founded by stock of prize-winners of Chicago and St. Louis World's Fairs, and have taken 1st wherever shown. Stock for sale; eggs in season from pens scoring 90 to 95. No. 1 pen, \$2.50 for 15; No. 2, \$1.30 for 15. S. Perkins, 801 E. First St., Newton, Kans.

Rose Comb Brown Leghorns Exclusively. Farm raised. Eggs per sitting of 15, \$1; per 60, \$2; per 100, \$3.50. F. H. Mahon, R. R. 3, Clyde, Cloud Co., Kans.

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R. C. W. Leghorn and White Wyandotte stock for sale. Eggs in season. 1st pen Leghorns headed by 1st cockerel Madison Square Garden, N. Y. Write your wants. JOHN DITCH, Prop., Galva, Kans.

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LARGE BUFF ORPINGTONS—Eggs for sale. \$1.25 for 15. Mrs. Frank Henning, Route No. 1 Garnett, Kans.

S. C. BUFF ORPINGTONS—Prize winners, big shows. Best winter layers. Great money makers. Breeders, eggs, baby chicks. Catalog tells. W. H. Maxwell, 1906 McVicar Ave., Topeka, Kans.

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SCOTCH COLLIES.

SCOTCH COLLIE—Pups from trained parents, \$5 each. Will Killough, Ottawa, Kans.

SCOTCH COLLIES—Pups and young dogs from the best blood in Scotland and America now for sale. All of my brood bitches and stud dogs are registered, well trained and natural workers. Emporia Kennels, Emporia, Kans. W. H. Richards.

 **SCOTCH COLLIES** of the best breeding, have the intelligence of a human. For particulars address, DEER LAKE PARK, SEVERY, KAN.

Scotch Collies.

Fifty-seven Collie puppies just old enough to ship. Place your orders early, so you can get one of the choice ones.

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If you want a good incubator in a hurry write to the undersigned. He keeps the Old Trusty Incubator (hot water) and the Compound (hot air), two of the best incubators made. Also the Zero brooder, no better made. It pays to buy a good brooder. No use hatching chicks without a good brooder to raise them. The Zero will raise every chick you put in it.

THOMAS OWEN, Sta. B, Topeka, Kans.

on the market in the face of promised better weather and increased receipts. The primary receipts were 682,000 bushels, against 1,647,000 bushels the same day last year; shipments, 685,000 bushels. Export clearances from the four Atlantic ports 2,000 bushels. In Chicago, July closed 1/4c lower than on Saturday, while here the same option lost 1/4c. By sample on track here at Kansas City: No. 1 mixed, 1 car 70c; 2 cars 69 1/2c; 2 cars No. 2 mixed, 1 car 68 1/2c; 4 cars 67c. No. 3 mixed, 2 cars 68 1/2c; 1 car 68 1/2c; 1 car bulkhead, 68 1/2c; 2 cars 68 1/2c; 2 cars 68c. No. 4 mixed, 3 cars 1 car 68 1/2c; 2 cars 68c. No. 4 yellow, nominally 68 1/2c. No. 2 white, 2 cars 72 1/2c; 1 car 72c; 1 car 71c. No. 3 white, nominally 68 1/2c. No. 4 white, nominally 68 1/2c.

Oats.—Receipts same time last year 18 cars; shipments, 16 cars. Inspections Saturday, 20 cars. There was fair demand for this grain to-day but the market was lower 1/2c in sympathy with wheat and corn. The threatened condition of the rivers here and the cautious attitude of the railroads in accepting shipments made buyers very cautious and bearish. The market was slow as well as lower. The visible supply in the United States and Canada showed a decrease last week of 1,831,000 bushels. But this had no influence upon price making in the face of the government crop report which put its condition at .92 and indicated a yield of 1,000,000 bushels. In Chicago July closed 1/4c lower while here there was nothing doing in a speculative way. By sample on track here at Kansas City: No. 2 mixed, choice, 1 car 49c; red, 1 car 50c. No. 3 mixed, choice, 1 car 48c; No. 4 mixed, fair to good, 1 car 48c. No. 2 white, choice, 1 car 54 1/2c; fair to good, 2 cars 52c; color, 1 car 52c. No. 3 white, fair to good, 3 cars 51c; 1 car like sample, 50 1/2c; 2 cars 50 1/2c; color, 1 car 50 1/2c.

Rye.—Receipts past 48 hours, — cars; shipments, 1 car. Receipts same time last year, — cars; shipments, 1 car. Inspections Saturday, — cars. There was nothing done in this grain to-day for the want of offerings. Prices nominally lower in sympathy with wheat. By sample on track: No. 2, nominally 75 1/2c; No. 3, nominally 72 1/2c. Barley.—No. 2, nominally 63 1/2c; No. 3, nominally 58 1/2c.

