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KANSAS FARMER

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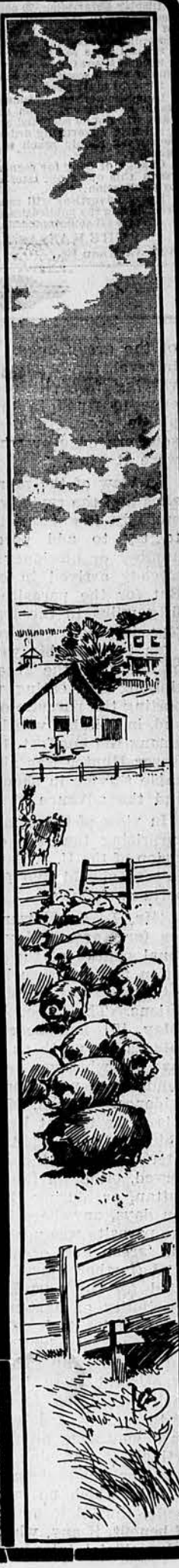
OFFICIALDOM AND THE GREEN BUG.

At the time of the "green bug invasion" last spring the only source from which proceeded any intelligent effort to stay the ravages of the pest was the Kansas State University, under the direction of Prof. S. J. Hunter, head of the department of entomology of this great institution. The plan pursued was rational and where carried out according to Profesor Hunter's instructions gave valuable results in the speedy destruction of the pests by their natural enemies.

It was found that under conditions of climate such as prevailed last winter and spring the green bugs, Toxoptera graminum, are propagated rapidly and spread from southern to northern fields, while the parasites, Lysiphlebus triciti, which finally overtake and overcome the green bugs are propagated only during warm weather. The green bugs multiply whenever the temperature is above 32 degrees while the parasite is propagated only when the temperature is 56 degrees, or above. It results that during a warm winter and a cool spring the green bugs are able to multiply greatly and to spread over much territory before their natural destroyer gets started. However, by the time the green bugs got well started in Kansas, last spring, the parasites had become very numerous in Oklahoma fields. On completion of the work in the southern fields by the parasite many fields of wheat contained millions of eggs or grubs of the parasites inside of green bugs which had been glued to the blades of the wheat, where they had died.

Professor Hunter's plan was to secure these partly developed parasites, keep them dormant in cold storage, and, on the first warm days, to place them in fields which had been reached by the green bugs, but in which the parasites had not yet appeared. The best information is that at the time when the green bugs were doing the greatest damage in Kansas the forward line of the parasites was about fifty miles behind that

Herd Boar owned by H. B. Wallers, Wayne, Kansas, whose sale will be held on Friday, October 25, 1907.



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of the green bugs. In this fifty-mile interval, the bugs were doing damage varying from little on the northern edge to much in the middle and in places complete destruction on the southern edge or where the parasites were at work.

In view of the myriads of the parasites and the rapidity with which they multiply, it would evidently be useless to try to add perceptibly to their number or efficiency where they had already arrived in course of nature. But for the parasite to traverse the fifty miles to the front of the green bug invasion requires several days even in favorable weather and in all of this time the green bugs are multiplying and eating wheat. By transporting the parasite over this interval, and, in suitable weather, placing them among the unaffected green bugs, Professor Hunter was able to render valuable service in checking the ravages and the advance of the pests.

In view of these facts it is scarcely surprising that the entomological division of the U. S. Department of Agriculture should find facts which it reports as follows:

"Mr. L. O. Howard left Washington for Kansas, May 13, to take personal charge of the field work in relation to the 'green bug' and to make a thorough survey of actual field conditions. The 'green bug' at this time [May 15] had become abundant in oats as far north as Manhattan, Kansas; but wherever present there were numbers of parasites also already in evidence. Indeed, Mr. Phillips found this to be true at Kearney, Nebraska, which point he visited about a week later. In no instance was a field observed, either in the vicinity of Manhattan, or, during the next week or ten days, anywhere in Kansas, where the parasite was not present wherever the 'green bug' occurred.

"A further experiment, this time tried for the purpose of testing the possibility of hastening the work of the parasite during favorable weather by large introductions, was carried out as follows: The subject of the experiment were two fields of oats, each containing four acres. In one of these it was determined to introduce enormous numbers of parasites artificially, keeping records of this field for comparison with the other field in which no introductions were made, thus determining the measure of benefit, if any, which resulted from the artificial introduction. Mr. Ainslee was instructed by wire to ship from Wellington, Kans., six bushels of the wheat plants that had been destroyed by the 'green bug' and which, in some cases, were literally covered with the parasitized bodies of the pest, upward of five hundred having been found on a single plant. Before taking up the experiment, however, it was desirable to know just what the conditions were under which it was begun. As stated above, one of these oat fields was used for the experiment of introducing parasites, while the other was kept as a check. The fields were so widely separated that the introductions could not have spread from one field to the other. Six areas of a square yard each, selected for the examinations in different parts of each field, were gone over by Mr. Phillips and two of Professor Popenoe's assistants. Examinations of both of these fields, made on May 17 and 18, showed that the field in which the parasites sent from Wellington by Mr. Ainslee were to be liberated contained approximately one and three-quarter millions that were undoubtedly parasitized; in other words, approximately 3.5 per cent of the 'green bugs' were at that time parasitized. In the check field the parasites were even more abundant, about 7.8 per cent being there.

"On May 18 parasites from twelve packages, each containing about half a bushel of wheat plants, were liberated in one of these fields. Now, a count similar to that made before the parasites were introduced was made on May 23, and this showed that the per cent of parasitism in the field in which the experiment was carried out had increased only to 5.4 per cent, while in the field in which no parasites had been liberated it was 19.3 per cent. On May 27 a similar count was made, when the percentage of parasitism in the field where the introduction was made was 27.1 per cent, while in the check field it was 32.5 per cent. Clearly, under weather conditions favorable for their development, an introduction of these parasites to the extent of millions, carried out under field conditions, did not indicate enough efficiency to afford any encouragement for the use of this measure in the protection of the grain fields of the farmer in case of future attack."

It should be observed that to be valuable, the artificial introduction of the parasite must be made during the interval between the arrival of the green bugs and the arrival of these parasites. After warm weather sets in the parasites rapidly overtake the green bugs. During some seasons no assistance is needed and the pests are destroyed before they do noticeable harm. The fact that the Kansas University entomologists found a broad band of green bugs without parasites while the Department of Agriculture entomologists coming later reported that "In no instance was a field observed in the vicinity of Manhattan or during the next week or ten days [after May 15], anywhere in Kansas, where the parasite was not present wherever the 'green bugs' occurred," is scarcely ground for the Washington entomologist's sweeping condemnation of Professor Hunter's efforts as futile. The man from Washington might now look at the Kansas river and truthfully report that "nowhere was it seen overflowing its banks," and, if he were sufficiently narrow, he might consistently state that in his judgment no efforts should be made to widen the channel and remove obstructions at Kansas City with a view of allowing the water to pass more quickly.

It is not to be believed that the Washington entomologists desire for any reason to discredit the heroic efforts of Professor Hunter to promote in a rational way the work of the natural destroyer of the green bug, but it is unfortunate that they have so little to suggest from their store of knowledge and wisdom that may prove helpful in case of another devastation such as occurred in fields of Texas and Oklahoma. Kansas people at least will be inclined to cooperate with the entomologist at the University who heroically tried and tried in the proper season and tried with good results to help stay the destroyer of their wheat crops.

CORN CROP SHY OVER 400,000,000 BUSHELS.

Based on 1,100 special reports bearing an average date of September 30. the New York Journal of Commerce publishes its October corn crop report which gives the indicated yield of corn from the harvest of 1907 at not less than 2,500,000,000 bushels against 2,927,416,091 bushels last year.

The average condition of the fifteen principal producing States covered by this report is 76 per cent, against 80.6 per cent last month and 90 per cent a year ago. In 1905 the September condition was 89 and the ten-year average for the month is 79.6. A drop of two points in conditions during the month is indicated by the returns. All States report a decline in conditions except Ohio, Illinois, and Kentucky, the first named State showing an improvement of two points to 72. Of the important corn-producing States Missouri shows the large decline of 4.3 points to 81.6 and Kansas 6.0 points to 75.3.

The Northern corn States suffered somewhat from frost, especially the late planted areas. Frosts in the latter part of September did slight damage elsewhere and the remainder of the corn belt will be entirely free of danger from frost by October 15, thus removing all further anxiety concerning the crop. Drouth was often responsible for deterioration where frost damage was absent. Corn is generally reported of good quality, though where touched by frost it is soft, as usual, and will be used for home consumption. The formula for estimating the yield on the above condition is that adopted by the New York Produce Exchange. Illinois decreased 0.8 to 83.0; Iowa, 1 to 77.4; Nebraska, 0.7 to 76.7; Texas, 1.6 to 78.0; Indiana, 1.7 to 85.4; Indian Territory, 1.0 to 71.8; Oklahoma, 2.2 to 65.5; South Dakota 5.8 to 68.5; Minnesota, 7.7 to 75.0; Michigan, 4.4 to 72.6; Pennsylvania, 4.6 to 77.0; Kentucky, 0.0.

THE KANSAS BOY'S FARMING CLUB.

The question that always interests thoughtful men everywhere is the education of the boys and girls. And one of the most important questions for thoughtful farmers in Kansas is the matter of educating the boys and girls to understand farm problems and be interested in farm work and farm life. An initial step is being made this year in the introduction of elementary agriculture into thousands of rural and village schools. The Agricutural College is publishing a series of leaflets on this subject and is sending them free to rural and grammar school teachers.

But another movement which ought to interest everybody in Kansas is the organization of the "Kansas Boys' Improved Farming Club." In this an endeavor will be made to interest several thousand boys in working out some practical demonstrations in farming and feeding or dairying, simple problems that represent the best methods, methods recommended by the heads of departments, for every farmer and feeder. Boys who join this club will receive circulars from the Extension Department of the Agricultural College indicating four lines of simple experiments or demonstrations, and each boy may choose those that suit him best. Then when he has made his choice and notified the college he will be given further instruction, suggestion, and help. In addition each boy will receive this year five pamphlets on live stock, six on elementary agriculture, one on wheat and one on corn. He will be expected to read each of these and to report briefly on certain of them.

This work will not be so extensive as to interfere with home or school duties. Each boy who joins the club will be given a certificate of membership and it is believed that all will be greatly benefited by the work and by the reading. Membership is open to boys between twelve and eighteen years of age.

There is no fee of any kind connected with this and no charge for pamphlets sent to the boys. The ought to be ten thousand members this Kansas Boys' Club. All boys wh wish to become members should wri to the Superintendent of Agricultur College Extension, Manhattan, Kansa and membership blanks will be sen and demonstration circulars an pamphlets will be mailed immediatel

DAIRY HUSBANDRY AT MANHATTAN.

The vacancy in the board of in struction at the Kansas Agricultura College caused by the resignation o the chair of dairy husbandry by Pro Oscar Erf, who goes to the Ohio Stat University, has been filled by the elec tion of Prof. Ed. H. Webster. Profe sor Webster is a Kansas product, graduate of the Kansas Agricultura College who a few years ago fille the position of assistant in dairyin at his alma mater. While occupyin this place Professor Webster conduc ed the dairy department of The Kan sas Farmer and in this work exercise his talent for good work. He wa called to special work in the U. S Department of Agriculture. Afte completing this he accepted a busi ness engagement. When the chief o the dairy division of the U. S. Depar ment of Agriculture died Professo Webster consulted with some of h friends as to the advisability of b coming a candidate for the vacant po sition. His decision was that he nee ed to grow some to become fitted fo so great a work. He had scarcel started on a business trip when a tele gram from the Secretary of Agricu ture offered him the appointment o chief of the dairy division. Afte several forwardings this telegra overtook him at some place in N braska. He accepted the place an has done notably efficient work.

It is believed that he will accept th position at Manhattan. The college i to be congratulated on account of h return.

At present prices of corn and o feeders the man who has the feeder and has not the corn to finish them i pondering seriously over the pro pects. High prices for dressed bee steers will alone justify long feedin under present conditions.

Miscellany

Disking Alfalfa.

At the September meeting of th Shawnee County Alfalfa Club, the sub ject of Disking Alfalfa was ably trea ed in the following letters to the pre sident of the Club, Hon. Bradford Mi ler of Topeka:

PROFESSOR A. M. TENEYCK, KANSA STATE AGRICULTURAL COLLEGE.

At the Kansas Experiment Statio the usual practise has been to disk a falfa once each year, quite early in th spring. However, alfalfa may b disked after each cutting during th season with good results. Usually th soil is more mellow and in better con dition to disk in the spring than it i later in the season. A further loosen ing at this time puts the soil in goo condition to catch the early sprin rains, increasing the water supply o the soil, thus benefiting the alfalfa perhaps, for the whole season. In a single trial at this station disking afte each cutting gave favorable results Often it is advisable to disk in th fall after the third or fourth cutting especially if the alfalfa is weedy. By thoroughly disking and harrowing late in the season it is possible to destroy much crab-grass and fox-tail, th great weed enemies of alfalfa.

In our experiments the least injury was done the alfalfa and the bes work was accomplished by setting th disks rather straight and weighting the harrow so as to make it cut two or three inches deep; then the field was cross-disked and harrowed with the common straight-tooth harrow. A the soil is left by disking with the common disk-harrow it does not form a perfect soil mulch to conserve the soil moisture. Also the clods throwi

by the disk interfere in mowing, us the necessity of using the smooth- g harrow to finish the work.

The purpose of disking alfalfa is to osen the surface soil so as to favor tter aeration in the soil, kill eeds, form a soil mulch to conserve il moisture, and at the same time esent a surface favorable to the ab- rption of rains. There is little ques- on but that disking alfalfa favors the owth and development of the crop. pays to cultivate alfalfa just the me as it pays to cultivate corn.

Another advantage in disking alfal- , and for which disking is recom- ended at the present time, is the de- ruction of the pupae of the Fall Web orm, which insect has seriously in- red some alfalfa fields this season. cording to Prof. T. J. Hadley, En- mologist of the Kansas State Agri- ltural College and Experiment Sta- on these worms burrow into the ound in September and October and into the pupal stage. In this form ey may be readily destroyed by disk- g in order to turn the pupae to the rface when they may be largely de- troyed by birds or by exposure. oubtless there are other insects hich may be injurious to alfalfa hich would be destroyed or at least ecreased in number by disking.

It is not advisable to cultivate newly eeded alfalfa. Usually cultivation hould not begin until a year after eeding. As soon as the plants have ecome well rooted the disking may be egun, especial care being taken not set the disks too sloping since the owns of the young alfalfa plants are uch more readily cut off than are e crowns of old, well established lants. I have disked spring sown al- lfa the next spring after seeding ithout doing it any injury. A close xamination showed that very few of e plants were cut off or injured. ometimes newly seeded alfalfa, after has become well set, (as may be e case with fall seeded alfalfa the ext spring after sowing) may be uch benefited by simply harrowing ith the common straight-tooth har- w.

The common disk-harrow is more enerally used than any other imple- ent to cultivate alfalfa and when roperly used it does good work. Dur- g the last year we have tested the pike-tooth disk-harrow, known as the lfalfa harrow," manufactured by the merson Plow Company. This is the eal alfalfa harrow. By going once ver the field the surface to a depth f two or three inches was thoroughly ossened and yet not left in a rough, loddy condition. It does not ridge e soil as the disk harrow does. The evolving, spike teeth thoroughly oosen the soil but slip past the alfal- plants, doing them little or no in- ry.

The "alfalfa harrow" is well con- tructed and appears to be fully as trong and durable as the common- isk harrow. Care must be taken not o run it over stony roads or use it in tony fields since the points of the pikes are easily bent or broken off. I elieve I have used the alfalfa harrow nough to safely recommend it and I hould be pleased to have some mem- er of your institute secure and use ne of these implements next season nd report results.

PROFESSOR S. J. HUNTER, KANSAS UNIVERSITY.

I have the kind invitation of your President, Mr. Bradford Miller, to say omething about "Disking Alfalfa, How and When." A compliance with his request may be best introduced by ecounting the growth of this method f alfalfa culture. Incidentally it may lso explain why an entomologist is presumed to know anything upon this ubject.

The facts I am about to relate were eported first in a department publica- ion, January, 1899, and subsequent ob- ervations in a paper before the Kan- as State Board of Agriculture, Jan- ary, 1900. During the period from 897 to 1900, at the request of the lfalfa growers of the Arkansas Valley nd in co-operation with them, the De- artment of Entomology at the Uni- ersity of Kansas conducted a series of investigations upon insect life and alfalfa culture.

This embraced two classes of insects, the one injurious, such as the cut worms and the native locusts, and the other beneficial, notably the honey bee. Under the former head it was found that these injurious forms spent the winter in the egg or developing stages, in the ground in the alfalfa field. How then to destroy this immature stage of these inimical insects and yet maintain the integrity of the alfalfa plant, became the first problem.

A study of the alfalfa plant itself became necessary before further procedure. It was found that it secured its water supply through roots extending some twelve to fourteen feet beneath the surface, and that the crown could be split in several pieces and yet the life of the plant go on unimpaired. In the spring of 1898 it was recommended, therefore, to the farmers interested, that they disk their alfalfa meadows as early in the spring as the ground became tillable after the frost, thus breaking up these egg-pods and immature stages of insects, and exposing them to be destroyed by birds, other insects and climatic influences. This disking many of the farmers feared would destroy the alfalfa itself. One hundred and sixty acres of alfalfa, which had been sown two years previously on sod was given for a test. The disk harrow was run over it in March and the ground was cross-harrowed with a slant-tooth leveling harrow. When the work was done the field presented much the appearance of a wheat field ready for seed.

On the July 1, 1898, with tent and full laboratory equipments, the writer established a field station near this experimental quarter-section in order to study the effects of disking upon this alfalfa, and also to observe the further habits of the locust. While suitable quarters could have been secured at farmhouses, it was found more practicable to live right in the meadow, since certain observations upon the habits of insects required the observer's presence in the early morning and the late evening. And further, it was found that with the field station located in this way it was more readily accessible to the farmers in this vicinity. These farmers made frequent visits to our camp, always with inquiries, and with evident desire to profit by the investigations under way.

On July 23 the first crop of alfalfa upon this experimental quarter-section was cut, and photographs taken, both of the standing forage and of the hay in swath and windrow. The average height of the stalks was twenty-nine inches, stalks of extreme length being found thirty-three inches. The yield of this first crop was one and noe-fourth ton per acre. The locusts have not appeared. Not only have they disappeared, but the native grasses which threatened to reclaim the land were likewise removed. Two quarter-sections of alfalfa land was not far removed from this spot were rendered practically worthless by the presence of large numbers of locusts throughout the growing season.

The results thus far, to say the least, were gratifying. The practical benefits derived from this culture, however, were more emphatically expressed upon the appearance of the second crop, which matured unattended by locusts, some ten days earlier than adjoining meadows, and bearing stalks of extreme length of thirty-two inches; average length, twenty-eight inches. The average yield of this crop was one ton per acre. At the close of this season of 1898 I thought well to have a statement of the comparative yields from Superintendent Smart, under whose direction this land was disked, and who likewise harvested a large acreage that season. His statement I will give verbatim: "In regard to the yield of alfalfa on our lands, I will say that the first crop raised on land that was disked was about one and one-fourth tons per acre, and the second crop, one ton per acre. We have harvested on our lands in Edwards and Ford Counties, the past year, about 2,500 acres, and the average yield for the first crop was three-fourths ton per acre, and the second crop one-half ton."

From this statement it will be readily seen that the disking added one-half ton per acre to each crop. In other words, 160 tons, or eight additional twenty-ton ricks of alfalfa hay, were cut from and stacked upon that quarter-section of Kansas land in tthe one season because of this cultivation.

While the second crop was growing that season I left the field station in Edwards County and made a cursory survey of the alfalfa-growing districts of Edwards, Ford, Finney, Hamilton, Greeley, Wallace, Logan, Thomas, Sherman, Decatur, and Norton Counties, and nowhere under any conditions did I observe such a fine quality of alfalfa as grew that season upon this experimental quarter-section.

One season's study not being sufficient to thoroughly satisfy us, this method of culture was again resumed and 800 acres were disked in a like manner in the spring, giving equally satisfactory results. The yield was not quite so great, owing to the fact that these lands were closely pastured until about the first of May, after which they were allowed to grow for forage. The strong, vigorous, growth of the plant, however, was noticeable, likewise the almost total absence of locusts and native grasses were points noted by the farmers as they drove over the meadows under experimentation. The 160 acres disked in 1898 were left uncultivated in the spring, and the beneficial effects of the previous season's culture appeared again the next season, since in both the first and second crops there was a material increase in the yields over that of adjoining lands. In fact, my observations now go to show that in the territory under discussion, where alfalfa is sown upon sod, if this method of culture is not carried on, the native grasses will crowd out the alfalfa and reclaim the soil, whereas, on the contrary, if this method of culture is vigorously prosecuted, a strong, hearty, productive forage-plant is the result.

Plans had been made to conduct experiments upon this method of culture in other parts of the State. In every case the continued wet weather kept the soil in a condition untillable until the alfalfa had grown several inches. Mr. John H. Silsby, of Leroy, however, by way of experiment, disked five acres when the alfalfa was six inches high, resulting a noticeable increase in the yield.

Getting down to the foundation of the matter, ten roots were dug the next season just as they grew in the drill row in an average place in three fields, and here it might be said that all alfalfa under experimentation was sowed in 1896 upon newly broken sod in the same vicinity, so the conditions of all were nearly as possible alike. Ten roots were taken from each of three fields, and a comparative study made of them is best illustrated in tabular form:

No. 1. Sowed in 1896; disked in 1898
No. 2. Sowed in 1896; disked in 1899
No. 3. Sowed in 1896; not disked.

	No. 1	No. 2.	No. 3.
Average thickness of tap-root, inches.	9-16	8-16	5-16
Av. No. root branches to each tap-root....	5.4	5.1	4.2
Av. No. stalks to each branch.	7	7	4
Av. No. forage-raising stalks to each tap-root.	37.8	35.7	16.8

In our field camp the next summer another proposition came to us, namely, the presence of cutworms in the alfalfa. It is known to many who raised alfalfa that season, that there was a little dark-green, striped worm which did considerable damage in some alfalfa fields. This worm likewise spends the winter, in chrysalis form, beneath the surface of the ground, and the disk harrow will remove it if applied in the early spring, after the frost has left the ground.

During the present season, 1907, reports have been received concerning the fall army worm in the alfalfa. Many of these insects will hibernate in the ground in the alfalfa field, and can be destroyed early in the spring by this process of disking.

Disking alfalfa has become a method of culture quite general wherever alfalfa is now grown, and briefly it may be said; that disking alfalfa, two years old or older, cutting about three inches deep, then cross-harrowing with slant-tooth harrow in the early spring, after the first frost has left the ground, and before vegetation has well started, increases the yield of the crop fully one-third; matures the second crop earlier, and bring from it an equally increased yield; destroys the noxious insects hibernating therein, and kills the native grasses which frequently threaten to reclaim the field.

PROF. D. H. OTIS, UNIVERSITY OF WISCONSIN.

When I first took charge of a 2,500-acre farm in southeastern Kansas, I found the alfalfa badly infected with fox-tail and crab-grass. After cutting the next crop of hay I put disks in this field and placed them rather slanting and weighted them down so that the disks would go in about 2 or 3 inches. I disked and cross-disked until the field looked as if the alfalfa was practically destroyed. I found, however, that the alfalfa came up in good shape and that the weeds were practically all killed. I am a fervent convert to the idea of disking alfalfa as soon as it has sufficient growth so that there is no danger of cutting off the crowns of the plant.

HENRY WALLACE, DES MOINES, IOWA.

It would seem presumptious in me to make any suggestions to farmers in Kansas on the subject of disking alfalfa for two reasons: Their experience has been much more extensive than mine; and besides, the climatic conditions are different from our conditions in Iowa, or the conditions at North Platte, Nebraska, where we grow some two hundred and fifty acres.

Under our humid conditions in Iowa we are obliged to disk after the second year in order to keep down the blue grass and white clover, which take possession of our alfalfa fields. I presume same reason applies under Kansas conditions, as your crab-grass and other weeds trouble you in quite the same way. However, it is more difficult to keep perennials and biennials like the grasses above mentioned out of alfalfa then it is keep out annuals.

I can see an additional very strong argument for disking under your conditions, namely, to conserve moisture. To some extent this reason has force here, but not to nearly as great an extent as with you, as we usually have plenty of moisture.

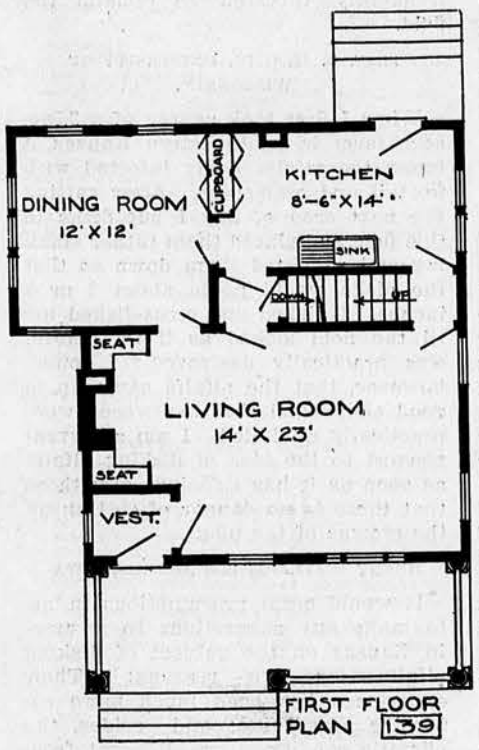
I doubt whether it would be advisable to disk here the first year. It requires more than two years for blue grass and white clover to get much hold, and there would be more or less danger in disking one year old alfalfa. If the land has been given proper cultivation before late fall seeding, which does best here, the grass seeds have been germinated and sprouted, and also the annual weeds that grow up either in the spring or fall. Hence the alfalfa has full use of the land for at least one year. In our experience, however, I have found that these weeds, the seeds of which are ever present in the ground, are exceedingly troublesome if we undertake to use alfalfa as a soiling crop by cutting it off before it begins to bloom. It then seems to wait a week or two before sending out stools or buds from the crown, while the weeds do not wait.