Flour.—Market quiet but weak. The quotations: Hard winter wheat patents, \$4.30@4.85; straight, \$4.35@4.55; clears, \$3.70@3.90; soft patents, \$4.90@5.15; straight, \$4.60@4.80; clears, \$1.50. Corn Chop.—Dull and lower with corn. Country, \$1.28 per cwt., sacked. Cornmeal.—Lower with corn. Quoted at \$1.42 per cwt., sacked. Mixed feed, \$1.07@1.08 per cwt., sacked; straight bran, \$1.05@1.06; shorts, \$1.10@1.15. Flaxseed.—Higher at \$1.10 upon the basis of pure.

Cottonseed-Meal.—All points in Kansas and Missouri, taking Kansas City rates, \$27.90 per ton in car lots. Ground Oil-Cake.—Car lots, \$30 per ton; 2,000-pound lots, \$31; 1,000-pound lots, \$16; 100-pound lots, \$1.70.

Castor Beans.—In car lots, \$1.65 per bushel. Seeds.—Timothy, \$3.80@4.25 per cwt.; red clover, \$14@17 per cwt.; Kafir-corn, \$1.24@1.25 per cwt.; cane, \$2.25@2.30 per cwt.; millet, \$1.35@1.50.

Alfalfa.—Per cwt., \$11@14. Broccorn.—Quotations: Choice green self-working, \$70@75; good self-working, \$70@75; good self-working, \$60@70; slightly tipped self-working, \$50@60; red tipped self-working, \$40@50c; common self-working, \$30@40.

Kansas City Live Stock.

Kansas City, Mo., June 8, 1908. Although there was an increase in cattle receipts last week over the previous week, the total was still moderate, at 30,000 head, which was 13,000 head less than same week last year. The market advanced 25¢@50¢ for the week, and closed at the high point of the year on all killing grades. The conditions were unnatural, and the advance was because of shortage in the supply rather than account of any strong demand for meats. Recent floods have held down receipts, and as soon as transportation lines open up it is conceded that a drop in prices for everything except prime feed stuff is due. Packers will welcome the decline, as it will allow them to tempt greater consumption of meats through the medium of lower retail prices. To-day the run here is 10,000 head, market uneven, because of fears of local packers that there will be a flood here, although the danger is not imminent. Some of the packing house cellars have already been flooded, and some further rise is expected, but the breast of the water will be reached within twenty-four hours, and as no rain is falling in the valley of the Kaw or its tributaries to-day, fears of a flood here will be dissipated within forty-eight hours. Prices range from steady to 15c lower to-day, top steers \$7.10, bulk of fed steers \$6.40@7, grass steers in native division \$5@6, cows \$5@5.25, heifers \$3.75@6.50, veals a quarter lower than a week ago, tops \$5.75, bulls \$3.25@5. Stockers and feeders gained 15¢@25c first of last week, but closed the week with the advance lost, and are a quarter lower to-day, with a small demand. Stockers bring \$3.50@5, feeders \$4@5.25. Hog supply last week was 89,000 head, fairly heavy, and the market made a small net loss for the week. Demand was strong from all hands most of the week. Run to-day is 10,000 head, market slow and 10¢@15c lower, mainly because of fears of packers respecting the flood. Top to-day is \$5.35, bulk \$5.10@5.25. With a recession of the flood waters, the situation will be strong, as pork is selling higher to-day, and as some of the railroads are refusing shipments of stock in the country to-day, receipts next few days will be small. All of the roads are open east of Kansas City.

Sheep and lambs sold dull and lower last week, 25¢@40c below the previous week, and lowest of the season. Run is 2,000 to-day, and buyers secured stronger prices for them, lambs worth \$5@6.35, wethers \$4@4.50; ewes \$3.75@4.15; stock and feeding sheep \$3.25@3.65. Indications favor a period of moderate receipts, with a chance for some recuperation in the market. J. A. RICKART.

South St. Joseph Live Stock.

South St. Joseph, Mo., June 8, 1908. Cattle, receipts 1,046 head. Market steady; natives, \$5.75@7.40; cows and heifers, \$2@6.25; stockers and feeders, \$4@5.10. Hog receipts, 7,106 head. Market 5c lower; top, \$5.35; bulk, \$5.20@5.35. Sheep receipts, 1,558 head. Market 15¢@20c higher; lambs, \$4.50@5.90; yearlings and wethers, \$4@4.75.

VARICOCELE

A Safe, Painless Permanent Cure GUARANTEED. 30 years' experience. No money accepted until patient is well. CONSULTATION FREE. Write BOOK FREE. DR. C. M. COLE, 1111 Broadway, New York City.

REAL ESTATE

LAND BARGAINS IN TEXAS AND ELSEWHERE

25,000 acres in Pan Handle country at \$8.00 to \$20.00 per acre. 22,000 acres in South Texas consisting of rice, cotton, sugar-cane, and all kinds of fruit lands at \$15.00 to \$25.00 per acre. Also choice fertile lands in the Artesian Belt of Texas. We also have a splendid list of Kansas ranches and farms for sale, and 10,000 acres in Colorado. For detailed information,

Address, H. P. RICHARDS,

205-4-7, Bank of Topeka Bldg.,

Topeka

Special Want Column

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

MISCELLANEOUS.

JOB PRINTING—Write us for prices on anything in the job printing line. Address B. A. Wagner, Mgr., 625 Jackson Street, Topeka, Kans.

SEEDS AND PLANTS.

FOR SALE—Early Learning seed corn \$1.25 per bushel. Cane, millet, cow-peas and other reasonable seeds. Quality and prices right. T. Lee Adams, Kansas City, Mo.

FOR SALE—Seasonable Seeds and Plants: Millet, cane, buckwheat, cowpeas, turnip and all other seeds; sweet potato, cabbage, tomato, celery, egg-plant and pepper plants. Ask us for prices. The Barteldes Seed Co., Lawrence, Kans.

PLANTS—Cabbage and Sweet Potato plants, all varieties, 20c per 100, \$1.40 per 1000. Tomatoes, all varieties, 30c per 100, \$2.40 per 1000. Peppers 10c per dozen, 60c per 100. Special prices in large quantities. F. P. Rude & Son, North Topeka, Kans. Both phones.

PLANTS—Cabbage: Early Winningsstad, Henderson's Early Summer, All seasons, Succession, St. Louis Late Market, Late Flat Dutch; 2c per 100, \$1.50 per 1000. Tomato: Early Dwarf Champion, Dwarf Stone, Early Kansas Standard, Matthes, Beauty, Stone; 30c per 100, \$2 per 1000. John McNoun, North Topeka, Kans. Ind. phone 5551.

200,000 Celery Plants.

200,000 large, healthy celery plants for sale. White Plume, Golden Self Blanching, and Silver Self Blanching are the best varieties. 300 plants packed carefully and delivered at express office for \$1, or 1,000 for \$3. Plants ready to ship any time from June 10th to July 15th. A leaflet telling how to grow crisp, tender celery mailed on receipt of 2 cent stamp to pay postage, or free with plants.

600,000 Sweet Potato Plants

600,000 Yellow Jersey and Yellow Nansamond sweet potato plants at \$1.50 per 1,000. Ready to ship now. No order accepted for less than 1,000. We are large growers and guarantee our celery and potato plants to be the best you can get anywhere. Write for circular to-day. Henry S. Jeffries, Ottawa, Kans.

SEED CORN—Early maturing Western Yellow Dent, Farmers Interest and Boone County Special. Each ear tested, sold on approval crated or shelled. DeWall Bros, Box "F," Proctor, Ill.

CATTLE.

REGISTERED ABERDEEN-ANGUS—7 yearling bulls for sale. American Royal prize calf at head of herd. Wheeler & Baldwin, Delphos, Kans.

FOR SALE—One extra good Double Standard Polled Durham bull, 2 years old; also two under 1 year old. C. M. Albright, R. 2, Overbrook, Kans.

FOR SALE—Pure-bred Shorthorn bulls 15 months old. Good individuals and a bargain if taken soon. Colthar & Stein, Smith Center, Kans.

FOR SALE—Three richly bred Shorthorn bulls from 8 1/2 to 10 1/2 months, and a number of good females. Owing to limited pasturage will sell these bulls so the buyer can grow them out and save some good money. C. W. Merriam, Topeka, Kans.

FOR SALE—One richly bred Shorthorn bull and a number of good females. Call on or address C. W. Merriam, Topeka, Kans.

ABERDEEN ANGUS—Yearling bulls, extra good. Sired by Blon Erica 78022, for sale at reasonable prices. T. R. Culver, Garnett, Kans.

REGISTERED Holstein-Friesian bull for sale; 3 years old. J. E. Huey, R. 6, Sta. A, Topeka, Kans.

Stray List

Week Ending May 28.

Keary County—F. L. Pierce, Clerk. **STALLION**—Taken up April 15, 1908, by J. A. Parker, in Hartland tp., one black stallion, branded X Y; valued at \$20.

Scott County—Jno. L. Whitson, Clerk. **MULES**—Taken up, April 18, 1908, by J. W. Needles, in Scott tp., two mare mules, 15 to 20 years old, described as follows: One sorrel, cross-eyed, right ear split, weight about 770 lbs.; one black, with one eye gone, weight about 780 lbs.; valued at \$15 each.