You will see from this that I am rather modest in discussing this subject from your standpoint. I do not believe that alfalfa should ever be a main crop under Iowa conditions; while it should be the main, or at least one of the main crops under your conditions.

I fear I have not given you much information; but I would be very greatly obliged to you if you would give me a brief report of the meeting and the positions taken by different farmers. This will be much more helpful to our readers in Kansas and Nebraska than anything I can hope to give your people with their much larger experience. To be frank with you, I am quite disgusted with the pretensions to knowledge made by some agricultural papers whose advice is evidently based not on accurate personal knowledge, but on second-hand and often unreliable information.

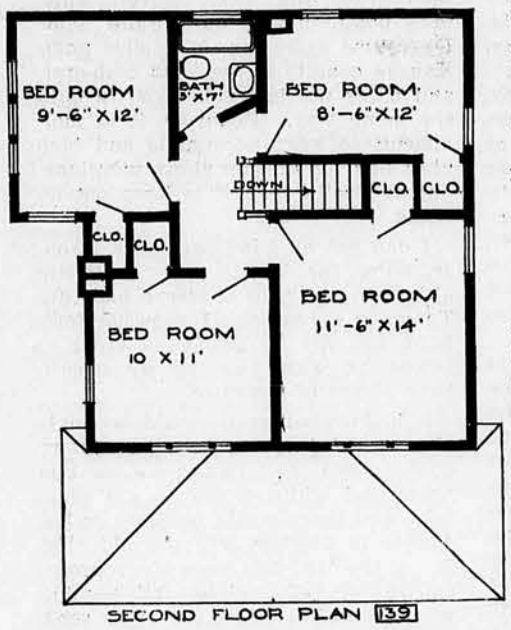
A Twentieth Century Cottage.

The design which we illustrate this week is more pleasing to many on account of the more impressive appearance which a two story house presents. The commodious porch with its heavy columns gives this home a rich effect. Passing through the vestibulate we enter a fine, large, well lighted living-room with an attractive fire-place at one end.



FIRST FLOOR PLAN 139

A convenient dining-room with many windows opens directly into a well arranged kitchen. A fine double cupboard is substituted for a pantry. The way and the trouble and increased expense of heating a house so built has created a demand for conveniently located closed stairs. In response to these requests we have designed this home with the stairs so placed that convenience and saving in steps of a cupboard of this kind will be appreciated by the housewife.



SECOND FLOOR PLAN 139

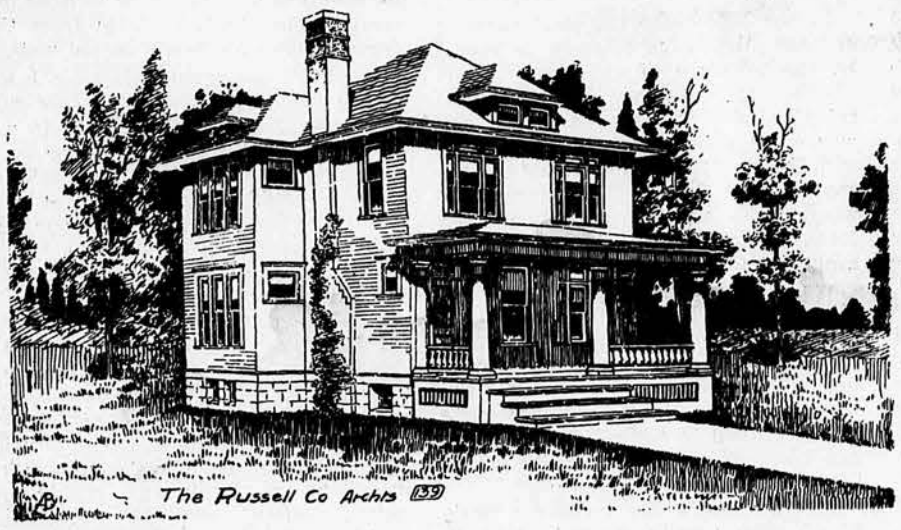
The increased cost of an open stairway and the trouble and increased expense of heating a house so built has created a demand for conveniently located closed stairs. In response to these requests we have designed this home with the stairs so placed that they can be reached from either the living-room or the kitchen.

The second floor has four good bedrooms with ample closet room and a fine bath-room.

This house will cost $1,750 and up, depending on interior finsh and decoration.

Complete plans and specifications will be furnished to any of our readers for above house, No. 139, for $20.

If you have not already done so, send for "Twentieth Century Cottages," a book containing a great number of views and complete floor plans of modern houses of moderate cost. This will be sent postpaid to any of our readers for 25 cents. Address Building Department, care THE KANSAS FARMER, Topeka, Kans.



To the Farm and Home.

C. W. BURKETT.

Through properly conducted agricultural high schools, more than by any other means can the tendency of our boys to go to the city and our girls from the home be staid, as no other schools have it in their power to educate back to the land and the home, and not away from it. This is particularly true of their power over farm and village boys who attend them, and over the girls, whether city or country, who there learn, perhaps for the first time, that homemaking is something not to be ashamed of, but to be proud of; something of the real value of foods and balanced rations, for both man and beast, how to know them and how to make them; the importance of intelligent care of both body and home, plain nursing, plain cooking, and plain living.

This work, all too often neglected, too often shunned and ashamed of, can through these agricultural high schools be lifted to the high level where it belongs.

An Effective New Treatment Against Chigger Attacks.

E. S. TUCKER, FIELD ASSISTANT IN CHARGE OF GREEN BUG LABORATORY, PLANO, TEXAS, UNDER DIRECTION OF THE TEXAS AGRICULTURAL EXPERIMENT STATION.

According to the statement of an old resident, chiggers were just as much of a pest in Texas forty years ago as they are now, and for such a matter, they commonly occur throughout the middle, western, and southern States. If their probable spread into eastern States proves to be true, the people living there will be given a touch of what southern and western folks have had to endure from these vexatious creatures. A correspondent writing from a country town about thirty miles east of Cleveland, Ohio, under date of July 21st, referred to the use of sulfur in a person's clothing "to keep chiggers away." This infers that chiggers, which had been unknown in years past, were beginning to cause trouble there.

Chiggers are not insects but are classed with the mites, being sometimes called harvest-mites. They occur on many kinds of plants, principally weeds and grasses, and may even crawl over bare ground in some places, also boards, timbers, stones and other objects lying within their reach. From such sources, they readily become attached to the clothing of persons coming into contact with them, and thus find their way to the skin of the victim. After one of these foes penetrates into the skin, an itching irritation is produced at and surrounding the point of entrance. If the stimulative action is allowed to run its course, the person so affected usually experiences the most discomfort on the second and third days following the attack, the violence being especially disturbing to the victim's sleep. Some persons suffer almost constantly from chiggers during the time of their prevalence, but most laborers who are subjected to continual exposure apparently become inured. Women and children are particularly susceptible to chigger attacks.

The distress occasioned by severe attacks is augmented by a feverish condition of the skin. The sufferer can hardly refrain from scratching the affected spots, though knowing that the irritation will be aggravated in consequence. As a probable result of such aggravation in one instance, an eruption of eczema was induced. Cases are recorded showing that erysipelas and fatal blood poisoning have followed severe attacks from chiggers.

Most of the ordinary chigger remedies have been personally tried without obtaining more than temporary relief at the best, so that repeated applications were necessary to fully subdue an irritation. A chemical, which, in my opinion, possesses superior merit above all previously known remedial agents, is hyposulphite of soda. This is the important fixing agent extensively used by amateur and professional photographers. It can be purchased at most drug stores and is not expensive. Dissolve this salt in water, making a nearly saturated solution, and moisten or bathe the spots where chiggers have burrowed. The pests are evidently killed when the solution reaches them through their burrows in the skin, and then the irritation ceases permanently, though sometimes two or more applications may be required for obstinate or deep-set cases. No harmful nor disagreeable effect has attended the liberal use of a strong solution of this compound, except a slight smarting if the skin should be sore from scratching. The advantage which the use of this chemical affords over other known treatments against chiggers consists in the repellant property of the salt, besides its potency in suppressing the malignant action produced by these enemies when in the skin. It acts as a cure and preventative combined. In order to ward off chiggers, the solution should be applied as needed to as much of the body becomes necessary to meet the extent of exposure. To get full benefit, allow the solution to dry on the skin without wiping. An application made early in the morning before starting out to work has proven sufficient to last a day and even longer. Having taken proper precautions in this manner, a person can traverse the worst infested thickets with impunity.

So far as known to me, this chemical has not heretofore been announced as a useful agent in affording relief from chiggers, and, strange as the fact appears, several years have passed since its merit for such a purpose first came to my notice in rather a casual manner. The discovery happened while I was once engaged in photographic work, when, having occasion to allay an affliction of chiggers, a solution of hyposulphite of soda, which stood ready at hand, was used as a substitute for common soda or salt bath. So noticeable was the effect attending this application, first, by alleviating the distraction, then by preventing further infestation despite another exposure in weeds, that I at once became impressed with the disclosure of a practical new use for the chemical to the benefit of mankind. Only by recent experience with it during the present season while engaged largely in field work have I demonstrated its importance to warrant public recommendation.

A suggestion is made that similar trials with allied compounds, such as sulphite of soda and potassium sulphite, might determine equally as safe and efficient, if not better agents, for the suppression of chiggers. The ter compound, commonly known liver of sulfur, is recommended use in a spray solution against mite of cotton. The question a whether a solution of this would not prove effective in ding mites from other plants out danger to them, or to re lawns, poultry yards, and other free from chigger infestation at expense.

Incidently the fact might be tioned that a strong solution of h sulphite of soda is a valuable rem for ivy poisoning. If the informa given should be the means of indu an extended use of hyposulphite soda or any other suggested a with marked success against an year's chigger infestation, my eff to aid the people in securing com and health in the face of these will have served my object in ma the properties known for such a pose.

CONGO ROOFING

is proof against decay be cause there is nothing in it that can rot.

It is proof against water be cause it contains nothing which is soluble in water.

It is proof against heat be cause there is nothing in it which even the tropical sun can soften.

It is proof against cold be cause there is nothing in it which even the climate of Alaska can freeze.

It is proof against leaks be cause it is so pliable that any body can lay it right, fitting it tightly and snugly around the chimneys and valleys.

It is proof against dissatis faction because it is made to endure, and people who once buy it, buy it always.

Sample Free on request.

BUCHANAN-FOSTER CO.
537 W. End Trust Bldg. Philadelphia
Chicago and San Francisco

Nursery Stock Swindlers.

EDITOR KANSAS FARMER:—A called on me some three or months ago, taking orders for nurs stock. I gave him an order for s apple, pear, and peach trees, and some blackberry and goosebe bushes, which were to be shipped me this fall from the Queen City N ery Co., at Sioux City, Iowa. The told me that the trees were grown th and that this company had the larg nursery in the country. I wrote the postmaster of Sioux City and answer was that these trees were grown there and he didn't know wh they got their trees. Their office in Sioux City, but that was all.

I gave a $40 order for the ab trees and bushes and signed the or He was misrepresenting things there is no nursery there. Wil be obliged to take the goods if I no the company not to send the tr and bushes? GEO. A. BEENE

Cheyenne County.

It is doubtful whether the fact the nursery stock ordered was gro at some other place than that na by the agent who took your o would be sufficient reason for rel ing you from legal obligation un your contract. If the stock shall as specified in your written order

l probably be obliged to receive it d pay for it.

Those solicitors who misrepresent their verbal statements are usually eful to omit the misrepresentations m the writing; then they assign the er to an "innocent third party" who nows nothing of the talk;" and he ists on settlement according to the ms of the writing.

The surprise is that people continue place themselves in the hands of angers, who are often swindlers. the case of nursery stock there are nty of reliable growers who can pply all reasonable wants in this e. They are glad to furnish descripe lists of what they have and allow purchaser to make selection at sure.

f unable to get the address of such ite to THE KANSAS FARMER.

Dodder.

GUY E. MITCHELL.

Dodder is the worst, the most widely tributed and the most rapidly inasing plant parasite which we have the United States. In Europe it is ked upon by farmers with such fear t dodder infested seed is practica unsaleable.

Whence comes dodder? Many peo can not tell you. Of course, it s not spring up spontaneously, as s once supposed; it seeds and germtes the same as any other plant. t as soon as it finds some "host" nt to cling to, the lower part dies d vanishes, and it becomes a para. When it shows itself to the mer, on his clover or flax or alfalit has no connection with the soil; depends entirely upon its host plant. The dodder plant, especially as a nance to clover and alfalfa culture becoming more and more prevalent oughout the country and is everyere commanding attention from mers," says F. H. Hillman, assis t botanist of the seed laboratory the Department of Agriculture, in advance sheets of Farmers' Bul n 306, which will be ready for free tribution this month.

Dodder has a preference for plants ose lives it saps, including most the leguminous crops; but it prinally infests the different kinds of vers, alfalfa and flax. Cheap clover d may always be looked upon with picion, as it is likely to contain dder seed. Mr. Hillman's bulletin es an illustration of a clover and ss field almost completely destroyed dodder.

There are six principal kinds of dod in this country, but the seed of all be easily designated with the help a small magnifying glass. Mr. Hill n's advice is to thoroughly inspect clover seed purchases, for dodder d, and if it is found in any quan , reject the seed. But if the dod gets past the seeding period and pears in the clover field, it should tainly be destroyed early, by reval or burning (a small tendrill will rt a new plant) and thus prevent eeding. Most of the species of dod seed can be removed from clover d by a 20-mesh screen, made of 30 wire.

Poisons his Gophers.

EDITOR KANSAS FARMER:—I have ed my farm from gophers during last few years and have kept it e from this pest by using poisoned, all potatoes. I find this method so y and effective that I believe others y wish to use it.

Use potatoes less than an inch thick, smaller the better. Insert a few ychnin crystals in each potato. is can be done more easily by cutg a slit in each potato with the all blade of a pocket knife, then moist blade into strychnin, the ount adhering to the blade makes ood dose. Go about the field infecd at sunrise or sunset, when holes apt to be open, and roll one or two these poisoned potatoes into each le.

It will rarely be necessary to go over s work except that new gophers me from others fields.

JOHN C. ELLENBECKER.

Marshall County.

A Fundamental Right.

Cardinal Gibbons, in an article appearing in Putman's Monthly for October, strongly advises the American working men to alter their attitude toward their employers and adds, in connection with strikes and intimidation

"Every American citizen has the right to be protected in his efforts to earn an honest livelihood. No man or combination of men should have the power to prevent him from following his vocation, even by intimidation, ,for he may have not only himself but a wife and children for whom to provide. It is my opinion that the honest laborer who is willing to do work which is proper and in no way conflicts with the interests of the community should be given the opportunity to perform it, and to have the same protection from the authorities which is extended to any peaceful citizen, no matter how powerful or influntial may be the person or society which opposes him."

Alfalfa Pasture for Horses.

EDITOR KANSAS FARMER:—Will you kindly give me some information in regard to turning horses on alfalfa pasture? The alfalfa has been cut three times and part of it is nearly fit to cut a gain. I would like to turn my horses into the pasture, but some people say there is danger in doing so. Do you think it would be all right, or would you advise cutting it again?

Franklin County. J. W. SELBY.

There have been few, if any, reports of injury from pasturing horses or other non-ruminating animals on alfalfa. The utmost care is necessary in pasturing cattle or sheep. Alfalfa is even worse than clover to produce bloat. In turning even horses into alfalfa pasture it is well that they be allowed to fill themselves with hay before taking the green alfalfa.

"Henry Hart of Hartridge."

We are in receipt of an interesting novel story entitled, "Henry Hart of Hartridge," published by Fairbanks, Morse & Co., Chicago, Ill.

The story starts with life on the farm as it is today in most parts of the country.

Henry Hart is born and raised there and becomes exceedingly tired of all of the drudgery of every-day life as it was.

The city offers to him many more attractions, a much easier time and more pleasure, but after two years spent there he decides to make a vacation trip to the old home.

In the meantime, his father, Josiah Hart, becomes much worried at his son's discontent and the reason for it and decides to put in all of the modern labor-saving devices about which he has heard and read so much.

Henry was surprised to have his father meet him at the railway station with a Fairbanks, Morse motor wagon. He was further surprised to find the farm equipped with all modern appliances, the lawn was beautifully kept, even though it was a dry season, for waterworks had been installed. There was no more carrying water to the kitchen or for the stock.

Corn-shelling, grinding, husking, and shredding, as well as churning and pumping, was now all done by a gasoline engine. He did not even have to saw or chop wood by hand. His small boat was now equipped with a gasoline engine.

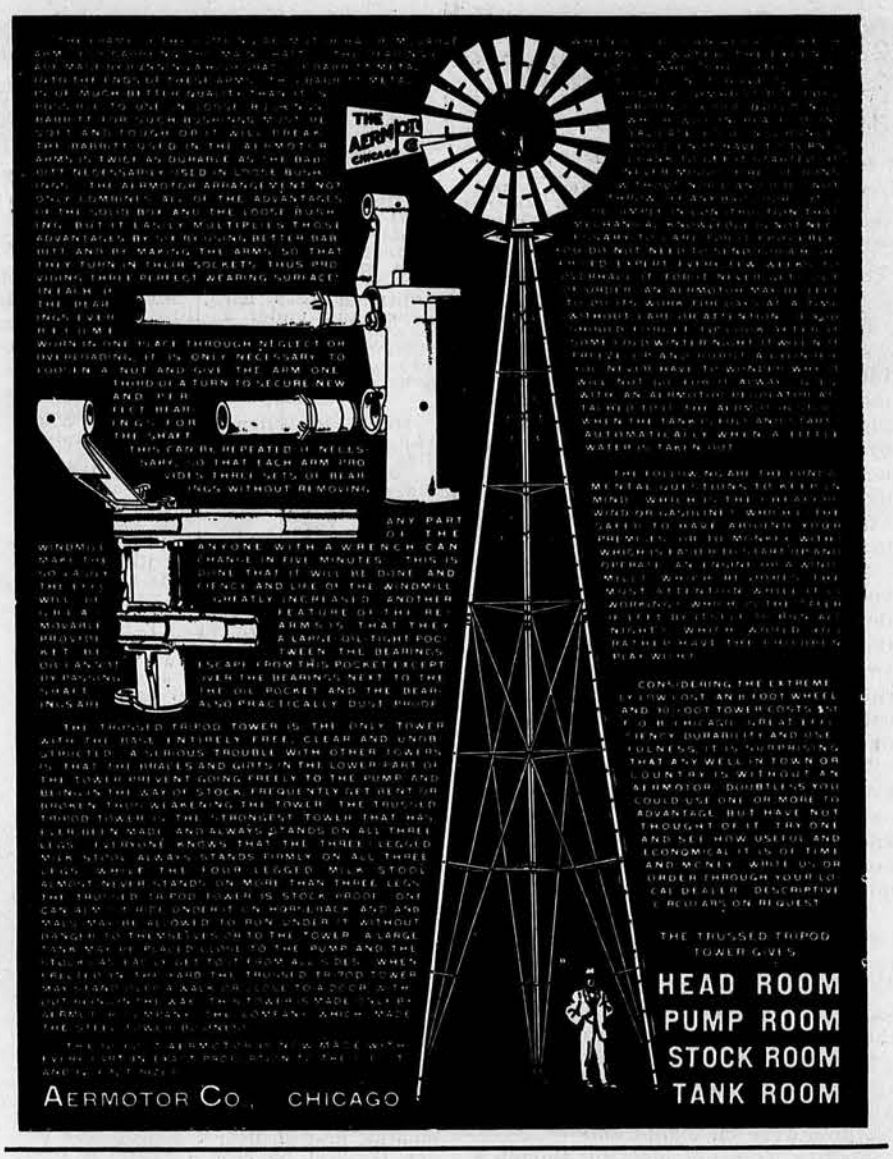
In the midst of all these surprises, Henry finds time to fall in love with a neighbor's daughter, and at a critical period of the thrashing season to save the neighbor's farm from being foreclosed on a mortgage, lends his father's engine to finish up the thrashing within a certain time limit.

However, on the next morning Dan Dresser, the villain, is dicovered, and the thrashing completed, the mortgage is lifted.

When it comes time for Henry to go back to the city he finds that he has not only fallen in love with the neighbor's beautiful daughter, Jessie Curtis, but that farm life has really become attractive to him, so much so that he decides to make it his permanent home in future, and at his father's earnest solicitation he decides to settle at Hartridge with his bride.

The whole story is a strong argument in favor of farm life and of remaining on the farm instead of rushing to the city.

To those who wish suggestions for the improvement of country places, this little story, "Henry Hart of Hartridge," will be read with interest.



An English Judge at the International.

The International Live-Stock Exposition is exceptionally fortunate in having secured so eminent an authority as Mr. James Durno, of Jackston, Rothie-Norman, Scotland, as judge during the 1907 show of grade and cross-bred steers, including the champions and grand champion, around which so much interest centers each year.

Mr. Durno has for many years been prominent as a judge of cattle at the foremost breeding and fat-stock shows of Great Britain, and is himself an extensive breeder and feeder of pure-bred cattle, having also been very successful as an exhibitor of live stock.

He was born at Jackston in 1854 and has been active in live-stock circles since his nineteenth year, when he succeeded his father in the management of the farm.

For these reasons, and owing to his position as Licensed Public Valuator of live stock, he is peculiarly qualified to perform the duties assigned to him at the coming International Show.

In brief, Mr. Durno comes to us so highly recommended as a breeder, feeder, and judge of cattle, that we are fully convinced all the live-stock men in America will join in extending to him a most hearty welcome.

The National Corn Exposition.

To be held in the Coleseum, Chicago, October 5, to the 19 will be an interesting as well as instructing event. We would urge every farmer to attend as dozens of new ideas on corn-raising will be discussed.

Thousands of dollars of prizes have been selected for the different events, farm lands, pianos, scales, etc. The Davis Cream Separator, manufactured by the Davis Cream Separator Company, 54-0 North Clinton street, Chicago, has been selected as a special premium and will be on exhibition there daily. This is the high-grade machine you have so often seen advertised in our columns as sold direct from the factory, saving purchasers 20 to 25 per cent. Catalogue 125 may be had free. Write them for one.

A FINE STYLE BOOK FREE.

Nebraska Clothing Company Issues Elegant Book Printed in Two Colors—Sent Free for a Postal.

The Nebraska Clothing Co. have just issued their semi-annual fashion book for men and boys, showing every correct and approved style for the season 1907-8.

This book is valuable to every household—with it you do not have to guess at the correct dress for any occasion. It tells you and tells you correctly.

Forty pages of illustrations and descriptions of every popular article of apparel for men and boys, with a liberal assortment of samples of the newest cloths.

This book will be sent you for the asking—a postal will do. Simply address the Nebraska Clothing Co., 1113-1115 Main street, Kansas City, Mo., and ask for Book 16 and mention THE KANSAS FARMER.

All those farmers who asked to be appointed as delegates to the Farmers' National Congress, to be held at Oklahoma City, October 15, and did not receive appointment may come to the congress and will be received on equal terms with those appointed by the Governor and will also receive certificates from me. Robert L. Kepperling, vice president Farmers' National Congress of Kansas, Junction City, Kans.

How would you like to be paid for calling upon your neighbors? THE KANSAS FARMER wants a regular representative and is ready to pay good wages for good work. Write us.

Stock Interests

LIVE STOCK REPRESENTATIVES.

J. W. Johnson.....Kansas and Nebraska
L. K. Lewis.....Kansas and Oklahoma
Geo. E. Cole.....Missouri and Iowa

The Interstate Fair and Exposition.

The grounds at Elm Ridge, Kansas City, witnessed a transformation last week that was remarkable. The low hill adjacent to the grand stand was covered with buildings and tents, the big Agricultural Hall was filled to overflowing with the choicest products of both art and nature, and the live-stock buildings were filled with exhibits which in quality left nothing to be desired.

The first week of the fair was devoted to the exhibition of dairy cattle, dairy products, dairy machinery, the milking-machine, the model dairy, swine, sheep, ponies, poultry, saddle, carriage, and roadster horses. Agriculture, horticulture and floriculture, fine arts, domestic art, etc.

The exhibit of dairy cattle was of excellent quality and included the best dairy herds in the West. People who know were unanimous in their statements that this part of the fair had not been equalled in any recent fair.

The swine exhibits were not so large as desired, but the quality in all breeds was superior, and Judge E. E. Axline is quoted as saying "that at least one of the animals shown was the best he ever saw of that breed."

The showing of sheep is never large at the western fairs, but Oxfords, Cotswolds, Shropshires, Rambouillets, and Merinos were on exhibition.

Poultry were not plentiful though a fair exhibit was made in a tent erected for the purpose.