Week Ending June 4.

Saline County—J. P. Burns, Clerk. **STEER**—Taken up by W. H. Todd, in Smoky Hill tp., one red and white yearling steer; no marks or brands visible; valued at \$18.

Week Ending June 11.

Neosho County—O. M. Johnson, Clerk. **MARE**—Taken up by D. E. Kyle in Mission tp. May 13, 1908, one 7-year-old bay mare pony, branded M H on right shoulder; valued at \$30.

Wilson County—W. H. Conan, Clerk. **MARES**—Taken up by W. W. McCarty, May 16, 1908, one bay mare, horsehoe brand on left hip; valued at \$25. One yearling black mare colt, valued at \$12.

The Blossom House

Kansas City, Mo.

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

REAL ESTATE

FOR SALE AT A BARGAIN—A good, well improved farm of 146 acres 6 miles from Mound City, Linn County, Kans. Good alfalfa or wheat land; \$3500. J. D. Bower, Mound City, Kans.

FOR SALE—Good 7-room house, barn, well, 6 lots, fenced, near Washburn. Mrs. Theodore Saxon, 1287 Harrison St., Topeka, Kans.

FOR SALE—Well improved 7 1/2-acre farm just outside city limits. Advantages, and within walking distance of city schools and State University. Easy terms. Jas. S. Williams, Route No. 2, Lawrence, Kans.

"Do You Want to Own Your Own Home?" If so write for catalogue to Hurley & Jennings, Emporia, Kans.

QUARTER SECTION of fine land in Sherman County, close to Goodland, to trade for part horses, cattle or mules. T. J. Kennedy, Uawake, Kans.

80 ACRES, Anderson County, three-fourths of a mile from Amlot. 4-room house, barn for 10 head of stock, good soil, location and water. Price \$3500. B. F. Fridley, Amlot, Kans.

WRITE J. D. S. HANSON, HART, MICH., for best list of fruit, grain and stock farms.

FOR QUICK SALE.

160 acres, well improved, near Geneseo, fine quality wheat and alfalfa land, 100 acres in wheat. Will bear closest investigation. Bargain at \$9100. \$5100 cash will handle. I. R. Krehbiel, Cashier Lorraine State Bank, Lorraine, Kans.

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quickly for cash; the only system of its kind in the world. You get results, not promises; no retaining fees; booklets free. Address: Real Estate Salesman Co., 488 Grace Block, Lincoln, Neb.

MISSOURI FARMS FOR SALE

Everman has a farm for every man. Write for description and price list.

John W. Everman, J. Gallatin, Mo.

Good Alfalfa and Corn Farm

One and one-half miles from good town in Sedgewick county, with two railroads, two banks, good high school; a quarter section of all good alfalfa and corn land, with good 4 room house, good barn, granary and corn crib, small good orchard, all fenced and cross fenced, land is in high state of cultivation, 145 acres in cultivation, balance pasture and alfalfa. Price \$8500.

THE NELSON REAL ESTATE & IMG. CO., 137 North Main, Wichita, Kansas

Wanted---Farm Loans

In Shawnee and adjoining Counties for our own investment; not to sell—payable at Topeka.

RESOURCES - - \$1,100,000

SHAWNEE SAVINGS BANK, Topeka, Kansas.

A Cheap Wheat Farm in Stanton Co., Kans.

160 acres level as a floor. Deep, black soil, ready for the plow. In German settlement south part of the county. Price only \$800.

ALBERT E. KING, McPherson, Kans.

SWINE.

DUROC JERSEYS—Glits either sired by or bred to Tip Top Perfection 34679, due to farrow in April and May. Cheap if taken soon. L. L. Vrooman, Topeka, Kans.

HORSES AND MULES.

FOR SALE—Bay stallion foaled 1906, registered, sound, handsome trotter; grandson of Onward and Norval, two of the best. Would trade for mare as well bred. John W. Yeoman, Lyndon, Kans.

FOR SALE—One black team, 6 and 7 years old, weight 2600 pounds. Mr. and Mrs. Henry Schrader, Wauneta, Kans.

PURE-BRED STOCK SALES.

Shorthorns.

June 11—H. E. Hayes, Olathe, Kans.

Poland-Chinas.

May 30—H. H. Harshaw, Butler, Mo.

August 4—J. F. Hastings, Edgerton, Kans.

October 10—H. H. Harshaw, Butler, Mo., at Harrisonville, Mo.

October 12—E. E. Axline, Oak Grove, Mo.

October 19—Frank Michael, Erie, Kans.

October 19—Herman Groninger, Bendena, Kans.

October 20—J. L. Dorsh, Huron, Kans.

October 22—T. K. Pitcher & Son, Topeka, Kans.

October 23—A. P. Young, Lexington, Mo.