Perhaps no exhibit attracted more attention than the milking machine exhibited by the Kansas State Agricultural College. Although a part of the equipment was lost on the way from the Kansas State Fair, Mr. Neill, who was in charge, handled the situation well and the crowd was pleased.

The exhibits of agricultural, horticultural, and floricultural products filled every available inch in the great building devoted to their use and did credit to two of the greatest agricultural states in America—Missouri and Kansas.

The fine and domestic arts exhibits were excellent and proved a great attraction to the numerous lady visitors and not indifferent to the men.

The Missouri University made a great exhibit of dairy and beef cattle, swine of two breeds, sheep of two breeds, the model dairy in operation, the model kitchen, and an exhibit in agronomy. It was well made and very attractive.

Under the rules and classifications prepared by the Bureau of Animal Industry, the second showing of the American carriage horse was made, the first having been made at the Kansas State Fair this year.

Taken all together the first week of the Interstate Fair and Exposition was a great success in the quality of exhibits brought together. It was seriously hampered, however, by several days of cold, rainy weather against which no fair could stand.

The awards on livestock follow:

JERSEY CATTLE.

Hunter & Smith, of Beatrice, Neb., won as follows: First on bull 3 years and over, first on bull 2 years and under 3, first on cow 3 years and over, first on bull 1 year and under 2, third on cow 2 years and under 3, first and third on heifer 1 year and under 2, second on heifer under 1 year, first on aged herd, first on young herd, second on get of sire, senior champion bull, senior champion cow, junior champion cow.

Following awards were given Mrs. S. B. Thomas, of St. Joseph, Mo.: First on bull under 1 year, first on cow 2 years and under 3, first on heifer under 1 year, first on get of sire, second on bull 3 years and over, second on cow 3 years and over, second on heifer 1 year and under 2, second on aged herd, third on cow 3 years and over.

R. E. Hyatt, of Lees Summit, Mo., granted second on heifer 1 year and under 2.

Missouri State University second on bull under 1 year, third on young herd.

HOLSTEINS.

C. F. Stone, Peabody, Kans.: First on heifer under 1 year, first on aged herd, first on young herd, first on get of sire, first on produce of cow, senior champion bull, first on junior champion bull, first on senior cow, first on junior champion cow, first on bull 3 years and over, first on Cow 3 years or over, first on cow 2 years and under 3, first on heifer 1 year and under 2, second on heifer under 1 year, second on bull 1 year and under 2, second on bull under 1 year, second on cow 3 years or over.

J. C. Doubt, Havelock, Neb.: First on bull 2 years and under 3, first on bull 1 year and under 2, first on bull under 1 year, second on aged herd, second on young herd, second on get of sire, second on bull 3 years and over, second on cow 2 years and under 3, third on aged herd, third on cow 2 years and under 3, third on heifer 1 year and under 2.

Missouri State University, second on produce of cow, third on bull under 1 year.

RED POLLS.

Mr. E. R. Wileman & Son, of Woodruff, Kans., was the only exhibitor of Red Polled Cattle and won first prize in every class, second in all the cow classes, and third in 2-year-old, yearling heifer and heifer calf.

POLAND-CHINAS.

W. A. Hill, of Bellon, Mo., won the following premiums: First prize on aged boar, boar 1 year and under 18 months, sow 1 year and under 18 months, aged herd, aged herd bred by exhibitor, produce of sow, get of boar, champion, champion sow, second and third prizes on boars 6 months and under 12, on sow 1 year and under 18 months.

John Belcher, Raymore, Mo., won first on boar 18 months and under 2 years, boar 6 months and under 12, boar under 6 months, second prize on sow 6 months and under 12.

J. W. McCorty, Bellon, Mo., won second on boar under 6 months, third on sow under 6 months, first on young herd, first on young herd bred by exhibitor.

University of Missouri won first and second on sow under 6 months, second on produce of sow, and second on get of boar.

CHESTER-WHITES.

Alvey Bros., Argentine, Kans., won first on aged boar, boar under 6 months, sow under 6 months, second prize on sow under 6 months, young herd bred by exhibitor, and produce of sow, third prize on young herd, and on get of sire.

R. F. Frants, Pleasant Hill, Mo., won first on boar 1 year and under 18 months, first on boar 6 months and under 12, first on sow 2 years or over, sow 6 months and under 12, second on aged boar, third on boar under 6 months, second on sow 18 months and under 2 years, second on sow 1 year and under 18 months, third on sow under 6 months, champion boar, second on aged herd, second on young herd, third on young herd bred by exhibitor, third on produce of sow, and second on get of boar.

W. W. Waltmire, Raymore, Mo., won first on boar 18 months and under 2 years, second on yearling boar, second on boar 6 months and under 12, second on boar under 6 months, second on aged sow, first on sow 18 months and under 2 years, first and third on sow 1 year and under 18 months, second on sow 6 months and under 12, champion sow, first on aged herd, first on aged herd bred by exhibitor, first on young herd, first on young herd bred by exhibitor, first on produce of sow, and first on get of sire.

W. I. Dockam won third on sow 6 months and under 1 year.

BERKSHIRES.

James Quorollo, Independence, Mo., won first on boar under 6 months, year and under 18 months, third on boar under 6 months, first on sow 6 months and under 12, second on sow under 6 months, champion boar, first on produce of sow, second on get of sire.

J. H. Blodgett, Pleasant Hill, Mo., won first on board under 6 months, first on sow under 6 months, champion sow, first on junior herd bred by exhibitor, first on get of sire.

Frank Kennedy, Independence, Mo., won second on boar 1 year and under 18 months, second on boar under 6 months.

E. C. Allen, Lone Jack, Mo., won first on boar 6 months and under 12, first on sow 1 year and under 18 months, third on sow under 6 months, first on young herd, second on young herd bred by exhibitor, second on produce of sow, third on get of sire.

DUROC JERSEYS.

W. F. Hutchison, Cleveland, Mo., won first on aged boar, first and third on boar 6 months and under 12, first and second on sow 6 months and under 12, second on young herd, second on young herd bred by exhibitor, second on produce of sow, second on get of boar, and champion boar.

Watts & Dunlap, Martin City, Mo.: First on boar 1 year and under 18 months, first and second on boar under 6 month, first on sow 1 year and under 18 months, first, second, and third on sow under 6 months, first on young herd, first on young herd bred by exhibitor, first on produce of sow, first on get of sire, and champion sow.

Missouri State University, third on get of sire.

SHEEP.

H. E. and E. M. Moore, of Michigan, were the only exhibitors of Merinos and Rambouillets; John A. Haynes, of Iowa, showed Cotswolds; W. W. Waltmire, Raymore, Mo., of Oxfords, and the University of Missouri, of Shopshires and each won all the prizes for which they competed.

Second Week.

Because of the arrangement of the various classes of awards, this was really two fairs, the first week being occupied by the dairy interests and the second by the beef. The exhibit of beef cattle was very strong and the number of animals was large and every available stall was filled from prize-winning herds, most of which had shown the preceding week at the Inter-State Fair at St. Joseph, Mo., and were billed for the Missouri State Fair at Sedalia the following week and the American Royal next. Professor R. J. Kinzer, of the Kansas State Agricultural College, and Mr. Ed Patterson, of Bel Air, Mo., acted as judges on the beef classes.

Congratulations were heard on every hand, both as to the size and quality of this display of beef cattle, and the exhibitors expressed their pleasure in the accommodations afforded them for the stabling and showing of their animals. Elm Ridge is an ideal place for a great fair, and suggestions were frequently made that a combination should be effected between this and the American Royal. As is well known, the American Royal is seriously hampered for room and present indications do not show that this condition will be changed. On the other hand Elm Ridge has a great abundance of room, is one of the most beautiful grounds in America, and lacks in nothing to make of it an ideal site for a great fair and live-stock show except in the one item of railroad transportation. This, however, will probably be no longer an objection, as the railroads have promised to build a connecting line of road which will pass near the corner of the Elm Ridge grounds.

The second week was also devoted to the display of draft horses, coach horses, mules, jacks and jennets, and by special arangement the Heyl herd of Shetland ponies, numbering 26 head, remained on display in a special tent during this week. An unfortunate accident prevented McLaughlin Brothers from being on hand in the early part of the week with their Percheron and French Coach horses, and also prevented them from showing the full strength of their show herd. The herd of J. W. & J. C. Robison was on hand during the entire week and the display of draft and coach horses was quite satisfactory in number and very superior in quality.

There were but few exhibitors of jacks and mules, but here, as in the other departments of the live-stock exhibit, the quality was superior. Taken altogether the display of live-stock was a suprising success for the first exhibition and has served to show the people of the southwest that there is room for a great interstate fair and exposition and that Elm Ridge is the place at which to hold it.

The show was a great one and reflected credit on the management which had brought it together, especial credit being due to Dr. J. S. Gardner, the president, without whose untiring energy the attained results could not have been acomplished. It was very unfortunate that the equinoctial storm came in such a disagreeable form as to materially reduce the attendance and perhaps hamper the administration in a financial way. The possibilities of such an exhibition were shown, however, and if the sister States of Missouri and Kansas will take hold of this matter there is no apparent reason why Elm Ridge should not be the home of the greatest live-stock and agricultural show in the United States. The awards on live-stock for the second week follow:

HEREFORDS.

Bull 3 years or over—First, Cargill & McMillen, LaCrosse, Wis., on Privateer 2d; second, University of Missouri on Onward 19; third, J. O. Bryant, Savannah, Mo., on Maynard.

Bull 2 years old and under 3—First, Cargill & McMillen on Bonne Brae 2d; second, Makin Bros., Grandview, Mo. on Beau Paragon; third, J. O. Bryant, on Luboy.

Senior yearling bull—Cargill & McMillen on Bonnie Brae 6th.

Junior yearling bull—First, Makin Bros., on Beau Adventurer 2d; second J. O. Bryant, on Governor 3d; third, J. O. Bryant on Jonnie.

Senior bull calf—First, J. O. Bryant on Curtis; second, Makin Bros., on Paragon; third Cargill & McMillen, on Princeps.

Junior bull calf—First to Cargill & McMillen on Princeps; second, Cargill & McMillen, on Bonnie Brae 12th; third, Makin Bros., on Parogon 8th.

Cow 3 years old or over—First, Cargill & McMillen; second to Cargill & McMillen; third to University of Missouri.

Cow 2 years old and under 3—First to Cargill & McMillen; second to Cargill & McMillen.

Senior yearling heifer—First to Cargill & McMillen; second to Makin Bros.

Junior yearling heifer—First to Car-

HORSE OWNERS! USE GOMBAULT'S CAUSTIC BALSAM.

A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bunches from Horses. Impossible to produce scar or blemish. Send for descriptive circulars.

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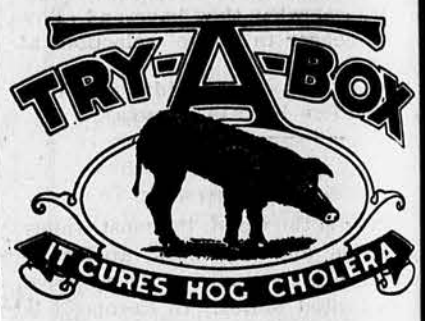

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ALSO A PERFECT PREVENTIVE.

Cures Mange, Expels Worms. An Excellent Conditioner. $1 per pound Can.

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Address B. H. RAGAN, Mgr.

If you have Cholera in your herd, send for us. If we cure, you pay for medicine and our expenses. If we don't cure, it don't cost you one cent.

SCRATCHES If you mean business and really want to CURE that poor horse of yours of those Awful Scratches, Sore Shoulders or Collar Galls, stop experimenting and get a box of

BALMOLINE Dr. Hoyt's

The ONLY salve for man or beast.
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Worms all Over the Ground

Drexel Mo., Route 2, Jan. 24, 1907.
F. J. TAYLOR CO.
Bag of Tonic received and I put it in box as directed. My hogs eat it fine and I think it has done them good from the worms I see scattered over the feed-lot. I believe it is all right, especially for hogs. Will let you hear from me when it is all gone. I remain yours for a fair trial. W. G. BINKLEY.

Taylor's Stock Tonic does more than drive out the worms. It puts your hogs, cattle and horses in the pink of condition, makes them grow faster and stronger, prevents cholera, blackleg and all diseases arising from imperfect digestion.

We want you to know all about our Stock Tonic so we will send you 50 pounds on trial if you will send us this advertisement.

In 30 days you will send us $2 for the tonic, or return the empty bag if it is not satisfactory, and there is no charge.

We are sending out thousands of bags on this basis and practically every one is paid for. It shows the merit of the goods and the honesty of the farmers. Cut out this ad to-day and send it to us.

F. J. TAYLOR CO.,
361 Live Stock Ex., Kansas City, Mo.

DR. W. J. CONNER,
LABETTE, KANSAS.
Breeder and Shipper of
MULE-FOOTED HOGS
THE COMING HOGS OF AMERICA.
They never have cholera. They are the best rustlers in the world. Pigs from 10 to 16 weeks old $10 per pair. Write for particulars.

DOWLING'S FISTULA AND LUMP JAW CURE.

A scientific remedy and cure for fistula, poll-evil and lump jaw; price $1 per bottle. Used by stockmen everywhere. When ordering state how long affected, if fistula, poll-evil or lump jaw; whether swollen or running. Give particulars; also express office.

W. T. Dowling & Co., - St. Marys, Kans.

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Different from all others. Grind Corn with husks or without. Kaffir in the head and all kinds small grain. 4 and 2 horse sizes. Grind 10 to 1 or 7 to 1. (Also make 7 sizes belt mills)

C. N. P. Bowsher Co., South Bend, Ind.

gill and McMillen; second to Cargill & McMillen; third to J. O. Bryant.

Senior heifer calf—First and second to Cargill & McMillen; third to Makin Bros.

Junior heifer calf—First and second to Cargill & McMillen; third to J. O. Bryant.

Senior champion bull 2 years old or over—Cargill & McMillen on Bonnie Brae 3d.

Junior champion bull under 2 years—Cargill & McMillen on Bonne Brae 6th.

Senior champion cow or heifer, 2 years old or over—Cargill & McMillen.

Junior champion heifer—Cargill & McMillen.

Grand Champion bull—Cargill & McMillen on Bonnie Brae 3d.

Grand champion cow—Cargill & McMillen on Mignionette.

Aged herd—Cargill & McMillen.

Young herd—Cargill & McMillen.

Calf herd—Cargill & McMillen.

Produce of cow—First and second to Cargill & McMillen; third to J. O. Bryant.

Get of sire—First to Cargill & McMillen; second to Makin Bros.

SHORTHORNS.

Bull 3 years old or over—First to Case & Newell, Carthage, Mo., on Master of the Grove.

Senior yearling bull—First to Case & Newell; second to J. W. McDermott, Kohoka, Mo.

Junior yearling bull—First to T. J. Wornall & Son, Liberty, Mo., on Careless Conquerer.

Senior bull calf—First to F. M. Hall, Carthage, Mo., on Hallwood Model.

Junior bull calf—T. J. Wornall & Son on May King.

Cow 3 years old or over—First, Case & Newell on 7th Ravenwood Countess; second to University of Missouri on Laura Doone.

Cow, 2 years old and under 3—First to Case & Newell on 21st Ravenwood Countess; second to J. W. McDermott, on Cypress Lovely.

Senior yearling heifer—First to Case & Newell, on Shadewell Countess.

Junior yearling heifer—First, second, and third to T. J. Wornal & Son on Rose O'Day, Maud Marion, and Glad Smile.

Senior heifer calf—First to T. J. Wornall & Son; second to Case & Newell; third to T. J. Wornall & Son.

Senior champion bull—Case & Newell on Master of the Grove.

Junior champion bull—Case & Newell on Golden President.

Senior champion cow—Case & Newell on 21st Ravenwood Countess.

Junior champion heifer—T. J. Wornall & Son.

Grand champion bull, Case & Newell on Master of the Grove.

Grand Champion cow—T. J. Wornall & Son, on Rose O'Day.

Aged herd—Case & Newell.

Young herd—T. J. Wornall & Son.

Produce of cow—First and third to T. J. Wornall; second to Case & Newell.

Get of sire—T. J. Wornall & Son.

ABERDEEN-ANGUS.

Bull 3 years old or over—First to W. J. Miller, Newton, Ia., on McDonald's Lad.

Bull 2 years old and under 3—First to W. J. Miller on King Donald.

Senior yearling bull—First to McDonald & Brantley, Princeton, Mo., on Minits.

Junior yearling bull—Wheatly & Word, King City, Mo.

Senior bull calf—First to Wheatly & Word; second to McDonald & Brantley; third to W. J. Miller.

Junior bull calf—First to Wheatley & Word; second and third to McDonald & Brantley.

Cow 3 years old or over—First and third to W. J. Miller; second to McDonald & Brantley.

Cow 2 years old and under 3—First and third, W. J. Miller; second to McDonald & Brantley.

Senior yearling heifer—First to McDonald & Brantley; second to W. J. Miller.

Junior yearling heifer—First and third to W. J. Miller; second to McDonald & Brantley.

Senior heifer calf—First to McDonald & Brantley; second and third to Wheatley & Word.

Junior heifer calf—First, second and third to W. J. Miller.

Senior champion bull—W. J. Miller.

Junior champion bull—W. J. Miller.

Senior champion cow—W. J. Miller.

Junior champion cow—W. J. Miller.

Grand champion bull—W. J. Miller.

Grand champion cow—W. J. Miller.

Aged herd—W. J. Miller.

Young herd—First to W. J. Miller; second to McDonald & Brantley; third to Wheatley & Word.

Calf herd—First to W. J. Miller; second to Wheatley & Word.

Produce of cow—First to W. J. Miller; second to McDonald & Brantley; third to W. J. Miller.

Get of sire—First and second to W. J. Miller; third to Wheatley & Word.

GALLOWAYS.

Bull 3 years old or over—First to Straub Bros., Avon, Nebr.; second to S. M. Croft & Son, Bluff City, Kans.

Bull 2 years old and under 3—First to Straub Bros; second to G. W. Lindsey, Red Clous, Neb.; third to Straub Bros.

Senior bull calf—First to G. W. Lindsey; second to Straub Bros.

Junior bull calf—First to Straub Bros.; second to S. M. Croft & Son; third to G. W. Lindsey.

Cow 3 years or over—First and third to G. W. Lindsey; second to Straub Bros.

Cow 2 years old and under 3—First to Straub Bros; second and third to S. M. Croft & Son.

Senior yearling heifer—First to Straub Bros.; second to S. M. Croft & Son.

Junior yearling heifer—First to G. W. Lindsey; second to S. M. Croft & Son; third to Straub Bros.

Senior heifer calf—First and second to Straub Bros; third to G. W. Lindsey.

Junior heifer calf—First to Straub Bros.; second to S. M. Croft & Son; third to G. W. Lindsey.

Senior champion bull—Straub Bros., on Scottish Standard of Dunham.

Junior champion bull—Straub Bros.

Senior champion cow—Straub Bros.

Junior champion heifer—Straub Bros.

Grand champion bull—G. W. Lindsey on Observer.

Grand champion cow—Straub Bros. on Sadie of Meadow Lawn.

Aged herd, first to Straub Bros; second to G. W. Lindsey; third to S. M. Croft & Son.

Young herd—First to G. W. Lindsey; second to S. M. Croft & Son; third to Straub Bros.

Calf herd—First to G. W. Lindsey; second to Straub Bros.

Produce of cow—First to Straub Bros.; second and third to S. M. Croft & Son.

Get of sire—First to G. W. Lindsey; second to Straub Bros.; third to S. M. Croft & Son.

PERCHERONS.

J. W. & J. C. Robison, Towando, Kans., were the only breeders of Percherons who had their exhibit installed at the opening of the second week of the fair. McLaughlin Bros., of Kansas City, Columbus and St. Paul, were put out of commission by a railroad wreck so that they did not reach the Interstate Fair at St. Joseph with their horses at all and were not able to appear on the ground at Elm Ridge before Thursday morning, when most of the classes had been judged. J. W. & J. C. Robison were given prizes in all the regular classes, including champion stallion and champion mare, and champion group of stallion and four mares in which they showed. McLaughlin Brothers were given first prize in stallion 2 years old and under 3, and all of the awards in the Percheron Registry Company special for which they showed. The University of Missouri won second prize on mare 3 years old or over on the only animal they showed. The Robisons also won first, second and third on single mare or gelding weighing over 1,750 pounds, and first and second on pair of horses weighing over 3,500 pounds.

No Belgians or German Coach horses were shown on the grounds and McLaughlin Brothers were the only exhibitors of French Coach horses. In this breed they won first prize on stallion 4 years old or over, first on stallion 3 years old and under four, and champion stallion any age, together with the French Coach Horse Registry Company specials at $100 each.

The Percheron Registry Company specials of $100 were all won by McLaughlin Bros., an all classes, including the best stallion any age.

JACKS AND JENNETS.

The exhibitors of jacks and jennets were not large, but of extra quality. W. B. Emmison of Wellington, Mo., secured all the premiums offered in this class, and his exhibit was a fine one in every respect. He was also the largest exhibtior of mules in which classes he won all the prizes offered except for mule 2 years old and under 3, and best pair of mules under 3 years old, which prizes went to J. R. Adams. Mr. Emmison also won the prize for best six-mule team to wagon. While the exhibits in this class were not as large as was desired, they were remarkably fine and visitors at Elm Ridge were given the opportunity of seeing the great Missouri mule at his best.

The American Royal Hereford Sale.

Attention is once more called to the sale of Herefords to be held at the Live-Stock Pavillion in Kansas City, October 15, during the American Royal Live-Stock Show, at which time 28 bulls and 22 females will be offered.

The cattle selected for this sale are from the herds of C. L. Brown, Laredo, Mo.; J. O. Bryant, Savannah, Mo.; Cargill & McMillan, La Crosse, Wis.; T. W. Carmichael, Odessa, Mo.; Cornish & Patten, Osborn, Mo.; L. M. Dehoney, Hickman Mills, Mo.; J. J. Early, Baring, Mo.; Benton Gabbert, Dearborn, Mo.; S. J. Babbert, Dearborn, Mo.; Robt H. Hazlett, El Dorado, Kans.; J. S. Lancaster & Sons, Liberty, Mo.; J. A. Larson, Everest, Kans.; Makin Bros., Grandview, Mo., E. R. Morgan, Blue Rapids, Kans.; Mousel Bros., Cambridge, Neb.; Scott & March, Belton, Mo.; C. A. Stannard, Emporia, Kans.; D. C. Stayton, Blue Springs, Mo.; W. T. Stovall, Jameson, Mo.; R. T. Thornton, Kansas Ciy, Mo., and R. C. Wilson, Belton, Mo., and have been very carefully selected with the view of offering nothing that is not strictly first-class.

The Hereford Association is behind this sale, and every animal is thoroughly guaranteed. If you are in need of some really desirable animals, either males or females, do not overlook this sale. If you have not already received a catalogue and desire one, write to Secretary C. R. Thomas, 221 West Twelfth street, Kansas City, Mo.

The Chester Thomas Sale.

One of the strongest offerings of Durocs that will be made this season is the offering of Chester Thomas at Waterville, Kans., Wednesday, October 23. Fifty-five head will be sold and are all the cream of this seasons crop of young stuff with the exception of fifteen very toppy fall yearlings, one tried sow and two splendid spring yearling boars sired by Nebraska Wonder and out of Kansas Wonder sows. It has been Mr. Thomas' intention all along to hold both a fall and winter sale but he has recently decided to hold but the one sale and that on the above date. All of the fancy fall yearling sows that were to go in his winter bred sow sale will now go in this sale open. As is well known Mr. Thomas has one of the largest herds in the State and in this sale he is making the effort of his life to make it a sale of attractions all the way through. The 20 spring boars are the tops of over 60 head of this seasons raising and the gilts are from a like number of this seasons crop of gilts. But one sale of a top pig has been made from this choice lot this season as all of the best were being reserved for these two sales. Now that the bred sow sale is not to be held, the sale on the above date will be a big offering of the best.

The writer spent the forenoon of last Monday looking this offering over and if space would permit would like to mention all of the many attractions we looked at. One attraction is a splendid Kansas Wonder sow that Mr. Thomas says is one of his best that goes in the sale open. She is sold strictly as an

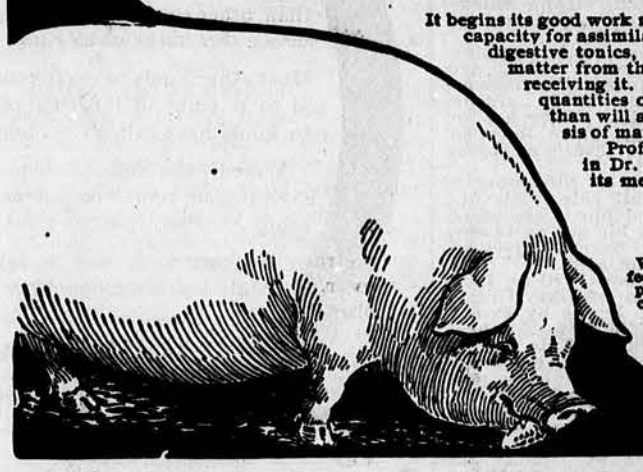
Layers of Fat

Turning corn into pork is paying business, provided the transformation is made with the smallest percentage of waste and loss of time. Now a hog lays on flesh rapidly, so rapidly, in fact, that a few months suffice to double the original weight of a common shote.

To increase weight *three or four times*, however, in the same period that some feeders require for changing a 100 lb. pig to a 200 lb. hog, is to gain the big profits in the business. This can be done, but digestion must be kept at its maximum performance from start to finish—something impossible to do if nature *alone* is depended on to correct the ills sure to follow heavy feeding.

The preparation which long experience has proved the best assistant Nature can have in maintaining *perfect* animal digestion is

DR HESS STOCK FOOD (A TONIC)



It begins its good work right at the foundation by strengthening the hogs' digestion and capacity for assimilation. It is the prescription of Dr. Hess (M.D., D.V.S.) and, besides digestive tonics, contains iron for the blood and cleansing nitrates to expel dead matter from the system. Dr. Hess Stock Food increases appetite in all animals receiving it. A steer or cow fed on Dr. Hess Stock Food will consume large quantities of roughage and extract more nutriment from the whole ration than will an animal fed without it. This is conclusively proved by the analysis of manures from differently fed cattle.

Professors Winslow, Quitman and Finley Dun endorse the ingredients in Dr. Hess Stock Food and thousands of successful feeders testify as to its merits. **Sold on a written guarantee.**

100 lbs. $5.00; 25 lb. pail $1.60 { Except in Canada and extreme West and South.

Smaller quantities at a slight advance.

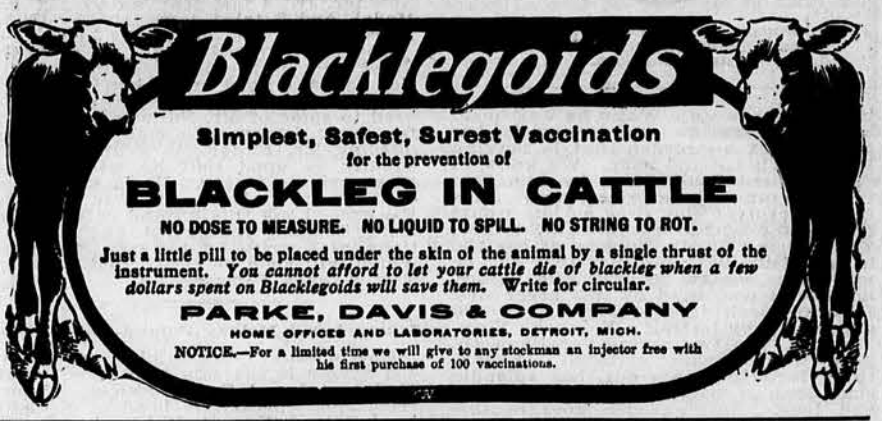
Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal compound and this paper is back of the guarantee

Free from the 1st to the 10th of each month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. You can have his 96-page Veterinary Book any time for the asking. Mention this paper.

DR. HESS & CLARK, Ashland, Ohio.

Also Manufacturers of Dr. Hess Poultry Pan-a-ce-a and Instant Louse Killer.

INSTANT LOUSE KILLER KILLS LICE.



20 KENTUCKY AND SPANISH JACKS

from 14½ to 16 hands high, from 2 to 5 years and as good as grow.

10 PERCHERON, FRENCH DRAFT AND CLYDE STALLIONS

from 2 to 5 years old weighing from 1,800 to 2,000 pounds, sound and of the right type, absolutely sound.

Every animal I sell will be fully guaranteed just as represented. If you are in the market for anything I have it will pay you to visit my barns. Must sell this stock within the next thirty days. Come quick.

O. P HENDERSHOT - - HEBRON, NEBRASKA

REVOLUTION PATENTED BUCKLES...

When used will save more than one-half the cost over old way of repairing harness. No stitching, no riveting. Send 25c to pay for sample assorted set of Buckles, postpaid. Free illustrated catalog. Big profits to agents.

Topeka Buckle Co.

225 Kansas Ave. Topeka, Kansas.

Onstad's CURE LUMPY-JAW CAPSULES.

Permanently, quickly and scientifically. Only one application required, cures 99 out of 100 cases. No danger. No scar. Humane. Saves the animal and makes her marketable. Tested 20 years. Your money back if it fails.

County agents wanted.

Write for particulars.

THE ONSTAD CHEMICAL CO., 104 Key St., Indianapolis, Indiana.

Why Lose Calves from Blackleg?

They constitute the future herd.

VACCINATE NOW WITH THE ORIGINAL

Pasteur Vaccine Co. { BLACKLECINE (Cord form) / Blacklegulne (Pellet form) / Blackleg Vaccine (Powder)

Produced by the Discoverers: Profs. Arloing, Cornevin and Thomas.

Successfully used on over 36,000,000 Head.

PASTEUR VACCINE CO., Ltd.

306-8 W. 11th St. 7 Rue Keyerbeer 441-5 Wabash Ave.

NEW YORK PARIS CHICAGO

Sole Concessionaires Institut Pasteur, Paris, Biological Products

Our Rat Virus is the only Scientific non-poisonous rodent exterminator.

Alfalfa Mills

for making alfalfa meal. Convert $7 hay into $20 meal. It is better in every way than bran. If interested, write. We Sell Pure Meal.

ALFALFA MILL MANUFACTURING CO., Newton, Kansas.

attraction and is guaranteed a model brood sow. She has to her credit a litter of eleven raised out of seventeen farrowed. She is a splendid individual. Two other attractions are two spring yearling boars sired by Nebraska Wonder and out of Kansas Wonder dams. They are very toppy and should not be overlooked by breeders desiring herd boars. Six head in this sale are out of Crimson Queen who was the dam of Vale's Special, a gilt sold in Mr. Thomas's last fall sale and afterwards sold in C. E. Pratt's bred sow sale for $500. Two of them are yearling sows and two are spring gilts and two are spring boars. They are very desirable and real attractions. Almost the entire offering was sired by Nebraska Wonder he by Crimson Wonder. Nebraska Wonder is one of the great

J. W. Johnson, live-stock representative of The Kansas Farmer in Kansas and Nebraska.

sires of the breed. While he was never shown and has no show record he has a record as a breeder that is making him known far and near. We know of several herd boars sired by him that it would take a long price to buy. This seasons crop of pigs sired by him would do credit to any Duroc sire in the land. The offering of Mr. Thomas of the 23d is one of the best offerings that will be made this season, as was said before, most of it was sired by this great sire. Breeders desiring a spring boar would not miss it by buying a Nebraska Wonder pig. The two spring yearlings are good herd header material. Everything is well grown out, has splendid size, best of backs and on good feet and legs. Nothing else goes in this sale. The gilts the big, smooth things and very fancy.

J. W. Johnson, representing The Kansas Farmer will be in attendance at this sale and will handle any bids intrusted to his care and sent in care of Mr. Thomas at Waterville. Drop Mr. Thomas a card for a catalogue. They are now ready. See advertisement in another place in this issue.

American Royal Galloway Sale.

On October 18, at Kansas City, Galloway breeders, stockmen, and the public will have an opportunity of placing public values on a superb lost of Galloway females. The offering comprises drafts from the herds of Messrs. Clarke, Croft, Lindsey, Brown, Bales, Clelland, and Miller.

S. M. Croft and Sons are contributing four choice daughters of their great show bull Randolph 2d of Thornichill and an exceptional Crusader sow with bull calf at foot. These cows and heifers all possess show-yard qualities and several of them have been consistent winners this season. G. W. Lindsey is sending forward five of the top notch matrons of his herd including his famous show cow Favorite 16th of Lochenkit, which is safe in calf to the champion Pat Ryan of Red Cloud. These cows are a draft of the largest and smoothest cows in Lindsey's herd, several of them are the dams of Lindsey's prize-winning herd and calf herd this year.

Messrs. Brown have consigned Marella, one of the largest and best formed cows of their herd. She is well along in calf and weighs near 1,600 pounds, just off grass. They are also including their great two-year-old heifer, Eglantine, which is also safe in calf.

C. E. Clarke, St. Cloud, Minn., has contributed two illustrious daughters of Worthy 3d, which will have calves at foot day of sale. These cows form attractive lots and they possess the blood of the most popular blood lines of the present day. Two gentlemen Joe cows are also included from the Meadow Lawn herd which will have calves at foot. Bales & Son have put in a superb young Macdougall 4th of Tarbrooch cow with a fine bull calf at foot by Canty Lad, the great show bull the Messrs. Bales lost in 1906. This cow and calf will be one of the greatest attractions and moneymakers that will be offered this year. Clelland Brothers are sending forward a very useful cow with heifer calf at foot. She is the kind to start a herd with and make quick returns for her owner. D. M. Miller has contributed two splendid cows, one of which was bred at the renowned Brookside Galloway farm, Fort Wayne, Ind. Many of the other cows and heifers listed are worthy of mention. They are without question the best and most useful lot that has been included in any sale held under the auspices of the Galloway Association at Kansas City. They possess the best and most popular blood lines of the breed and the individual merit of many of them has been full attested by their show-yard records and the records of their produce.

For further information and catalogue, address Chas Gray, 17 Exchange avenue, Chicago.

N. J. Fuller's Durocs.

N. J. Fuller, of Garnett, Kans., has one of the good herds of Durocs in that part of the State. He is practically a new breeder, but in selecting his foundation stock he secured the best, representing the most popular blood lines of the breed.

The herd boars in service are sons of Ohio Chief, Kant Be Beat, Tip Top Notcher, Proud Advance, and Hunt's Model, and they are as good individually as they are well bred. It is seldom that you find as many popular blood lines in one herd, and Mr. Fuller has shown rare judgment in building on such a foundation. His herd sows are an outstanding lot, one of the best breeding, have size and finish, with good bone and feet, and farrow and raise good litters.

The crop of spring pigs from these matings, as can be expected is a good one, and the writer saw some fine prospects among them. They all have plenty of bone and stretch, strong thick-fleshed backs, fancy head and ears, and stand up on the best of feet.

Mr. Fuller also has 5 fall yearling boars that are good ones. They are strong, vigorous fellows with brawny bone, good feet, fancy heads, strong backs, and lots of finish. They are fit in every respect for a place in good herds. They are by Fuller's Model and he by Hunts Model.

Mr. Fuller has claimed November 9 as the date of his fall sale. His offering will be a good one, consisting of 20 of the tops from his spring boars, the 5 fall yearling boars described above, and 15 sows and gilts.

Among the spring boars will be 2 by Lincoln Wonder a son of Ohio Chief; 10 by Proud Advance, Jr., he by Proud Advance, and 8 by Tip Top Notcher, Jr., a son of the World's Fair champion, Tip Top Notcher. There are some mighty good boar prospects here, and any one needing a herd header should not fail to attend this sale, or call, or write and secure one at private treaty. Among the 15 females offered there will be 6 spring gilts by Proud Advance, Jr.; 3 spring gilts by Tip Top Notcher, Jr.; 4 fall yearling by Fuller's Model, and 2 tried sows, one by Field Marshall, Jr., and one by Sir Joshua.

The entire offering will be properly fitted and in the best possible condition to make good in the hands of their purchasers, and the females will all be bred to some of Mr. Fuller's herd boars for early farrow. In addition to this offering Mr. Fuller has a line of stuff equally as good that he will dispose of at private treaty. He is starting a card in this issue of The Kansas Farmer. Look this up and call on him or write him for prices and descriptions, also write for his sale catalogue which will soon be ready, and mention The Kansas Farmer.

Ishmael and McKay Poland-China Sale.

One of the Poland-China events of the season is the sale announced by B. F. Ishmael and G. W. McKay, of Laredo, Mo., who sell 78 head of choicely bred Poland-Chinas at their home city on Saturday, October 26. The offering is strictly choice throughout, in the pink of condition, and sired by many of the boars that have and are now making the history of the breed resplendent with the glory of achievement in the show ring and sale record. Following are some of the sires of this great offering: Masticator, On the Plumb, Indiana, Impudence Style, Meddler 2d, G's Perfection, Corrector 2d, Spellbinder, Chief Perfecttion 2d, Dispatcher, Oxygen, Missouri's Keep On, Missouri's Meddler, and Mark Twain, and out of such dams as Fire Queen 2d, the sow that topped J. R. Young's sale last spring; Maid of Mastin, the $460 sow of E. L. Jenneson's sale at Independence last winter; Geraldine, by Corrector; Princess I am, by Prince Alert, Bettie Perfection, by Chief Perfection 2d; On and On's Favorite, by On and On; E. L.'s Delightful, by Perfection E. L.; She's a Chipper, by Chief Perfection 2d, and Eva's Queen, by Spellbinder. There will be so few sales anywhere this fall that will offer more attractions than will be found here. Here are some of them and how do they appeal to you? Masticator 2d by Masticator, a pig that is individually good enough to head any good herd of Poland-Chinas. He has been pronounced by a competent judge to be the best Masticator pig he has even seen. It is useless to tell about the merits of his breeding for everybody knows that it is as good as the best. Fire Queen, by Corrector 2d, and sister in bood to the $2,000 Sis Hopkins, and the top of J. R. Young's sale last spring. She is a tried brood sow and is the dam of some of the best things in this sale. Eva's Queen, by Spellbinder, is full of quality and stands high up in the eminence of excellence. Maid of Mastin, by Corrector a great sow that was purchased at E. L. Jenneson's sale at Independence last winter at $460 and belongs to an illustrious family of prize-winners. Some of her produce are doing good service in some of the famous herds of the country. She's a Clipper, by Chief Perfection 2d, a litter mate to Masticator. She is a clipper sure enough and should find a home in some good herd.

These gentlemen are putting in some of the best things of their herds in the effort to make this one of the greatest sales of the season. The young stuff of the offering is well grown with lots of quality and finish. A noticeable feature of them are good strong backs, well sprung ribs and splendid feet. The breeders of this herd of hogs will not be disappointed in this sale for you will find something there that you will be proud to own. Send today for catalogue and learn more about them by addressing either B. F. Ishmael or G. A. McKay, Laredo, Mo.

John Cramer's O. I. C.'s.

One of the best-known and up-to-date breeders of O. I. C. swine in the West is Jno. Cramer, of Beatrice, Neb. His herd at the present time numbers 250 and Kerr Garnett 17167 is at its head.

Kerr Garnett is an outstanding individual, and a sire of unusual merit. He was bought by Mr. Cramer last year at the American Royal at a long price, and taken to Nebraska to head this great herd of I. O. C.'s.

Kerr Garnett has been a constant prize winner wherever shown, and won first in class at the Missouri and Kansas State Fairs, and the grand championship at the American Royal, 1906.

The larger part of this year's crop of pigs are by Kerr Garnett and Mr. Cramer says that they are among the best he has ever raised. The herd sows represent some of the best blood lines of the breed. They are large and smooth and good producers. Mr. Cramer has recently purchased of Humbert & White the great young boar, Choice Goods, who was second in one of the most hotly contested classes at the Iowa State Fair this year. Choice Goods is a full brother to Joker, who who first in class, and champion at the Nebraska State Fair, 1907. His dam is also a first prize winner and a champion. Choice Goods is an April yearling, an exceptionally fine individual, and will withopt doubt prove a prepotent sire.

Mr. Cramer will hold a bred sow sale January 8, 1908. His offering will be the tops from his great herd. Thirty of the spring gilts in this sale will be by Kerr Garnett, and there will be by Kerr Garnett, and there will be 25 bred to him. All of Kerr Garnett gilts in this offering will be bred to Choice Goods.

Mr. Cramer has a choice line of boars by Kerr Garnett, and there will be 25 row that he is offering for sale at private treaty. These are strong, vigorous fellows big enough for service. Write Mr. Cramer for prices and watch for his sale announcement which will appear later in The Kansas Farmer.

W. R. Peacock's Poland-Chinas.

W. R. Peacock, of Sedgwick, Kans., informs us that he has some good fall boars for sale at prices that will move them. One of these is by Mischief Maker I Know, dam by Prince Proud, and her dam by Perfect Ino, another good one is by C's Corrector, he by Corrector, dam by Klever's Perfection, the great sire of prize winners. These two boars are strong, vigorous fellows with both size and quality, and are fitted by both breeding individuality for a place in good herds.

Mr. Peacock also has for sale a 2-year-old boar by Prince Proud that has been used some in his herd, and has proved a good breeding animal.

He also has a fine line of males of March and April farrow. These are by his herd boars and out of some of his best sows. They have plenty of bone and stretch, are well grown out, and large enough for service.

Mr. Peacock is one of the oldest and most careful breeders of Poland-Chinas in the State and his herd is noted for its blood line, good individuals, and sure breeding qualities. Mr. Peacock ships only tops on mail orders, and his prices are reasonable. Look up his card in The Kansas Farmer and write him for description and prices.

Marr's Duroc Sale.

On October 23, W. E. Marrs, of Albany, Mo., will sell 61 pure-bred Duroc-Jersey swine consisting of 18 fall gilts, 21 boars, and 22 spring gilts rich in the blood of Improver 2d, Cole's Duroc, Victor, and Masterpiece.

Mr. Marrs is comparatively a young man, and this is his second annual sale. His herd has been well selected and compares favorably will the good Duroc herds of the country, and the offering of his coming sale affords an opportunity to obtain a lot of good, servicable stuff that will prove money-makers for the purchaser. The Duroc hog with the last few years made a phenomenal record, and they are still going and if you are partial to this character of hogs, "get in" and buy some of this good stuff.

Mr. Marrs has on his farm some excellent brood sows and the offering is largely their produce. He has recently purchased a boar of great quality to head his herd. More will be said about him, however, later on. Send for one of his catalogues which will explain to you in detail with reference to blood lines represented in the offering.

Collins Sells a Great Boar.

Thos. Collins, of Lincoln, Kans., has just sold one of the best Poland-China boars to change hands this year—not for several thousand dollars, it is true, but for $250. This boar is Commoner, a spring pig by Grand Chief and out of Queen of Hearts by Perfection E. L. Grand Chief cost F. A. Dawley $3,000 and Queen of Hearts is one of the best sows that ever brought pigs to a Grand Chief service. She was bought in Mr. Dawley's sale at Salina by Mr. Collins at $450. The excellence of this breeding is too well known to need comment, and the pig is as good as the breeding. Mr. Collins has more of this kind, and he has a number of good boar prospects by Grand Chief and there are two extra good ones by S. P.'s Perfection. These are of early farrow, are large enough for service, and fit to head good herds.

Any of our readers needing a herd header should write Mr. Collins at once for here is where they can get what they want.

The J. F. True Shorthorn Sale.

Mr. J. F. True, Jr., of Perry, Kans., who succeeds to his father's great reputation as a Shorthorn breeder, has decided to hold a sale at the State Fair grounds at Hutchinson, Kans., on October 24. Mr. True will be joined in this sale by Mr. H. E. Huber, of Meriden, Kans.

Colonel True's herd of Shorthorns is one of the oldest and best in the State and Mr. Huber has bred along much the same lines. From these two herds will be selected an offering that will be sure to please the farmers of Central Kansas as well as the breeders who are sure to be there from all parts. Full particulars in regard to these offerings will be given in The Kansas Farmer Meantime, fix the date in your memory and do not let anything prevent you from being present at the sale.

Those Six-Horse Hitches.

No feature of a live-stock or a horse show creates more enthusiasm among the spectators than the six-horse hitches. When the big animals canter into the arena dragging the heavy wagons with such apparent ease, directed with a finesse and accuracy which would be remarkable even in a four-horse team, the crowds always cheer. The American Live-Stock Show, which will be held at the stock yards Ovtober 14 to 19, has every year made a special attraction of such teams, and the show this year will have them as usual. The six-horse hitches that have been shown are usually the property of packers, whose need of many heavy teams has made opportune the securing of some very fine animals.

English horsemen know a good horse when they see one. Fine horses have been raised and bred up, and pampered and petted and praised, over there, for thousands of years, and when the best judges in England pass their highest

(Continued on page 1129.)

Amatite

TRADE B MARK

ROOFING

For Farm Buildings

When the proprietors of Bellemeade Farm roofed their big buildings (one of which is shown above), they chose Amatite. Why? First—Because Amatite costs less than other roofings. Second—Because Amatite has a mineral surface *that never needs paint.*

Most other kinds of ready roofing need to be painted regularly, and to re-paint all the roofs of Bellemeade Farm every year or two would have called for a huge expenditure of labor and money.

Weren't the Bellemeade people sensible in selecting Amatite? Even if your roofs are not as large as these, the economy of using Amatite is just as great in proportion.

Amatite is easy to lay, requiring no skill or tools Nails and cement are free with every roll.

Sample free on request. Send for it Address nearest office

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EASY TO LAY

NEEDS NO PAINT

Agriculture

White Clover Seed.

Would you please write and tell me when to sow white clover seed, and how much to the acre? Is it best to sow rye or oats with the clover or seed it alone? JOHN E. HENRICKS.

Montgomery County.

It is best to sow clover early in the spring. Clover sown in the fall is apt to winter kill. If you refer to the small white Dutch clover such as grows in the lawns in Eastern Kansas would advise to sow about four or five pounds to an acre for field culture, if you are sowing on a lawn increase the amount according to judgment.

You will be more apt to secure a patch of clover by seeding alone without a nurse crop on clean land.

A. M. TENEYCK.

Fall Weather Sorghum.

I had a lot sown to cane in May and it grew so tall that I had to cut it in August. The second crop is now as high as the first cutting, and headed out, just in bloom. Is this second crop injurious to stock in any way? Can I safely turn cattle or hogs on it and pasture it down or will I have to cut it and shock it and feed it that way?, The very rich soil was the reason of its growing too rank. I have heard that the second crop was poison to stock, either green or put up as hay. Will you please advise me what to do? E. T. LARRICK.

Osage County.

Experiments carried on at the Nebraska Experiment Station indicate that during dry cool fall weather sorghum is very apt to develop Prusic acid, a deadly poison, and when such sorghum is eaten green, by stock, it is almost sure to kill the animals. Usually it is the second growth of sorghum that develops the poison but the poison may develop also in a late sown sorghum. Apparently the weather conditions have something to do with it. There may be no danger in pasturing the second growth sorghum which you describe. A safe plan, however, is to cut, cure, and put it up for hay as you have suggested, apparently in curing the sorghum the poisonous principles disappear and the dry fodder may be fed without danger of injuring stock. I have mailed copy of circular letter discussing the subject of sorghum poisoning, also refer you to Bulletin 77 of the Nebraska Experiment Station, Lincoln, Neb. A. M. TENEYCK.

Combination of Grass with Alfalfa.

I am thinking of sowing some alfalfa this fall as soon as we have a good rain. I have been thinking of sowing some kind of grass with the alfalfa, such as blue grass, orchard grass, or Bromus inermis as I wanted to use it for a meadow for two or three years and then use it for pasture for about the same length of time. As I have not heard of anything like that tried I would like to have your opinion regarding the matter and if you think this would be a good plan which kind of grass would you advise me to sow with the alfalfa and in what proportion to each other? What is your opinion regarding Bromus inermis grass? Do you think Bromus inermis would prove a better grass than red top or English blue grass for pasture?

Neosho County. ALEX SPRING.

The combination of grass with alfalfa makes very good pasture. We have found the alfalfa and Bromus inermis combination best adapted for this purpose, however, in your section of the State the Bromus inermis does not succeed so well as it does here and it will perhaps be best to use English Blue grass and orchard grass in combination with alfalfa. However, you might include a little Bromus inermis. I would recommend to sow six or eight pounds of alfalfa with ten pounds each of English blue grass and orchard grass and five pounds of Bromus inermis per acre.

We have several plots of combination crops of alfalfa and Bromus inermis. The yield of hay from the combination plots is not quite so great as from the alfalfa alone, however, for pasture the combination is very satisfactory. We have not tested its use for pasture to any large extent at this station, but farmers throughout the State have tested it with good results. Cattle are hardly apt to take injury from the alfalfa-grass combination pasture, and the combination pasture is more productive than the grass pasture and more permanent and less dangerous than the alfalfa pasture.

Unless it rains soon it may not be advisable to seed any grass seed and alfalfa this fall. As a rule I do not recommend seeding later than September 15. A. M. TENEYCK.

Indian Corn.

FROM KANSAS EXPERIMENT STATION BULLETIN NO. 147. A. M. TENEYCK AND V. M. SHOESMITH.

(Continued from last week.)

THE CULTIVATION OF SURFACE-PLANTED CORN.

In 1903 the cultivation experiments with corn were conducted on spring-plowed land, previously in Kafir-corn and not manured. In 1904 the trial was made on fall-plowed land, which had been treated to a good coat of manure previous to plowing. Two plots were used in 1905, one being the field used in the experiment in 1904 (planted with Silvermine), and the other fall-plowed alfalfa sod (planted with Hildreth). The trial was again made on fall-plowed alfalfa sod in 1906. A good seed-bed was prepared each spring before planting by the use of the Acme and smoothing harrows. The planting was done each year during the last week in April or the first week in May, with the ordinary two-horse planter. The Reid's Yellow Dent, Hildreth, and Silvermine varieties have been used in the experiment, as noted in table XI. The practise has been to lay the corn by with a final cultivation about the first of July, the corn receiving regularly four cultivations each season.

TABLE XI.—Cultivation experiments with corn—yield per acre.