October 30—Geo. W. McKay, Laredo, Mo.

November 10—H. H. Harshaw, Butler, Mo.

November 10—Leyhe & Parcel, Marshall, Mo.

January 21—H. H. Harshaw, Butler, Mo., at Sedalia, Mo.

January 25—Frank Michael, Erie, Kans.

February 4, 1909—F. G. Nies & Son, Goddard, Kans.

February 21—J. W. Hoyle, Dwight, Kans.

February 25—H. H. Harshaw, Butler, Mo.

Duroc-Jerseys.

October 6—N. J. Fuller, Garnett, Kans.

October 7—J. F. Staadt, Ottawa, Kans.

October 8—H. R. Glnrich, Wellsville, Kans.

October 9—O. R. Green, Spring Hill, Kans.

October 20—R. B. Adams & Son, Thayer, Kans.

October 26—Watts & Dunlap, Martin City, Mo., at Independence, Mo.

October 27—G. W. Colwell, Summerfield, Kans.

February 17—R. B. Adams & Son, Thayer, Kans.

Combination Sales.

February 16, 17, 18—J. C. Robinson, Mgr., Towanda, Kans., at Wichita, Kans.

DUROC-JERSEYS

Deep Creek Herd Duroc-Jerseys Choice spring boar pigs and glits for sale; also fall glits. C. O. Anderson, Manhattan, Kans.

MADURA DUROCS.

BROOD SOWS—Some fine brood sows bred to Major Roosevelt and Miller's Nebraska Wonder, he by Nebraska Wonder.

FRED J. MILLER, Wakefield, Kans.

Vick's DUROCS are bred for usefulness. Choice young stock for sale by such great boars as Vick's Improver 4788, Red Top 3241, Fancy Chief 24923 and other noted sires. Correspondence invited. Visitors coming to Junction City and telephoning me will be called for. W. L. VICK, Junction City, Kans.

HILLSIDE DUROCS AND HEREFORDS

Choice boars ready for service. Bred glits and fall pigs, both sexes. Mc's Pride III, Com. Paul V, and Crimmon Knight 32579 in service. Sires good Anxiety bred Hereford bull calves. Prices to correspond with the times.

W. A. WOOD, Elmdale, Kans.

PEERLESS STOCK FARM

DUROC-JERSEY HOGS

FOR SALE.

R. G. SOLLENBERGER, Woodston, Kans.

Silver Lake Durocs.

Fifty fall pigs will be priced right, either sex. Bred glits will be priced right on mail orders. Boars in service, Lone Jack 30731, Paul Jumbo 42309.

W. C. WHITNEY, Agra, Kans.

Howe's DUROCS. 100 early spring pigs, the best I ever raised. Improver, Top Notcher, Sensation and Gold Finch blood lines. Call or write.

J. U. HOWE, Wichita, Kans.

SPECIAL!

I have a car of long yearling bulls, a car of bull calves, a car of yearling heifers and a car of heifer calves for sale. These cattle are all in good growing condition and are mostly reds. They were sired mostly by Baron Ury 2d 124970, Bold Knight 179054 and Heighlight 2d 243806.

C. W. Taylor, R. 2, Enterprise, Kans.

K. & N. Herd Royally Bred Duroc-Jersey Swine

Have a few glits that I will sell at reasonable prices, bred for April farrow. Also a few fall boars of September, 1906, farrow. Write for prices and description.

R. L. WILSON, Chester, Neb.

FOUR-MILE HERD DUROCS

Choice fall boars by Orion Jr. 31497 and Ohio Chief 2d 41197. 50 spring boars, growthy, heavy bones, good feet, nice color; sired by the above named males, and E. L. Kant Be Beat 57563. Crimmon Chief 31263, Rose Top Notcher 54069, You Bet 3111, Tip Top Notcher 20729, and other noted sires. Sows of the best and leading families. Write or visit herd. Visitors met at trains.

E. H. Erickson, R. 1, Olsburg, Kans.

Timber City Durocs

Three herds under one management. Breeding stock for sale. Let us book your order for a growthy spring boar of February and early March farrow. Write to either place.

SAMUELSON BROS.,

Cleburne, Manhattan, Moodyville, Kans.

Orchard Hill Herd Duroc-Jerseys

A few good spring boars yet for sale.

R. F. NORTON, Clay Center, Kans.

OAK GROVE HERD OF DUROCS

Herd headed by Choice Goods H. 36471 by Hunt's Model and Corrector's Model 34831. I have for sale a few choice males of spring and fall farrow that will be priced worth the money.

Sherman Reedy, Hanover, Kans.

DEER CREEK DUROCS

100 pigs of March and April farrow by sons of Ohio Chief, Tip Notcher and Kant Be Beat. Ready for shipment after July 1.