METHOD OF CULTIVATION.	1903. Reid's Yellow Dent.		1904. Reid's Yellow Dent.		1905. Hildreth.		1905. Silvermine.		1906. Silvermine.		Average for 4 years, 1903, 1904, 1905, and 1906.	
	Stover, lbs.	Grain, bu.	Stover, lbs.	Grain, bu.	Stover, lbs.	Grain, bu.	Stover, lbs.	Grain, bu.	Stover, lbs.	Grain, bu.	Stover, lbs.	Grain, bu.
Shallow	2659	51.65	2997	57.51	3962	47.77	4015	43.45	4262	56.19	3427	51.31
Shallow early; deep late	2579	62.96	3067	57.25	3471	48.75	3121	50.61	3738	51.07	3215	52.13
Deep	2699	50.87	3216	53.98	3669	49.28	3072	52.44	3480	50.55	3213	51.42
Deep early; shallow late	2638	53.66	3067	49.62	4181	50.52	3441	44.26	3693	52.09	3404	50.93
Disk cultivator	.....	.....	.....	.....	2924	49.58	3225	42.17	3408	58.88	.....	.....
Weeder and cultivator	.....	.....	.....	.....	3197	39.93	3048	41.15	.....	.....	.....	.....

In these experiments one plot has been cultivated shallow throughout the season, and another deep through-

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WAGON BOX
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Saves You 50%

Only Two Horses

Fits Any Truck

My Proposition:

TRY it 30 days free. Pile it full of any kind of manure. Trot the horses. Slam the Gear. Abuse it if you want to. Try it any way you want to. I don't care how you try it—only give it the hardest trial you can think of. All I ask you to do is to be your own judge.

I don't ask you to take my word for anything. I'm just telling about the Galloway because you ought to know. Every statement I make in this ad is backed by a $25,000 bond.

I don't think the Galloway is good—I know it's good. So good that I guarantee it, not for a week or a month, but until it is worn out.

There is more to my proposition: What I want more than anything else right now is a spreader in your locality, and I've a special arrangement with the first one to get a Galloway. It's hard to beat, and will help you to pay partly or entirely for your machine.

Send me a postal today for my special proposition. Be the first one and you can save some money.

MONEY back with 6% from date of purchase if unsatisfactory. The Galloway Manure Spreader is the best manure spreader on the market. I have no hesitancy in saying this, not only because I know every ounce of material that goes into it; know that it is mechanically perfect; know that it is built strictly along the lines that experience has shown to be the best, but *I have the results of practical field tests from all over the U. S.*

In every way the Galloway has done the work in a thoroughly satisfactory manner and in comparison with the work of other Spreaders has time and again proven its superiority.

But, I do not want you to take my word for this. Try my Spreader yourself. Send for it under the Galloway free trial plan. Use it a full month on your own farm. If it does not score 100 per cent on spreading; if you do not find it an easy spreader to work with; if you are not convinced that it is the most durable machine you ever saw, send it back and I'll refund your money. A trial will not cost you a cent.

Then remember, you are further protected by my $25,000 legal bond, that your spreader shall make good in every respect. You simply cannot lose. The farmer who goes without a spreader a day with such a chance as this is losing money. Any farmer in the United States can afford it. I mean just what I say.

My Wagon Box Spreader is made in three sizes, capacity 50 to 60 bushels. For those who want a larger spreader, I have just perfected a 70-bushel pattern, complete with truck. It is 45 inches wide and has adjustable bolster stakes and all the good features of the famous Galloway Spreader. Ask me about it. Address me personally.

Wm. Galloway, President,
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I also sell the Galloway Cream Separator on the same plan.

Can ship from Kansas City, Minneapolis, Madison, Wis., etc.

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SO EASY to Start and Stops Only When YOU Stop It.

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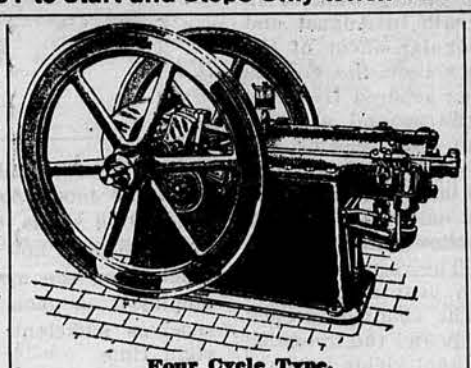

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VERTICAL ENGINES—2, 4 and 6 H. P. sizes. HORIZONTAL ENGINES—6, 8 and 12 H. P. sizes. Every engine develops a liberal surplus over the rated horse power.

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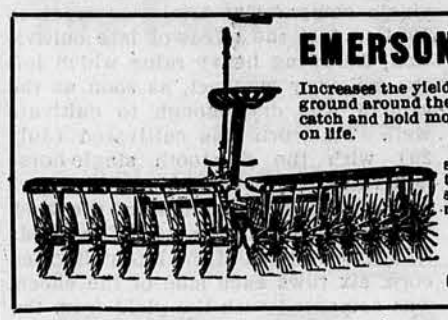

Increases the yield of alfalfa, kills weeds and crab grass, cultivates the ground around the plant without injuring it, puts soil in condition to catch and hold moisture. Gives an old alfalfa meadow a new lease on life.

Will pay for itself twice over on ten acres in one season. No man with alfalfa on his farm can afford to be without one. Use it after each cutting if desired. Write us for further information and testimonials from users.

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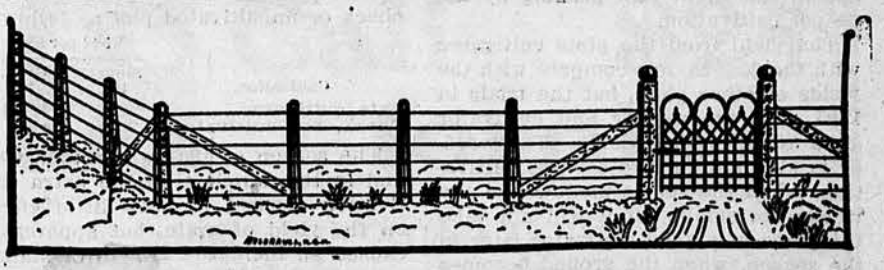

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out the season, while on two of the plots the depth of cultivation was changed in the middle of the season, the first two cultivations on one plot being shallow and the last two deep, while on the other plot this plan of cultivation was reversed. The shallow cultivation has been performed with the Tower surface cultivator while the Deere six-shovel cultivator was used for the deep cultivation. The plan has been to cultivate only medium deep, and not so deep as to injure the roots of the corn. The depth of the shallow cultivation averaged about one and one-half inches, while the deep cultivation was three and one-half to four inches deep.

The disk cultivator was used during the last two seasons in comparison with the other cultivators, and in 1905 one plot in each field was cultivated with the weeder several times and with the cultivator the balance of the season (two cultivations.)

As a rule all of the corn was harrowed each season soon after planting, and it has been the practise to hoe the corn at least once each season and cut all large weeds. The result of the several trials are given in table XI.

The yields by the several methods of cultivation have varied somewhat for the different seasons. The shallow cultivation gave the largest yield of corn in 1904 and 1906, the deep cultivation in 1905, and the deep early-shallow late in 1903. The shallow early deep late cultivation has given uniformly high yields each season, and the average yield for the four seasons is slightly in favor of this method, the deep cultivation ranking second, the shallow cultivation third, and the deep early-shallow late cultivation fourth.

The seasons of 1903 and 1904 were excessively wet, and there was no lack of moisture at any time during the growing season. In 1905, a period of hot, dry weather in August checked the growth of the corn and injured the crop to some extent, and in 1906 there was a long period of dry weather in the spring, and again in August and September. No regular effect of the method of cultivation on the crop is shown in the yields secured from the several plots in the several seasons. In 1905, one of the drier seasons, the deep and shallow early-deep late cultivations gave the larger yields, while in 1906 the plots cultivated shallow and deep early-shallow late produced the larger yields. The results were in part reversed each year also, in the wetter seasons. The small difference in the average yields and the irregular variation in the annual yields indicate that the exact method of cultivating is not of so great importance as the conditions of soil and season.

The yields of stover have not shown as much irregularity as the yields of corn, and the average yield is decidedly in favor of "laying the corn by" with a shallow cultivation. It was observed each season that the shallow cultivated corn matured several days later than the deep-cultivated corn. These results indicate that the deep cultivation, when the corn is laid by, may check the growth to some extent, causing a less growth of stalks, earlier maturity, and a tendency to produce relatively more grain. This may be due to the slight root pruning by the deeper cultivation.

The yield from the plots cultivated with the disk-harrow compare with the yields of other plots, but the trials in 1905 with the weeder and cultivator gave uniformly low yields. The weeder is all right for the earliest cultivation, when the soil is mellow and the weeds are small, but it will not take the place of a good cultivator later in the season, when the ground becomes hard and the weeds large.

No comparative trials of different methods of cultivating listed corn have been undertaken at this station.

CULTIVATION VERSUS SOIL-MOISTURE CONSERVATION.

Some study of the soil moisture content of the soil was made each season in connection with the corn cultivation experiments. Soil samples have been taken in the spring, at the middle of the cultivation period, after the close of the cultivation period, and irregularly at other dates. No regularly marked variation in the moisture content of the soil on the several plots has been discovered by these studies. The mid-cultivation samplings show about the same soil moisture content for both the shallow and deep cultivated plots. Even after the close of the cultivation period, when the greatest effect on the conservation of the soil moisture by the several methods of cultivation should appear, no appreciable difference in the moisture content of the soil of the several plots has been found, the loss of moisture from each of the several plots, as an average for the four trials, being more nearly alike than might be expected from duplicate samples from the same plot. As already suggested concerning yields, conservation of soil moisture does not seem to depend so much upon the method of cultivation employed as upon the fact that corn receives sufficient cultivation at the right time.

Planted 2½ inches deep. Planted in listed furrows, 8 inches deep.

Fig. 1.—Forty-eight days after planting.

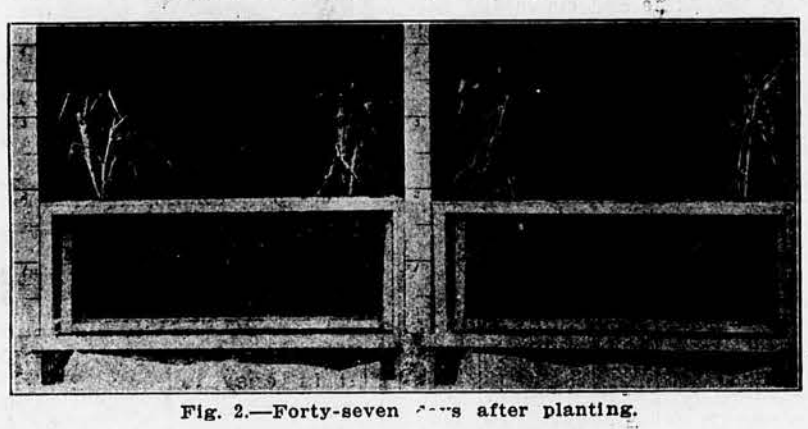

Fig. 2.—Forty-seven days after planting.

PLATE V.—A study of corn roots.

LATE CULTIVATION.

It is the usual practise at this station to cultivate corn late in the season, after it is laid by, should the soil mulch be destroyed by heavy rains. A single comparative trial was made in 1904 to test the effect of late cultivation, following heavy rains which left the soil very compact, as soon as the ground was dry enough to cultivate well. The corn was cultivated (July 20) with the five-tooth single-horse cultivator. A check plot of six rows was left about the middle of the field, which was not cultivated. The yields from twelve rows of the late cultivated corn, six rows each side of the check, was compared with the yield from the check or uncultivated plot as follows:

Cultivation.	Yield per acre. Stover, lbs.	Yield per acre. Grain bu.
Late cultivated.	2985	45.36
Check, not cultivated..	2084	44.61

The season of 1904 was rather wet, and in this single trial the extra cultivation seemed to have little effect on the yield of grain, but apparently caused an increased growth of stalks. It was observed that the late cultivated corn matured a little later than the corn which was not cultivated.

Notes taken September 5 state that the soil of the check plot was cracked open worse and was apparently drier than the soil of the late cultivated plots, and the corn receiving the extra cultivation had made a stronger growth and was apparently better corn than that on the check plot.

Soil moisture determinations to the depth of six feet, made August 3 and August 23, showed very little difference in the moisture content of the soil on the several plots.

GENERAL SUGGESTIONS.

In experiments reported from other States the results have usually favored shallow cultivation of corn as opposed to deep cultivation. As a rule, however, the deep cultivation in such experiments was extremely deep, usually five to six inches. Medium deep cultivation, three to four inches, and not too close to the hill, should not injure the corn roots, and in some seasons, especially in a dry climate, the deeper cultivation may give better results than shallow cultivation.

In summing up the results of cultivation experiments carried on at this station in 1893-'97, Prof. C. C. Georgeson says: "Our experience also seems to indicate that it is not best to pin one's faith strictly to the shallow cultivation. A judicious mixture of deep and shallow cultivation gives better results than to continue either throughout the entire season."

Cultivation experiments with corn at the North Dakota Experiment Station and also at the Illinois Experiment Station gave yields favoring the shallow cultivation early in the season, followed by deeper cultivation at the close of the season, when the corn was laid by. At the Illinois Experiment Station, however, the largest yield was secured by continuous shallow cultivation; thus the corn was not laid by, but the cultivation was continued late in the season.

Too deep cultivation not only injures the corn by destroying the roots, but during the period of cultivation it prevents the roots from feeding in the most fertile part of the soil. On the other hand, the practise of shallow cultivation may be carried too far. A relatively thick mulch of mellow soil will conserve more moisture than a thin mulch, as shown by Prof. F. H. King, in his experiments at the Wisconsin Experiment Station.

Many farmers prefer to cultivate corn deep the first time on the principle that the corn roots are not injured by deep, early cultivation, and that deep cultivation warms the soil and causes the roots to strike downward. Corn may be cultivated deep and close to the hill when the plants are small without injury to the roots, but the deeper cultivation may not warm the soil so deeply or so rapidly as the shallower cultivation. Mellow soil is not so good a conductor of heat as firm soil, and less heat may enter the ground through a thick mulch of mellow soil than through a thin mulch, while the thinner mulch may be prac-

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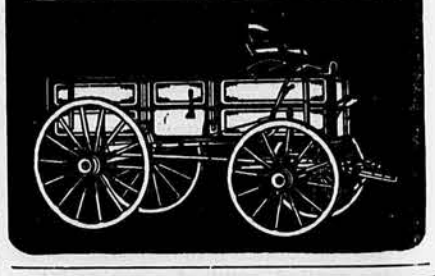

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tically as effective for retaining the heat in the soil as the thicker mulch. Also, a deep soil mulch may not be necessary for conserving soil moisture in the early spring, when the air is moist and the weather relatively cool. Thus the cultivation early in the season may be rather shallow and the depth of the cultivation increased as the season advances. Late in the season, during the hot, dry weather of July and August, a deeper soil mulch may be required to conserve the moisture in the soil.

A study of the root growth of corn has shown that the main lateral roots lie about four inches below the surface of the soil between the rows. The roots gradually approach the surface near the root stalk or crown, which requires that level-planted corn should not be cultivated close to the hill the last time. The roots of corn lie uniformly deeper in the soil than the roots of surface-planted corn, and the root crowns being several inches below the surface allow for deeper cultivation close to the hills without injury to the corn roots. No comparative experiments have been made at this station in testing different methods of cultivating listed corn.

The primary object in cultivating corn is to increase the yield and improve the quality of the crop. Other objects are to prevent weeds from seeding, so that land may not become foul, and to maintain the tilth and fertility of the soil with reference to the growing of future crops.

The average farmer in cultivating corn has usually mainly one object in mind, namely, to kill the weeds, and this is in fact a very important purpose of cultivation. But the soil needs cultivation for other important reasons. Early in the spring when the ground is compact and full of moisture, cultivation warms the soil by decreasing the evaporation which absorbs heat, and the mulch of mellow soil acts also as a blanket to prevent the rapid radiation of heat from the soil. The loosening of the surface soil to form a soil mulch conserves the moisture in the soil and offers also the most favorable surface to catch and store the rains. By reason of the stirring and the mellow surface the soil is areated, the foul gases arising from decaying organic matter are removed and life-giving oxygen is supplied to the soil bacteria and to the growing plant roots. And more than this, the fertility of the soil is developed by cultivation. The store of plant food in the soil is largely in an unavailable condition; before the potash, phospho-

Fig. 1.—Sixty-five days after planting.

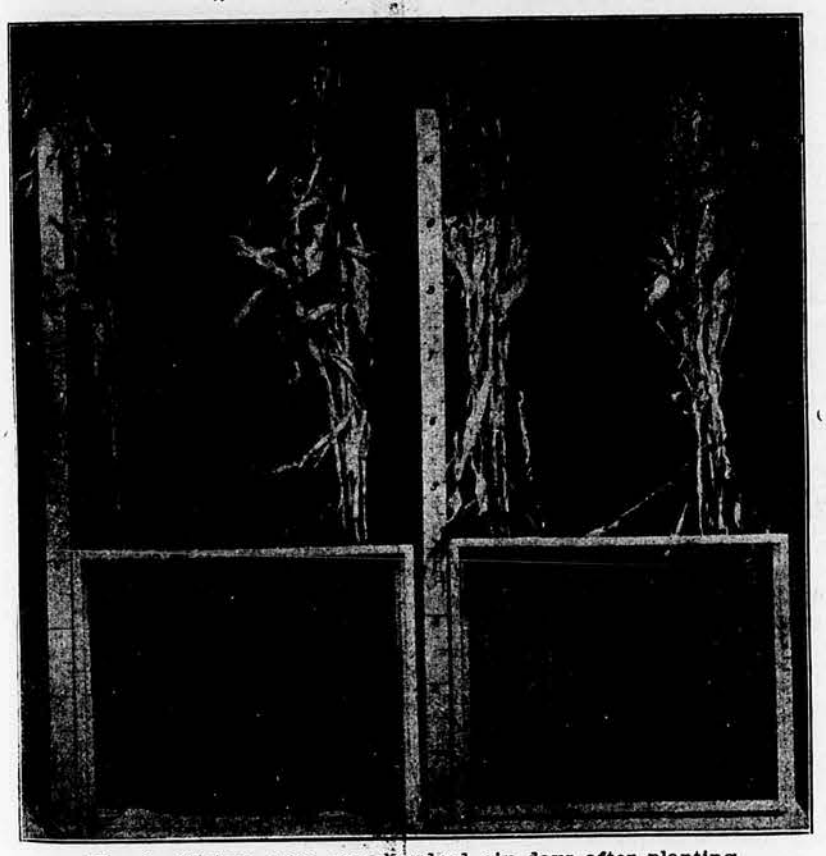

Fig. 2.—Mature corn one hundred six days after planting.

PLATE VI.—A study of corn roots.

Decription of Root Samples.—These illustrations are photo-engravings of actual samples. The samples shown in Fig. 1, plate V, present a study of the root development secured from planting corn near the surface and in deep listed furrows. The frames and netting were placed in the ground and covered with soil and the corn planted. Later the frames were dug up and the dirt washed out, showing the development of the roots as shown in the figure.

Fig 2, plate V, and Figs. 1 and 2, plate VI, are samples taken from the field and show the growth and distribution of corn roots between two hills of corn on adjacent rows. In each figure the listed corn is compared with the surface-planted corn, the samples being taken at about the same date, from adjacent plots, in the same field. The sample on the right-hand side in each figure is the listed corn, while the sample on the left-hand side is the surface-planted corn. It may be clearly seen from these figures that the root system of the listed corn lies somewhat deeper in the soil than the root system of the surface-planted corn. The root crowns being further below the surface allow for deeper and closer cultivation of the listed corn than of the surface-planted corn, without injury to the roots. See Station Bulletin No. 127 for detailed descriptions of roots of corn and other plants.

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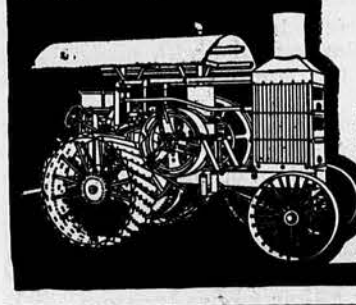

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ric acid, and nitrogen become soluble and thus available to the plant the soil must pass through a stage of disintegration and chemical change, which can take place only under favorable conditions, in the presence of moisture, heat, and air, factors which are largely controlled by cultivation, soil, and climatic conditions being similar.

There are perhaps no exact rules or methods for cultivating corn, but a farmer observing the crop and soil conditions and understanding the principles of soil cultivation may vary the manner and practise of cultivation somewhat to suit the conditions and accomplish the objects desired. It is a safe rule to follow, and usually pays well, to prepare a good seed-bed and give the land thorough cultivation previous to planting.

After planting, corn, whether listed or surface planted, should be harrowed once or twice before it comes up, weather conditions permitting, and some practise harrowing with good results until the corn is several inches high, but with the surface-planted corn the harrowing may tear out some corn, and with listed corn a few plants are apt to be covered by harrowing, especially if the ground is trashy or lumpy. Corn may usually be harrowed safely just as it is coming up but when the shoot is fairly out of the ground it is not best to harrow again until the corn is two or three inches high, and then preferably with a light harrow or weeder. Harrowing when the corn is very small, especially with a heavy harrow, is apt to cover or destroy considerable corn, and this may occur with listed corn as well as with surface-planted corn.

Corn which has received the treatment outlined above may be four or five inches high when it receives its first cultivation with the corn cultivator, yet it must not be left too long and the weeds must not be allowed to get so large that they can not be covered. The time to clean corn is at the first cultivation. Most of the weeds in the row or hill which escape the first cultivation cannot be destroyed or covered at succeeding cultivations.

FERTILIZERS FOR CORN.

The fertilizer experiments with corn have been carried on two years, 1905 and 1906. The trials have been made on ordinary upland soil of the station farm. The land was in an average state of fertility but had not been recently fertilized. The corn was planted with the lister each year and the fertilizers were applied by hand in the listed furrows, except that the barn-yard manure and sodium nitrate (only one plot in 1906) were spread broadcast before planting. The fertilizers were applied in 1905 about the first of June, when the corn stood eight or ten inches high. In 1906 the fertilizers were not applied until June 21. The applications have been made rather too late to get the full benefit of the fertilizer. The usual method of applying chemical fertilizers in the row is accomplished at planting time, with attachments to the planter or lister. The Boone County White corn was used in this experiment in 1905 and the McAuley White Dent in 1906. The amounts of fertilizers applied and the resulting yields of corn from the several plots are given in table XII.

The 1905 experiment may be considered a fair trial, and in this test all the commercial fertilizers had apparently some beneficial effect in increasing the yields of corn the largest yield being secured from the plots fertilized with potassium sulphate and sodium nitrate. No combination of fertilizers was used in this year's test and no comparative trial was made with barn-yard manure.

In 1906 the corn was injured somewhat by cut-worms, resulting in a poor and rather irregular stand, and the results of this experiment can not be considered a fair conclusion. It will be observed, however, that the sodium nitrate and barn-yard manure apparently had a much greater effect in increasing the yield of corn than any of the other fertilizers. The application of the sodium nitrate broadcast before planting gave better results than the application of these fertilizers in the furrow after planting. However, as observed above, the application in the row was perhaps made too late to get the full benefit of the fertilizers. The comparison of the results of the trials for the two seasons favors fertilizing with sodium nitrate as compared with potassium sulphate, superphosphate, and sulphate of iron. The sulphate of iron may not act as a direct fertilizer, but the claim is made for it that it acts in the nature of a stimulant to the soil in the production of crops.

The yields of stover are not given in table XII. In 1905 there was little difference between the several plots in the production of stover, the average yield being 1.56 tons per acre. The plot fertilized with manure gave much the largest yield of stover in 1906, 2.11 tons per acre as opposed to 1.02 tons from the unfertilized ground. All other plots yielded less stover than the unfertilized or check plot.

(To be continued.)

TABLE XII.—Fertilizers for corn.

Name of Fertilizer.	1905.		1906.		Average 1905 and 1906.	
	Fertilizer, amount per acre. lbs.	Corn, yield per acre. bu.	Fertilizer, amount per acre. lbs.	Corn, yield per acre. bu.	Fertilizer, amount per acre. lbs.	Corn, yield per acre. bu.
Superphosphate	250	58.54	150	29.07	200	43.81
Dried blood	.....	.....	75	31.74	.....	.....
Sodium nitrate (broadcast)	.....	.....	50	40.00	.....	.....
Sodium nitrate (in rows)	100	62.23	50	36.44	75	49.34
(Unfertilized)	.....	55.01	.....	33.21	.....	44.11
Special Corn Fertilizer*	.....	.....	125	28.44	.....	.....
Potassium sulphate	200	63.54	75	30.10	137½	46.82
Sulphate of iron	25	57.30	75	30.60	50	43.95
Sodium nitrate	.....	.....	50	32.28	.....	.....
Potassium sulphate	.....	.....	75		.....	.....
Superphosphate	.....	.....	150			
Barn-yard manure	.....	.....	26,000	56.63	.....	.....

*Swift & Co.

Horticulture

The Elm-Twig Girdler.

T. J. HEADLEE, PROFESSOR IN ENTOMOLOGY, KANSAS STATE AGRICULTURAL COLLEGE.

Within the last few weeks a curious and interesting thing has been happening to the shade-tree elms in some parts of this State. The ground beneath them has been littered with healthy, leaf-bearing branches, some as much as a half inch through, and every high wind has increased the fall.

A close look at the broken end shows that this is no split or splintered break such as the wind might make but that, except for a slender portion of heartwood at the center, the twig has been as smoothly girdled as if some one had done the work with a sharp knife. Who is the carpenter that has so neatly prepared the branch for its fall and what has been his purpose? The carpenter is a small brownish-gray beetle a little more than a half inch long (about 9-16 of an inch) with two brownish colored bands across its back and she (for it is the female) laboriously cuts this circular groove that her young may have proper food and shelter.

From time to time during the long twelve to sixteen hours necessary to complete the girdle, she leaves her work to ascend the branch where she cuts out a hole below some offshoot or dead bud and, depositing therein a slender white egg, covers it with a gummy substance and returns to her task. She may interrupt her work to deposit as many as twelve eggs while the male busies himself barking the twigs of the branch on which his mate is working. So energetic are these females beetles that one in confinement has been known to girdle four branches and lay twenty-five eggs.

The insect girdles the branches that her progeny may have plenty of dead wood to eat, a diet on which they thrive famously. Sometimes she cuts so deeply that the branch falls of its own weight, but ordinarily a strong wind is necessary to bring it down.

The egg hatches in about four weeks after it is laid and the grub lives over winter in its twig, but with the coming of spring it bestirs itself to feast on the now properly rotted wood, burrowing hither and thither, but never breaking through the bark. By the middle of July the grubs are full-grown and go into a resting stage in the course of which they change from worm-like creatures to adult beetles, able to crawl and fly freely in the open. This transformation is complete and the beetles emerge in August and begin their work of girdling and egg-laying, continuing until or after the middle of September.

The beetle does not confine its attacks to the elm but may be found injuring other forest, shade, and even fruit trees, particularly of these last the persimmon tree. The injury thus wrought gives the trees a rough and scraggy appearance.

When we realize that the beetles pass the late autumn, winter and spring as grubs in fallen branches under the trees it is plain that if these branches are gathered and burnt late this fall, no beetles can issue from them to girdle the trees next year.

What a Single Copy of The Kansas Farmer Did for a New Jersey Grape-grower.

SOME EXPERIENCES IN CUBA.

EDITOR KANSAS FARMER:—Last Sunday I visited the house of a personal friend living at Westwood, New Jersey. He has a few fine grape vines planted in his yard. In June last the June bugs got among the vines in that town and the gentleman referred to called at my office. A copy of THE KANSAS FARMER was on my desk, and in it he found a recipe for destroying the June bug. He read it over, went home and bought five cents worth of fine-cut chewing tobacco, steeped it in a gallon of water and made a liquid for spraying which he used on his grape vines. I was there last Sunday, his vines were full of fine bunches of grapes. His neighbors owning grape vines, near his, whose vines were in the same condition as his at the time of spraying, had no grapes on them at all. He let a couple of his friends have part of the liquid he prepared and they also have fine grapes on their vines, while others surrounding them have none whatever.

Now, if tobacco juice will prevent the June bug from eating up the leaves and blossoms of the grape vines and other fruits, it seems to me that all the agricultural papers of the country ought to publish that remedy for destroying the June bug.

I was in Cuba during the month of June, where I have 60 acres of citrus fruit trees growing. I arrived there just after the close of one of the longest dry periods that was ever known in Cuba. For seven months, there was no rain to wet the ground one inch in depth. Just before I got to Cuba, they had a very heavy rainfall. The citrus fruit trees had grown very little during the seven months but they immediately sent out shoots that in one week had grown six or seven inches, but the June bugs were so thick there that they ate the fresh young leaves about as fast as they came out. These bugs nearly all die off in June, but they will take the leaves off the young shoots of the trees and destroy blossoms so that they will not bear.

I sent this receipe to the superintendent of the fruit department at Ceballos, where my trees are located. The trees on my grove are only about two years and six months old, but some of them are ten to fifteen feet tall and since the rain they have grown very rapidly. There are a few

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Canadian Government Agent

of the trees, that had fruit on them. Next year, this time, they will be three years and six months old and if there is the usual amount of rainfall during the winter and early spring months there will probably be at least one box of citrus fruit to the tree and there are one hundred trees to the acre.

The fruits that grow in that part of Cuba are considered the finest of any on the market. I had about seven boxes of grape fruit, oranges, and pineapples sent to me from Ceballos, Cuba, last year, and I gave samples to some fifteen of my friends and without exception, every one of them stated that it was the finest fruit of the kind that they had ever eaten. It is better than that grown in California or Florida. There are some groves in Cuba that are four years old and will be five next January. There will be in two years from now, in all probability, over three thousand acres of citrus fruit trees growing in that colony. If they obtain good facilities for getting it rapidly to the market, I think the Cuban fruit is going to top the market.

I want to say also, that I have a sugar plantation there of about 820 acres and about 400 acres of it was harvested in May and made into sugar. The sugar was manufactured at the Jatibonico Sugar Mill, a sugar plantation, that is controlled by Sir William Van Horn, who built the Canadian Pacific Railroad, and who now owns the Cuban Railroad from Santa Claire to Santiago.

The superintendent of the Jatibonico Sugar Mill told me that the sugar made there from cane growing on my plantation was some of the best that he has ever seen in Cuba. I brought a box of it, containing about five pounds home with me. The sugar is nearly as white as the best granulated sugar that we have on the market here and much sweeter. It is a sugar that for ordinary cooking and preserving fruits will be better than the finest quality of granulated sugar.

There are two sugar factories now in process of construction with twenty miles of Ceballos, and another one will be constructed at Ceballos probably during 1908 to 1909. Cuba has one advantage over any section of our possessions on the North American continent. It is five or six hundred miles further south than Florida or California and on that account they are free from the frosts that have destroyed most of the citrus fruits in Florida and some in California. California lies between the 30th and 40th parallels of latitude, while Cuba lies between the 20th and 30th parallel. A part of the island is about on a line with the City of Mexico. The winter climate of Cuba cannot be surpassed for healthfulness and raising tropical fruits. The tropic of cancer crosses Cuba near Havana, and nearly the whole of Cuba lies south of that tropic. The sun during the winter months is almost directly overhead of the people living at Havana.

I was in Cuba during the month of June this year, and I suffered with the heat much less there than I did after I arrived back in New York City.

The reason for this is that the days and nights are nearly of equal length there at that time, while in New York the days are two or more hours longer than they are down at Cuba and consequently the weather becomes very much warmer than it is in Havana. The temperature of Havana seldom exceeds 92 or 94 degrees, while it frequently goes up to 100 and over in New York City.

Now, if tobacco proves to be as valuable in destroying insects on the citrus fruit trees in Cuba as it has been to the grape vines of Westwood, New Jersey, it will be worth a million dollars to Cuba in the future prosperity of the island, and maybe THE KANSAS FARMER will be entitled to the credit of the prosperity, from the experiments made by friend Huff with tobacco as a destroyer of all June bugs on his grape vines.

DR. E. P. MILLER.

New York City.

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You Save Between $15.00 and $18.00. Think of It!

UNPARALLED STOVE OFFER—This heater with Nickeled Urn, Top, Reflectors, Swing Top, Foot Rails, Ash Door, Screw Register, Name Plate, Hot Air Cover and Base for the unprecedented low price of $26.25. The most handsome stove you ever saw in all your life. The nickeling is of the highest quality.

THIS HEATER has a highly perfected system for insuring rapid circulation,, as the cold air from the floor passes through a central circulating flue at the bottom of the stove, the result being a strong current of intensely heated air which can be used to heat an upper room, or when desired, by our new and novel damper, all the heat may be admitted into room where stove is used. The flue is so placed that it practically gives additional heating surface and does not in any way reduce the radiating surface at back of stove. Great economy of fuel is effected by this circulating device because of the greatly increased efficiency of the fire. The circulation of air keeps not only the floor warm, but also tends to purify the air. NICKEL SIDE WINGS add much to the attractiveness of the stove. THE TEA KETTLE COVER HOLE at back of stove will be found a convenience for heating water, etc. FEED MAGAZINE is ventilated to prevent gases from escaping into the room, is amply large, requires less replenishing and prevents the wasting of fuel. LARGE FIRE POT can be removed through the front door opening without dismounting the stove, making it easy to replace pot when necessary. RANSOM DUPLEX GRATE is the most perfect grate on the market today eliminating all possibility of clinkers, and buring the fuel to a fine ash; thus insuring economy in operating.

$26.25

Diamter of Fire Pot, 16 in.; total height 60 in.; floor space, 27 x 27 in.; size of pipe, 6 in.; shipping weight 485 lbs.

This stove will heat your home better than any stove you ever had before. Its a perfect heater. This stove will save you money by saving you fuel. You can not afford to be without it. The picture represents the full size stove. We have smaller sizes at smaller prices, but the full size is much more satisfactory. The small dealer can't sell this stove for less than 40.00 and $45.00—We save you easily between $15.75 and $18.75 on every one of these remarkable heaters. If you want to live economically this winter and enjoy the comfort and warmth of summer during the chilly cold days of winter—then buy this stove for $26.25. Its a step you'll never regret. We guarantee satisfaction. ORDER TODAY.

Send for Catalog Today- Free and Postpaid to You

Do you want to save money? Then send for our new catalogue No. 4. Keep the dealers profit in your own pocket. It will do you just as much good as it will him. We can save you money on nearly everything you buy, because we sell at factory cost. Turn to pages 33 to 50 of our New Catalogue and figure out with a lead pencil what we can save you on your grocery bill. BUY FROM OUR GROCERY DEPARTMENT AND YOU CAN LIVE CHEAPER, and still be assured positively of the very best of quality. Can any man or thrifty housewife afford to overlook this? Drop us a postal and say "Please send your new 608 page Catalog to me which is free and postpaid." Write name and address plainly. Learn how to save money. **Learn how to buy cheaper.** We guarantee everything in our catalogue to be exactly as represented. Send for it today. The number of catalogues are limited—and you don't want to fail to get YOUR copy. Write today—quick—before you forget it and lose the opportunity which means so much to you.

THE UNIVERSAL TRADING & SUPPLY COMPANY

"The Farmer's Company"

Dept. 8. 35th and Morgan Sts. CHICAGO

The Great American Seed Industry.

GUY ELLIOTT MITCHELL.

One of the important agricultural industries is the growing of farm and garden seeds for commercial purposes. Although the actual operations are confined to a comparatively few individuals, tens of millions of dollars are invested in it and the results enter into the economy of almost every tract of agricultural land throughout the country. The importance of commercial seed-growing to the crop-raiser can hardly be overestimated, for unless the quality of seed is maintained the succeeding crop is greatly diminished in value, so that if applied to the country as a whole the loss would be enormous.

"The great magnitude of the American seed business is little appreciated," said a prominent New York seed dealer, in speaking of the carloads of field and garden seeds which he handles every year, and whose catalogues go into thousands of farm homes every season. "The producing capacity of most seeds deteriorates rapidly and the most successful farmer and gardeners buy large quantities of seeds. "The farmer is a somewhat cautious individual, and although he buys on an average double the amount of seeds he did ten years ago, and fifty times what his father did before him, he has not, in every instance, reached the point where he recognizes that the greatest economy lies in getting the best and patronizing only those houses whose reputation forbids them to sell poor and adulterated seeds."

It must not be thought for an instant, however, that any of the great seed houses grow all their own seeds. They grow some of them; but they buy seeds by the car-load and train-load, yet it is to their interest to buy good seeds. The deterioration in many seeds is very marked, and large seedsmen go to great lengths to secure the best possible seeds and to have various establishments in different parts of the country where the conditions are the best for production. It is not possible that the best results can be attained in producing a great number of seeds on any one farm or in any one locality, however favored. The soil and climate which may be the best adapted for producing one kind of seed may result only in a very inferior seed from some other kind of plant. So that seeds, as they are handled by the big seedsmen, are gathered in by them from all parts of the country from Maine to California. In the latter State some of the most vast seed fields of the world are found where the eye ranges over unbroken rows, miles in extent, at least as far as the vision can reach. If all this industry should cease for a year and the farmer and gardener became dependent for the succeeding crop on the seeds which he would himself save during the year, the shrinkage in production throughout the country would amount to tens of millions of dollars.

SEED-SAVING IN OLD DAYS.

In early days, of course, each farmer saved his own seed; possibly he exchanged seeds with one of two of his neighbors. But there is less and less individual seed-saving every year. The earliest seed farm in the United States is believed to have been started by David Landreth, the originator

Remington

AUTOLOADING RIFLE

POWER

The new Remington strikes almost a ton blow and as fast as you can pull the trigger. It penetrates 5-16 of an inch of steel. Loads itself—no lever or slide to work. .35, .32 and .30-30 calibres. Compare it with **any other** big game gun and you'll buy it.

New Catalogue free.

REMINGTON ARMS CO., Ilion, N. Y.

Agency, 315 Broadway, New York City.

Work When You Work

Double Action Cutaway Harrow

enables you to double results over the ordinary disk. Especially adapted for orchards and alfalfa fields, but equally as advantageous for general purposes Alfalfa sod chopped every 3 inches instead of 6. Orchards left level instead of ridged. The above cut shows machine extended for orchard work. For further information write

J. C. CONLEY, Gen. Agt.,

Wichita, - - - Kansas

of the present big seed house. This was before the Revolutionary War, on a small farm, now part of the city of Philadelphia. It is estimated that now over 250,000 acres, located variously in every State in the Union, are devoted solely to growing seed crops, and some of the largest growers plant annually as high as 2,000 acres.

IT PAYS TO GET GOOD SEED.

The advantage of securing good germinating seed must be manifest. Take, for instance, clover seed. It is always possible to secure it at 50 cents or $1.00 a bushel below the market price quoted by the regular seed houses. What is the result of using such seed? It must be a foregone conclusion that it is poor, worth even less than the reduced price at which it is offered. The land has been prepared for pasture or hay and the grass and clover seed is sown to become the dependence of the farmer for his hay crop. He buys the cheap seed. Twenty, thirty, possibly fifty per cent of it is an adulteration with old seed or trash. The result may be half a stand. He has been penny wise and pound foolish verily. Suppose on the other hand he buys early radish, or cabbage seed at a high price. It is an easy matter for the dishonest dealer to mix this seed half and half with old or cheap, late-variety seed, which he has killed. There are dozens of tricks in the trade. The writer was inspecting the famous Rocky Ford cantaloupe fields in Colorado some years ago. It was late in the season, after shipping, and the fields were covered with thousands of frosted and immature melons. Seed-dealers' agents were going around collecting the seeds from these poor melons. They could be truthfully guaranteed as genuine Rocky Ford seed; but you wouldn't want to plant them.

TEST ALL SEEDS AT HOME.

There seems to be two principle things to observe in getting seeds. First, buy from a known dealer, whose guarantee is worth something, and second, get seeds early enough so that every kind can be tested.

The Department of Agriculture, in order to aid farmers to determine for themselves without much trouble the germinative value of seeds has issued a short bulletin on the subject. A very simple apparatus for sprouting seeds is described. It consists of a shallow basis in which is placed a small flat of porus clay. The seeds, after having been soaked, are laid between two sheets of moist blotting paper or flannel. A pane of glass covers the dish, which should be kept in a temperature of about 70 degrees. atmosphere of an ordinary living room is suitable if the apparatus is left near a stove at night. Several kinds of seeds may be tested at once at a trifling cost. The bulletin cautions the farmer against extremes of heat or moisture.

THE NATIONAL SEED FARCE.

The Department will presently begin its great Congressional seed distribution—sending out millions of packets of free seeds, each stamped with the name of some Senator or Member of Congress. It should be understood that this "free seed graft" as it is pretty well designated, while carried out by the Secretary of Agriture, is no part or parcel of his scheme, but is a congressional affair, pure and simple. If, instead of this annual fake, Congress should appropriate even the large sum of money expended for free cabbage, radish, beet, corn, and other common seeds, but specify that the Secretary of Agriculture should expend the money in procuring and distributing only such seeds and plants as might be of real value to the farmer in a congressional district—some new and improved varieties—even though only one package could be sent out, where now a score are sent, the expenditure would be defensible. This would be building up our agriculture and there would be cases where the entire agricultural output of a locality would be gradually changed to advantage. Secretary Wilson is, in fact, employing this idea, so far as he is left any discretion by Congress in the matter of seed distribution. He is allowed a small appropriation of this free seed money, and where his foreign explorers have brought in new plants or seeds of promise, he sends these out in sufficient amount to admit of a practical test by a farmer.

The Department of Agriculture has authority to and does purchase in open market, samples of garden and field seeds, and carries on extensive tests to determine both their germinative value and whether they come true to name. In cases of bad adulteration or fraud, the names of the offending dealers are published. If any one doubts that much poor seed is sold, he should visit the laboratories and testing gardens of the Department at Washington.

Miscellany

What the Weather Bureau Does for the Kansas Farmer.

EDITOR KANSAS FARMER:—Among the many scientific institutions founded by the Government for the benefit of the agricultural and commercial interests of the country, perhaps none is more unique, or more useful, considering the expense involved, than the Weather Bureau.

Fifty years ago man's knowledge of the movements of the atmosphere and the weather conditions resulting therefrom, was about as vague as were the ideas concerning the shape of the earth and the movement of the heavenly bodies that were held by the people of Europe when Columbus boldly launched his ships into the unknown terrors of the Atlantic.

Beginning with 1870, when the first "probabilities" of the Signal Corps of the Army were regarded as scientific curiosities, the study of weather forecasting has been pursued until today the forecasts made by the United States Weather Bureau represent the results of thirty year's training of the best brains of the country and the most elaborate and accurate system of simultaneous observations ever developed.

So accurate have become the forecasts that every cold wave that sweeps across the country is foretold at least 24 hours in advance and warnings distributed broadcast to all interests that are likely to suffer. Ranchmen on the plains make provision for the sheltering and feeding of their cattle; farmers see to it that, as far as possible, their stock is housed, and fed, and preparations made for the comfort of the household; fruit- and truck-growers in the South and in the cranberry marshes of Wisconsin start smudges, arrange screens and irrigating apparatus for the protection of vegetables and fruit; the shipper either hurries into a roundhouse, unloads, or stops the shipment of all cars carrying produce that is likely to be damaged by freezing; the dweller of the busy city sees to it that his coal supply is ample and that the water in his water-pipes is turned off; and, when Old Boreas, with his chilly blasts, starts across the country with all the furies of the blizzard from Medicine Hat, he no longer finds the people of the United States unprepared and suffering.

During the last session of Congress it was estimated by the committee on expenses in the Department of Agriculture the value of the cold wave and frost warnings to affected industries was $10,000,000 annually. This is more than six times the total cost of maintenance of the Weather Bureau, and this is but a fraction of the value of property saved by storm warnings on our Great Lakes and seaboards, flood and river stage predictions, and the daily temperature changes and weather forecasts that deal more intimately with the life of the people; deciding everything from whether the city man shall wear a straw hat or carry an umbrella to whether the farmer shall cut his hay or let it stand till the elements are more propitious.

The Kansas farmer, always quick to take up with any new and useful innovation, is making the most of these predictions.

At the local Weather Bureau office in Topeka the schedule of every mail train in Kansas is carefully studied, and at suitable places distributing centers are established to which are forwarded logotype outfits and postal cards addressed to postoffices which are readily reached by mail from the center. About 10 a. m. the forecast is received by telegraph and immediately stamped and mailed on these cards. In this manner almost a thousand Kansas postoffices receive the forecast for the ensuing night and day, and these cards are hung in neat holders for the benefit of the patrons of the office.

At thirty of the most important towns in Kansas the forecasts are displayed by means of the well-known weather flags. In one instance a flag pole 150 feet high has been erected by the citizens and the flags are seen for miles around .

Nor is this all. With the rapid extension of the rural free delivery, the farmer no longer comes to town as often as formerly and six thousand rural mail boxes in Kansas are supplied with forecast cards daily, with the forecasts stamped on them by the rural carriers. So great has been the demand for this service that it would probably have been extended to all rural routes but for the fact that so many rural carriers leave the postoffice too early in the day to receive the forecast before starting.

As it is almost all postmasters, where the carriers leave later than 9:45 or 10 a. m., receive the telegraphic forecast and stamp it on slips for their rural carriers to distribute.

During the past few years the prenomenal growth of the rural telephone has added the most effective means of all for the distribution of weather forecasts to the farmer.

Wherever a telephone management in Kansas has signified its willingness to give the rural patrons of its lines the benefit of the information received, the daily weather forecasts and special coldwave warnings are telegraphed to it at Government expense and, at a pre-arranged signal, the patrons of each line are called to their phones and receive notice of the kind of weather to expect during the next 36 hours.

Many indeed are the uses to which the Kansas farmers put the information thus received and the value of the alfalfa and clover hay thus saved and the stock which has been sheltered in advance of bad weather represents a very large sum every year.

At present there are 75 telephone systems in Kansas receiving the daily forecasts at Government expense and through the exchanges of these systems upwards of 50,000 farmers receive the forecast every morning.

S. D. FLORA.

Topeka, Kans.

Make the Fair Clean.

EDITOR KANSAS FARMER:—This article deals with rotten and inmoral shows, that are almost invariably found at fairs and carnivals, big and little. It is a fact that the public as a rule, are very ignorant regarding these dirty shows, and I am writing this with the hope, that fathers and mothers and others, who are for virtue and decency, will keep on the lookout for these things. These vile shows are damning the young people of our country. Investigate the shows at the next fair you attend. If you see some I have seen you will be shocked. Good sized kicks made to fair officials, county attorneys, or mayors, will likely do good.

This year I was at one carnival and two fairs. At the carnival a penny slot picture machine was in operation. These were moving pictures and here are some of the names of the pictures, "Bowery Girls," "Behind the Scenes," "A Touch of High Life," "Girls Only." The boys and girls by hundreds put pennies into these machines; what they saw here was just a little nasty, in fact good value for the money.

At one of the fairs I saw about forty-five machines, six were 5 cent ones, each machine contained forty-eight views divided into four sets. Twenty

Do it Now! Don't Wait Until It's Too Late!

KEEP your body clean!

Most people are very neat and clean in their outward appearance, but how about the inside?

Are you clean inside?

And if not, how can you face the world with clean thoughts, clear intelligence, a fair, just, bright mind and get your full share of capacity for work and enjoyment?

* * *

Neglect of exercise, rich over-feeding and carelessness about stools, often leave the delicate internal mechanism in a nasty mess.

The small intestine is compelled to absorb the poison of decaying matter instead of wholesome nourishment.

The liver gets inactive; the bile doesn't "work off"; the eyes get yellow; the skin gets dead like putty and pale like dough, disfigured with boils, pimples, blackheads and liver-spots.

* * *

There's only one solution to the problem: Keep clean inside all the time. That's the answer.

If you can not diet, or keep your mechanism going by proper exercise, take Cascarets, the sweet, fragrant, harmless little vegetable tablets, that "act like exercise" on your bowels, and gently but powerfully clean out and disinfect the whole digestive canal.

A Cascaret every night before going to bed will "work while you sleep" and make you "feel fine in the morning."

If you have been neglecting yourself for some time, take a Cascaret night and morning and break up the "constipated habit" without acquiring a "cathartic habit."

* * *

Cascarets are sold by all druggists, 10c, 25c and 50c. The 10c size trial box is a neat fit for the vest pocket or lady's purse.

Be sure to get the genuine with the "long-tailed C" on the box and the letters "CCC" on each tablet. They are never sold in bulk. 744

Spasms
St. Vitus' Dance

Many persons who suffered untold agonies from epilepsy, fits, spasms, and St. Vitus' Dance are today well. The strengthening influence of Dr. Miles' Nervine upon the shattered nerves having restored them to perfect health.

"I endured agony that words cannot express from St. Vitus' dance, which followed a very severe spell of rheumatism. I doctored with a physician; but the more I took of his medicine the worse I got. My mother's devotion saved me. After she had become almost heart-broken, as well as physically exhausted from constant care, by the advice of a neighbor she procured a bottle of Dr. Miles' Nervine. From the first dose to the last a continual change for the better was noticable, and when I had taken eleven bottles I was well, and in robust health."
EDWARD D. REAM.
North Manchester, Indiana.

"Our little boy Harry, had spasms for three years, and although we doctored with many physicians, he continued to grow worse until he had ten spasms in one week. About that time our attention was called to Dr. Miles' Nervine. We began giving it to him. His improvement seemed slow, but when he had finished the fourth bottle the spasms had disappeared, and have not been seen now for years. We shall always recommend Dr. Miles' Nervine."
MRS. BELLE M. TINDALL,
Hastings, Neb.

Dr. Miles' Nervine is sold by your druggist, who will guarantee that the first bottle will benefit. If it fails, he will refund your money.

Miles Medical Co., Elkhart, Ind

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

cents was needed to operate the forty-eight views. Some of the pictures, were nudes, in disgusting positions, no art about them. They were the kind to start the boy toward the bawdy house. Yes, the kind that would make you or me a first-class candidate for the pen, if we would forward same through United States mail, and were caught.

The penny machines were about like those at the carnival, but were not moving pictures. Last year, at a big fair we had the "Hoochie Coochie," and "Indian Girl" shows, and I called the fair officials' attention to them, and also this year to the picture machines. Both times they ordered them to cut the rotten parts out, (I suppose the orders were given with a wink.) but the damnable business went right on. I plead with you to wake up on this matter and do all you can at every opportunity against these things.

Marion County. JOHN FOX, JR.

"Built on Honor"

Mayer

HONORBILT

SHOES FOR MEN

must be worn to be appreciated. They have snap and style, as well as strength and durability.

HONORBILT SHOES are carefully and capably made throughout—flawless and faultless in every detail.

The very best oak tanned, time seasoned, tough and durable sole leather, as well as the finest upper leather, is used in making them.

HONORBILT SHOES

ARE QUALITY SHOES. It is this high quality and perfect workmanship that makes them wear longer, fit better and give greater satisfaction than any other shoes you could buy for the same price.