BERT FINCH, Prairie View, Kans.

RALPH HARRIS FARM DUROC-JERSEY HERD

A SPARTE 16

DUROC-JERSEYS

GAYER'S DUROCS: 36 choice fall gilts and 14 topy fall boars by Golden Chieftain, a good son of Ohio Chief. These will be sold cheap to make room for my spring crop. Also 1 good yearling boar, \$25.

J. H. GAYER,
R. R. 1, Cottonwood Falls, Kans.

CEDAR LAWN DUROCS.

Special bargain for 30 days. My herd boar Parker 67633 and a choice lot of his get, both sexes. Gilts sold open or bred to Long Wonder 21867. Prices right. Call or write.

F. M. BUCHHEIM,
R. R. 3, Lecompton, Kans.

SPRING CREEK HERD OF DUROC-JERSEYS.

Choice spring pigs of both sexes for sale. 1 fancy October boar pig by Raven's Pride 63145, dam Rose V 145875 by S. S. Wonder 37489. Write your wants. Ole Nordstrom, Clay Center, Kans.

Fairview Herds—Durocs, Red Polls
Some good young boars by Crimmon Challenger 48877 for sale. No females or Red Polled cattle for sale now.

J. B. DAVIS, Fairview, Brown Co., Kans.

ROSE LAWN Duroc-Jerseys

Gilts bred to farrow in April and May, either sired by or bred to Tip Top Perfection 34879, by Tip Top Notcher, grand champion of the breed, also pigs in pairs or trios. And a few Hereford cattle and Lincoln sheep for immediate sale.

L. L. VROOMAN,
Rose Lawn Place, Topeka, Kansas

BERKSHIRES**MAPLE HEIGHTS HERD BERKSHIRES**

Kansas Longfellow, champion Nebraska State Fair, 1907, and Berryton Boy in service. Have some choice sows and gilts bred for fall litters, for sale. Nice lot of spring pigs to choose from. Write me.

J. M. NELSON, Marysville, Kans.

60 Berkshires For Sale 60

from weaning pigs up to matured animals, including herd boars and old herd sows of Lord Premier, Black Robinhood, Berryton Duke, Masterpiece and Lord Bacon families.

G. D. WILLEMS, Inman, Kans.
Thirteen years a breeder of Berkshires.

Guthrie Ranch Berkshires

The Guthrie Ranch Berkshire herd, headed by Berryton Duke, assisted by Revelation, General Premier and Sir Ivanhoe (all three winners). Berkshires with size, bone and quality. Individuals of style and finish. You will find our satisfied customers in nearly every state in the Union.

T. F. GUTHRIE, Strong City, Kans.

Ridgeview Berkshires —FOR SALE—

One aged and one yearling boar, and spring pigs of both sexes

MANWARING BROS., Lawrence, Kansas
Route 1.

King's Berkshires

Have weight, quality and constitution developed by rustling for the best pork producing food on earth, alfalfa and blue-grass, supplemented with a light ration of grain and millfeed. They are bred right, and best of all they are priced right. Write for anything in Berkshires to,

E. D. KING, Burlington, Kans.

Knollwood Berkshires

Headed by Pacific Duke 56691, dam Marjorie 37491 by Baron Duke 23d 50000, a son of Baron Lee 4th, the sire of Lord Premier and Dutchess 120th 23678, grand dam of Premier Longfellow. Stock of all ages for sale. All stock guaranteed as represented.

E. W. MELVILLE, Eudora, Kans.

GEO. W. BERRY, High-Class Berkshires

R. F. D. No. 4, Lawrence, Kans.

Breeder of Masterpiece, head of the superb Masterpiece family; also Black Robinhood, head of the great Black Robinhood family.

FOR SALE—Show pigs and herd headers, fall of 1907 farrow. Choice boars and gilts at moderate prices.

Sutton's Berkshires

Best imported and American breeding. Fancy boars, herd headers, \$25 to \$50; good boars, 100 to 125 lbs., \$15 to \$25; fancy gilts, bred to show boars, \$25 to \$50; promising open gilts, \$15 to \$30. Strong bone, fancy heads. Every one good.

We offer you Size, Quality and Finish.

SUTTON FARM, Lawrence, Kans.

GALLOWAYS**Smoky Hill Galloways.**

Choice young stock of both sexes for sale. Large herd to select from. Acclimated to buffalo grass country, equally good for Eastern breeders.

Smoky Hill Ranch, Wallace, Kans.

POLAND-CHINAS

Becker's POLAND-CHINAS. Choice fall and spring pigs, either sex, by Dandy Rex 42705, first in class at Kansas and Colorado State Fairs, 1906-4. Prices reasonable.