"Honest Through and Through"

Your shoe dealer will supply you; if not, write to us.
Look for the MAYER trade mark on the sole.

We also make the LEADING LADY SHOES, MARTHA WASHINGTON COMFORT SHOES, SPECIAL MERIT SCHOOL SHOES, and a worthy line of WORK SHOES.

F. MAYER BOOT & SHOE CO.,
MILWAUKEE, WIS.

TRADE MARK

Gems from Kansas Authors.

D. O. M'CRAY, BEFORE THE SHAWNEE COUNTY HORTICULTURAL SOCIETY, AT OAK GRANGE HALL, SEPTEMBER 5, 1907.

I beg your indulgence in presenting to you a few gems from well known Kansas authors. I know you will be more interested in reviewing some of the choice productions of Kansas writers than in listening to anything else I might offer. I can not quote from all of the Kansas authors who have contributed to our literature and honored State, and must of necessity confine myself to a few selections.

John James Ingalls will be remembered among the brightest intellects of the Nation, and certainly the most brilliant writer and public speaker Kansas ever produced. Of his cherished sonnet, George R. Peck, said:

"After Shakespeare, the great sonnets of our language were written by Milton, Wordsworth, Keats, and Mrs. Browning, with one or two by Landor and Lowell, but when I try to think of one superior or even equal to "Opportunity," I seek in vain."

Senator Ingalls delighted to pay tribute to his State and people. In 1896 he wrote:

"It's treeless and unwatered plains sent the biggest walnut log to the World's Fair, and has a subteranean flow that is capable of irrigating an area more fertile and extensive than the valley of the Nile. The indescribable beauty of the exposition, with their white domes and pinnacles, and statues and colonnades, and terraces and towers, came from the cement quaries of the Saline and Smoky Hill.

"And this is but the dawn. We stand in the vestibule of the temple. Much less than one-half the surface of the State has been broken by the plow. Its resources have been imperfectly explored. It has developed at random. Science will hereafter reinforce the energies of Nature, and the achievements of the past will pale into insignificance before the complete glory of the century to come."

Again:

"There is no other State where the rewards of industry have been so ample, and the conditions of prosperity so abundant, so stable, and so secure as here."

Eloquently Senator Ingalls writes of the modesty of our people. He says:

"The normal condition of the genuine Kansan is that of shy and sensitive diffidence. He suffers from excess of modesty. He blushes too easily. There is nothing he dislikes so much as to hear himself talk. He hides his light under a bushel. He keeps as near the tail end of the procession as possible. He never advertises. He bloweth not his own horn, and is indifferent to the band-wagon."

Four months before the death of this great man, when he was seeking health in Arizona, there fell into his hands a circular containing an extract from the quarterly report of the Kansas State Board of Agriculture for March, 1900. This circular contained a long extract from "Blue Grass," a magazine article which helped to make Senator Ingalls famous. On the back of the circular Mr. Ingalls wrote:

"Dearest Wife:—'Blue Grass' seems to be one of those compositions that the world will not willingly let die. Those were happy days when it was written in the little cottage on the bluff overlooking the great river, with a room full of babies; obscure and unknown, waiting for the destiny so soon to come, that was to make me one of the conspicuous figures of the country for so many years. How far away it seems.

"But I would not recall my life and live it over again, if I could, unless with the power to improve lost opportunities, amend errors, and correct mistakes. How clearly we see our follies when it is too late. Your loving

HUSBAND."

One of Kansas' greatest authors is F. D. Coburn. The story of our State's matchless growth and advancement is reflected in every document that goes forth from the Department of Agriculture. "Whosoever will may come," is the message Mr. Coburn sends to the world on every envelope that leaves his office. On the back of a souvenir card bearing the story of the marvelous wealth of our agricultural and live-stock products for 1904, which was sent to every section of the country, is the following quotation from the great Ingalls:

"The grassy quadrangle which the geographers called Kansas. Her undulating fields are the floors of ancient seas. These limestone ledges underlying the prairies and cropping from the foreheads of the hills are the cemeteries of the marine insect life of the primeval world. The inexhaustible humus is the mould of the decaying herbage of unnumbered centuries. It is only upon calcareous plains in temperate latitudes that agriculture is supreme, and the strong structure and the rich nourishment imparted essential to bulk, endurance, and speed in animals, to grace, beauty, and passion in women, and in man, to stature, courage, health, and longevity."

On another occasion Mr. Coburn paid this tribute to our State:

"Kansas is the product of a courage and fortitude never surpassed by the founders of any commonwealth, the building of any State, and from the beginning has been an object of controversy and an arena for the conflict of ideas, beliefs, convictions."

In a public address at the Omaha Exposition, Mr. Coburn said:

"Located in the favored parallel—'a district that controls the destinies of the globe—a parallel that has been the thread upon which jewels of wealth, plenty, luxury, and refinement have been hung from time immemorial. The 37th parallel is the girdle which the genii of civilization have spun around the sphere. Along it lie great cities. Kansas is right in the very path of this prosperity. With as fertile soil as lies out of doors, and with a salubrious climate, it is the fit abode of successful men.' Such is Kansas. Such is the land we love and whose greeting we bring."

George R. Peck is justly rated among Kansas' most gifted orators and writers. Although living in another State, he insists upon calling this his home. And "when death makes equal the high and low." no more comforting or sweeter thought could come to him as he approaches the dark river than to know that he would be laid to rest in the beautiful Topeka cemetery. I quote a few sentences from Mr. Peck which I find in an address delivered before the students of the State University of Virginia, at Charlotte, June 11, 1895. Of the very cornerstone of our government he said:

"The most profound, the most comprehensive political document ever given to the world was the Declaration of Independence; which came not simply from the pen, but from the heart and brain of Thomas Jefferson. You have read it, and will, I trust, continue to read it as long as your eyes have vision. Did you ever think how nobly—and I had almost said artfully—in that wonderful instrument general truths are united with charges of specific acts of injustice? Sentiment and interest march side by side in all its stately lines. In one sentence is that noble assertion that "all men are created equal;" in another is a complaint that legislative bodies have been called together in unusual and uncomfortable places. It is a model which will never be equalled, and it shows how lofty sentiments may be "wisely joined to the demands of the practical."

I can not refrain from quoting from some of the public addresses of Governor John A. Martin. At a banquet for the Press Club of Topeka, February 28, 1885, he uttered a great truth when he said: "Kansas is the electric light of the Union." I have in my library a book containing all the addresses delivered by Governor Martin during the four years he so ably filled the executive office. I wish I had the time to read you the many eulogies he paid to Kansas and her people. A few will suffice.

June 9, 1885, at the State University, Governor Martin said:

"The men who brought freedom to Kansas brought in her train the school and the printing press. Fighting slavery, they fought ignorance also; upholding liberty, they upheld their true friend and ally, learning. The crowning glory of Kansas, from that day to this, has been her schools, embracing those of every grade, from the rude dugout on the lonely frontier to the stately buildings on Mount Oread. These bright children of the State are her jewels, and she can point to them with a pride equalling that of the Roman mother."

At a county fair at Smith Centre in 1885, he said:

"With this fair land as his home, with this productive soil as his workshop, and with the rare and healthful atmosphere of Kansas to stimulate his energy, the farmer of this State ought to be contented and prosperous. Certainly, in no other State have the opportunities for securing pleasant homes and productive farms been so favorable and so numerous as here in Kansas. Certainly, in no other country under the shining stars have so many poor and struggling men won modest fortunes by honest industry, as here in Kansas. And certainly, the future of Kansas promises a rapid and substantial growth. I speak of the future thus confidently, because, after all, the richest heritage of Kansas is the imperial manhood of its citizenship. Here is a people who have wiped a desert from the map of the continent, and replaced it with a garden. Here are the men who have pushed the plains to the foothills of the mountains; who have dotted the treeless prairies with forests; and who have made the solitudes of the bison the home of the plow."

I know you will all be interested in listening to a few sentences from an address delivered by Noble L. Pentis before the Quarter Centennial held at Topeka, January 29, 1886. This writer, historian, and friend of Kansas paid a tribute to the women of this State in these words:

"The Kansas woman was our first teacher. She is not an old woman yet, as years are counted, but she is older than the Agricultural College, or the Normal School, or the State University. She gathered the children in an academy, the walls of which were sod, and the roof of brush and earth, and taught them to spell such words as truth, liberty, freedom, independence, and instructed them in their geography that the earth revolves every twenty-four hours around its center—which is Kansas. In consideration of her services to education in the early days, the law of Kansas

(Continued on page 1123.)

Home Departments

CONDUCTED BY RUTH COWGILL.

The Babyhood of Theodore Roosevelt.

I.

When Theodore was three weeks old
A marvel set the household seething.
The nurse fell fainting—for behold!
The Roosevelt baby started teething!
Along his gums began to pop,
In long, white rows, a bumper crop
That almost stopped the infant's breathing.

II.

They called the Doctor, who in turn
Called in the Dentist, Dr. Skeetum,
Who said, "Dear Friends, we live to learn—
These teeth are too advanced to treat 'em.
He's cut them all, this forward youth,
And every one's a wisdom tooth—
I never saw a set to beat em!"

III.

And it was thus that Theodore
Arrived on earth and took possession,
And from his early moments bore
The marks of statecraft's stern profession.
Whene'er the Roosevelt household met
They sat around like Cabinet
When Teddy called an extra session.

IV.

A Teddy Bear they gave the child
Which caused domestic conflagration;
He loved the calling of the Wild,
But loathed the sawdust imitation.
So more in anger than in fairness
He rose and kicked his Teddybear-ness
Into the next Administration.

V.

In fairy tales he saw small good.
When Nurse McGee talked orge hunting,
Told how the Wolf met Riding Hood
And how the Rabbit clothed B. Bunting,
Then did the infantile muckraker
Spring from his crib, cry "Nature faker!"
And fall back on the pillows grunting.

VI.

Perplexed, they took him to the Zoo,
Hoping to cheer his melancholy.
He saw the bears, and shouting "Boo!"
Sprang at their cage with reckless folly.
The brutes beheld this savage rapture,
And fearing sudden death or capture,
Cried, "Friends, we see our sad finale!"

VII.

But when the Stork was shown to him
His coos approving love attested;
To view a bird whose stilt-like limb
A plane of lofty thought suggested.
And Nature echoed with his smiles
When he beheld among the tiles
The home wherein the Storklings nested.

VIII.

Among his letters soon he sat
And learned to spell by intuition.
He introduced a K in "cat"
And rather liked the new condition.
When Father tried to change the text
He shouted "Mollycoddle!" vexed,
And would not budge from his position.

IX.

They brought him in a rocking horse—
A faithful steed and rather nobby;
For even as a child, of course,
T. Roosevelt oft rough-rode his hobby
Bang-jamming into screens and barriers
Like San Juan foes or common carriers
Assembled in some railway lobby.

X.

And from that day and from that hour
For martial deeds he felt attraction,
Became a Military Power,
And, big with warlike satisfaction,
He drilled his nurse around the room
With "Column right!" and "Carry broom;"
Until she loathed the life of action.

XI.

And when the nursely Volunteer
Her gallant broom with ease could handle,
He jumped her rank to Brigadier,
Thus causing quite an army scandal.
For those whom she surpassed in rank
Of "favorites" made mention frank
And swore the game not worth the candle.

XII.

He let the children who were good
Help build canals in back yards sandy.
His chum was little Leonard Wood,
And Willie Taft got half his candy.
But Baby Tillman in the cellar
He locked and called him "story teller"
(For even then the phrase came handy.)

XIII.

Thus from the cradle Theodore
Employed his days in preparation
For making Peace and Noise and War
And giving lectures to a Nation.
Ere to the greater stick he yielded
The Little Stick in youth he wielded
With almost constant application.

—Wallace Irwin in the Woman's Home Companion for October.

Home Decoration.

Time and money are not wasted when used to make the home and surroundings, beautiful and attractive. Environment has a very large influence upon humanity and the home is where the child lives during the most impressive time of his life. The character of the home will impress itself upon the lives of the young and will have a lasting effect upon them. It is not too much to say then, that it is the parents duty to do all things possible to make the home not only a comfortable place, but an attractive place. It does not require a great deal of money to make a pretty and pleasant home, not such an abundance of things, but good taste and thought. There are not many artists in this world and only a few of us home-makers possess the natural artistic nature, but by observing a few rules and giving a little thought to it we can make the home attractive with a very little money. A twofold blessing comes to the housewife when she gives her attenion to making home attractive. It gives zest to her housekeeping and inspires new interest and elevates her tastes and ambitions. One can not do a good thing for others and not be benefiting oneself.

By observing how nature makes the world beautiful, and by following a few principals, anyone can make the most common home attractive and restful. Simplicity is the first law of good taste. Crowding too many things into the room, placing a conglomerate lot of bric-a-brac upon mantles and shelves, using too many pictures upon the walls makes any thing but an attractive and restful room. As a rule, nothing should be used in decoration just to exhibit it, but to add to the harmony and beauty of the room. The home should not be made a curiosity shop or a place to display merchandise. Whenever possible, combine usefulness and beauty when buying furnishings and decorations. Simplicity does away with dust lines. Moldings and filigreed and grooved picture frames, and heavily tasseled draperies catch dust and make much extra work and are unsanitary. In selecting furniture, choose that which is good of its kind. It is more satisfactory to buy the best cane seated chairs than a more costly upholstered chair of a poor grade. A plain table of good material workmanship, and finish is better than one poorly made but having carved surfaces and costing even more. The comfort of the rocking chairs should be considered in preference to their ornamentation. Harmony in colors to be used in the room is very essential to their attractiveness. The floor covering, wall paper; and draperies should be such that will look well as a whole. The floor looks better to be darker than walls and the ceiling lighter than the side walls. Glaring colors and large showy designs should be avoided, choosing rather modest styles. A carpet or wall paper that is noticeable in itself, should not be used Take a look at nature. The meadows and fields are covered with the modest green grass, while over head, and around us is the delicate blue. The eye wearies with a repetition of the same figure in paper and carpet, and pictures show to a much better advantage on a plain, or nearly plain, back-ground. A dark room may be made lighter by using light paper. The yellow shades are good for a room where light is needed. Stripes make a room look higher, and the use of a molding dropped from the ceiling with the ceiling paper brought down to it makes the room seem lower.

Pictures in the home has a most refining and uplifting influence upon its inmates. They do not add to the comfort nor are they useful to the bodily wants, but for decoration nothing is finer than a good picture. Use fewer bric-a-brac and put the money into pictures, pictures that please, and educate the tastes. These pictures need not be original masterpieces, there are beautiful copies of the originals that are within the reach of most every one. When framing a picture, select the kind that will best bring out the picture and let it be simple and in harmony, so as not to detract from the picture itself. The frame should be chosen as a protection for the picture and not so much for decoration. The hanging should be as unobtrusive as possible, using as fine a wire as will hold the picture, and the picture should be hung in a suitable light, and at the right height. Its position on the wall should have due consideration.

I Want to Know.

Some inquiries have come to me from the readers of this paper, which I take pleasure in answering. One reader wishes to know how to sign her name to a letter, so that it will be known that she is a married woman. An unmarried woman signs her name only, and if she must emphasize her single state, she can write "Miss," but in parentheses, before her signature. The married woman signs her name, "Caroline Thompson," and, if necessary, adds below in parentheses, "Mrs. John H. Thompson." Even in writing to strangers and employees, a woman should never sign "Miss" or "Mrs." but in addressing a woman, a wife or widow, she is not to be addressed by her husband's title; good form does not recognize "Mrs. Capt. Sigsbee" or "the Rev. Mrs. Parkhurst."

Another reader writes: "I would like to know how to take care of bulbs and vines during the winter, such as canna, gladiolus, etc? Should the tubers of cinnamon vines, which were planted last spring, be taken up or will they grow from year to year remaining in the ground?"

After the frost kills the tops of cannas, they should be cut off and before the ground freezes the roots should be dug up, dried, and stored in a dry dark place where they will not freeze.

Gladiolus, dallias, etc., should be put away in dry sand. The cinnamon vine is hardy and can be left out through the winter.

Another reader wants to know the kindergarten way of teaching children in the home and where to get the sewing card used in the kindergartens.

The sewing cards and other kindergarten supplies, may be procured from Milton Bradley, Kindergarten Supply House, Kansas City, Mo. The question in regard to the teaching will be answered in a later number of the paper.

The Orange Cure.

Mrs. Alfred H. Shannon of Florida announces the discovery that oranges will cure the drink habit. Her first patient was a man who had for more than forty years been adapted to drink. Acting on her suggestion, he began each day by eating an orange as soon as he opened his eyes in the morning.

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efore going to breakfast he ate nother. After breakfast he ate still nother, and followed that up with ore fruit every time he felt a crav- g for drink. He carried this treat- ent through for one month and at e end of that time had lost all desire r drink, but instead an orange at ast three times a day had become ecessary for his health and hap- iness.

It is said to have been a woman ho, years and years ago, made the iscovery that any one eating an range every day in the year would ever be troubled with rheumatism. n the South many old persons have uch faith in this prescription that hey would rather do without bread han without their daily orange.

Observing the Sabbath.

"Believing, as we do, that the great rinciples which underlie the due ob- ervance of the Lord's Day are public orship and rest, we resolve to do all hat we can to discourage, so far as ossible, such employments on the Lord's Day as would prevent our- elves, our servants, or others for hom we are responsible, from being ble to carry out these principles."

The above is the resolution adopted y the Sunday Lay Movement in Eng- and, and is being widely circulated in merica by the Woman's National Sabbath Alliance. The impulse came rom a desire on the part of the Eng- ishwomen to try and influence people ot to give luncheon and dinner par- ies on Sundays, so that their serv- nts might enjoy a day of rest and pportunity for worship, which is their ue. The Alliance is doing all in its ower to secure signatures to the res- lution. Any one who may desire to dd his influence can do so by clipping he resolution, signing the same, and ending it to the Alliance at Room 1007, 156 Fifth Avenue, New York City.

The Young Folks

The Goldenrod.

This flower is fuller of the sun
Than any our pale North can show:
It has the heart of August won,
And scatters wide the warmth and glow
Kindled at summer's midnoon blaze,
Where gentians of September bloom,
Along October's leaf-strewn ways,
And through November's paths of gloom.

Herald of autumn's reign, it sets
Gay bonfires blazing round the fields;
Rich autumn pays in gold its debts
For tenancy that summer yields.
Beauty's slow harvest now comes in;
And promise with fulfilment won;
The heart's vast hope does but begin,
Filled with ripe seeds of sweetness —. gone.

Because its myraid glimmering plumes
Like a great army's stir and wave;
Because its gold in billows blooms,
The poor man's barren walks to lave.
Because its sun-shaped blossoms show
How souls receive the light of God,
And unto earth give back that glow—
I thank Him for the golden-rod.

—Lucy Larcom.

The Doings of the H. S.'s.

GRACE S. HOWELL.

CHAPTER X.—AND THEY ALL LIVED HAPPY EVER AFTER.

The meeting at Verna's was the last as we had planned them. Miss Hamlin had asked us to meet with her however, as she had a plan for the continuance of our club meetings during the winter. When we got to her home, she lived in town, she told us, as we had been disappointed about our picnic to the river, she had decided to take us to Flat Rocks, a famous picnic ground along the river, instead of entertaining us at her home. She had no more than finished her explanation, when we heard the honk of a horn and there drawing up in front was the precious big automobile with Mr. Cannon as chauffeur. We were overjoyed at the prospect of an automobile ride, but we felt a trifle jealous of the chauffeur, and Della shook her little fist at his broad back.

Mr. Cannon effacing his own interests exerted himself to entertain Miss Hamlin's guests and a happy, happy day was the result.

Miss Hamlin told us her plans as Mr. Cannon rowed us up the river. She asked us if we didn't think, in view of the fact that we were getting to be such big girls, that it would be well to learn something useful, something that would enable us to help our mothers whose hands were always so full. She explained how she taught sewing and cooking out of a book to her classes. She told us she had a class of girls about the age we were and how interested they were in the work. She told us that if we liked her plan she would meet with us every other Saturday and give us lessons.

Now I want to be frank, so I'll admit that sewing and cooking had never in the least appealed to me, but when Miss Hamlin explained it all, her face lighted up with a wonderful enthusiasm that one couldn't help being seized with the contagion of it all and even Della and Verna embraced the plan joyfully.

The doings of the club for the next year would fill a big, fat volume, but some day perhaps I can tell it all to you. But my hands during the club meetings were too busy to write of its transactions and after the meetings my fingers were too sore to write even if I had desired to. Not a finger have I but what bears the marks of that heroic struggle. My talent for getting wounded was a source of wonder to Miss Hamlin. "How do you manage it, Minnie?" she would say as she bandaged my fingers up.

But I conquered. We all did. We had to under the influence of Miss Hamlin's wonderful personality. All the love and loyalty in our girlish hearts was hers, and she deserved it all.

The next summer we had progressed so far that with the consent of our fathers we bundled our mothers off for a two weeks stay at the Chautauqua and we shouldered the burdens of a farm house-keeper in harvest time. That was worth something, I think.

It was just after this that we often noticed a far-off mystic look in Miss Hamlin's eyes, and one day she told us all her happiness. She had found her Prince Charming. And didn't our hearts bound responsively. For what girl has not her beautiful dreams of a Prince Charming? With it all we were a little jealous of the Prince just the same, though we wouldn't admit it even to ourselves.

It was after this that we commenced holding meetings that Miss Hamlin knew nothing about, and when a certain day came that I am going to tell you about, the specimens of our handwork that we presented her, were such that any one might feel proud. We made her, among other things, a lingerie waist, and we felt very happy when she put aside the silk waist she had made to wear with her going away gown and wore the waist that we had made for her.

But the wedding. To our eyes, unfamiliar to such a scene, it was all very grand and luxurious, but in reality it was the simplest of weddings. Miss Hamlin's modest home was decorated with simple, inexpensive flowers and a few invited friends saw the loveliest of lovely women dressed in a simple white gown, united to a handsome man. I understand it doesn't matter about the groom's dress, so I'll pass on to the next thing of importance, the wedding dinner.

The guests sat down to a six-course dinner, cooked and served by the H. S. Club. Everything went off like it was charmed. O, we were proud. Everybody said it was the most beautiful, happiest, most sensible, most charming—well they used up all the appropriate adjectives—wedding, and it was until I spoiled it.

Everything was nearly over and not a cloud in sight, figuratively speaking, until the bride, all dressed for the wedding trip, with the cab waiting outside the door, turned to wave a last goodby to the guests crowded in the hall. I was halfway up the stairway and as she turned her face towards us the queerest feeling came over me, and bursting into tears I leaped down those stairs, I am afraid to say how many at a time, and rushed unto the bride. My outbreak seemed a signal for the whole Happy Six, for they too burst into tears and followed me.

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Simultaneously six pairs of arms encircled the bride. We formed a cordon about her so strong that the bridegroom, though he tried, could find no opening through which he could thrust a hand to recapture his bride. In vain he argued that they'd miss the train, he couldn't be heard above our sobs. It was mama who brought us to a realizing sense of our crime.

"Girls! Girls!" she remonstrated in tragic tones, "You're ruining her dress."

Around the collar of her costly tan broadcloth jacket was a great circle of tear drops, on broadcloth you know the spots could never be effaced.

"Well," glumly remarked Della afterwards, "Weddings would be a lot of fun if it wasn't for two things, the bridegroom and the wedding journey."

(The end.)

The Little Ones

Good-Night and Good-Morning.

A fair little girl sat under a tree,
Sewing as long as her eyes could see;
Then smoothed her work and folded it right,
And said, "Dear work, good-night, good-night!"

Such a number of rooks came over her head,
Crying, "Caw! Caw!" on their way to bed,
She said, as she watched their curious flight,
"Little black things, good-night, good-night!"

The horses neighed, and the oxen lowed,
The sheep's "Bleat! Bleat!" came over the road;
All seeming to say, with a quiet delight,
"Good little girl, good-night, good-night!"

She did not say to the sun "Good-night!"
Though she saw him there like a ball of light;
For she knew he had God's time to keep
All over the world, and never could sleep.

The tall pink foxglove bowed his head:
The violets curtsied, and went to bed;
And good little Lucy tied up her hair,
And said on her knees, her favorite prayer.

And, while on her pillow she softly lay,
She knew nothing more till again it was day;
And all things said to the beautiful sun,
"Good-morning, good-morning! our work is begun."

—Lord Houghton.

Voices in the Garden.

No picnic! Gladys could hardly believe the words that she heard as she came down the stairs and found grandpa standing in the shed door and looking at the weather-vane on the barn.

"Even if it should clear," he was saying "the woods would be too wet for the children to have any fun."

Gladys had promised mother if she came all alone to visit on the farm that she would try to be as little trouble as possible, and so she bravely checked back the tears that came to her eyes. "But why didn't it wait till to-morrow?" she asked, and to this question grandpa had no answer, but he placed a hand on her curls and patted a little comfort. "After breakfast I will tell you the reason," he said.

It had cleared a little and the wind subsided so that they were able to bring their chairs to open door of the shed, where they could look out into grandpa's garden on one side and at grandmother's flowers on the other.

"Let's listen to the voices in the garden," said grandpa. "Perhaps we shall learn the reason why our picnic was postponed. Hear what those beets are saying! That big one over there says, 'How good it is to run my feet down into cool puddle. I reached down there all last week, and the bed was so hot and dry it made me feel weak. The soft, cool water is running all about me, and I feel so fresh I think I must have grown a whole inch.'