J. H. BECKER, R. 7, Newton, Kans.

SUNNY SLOPE POLANDS

A number of spring pigs, either sex, the farmers' kind, at bottom prices. Gilts will be sold bred or open. Also a litter of Scotch Collie pups, the great watch and cattle dog.

W. T. HAMMOND, Fortia, Kans.

BOARS! BOARS!

Choice spring males, at right prices, by Grand Chief, Masterpiece, Nonpareil, Choice Chief, R. L. 2d, and other noted sires. Call on or write

THOS. COLLINS, R. 4, Lincoln, Kans.

Stalder's Poland-Chinas.

I have pigs for sale from the leading strains of the country. Prices reasonable. Write for full particulars.

O. W. STALDERS, Salem, Neb.

Maple Valley Herd Poland-Chinas

Some fine gilts bred for April farrow that were sired by On The Line 113401s and Col. Mills 42911, and are bred to Mender's Dream 43921. Also some choice young boars; one fine northern bull calf; B. P. Rock eggs \$1.50 per 15. Have 120 Poland-Chinas and can fill any kind of order. C. P. Brown, Whiting, Kans.

SUNFLOWER HERD.

POLAND-CHINAS—Herd boars, Mender's Defender (19147) by Mender (99999), dam Excit ment (29999) by Corrector (63379); Allen's Corrector (128612) by Corrector (63379), dam Sweet Brier (261790) by Chief Perfection 2d (42569); Kansas Chief (12983) by Chief Perfection 2d (42569), dam Corrector's Gem (250720) by Corrector (63379). G. W. Allen, Route 4, Tongonoxie, Kans.

JONES' COLLEGE VIEW POLANDS.

Several first class boars that are herd-headers; from 6 to 12 months old. Prices reasonable.

W. A. JONES & SON, Ottawa, Ks.
Formerly of VAN METER, Ia., and breeders of CHIEF TECU and R. L. 2d.

JOHN BOLLIN,

Route 5, Leavenworth, Kans.

Breeds and Sells Popular Poland-Chinas

The State and World's Fair winning boars, Nemo L's Duke and The Monarch, in service. Bred sows and serviceable boars for sale.

Highview Breeding Farm

Devoted to the Raising of

Big Boned Spotted Poland-Chinas

The biggest of the big. The prolific kind. Big bones, big hams, big spots. Young stock for sale.

H. L. FAULKNER, Prop., Jamesport, Mo.

H. H. Harshaw, Butler, Mo.,

Breeds the Big Type of Poland-Chinas

Choice stock for sale at all times at moderate prices. Large herd to select from. Show hogs and herd headers of the largest type and no hot air sales. I sell them worth the money and get the money.

Public sale, May 30, at Butler, Mo.

Public sale, October 10, at Harrisonville, Mo.

Public sale, November 10, at Butler, Mo.

Public sale, January 21, at Sedalia, Mo.

Public sale, February 25, at Butler, Mo.

Write me what you want. I will sell them worth the money and guarantee them to please you if you want the big kind with quality. Write for herd catalogue.

CHESTER-WHITES

O. I. C. SWINE
Fall boars and gilts, also spring pigs. They are bred right and will be priced right. Let me know your wants. **S. W. ARTZ, Larned, Kans.**

O. I. C. BARGAINS

Bred sows and gilts all sold. Have a fine bunch of spring pigs for which I am booking orders. Write your wants and get prices.

W. S. GODLOVE, Ouga, Kans.

Prop. Andrew Carnegie herd O. I. C. swine.

HEREFORDS**Maplewood Herefords**

5 bulls, all tops, from 12 to 16 months old; and a few choice females, by the 2400-pound Dale Duplicate 2d, son of the great Columbus. Stock guaranteed. Prices reasonable. A. Johnson, Clearwater, Kans.

ABERDEEN-ANGUS**Allendale Stock Farm**

Pure-bred Aberdeen-Angus cattle. All leading families represented. A few good herd bulls for sale.

W. A. HOLT, Savannah, Mo.

HORSES AND MULES**HORSES AND MULES****ROBISON'S PERCHERONS**

FOR SALE—Two extra good 2-year-old stallions; and some good young mares bred to Casino.

J. C. ROBISON, Towanda, Kans.

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Herd headed by the Dutchess of Gloster bull, Glad-lator 261038 and Barney 276673, a Cruickshank But-terfly. Town of Scotch and Scotch topped Bates breeding. 1 yearling Bampton bull (a good one) for sale. Will make tempting prices on a few females. E. S. Myers, Chanute, Kans.

New York Valley Herds Shorthorn Cattle and Berkshire Hogs.

A large number of my Shorthorns will be sold at private sale for lack of room, including 3 bulls from 15 to 24 months old; also 10 fall and winter bulls and heifers, and 20 head young females. Two September boars and 51 May pigs from prize winning stock. See them or write. J. T. Bayer, Yates Center, Kans.

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Scotch and Scotch topped shorthorns for sale. 8 young bulls from 8 to 24 months old, all reds and good quality. Sired by Baronet of Maine Valley 178676 and Secret Emporor 23447. Prices reasonable. Inspection invited.

HOADLEY & SIGMUND, Selden, Kans.

Prospect Farm Shorthorns

The oldest Shorthorn breeders in Kansas. The largest herd of Cruickshanks in Kansas. Herd headed by Violet Prince 148647 and Orange Commander 230690. Young stock of both sexes and some cows for sale. Quality and prices right.

H. W. MCAFEE,
Bell Phone 59-2, Topeka, Kansas

Stewart & Downs, SHORTHORNS.

1 BULL—SCOTCH TOPPED of serviceable age, with plenty of bone and finish, also a few choice heifers. Chief herd bulls: Forest Knight by Gallant Knight and Victor Archer by Archer. Prices reasonable. Call or write

Stewart & Downs, Hutchinson, Kans.

Greendale Stock Farm

25 YOUNG BULLS by Imp. Ardathian Mystery and Best of All for sale at bed rock prices. Can also offer some good Berkshire swine and Shropshire-rams. Correspondence solicited.

COL. ED GREEN, Prop.,
Florence, Kan.

SHORTHORN BULLS.

9 good ones, from 10 months to 2 years old, out of heavy milking dams, from such families as White Rose, Rose of Sharon, Daisies, Rubies and Frantics. These will be sold cheap to move them. Also a few choice yearling Duroc gilts, bred to good sires for May farrow.

O. L. JAKSON, New Albany, Kans.

Pedigreed Shorthorn Cattle

Would be pleased to quote you prices on any or all of the following cattle: One red 2-year-old bull, 15 well grown bulls ranging from 10 to 15 months, 30 head well grown 2-year-old heifers, and 40 head well grown yearling heifers. Most of this lot are sired by the Scotch or Scotch topped bulls, Headlights 2d 24535, Bold Knight 179054, Sunflower Boy 127837 and Baron Ury 3d 124970.

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Railroad Station, Pearl, Kans. Address mail Enterprise, Kans., Route 2.

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EAST SIDE DAIRY FARM HOLSTEINS—Butter Boy Pieterje 3d heads herd; his dam's record is 17.49 pounds of butter in seven days and over 12,000 pounds of milk in 104 months. Average record over 20 pounds official. Other noted families included in herd. Only bull calves for sale at present. Inspection and correspondence solicited. F. J. Seale, Okaloosa, Kans.

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A few bargains in bull calves. Some choicely bred spring pigs and boars ready for service. H. B. Cowles, Topeka, Kans. Ind. Telephone, 1038.

JERSEYS**LINSCOTT'S JERSEYS**

Established 1878. Registered in A. J. C. C.

BULLS—In The Kansas Farmer for May 28, is an article on Pure Bred Dairy Cattle for Kansas. READ IT. I am offering registered Jersey bulls of excellent individual quality and carrying the blood of the greatest Jerseys in the world. Price \$50. They cannot be duplicated anywhere. A number to pick from. Tabulated pedigrees and descriptions sent for the asking.

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Largest importer and breeder of Mammoth Jacks in the United States. Every stall in my barns has a big Mammoth Jack, 15 to 17 hands high, 1000 to 1300 lbs.; that I will sell on one and two years time to responsible parties. If my Jacks are not just as I represent them I will pay all railroad expenses.

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Horses—Cattle—Swine—Poultry. Silkwood 12228, in stud, race record 2:07; Guideless, record 2:07 1/4; sire of two in 2:10 and of eleven with records better than 2:25. Fee, \$25 to insure. Pasture and feed reasonable. Registered Shorthorns and Jerseys. Large strains. Several Jersey bulls for sale. O. I. C. Swine. Choice boars and gilts for sale. R. I. Red chickens, both rose and single comb. Eggs \$1 per 14, \$5 per 100. Correspondence, inspection and patronage solicited.

T. O. BROWN, Prop., Reading, Kans.

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A choice lot of young Double Standard Polled Durham bulls by Kansas Boy X2585, S.H.197889, Seneca X5940, 263005 and the grand bull, Belvedere X2712, 196088. Inspection invited.

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Herd now numbers 115 head. Young bulls for sale.

GEO. GROENMILLER & SON,
Route 1, Pomeroy, Kans.

Foster's Red Polls.

Some choice young bulls and heifers, also a few good cows for sale. Prices reasonable.

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Red Polled Cattle, Poland-China Swine.

Best of breeding. Write or come and see. Chas. Morrison & Son, R. 2, Phillipsburg, Ks.

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