"Over there I can hear another voice—it is the sweet peas. They are all talking at once. I hear one say, 'In another day I should have lost all the color I was making. It had all paled out, and I was beginning to think I could not give a blossom to that little girl at the big house. But this water has helped me churn up the color, and I can see that my buds are swelling beautifully. Don't you see that lovely purple and deep pink?' 'Yes,' one of the others is saying, 'but it is not so pretty as the white. So much water has made that as pure as snow.'"

Grandpa leaned out of the door and put his hand to his ear. "I believe the grape-vine is talking, too," he said. "Yes, it is saying, 'Dear me, if it had not been for this rain I should not have been able to hold on to this trellis much longer. My arms were so dry they had no strength, but see how fresh I feel now! I am going to try to reach that next railing today, and I shall do it, too!'"

Gladys was listening eagerly under the full spell of grandpa's make-believe. "Are the pansies saying anything?" she asked, earnestly.

"Listen!" said grandpa. "They are saying, 'There, I have a clean face at last! It has been so thick with dust I could not see beyond the path. My eyes feel as bright as can be. It is hard to be so dusty. I think it makes a pansy grow old. I am sure you all looked like old ladies yesterday, with your caps all curled on the edges; but today you look as young as you did when you first took off your green hoods. I don't feel over a week old.'"

"Grandpa, I don't mind about the picnic at all. I think it was selfish to make them wait another day," Gladys leaned out over the door-sill and looked down lovingly at the flowers, as if she expected them to thank her.

—Margaret J. Dubiois, in The Youth's Companion.

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Domestic Science Club (1888).....Osage, Osage Co.
Ladies' Social Society No. 1, (1888) Minneapolis, Ottawa Co.
Chalitso Club (1902).....Highland Park, Shawnee Co.
Cultus Club (1902).....Phillipsburg, Phillips Co.
Literateur Club (1903).....Ford, Ford Co
Star Valley Women's Club (1902).....Iola, Allen Co.
West Side Forestry Club (1903) Topeka, Shawnee Co., Route 8.
Fortnight Club (1903).....Grant Township, Reno Co.
Progressive Society (1903).....Rosalia, Butler Co.
Pleasant Hour Club (1899) Wakarusa Township, Douglas Co.
The Lady Farmer's Institute (1902) Marysville, Marshall Co.
Women's Country Club.....Anthony, Harper Co.
Richardson Embroidery Club (1902) Madison, Greenwood Co.
Prentis Reading Club (1903) Cawker City, Mitchell Co.
Cosmos Club.....Russell, Kans.
The Sunflower Club (1905).....Perry, Jefferson Co.
Chaldean Club (1904).....Sterling, Rice Co.
Jewell Reading Club.....Osage Co.
The Mutual Helpers (1906).....Madison, Kans.
West Side Study Club (1906).....Delphos, Ottawa Co.
Domestic Science Club (1906) Berryton, Shawnee Co.
Mutual Improvement Club (1903) Vermillion, Marshall Co.
Clio Club (1897).....Columbus, Kans.
Centralia Reading Circle.....Nemaha Co.

(All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.)

A Word from the Madison Club.

I want to tell you that our Richardson Art Embroidery Club, organized in 1902, is in a very prosperous condition, with twenty-nine members, and with but very few exceptions, are all active members. I suppose you will soon have the club roll in your valuable paper again, and we would be pleased to have our club entered on the roll.

IDA E. FILER,
Organizer and Instructor.

The Traveling Art Gallery.

The State traveling library commission now has charge of the State traveling art gallery started by the State federation during Mrs. Cora G. Lewis's administration and which was presented to the State last winter and accepted by the Legislature.

The gallery includes five collections of carbon reproductions of famous masterpieces of painting. They are the Italian, the Dutch and Flemish, the German the French and the English. There are in all about 325 pictures. Mrs. Kate Aplington of Council Grove, who has been superintendent of the gallery since the beginning mounted them, provided them with hangers and with brief historical descriptions pasted in one corner. The

BACKACHE AND DESPONDENCY

MISS LENA NAGEL

Are both symptoms of organic derangement, and nature's warning to women of a trouble which will sooner or later declare itself.

How often do we hear women say, "It seems as though my back would break." Yet they continue to drag along and suffer with aches in the small of the back, pain low down in the side, dragging sensations, nervousness and no ambition.

They do not realize that the back is the main-spring of woman's organism and quickly indicates by aching a diseased condition of the feminine organs or kidneys, and that aches and pains will continue until the cause is removed.

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made from native roots and herbs has been for many years the most successful remedy in such cases. No other medicine has such a record of cures of feminine ills.

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Mrs. Pinkham's Standing Invitation to Women

Women suffering from any form of female weakness are invited to write Mrs. Pinkham, Lynn, Mass. Her advice is free.

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By playing tremolo tones in the right hand and single tones in the left, a close resemblance to a MANDOLIN QUARTETTE accompanied by an ITALIAN HARP is secured.

By the use of a foot pedal the entire tone quality of the instrument is changed, producing a most pleasing effect resembling CHIMES.

The DOLCETTE makes a beautiful piece of parlor furniture. Its appearance is different from any other instrument on the market. The lower portion somewhat resembles a Piano while the upper portion closely resembles an Italian Harp. It is adapted for use either as an INDIVIDUAL INSTRUMENT or in COMBINATION WITH THE PIANO. The two played together make a complete home orchestra.

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gallery was catalogued by her and in fact she has had complete charge of it, all the responsibility and all the work since its inception. The gallery has been entirely self supporting from the start, and earned a surplus which has been used to buy more pictures. From one collection it has grown to five and is worth $1,500.

Domestic Science Clubs.

Many requests come to the domestic science department of this institution for suggestions for domestic science club outlines. The purpose of these clubs is to offer to women in their own homes some of the opportunities now offered to young women students, that they may obtain a scientific knowledge of the fundamental facts as they occur in the household. All clubs are good, but that club which will cultivate a woman's brain, broaden her viewpoint and at the same time increase her interest in that which is necessarily her occupation can not but be more advantageous than a club which only pursues subjects remote in time and locality from her immediate surroundings. While the primary reason for domestic science clubs is for a better knowledge of home conditions, and therefore for more hygienic and economical living, it can not but result in interesting women in scientific study. There is as much opportunity for original investigation while baking bread or making jelly as would that women have were she out of her home and investigating along the more popular biological lines. There is in the artistic arrangement of a home an incentive to the study of color effects equal to a course of lectures on the art of some foreign country.

Of course, no woman can be a perfect home-maker when she is nothing more than merely a good housekeeper; but no woman can be a home-maker who is not a good housekeeper. It is sometimes argued that the daily routine work of a household is drudgery; that it is beneath an educated woman to thus "drudge;" but it should be remembered that all the useful men and women in the world work; that the educated man, when completing his college course, does not expect to settle down to a life of ease, wherein he may pursue literature or art or continue his study of the languages; he expects to go out into the business or professional world and give to the world a good, honest-day's work each day, in return for which the world will give him a living. In like manner the educated woman is only educated that she may be of more use to the world. As in the case of the man, she should not hope for a life of leisure, wherein she could calmly pursue her favorite studies, but should look forward to a life of energetic labor, wherein the pursuit of her special likes might enter as a recreation and perhaps contribute to her better daily efforts, but not where she could be freed from all responsibility and allowed to yield to whatever impulses she may have.

It is an encouraging sight when so general a demand for this variety of study is made. In years past, girls were trained to household duties in their own homes. In our more recent times, girls are so crowded with school and college studies that their mothers have no opportunity to give them lessons in good housekeeping. The result of it is, that the young women assume the duties of housekeepers and wives without any knowledge of the profession upon which they are entering. These untrained women have many bitter experiences, and too often grow to dislike their home life. To them the study club in domestic science should prove both helpful and interesting. Older women realize that there are many ways that are better than the ones to which they have been accustomed, and that many of the processes, with the working of which they are familiar, rest upon causes that are to them unknown. The "whys" and "wherefores" of housekeeping are not known so well as are the "hows," and these "whys" and "wherefores" are the subjects investigated in these clubs.

I would suggest that every fourth meeting be a meeting open for the husbands. Men are more truly interested in household questions than most women realize, and their suggestions are often practical and to the point. I have little faith in any line of work which limits its possibilities to one sex, and the sound reasoning of a good business man is frequently of material aid to the pursuit of a subject which might be considered strictly feminine. More than that, the comfort of a man is quite as much affected by home conditions as is the well-being of a woman, and it seems only fair that his opinion should be occasionally considered.—Mrs. Calvin, in The Industrialist.

Gems from Kansas Authors.

(Continued from page 1119.)

gives her the right to act as county superintendent, if she gets votes enough, and greatly appreciating her love of learning for its own sake, we allow her to teach school still, and receive half as much as a man receives for the same work.

"The Kansas woman has manifested at all times that highest quality of the mind, endurance of daily ills, hourly discomforts, and perpetual annoyances. She has lived in a dugout, she has existed in a claim shanty with a stovepipe for a chimney; she has cooked without wood or coal and she has battled with the Kansas zephyr. Every Kansas woman, who has run a cooking stove with cornstalks, straw, and buffalo chips, and has seen her clothes line snatched bald a thousand times by the Kansas wind, should receive a homestead for nothing and a pension for life. But that same wind has developed the grace and muscle of the Kansas woman. Talk about your yachts—you Puritans and Genetas! A more inspiring sight than old ocean ever knew is a Kansas woman beating up Kansas avenue in the teeth of a roaring gale.

"It was a Kansas woman who was the first of her sex to climb to the summit of Pike's Peek, long before there was a bridle path, much less a railroad. She clambered on her little woman's feet over rocks, through snows, up into the cold, rare atmosphere—up higher than the bird's wing beat the air—up to the very crest, and there saw what no woman's eyes had ever seen before. And so today stands the Kansas woman in Kansas song and story. She has climbed through difficulties to the realm of the stars."

It is a pleasure to me to pay tribute to the man who penned these lines.

Ironquill has given to Kansas a wealth of good things:

States are not great except as men may make them.
Men are not great except they do and dare.
But, States, like men, have destinies that take them—
That bear them on, not knowing why nor where.
From boulevards o'erlooking both Nyzas,
The statued bronze shall glitter in the sun,
With rugged lettering:
"John Brown, of Kansas:
He dared begin;
He lost—but, losing, won."

Among the pungent and forceful writers of Kansas, our distinguished Governor deserves special mention. The "Thoughts We've Been Thinking" in the Marion Record are really gems, and every one of them points a moral. In his inaugural address Governor Hoch coined a new sentence here that will live in history. "Kansas is the rich, juicy meat of the National sandwich." I think next to his masterful inaugural address, his Arbor Day proclamation issued on the 25th of March is a document worthy of preservation by every citizen of Kansas. It has high literary merit not often found in an official document. I quote:

"In all the realm of inanimate nature man has no greater friend than trees. Trees are God's best benediction to man in an inanimate form. They furnish him most of the material for his dwelling and for its internal comfort and adornment. In summer they shield and caress him and keep him constant company, and in winter they stand like mute sentinels, keeping vigil over sleeping comrades.

"Shakespeare says that 'trees have tongues, and who does not understand their language and enjoy their converse?' 'Love of trees,' says an unknown writer, 'is safe—you do not run risks in your affection.' 'They are often,' says Henry Van Dyke, 'rooted in our richest feelings, and our sweetest memories, like birds, build nests in their branches.' If he who makes a spear of grass to grow where none grew before is a public benefactor, surely he who adorns the world and ameliorates its condition with tree life deserves well of his fellows."

If we could spend a week out at Garden City, Dodge City, Colby, Wakeeny, or any one of a dozen other western Kansas towns where from a dozen to a score of homeseekers alight from every train in quest of cheap lands, we would be impressed with the force of these lines written by the late Harmon D. Wilson:

They're a comin' back to Kansas,
They're a crossin' on the bridge;
You can see their mover wagons
On the top of every ridge.
On the highways and the turnpikes
You can hear their wagons hum,
For they're comin' back to Kansas,
And they're comin' on the run.
Who's a comin' back to Kansas?
Why, the migratory crowd
Who left the State some months ago
With curses long and loud;
And they swore by the Eternal
That they never would return
To this Kansas land infernal
Where the hot winds blast and burn;
Where the rivers run in riot
When they want it to dry—
Where the sun so fiercely scorches
When they want a cloudy sky.
So they loaded up the children
And the whistled for the dogs;
Tied a cow behind the wagon,
To the butcher sold the hogs;
Hitched the ponies to the schooner,
Turned her prow toward the east,
Left this beastly State of Kansas
For a land of fat and feast.
Did they find it? Naw—they didn't!
Though they roamed the country o'er,
From the lakes up in the Northland
To the far-off ocean shore;
And they found that other sections
Had their tales of woe to sing;
So they're humpin' now for Kansas
At the breakin' forth of spring.

There is an author in Deven whose name and photograph I would like to possess. Several years ago he wrote a dozen verses about Kansas, dealing with grasshoppers, Mrs. Lease, cyclones, and Senator Peffer. But he squared himself with me in the closing stanza which runs in this happy and comforting vein:

When the cares o' day is done on the plains o' Kansas,
An' the kids begin to yawn, sleepy like, in Kansas,
Farmer wipes his glasses, blurred,
Reads a chapter in the Word,
Then kneels down and thanks the Lord
that he lives in Kansas.

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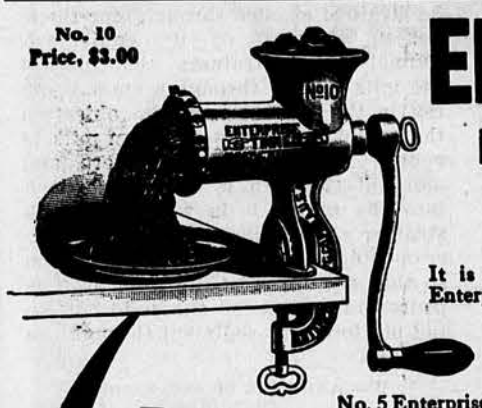

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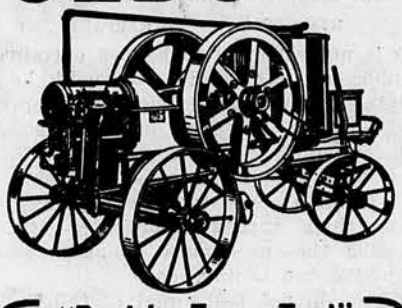

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Dairy Interests

Cream Producers' Guide.

J. C. KENDALL, KANSAS STATE DAIRY COMMISSIONER.

PRODUCING CREAM.

The production of cream offers to the farmer an opportunity to back up other farm operations with a business that will supply sure and regular returns. It will enable him to make cash purchases and reap the advantage of such business methods. The farmer that keeps dairy cows has a market—yes, a good market right at his door—for the roughage produced on the farm. Keeping dairy cows and selling cream is a strong incentive and furnishes the means for keeping chickens, hogs, and raising more live stock, which in turn encourages the diversifying of crops and better systems of crop rotation. Dairy farming, especially where butter is made or cream is sold, tends to improve the soil. A ton of butter sold from the farm removes less than fifty cents worth of the soil fertility, while a ton of wheat removes over eighty dollars and fifty cents worth of the soil fertility of the farm.

Besides furnishing a market for roughage and paying good market prices for the products of the farm, about eighty per cent of the manurial value of the crop can be returned to the land. The farmer often makes the mistake of not keeping enough cows to warrant his giving the proper care to the animals or the products from the dairy. One man should milk a dozen or fifteen cows, and every farmer can keep this number with very little trouble and expense, and they should bring in three hundred fifty to four hundred dollars profit from the sale of cream leaving out of account entirely other advantages.

KIND OF COWS TO KEEP.

It is not sufficient to have a certain number of cows. They should be adapted to the work—dairy cows, not beef animals, that can only produce sufficient milk to raise a veal calf. Such cows are not the most profitable ones to keep. Aim to raise your own cows, then through selection and breeding the producing capacity of your herd can be increased.

If you do not feel equal to the expense, cooperate with your neighbor and purchase a good dairy sire. The influence of a good sire towards improving the quality of stock, especially where grades are kept, is very marked.

Lay your plans for a silo at just as early a date as possible. The silo has come to be recognized as one of the most important buildings on the dairy farm.

Care should be taken not to feed cows food capable of imparting objectionable odors or flavors to cream. Turnips and other strong-flavored foods can only be fed immediately after milking, but it is better not to feed such foods to dairy cows. It is not necessary and it is too risky.

MILKING.

The milking should be done in clean stables, free from dust and odors. Brush off the udder thoroughly before beginning to milk. Washing and drying the udder makes this part of the work much more thorough. A modification of this plan proves very efficient and practical in reducing contamination at this time. A damp cloth, not wet, is used to wipe off the udder and adjacent parts just previous to milking. This will remove loose hairs, dandruff, and prevent dust from the animal's coat from dropping into the pail. Precautions which are taken during the milking avoid trouble later. During milking process, as generally carried on, not only the greatest contamination takes place, but those most objectionable types of bacteria that cause the cream, if favorable conditions arise, to go off flavor gain an entrance to the milk. The milker's hands should be clean and dry. He should be supplied with special clothing for this work that can be kept clean by frequent washings. The milker should understand that he is handling food, and all of his operations should be governed accordingly.

There are a great many patent milk pails on the market designed to assist the dairyman in preventing filth from gaining an entrance to the milk. A good milk pail should be free from open joints and have as small an opening in the top as is consistent with easy milking, and should be constructed that it can be easily cleaned. Strainer-top pails are quite extensively used, and when properly cared for are very effective in reducing the bacterial count of fresh milk. Milk should be strained at once through four thicknesses of gauze or its equivalent. Funnel-shaped strainers that permit the milk to flow through a small opening in the bottom have the objection that as each new lot of warm milk is poured into the strainer more and more of the filth is washed through into the milk. It is well to have a strainer so contructed that the strainer-opening is raised above the bottom so that the force of the milk as it is poured in will strike the solid bottom and not force the sediment through the strainer.

USE AND CARE OF SEPARATOR.

Separate milk while it is warm. This will insure the most efficient skimming, permit the cream to be cooled soon after it is skimmed, which is very important in extending the length of time cream will remain sweet, and the skimming will be warm and in the very best condition for feeding purposes. Just as little time should transpire between milking and cooling the cream to below sixty degrees as possible. Fifty degrees will be better. The lower the temperature the less the cream will deteriorate befor delivering and the better it will stand shipping. A mistake is often made by mixing warm cream with cool cream. Cream that is warm should always be cooled before mixing with cold cream.

The separator is a machine which should receive careful treatment if it is to do its best work. Foundations should be solid and the machine set perfectly level. All bearings should receive frequent flushings with kerosene. This will make the machine run easy and prolong its life. Keep machine well oiled with the special oil sent out with the separator. Separators should be located in a clean, well-ventilated place, free from odors. It should not be necessary to say anything about the necessity of taking the separator apart and thoroughly cleaning and airing it after each time it is used, but the temptation has become too strong for some, and hot water is simply run through the machine and it is left in that condition until the next run. We can not say too much against this filthy practise. The man who does not clean his separator should be compelled to sit at meals and be served with dishes that have received like treatment. Experiments conducted at the Kansas State Agricultural College show that the separator when properly cleaned is a clarifier, and that it reduces the number of bacteria from one-fifth to one-fourth, while the number of bacteria in milk run through a separator that had been flushed and allowed to stand several hours increased from three to five times.

PRODUCE RICH MILK.

The cream screw should be set to produce heavy cream, containing not less than thirty-three to thirty-five per cent of butter-fat. Such cream is less bulky for shipping, can be more easily cooled, will keep sweet much longer, and more skim-milk will be left on the farm. Some form of aerator or cooler will be found very useful and convenient in producing good-flavored, long-keeping cream. Cream that is cooled thoroughly, immediately after it is separated, will remain sweet from six to ten hours longer than cream allowed to cool in cans without stirring, and will have better flavor. Cream changes temperature slowly, especially in large cans. Cream will cool quicker in water than in air of the same temperature, especially if the water is in motion. Cream, while it is being cooled in cans, should be frequently stirred. Never put the lid on the cream can before the cream is cooled. Cool cream in pure atmosphere, free from odors, and place a cloth cover over the can while the cream is being cooled. Avoid using rusty and badly-battered cans. They are very difficult to clean and give a bad flavor to the cream.

DELIVERY OF CREAM.

Cream should be covered while enroute to the station and be exposed to a high temperature just as little as possible, and never to the direct sun's rays. The cream that has been held soon sours when the temperature is raised above sixty degrees. Ship cream often and take it to the station or factory in a good, wholesome, sweet condition and insist on receiving a better price for it than is paid for the stuff delivered once a week. You expect your wheat, corn, potatoes, live stock, and in fact all other farm products, to be graded and paid for accordingly, and there is no logical reason why an exception should be made of this much more perishable and valuable product which depends so much on its quality for its true value. It costs more to produce good cream, give it proper care, and deliver it often. Such cream is worth more for making butter and should command a better price. The producer should ask that he receive for his cream a price based on its quality.

CREAM GRADING.

In other words, what we need is a grading system, and as has been so aptly said, "let each can stand on its

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own bottom." A grading system would make certainly not less than three cents difference between first- and third-grade cream and should have a difference of five cents between these grades. Even a difference of three cents a pound would make it possible for the dairyman, with a herd of forty or fifty cows, to clear one hundred fifty dollars more from his dairy herd each year than at present, or two hundred fifty to three hundred dollars more a year than the man who produces only third-grade cream. This is something that the producer must carefully consider, and demand that he shall receive just treatment in this respect. We believe and know the creamery companies recognize the injustice of the present system of handling cream and stand ready and will be glad to do anything they can to rectify and improve the defects in our present system of buying cream.

First-grade butter can only be made from cream that is received at the factory in good condition. Consequently, if the butter-maker receives only poor cream, the factory output must of necessity fall just that much shorter of being the best grade of butter.

Who suffers by such a system? The farmer is the one that is affected most, but the effect is felt by the company, the State, and all dairy interests feel its demoralizing influence.

The factory must first receive its profits from the receipt of sales, then the farmer is paid for the raw material. If the cream is good, the quality of butter produced by the factory, other things being equal, will be good. Consequently, the prices received by the factory will be high and the producer will receive a good price for his cream.

STANDARD OF QUALITY.

Let us all unite in a determined effort to raise the standard of all dairy products of the State, so that any dairy product bearing the Kansas stamp will be recognized in all the markets of the world as a guarantee that the goods are of the highest quality. Then and only then can all interests receive their highest reward and the State realize its just pride in this great industry.

Some Kansas Milk Records.

Editor Kansas Farmer:—As I have my cows freshen throughout the year, except in mid-summer, there is no very good place to begin or end in reporting yields; but I enclose a statement of the production within one year of a bunch of cows and heifers that calved from June to October last year, and have now completed a lactation, or milked a year on one. There are no phenomenal records, but they show an average of more than 9,500 pounds of milk in a year. This is much more than is obtained by most of the men who haul milk side by side with me, day after day, to the Topeka Pure Milk Company, and is nearly three times the average commonly given for the dairy cows of the country.

MILK RECORD.

No.	Age of cows.	Pounds of milk produced.
1.	2 years	6,005
2.	3 years	8,761
3.	4 years	5,357
4.	4 years	6,169
5.	4 years	11,908
6.	4 years	13,419
7.	4 years	13,459
8.	5 years	6,930
9.	5 years	8,559
10.	5 years	9,553
11.	6 years	11,516
12.	8 years	12,821

The very first step toward raising the not very creditable average of production in dairying, is to get producers out of their rut of small expectations. When they know what a cow may reasonably be expected to yield they will no longer be content to milk cows that yield 3,000 to 4,000 pounds of milk a year. When this state of mind is reached any dairyman can discover some of the ways to change the situation. Some day I may venture a suggection or two on this line.

H. B. Cowles.

Shawnee County.

When writing advertisers please mention this paper.

Miscellany

Production of Coal in the United States From the Earliest Times to the Close of 1906.

So far as known, the first mention of the occurrence of coal in the United States is contained in the journal of Father Hennepin, a Jesuit missionary, who in 1679 recorded a "cole mine" on Illinois River near the present city of Ottawa, Ill.

Coal was first mined in the Richmond basin, Vinginia, about 70 years after Father Hennepin's discovery in Illinois, but the first records of production from the Virginia mines were for the year 1822, when, according to one authority, 54,000 tons were mined.

Ohio probably ranks second in priority of productions, as coal was discovered there in 1755, but the records of production date back only to 1838.

The mining of anthracite in Pennsylvania began about 1790, and it is said that 55 tons were shipped to Columbia, Pa., in 1807. Reports of the anthracite coal trade are usually begun with the year 1820, when 365 tons (one for each day of the year) were shipped to Philadelphia from the Lehigh region. Before this, however, in 1814, a shipment of 22 tons was made from Carbondale, also to Philadelphia. It is probable that the actual production prior to 1820 was between 2,500 and 3,000 tons.

More than 50 per cent of the total production of coal in the United States from 1814 to the close of 1906, or 3,540,000,000 tons, was mined in Pennsylvania. The anthracite production in that State amounted to 1,854,906,009 tons, and the bituminous output was 1,695,926,082 tons. Illinois ranks second, with a total production of 594,551,163 tons, and Ohio third, with 460,626,939 tons. West Virgina, although not coming into existence as a separate State until 1863, ranks fourth, with a total production in 44 years of 386,106,956 tons. Alabama comes fifth, with 150,483,856 tons, and Maryland sixth with 142,073,920 tons.

An advance chapter from "Mineral Resources of the United States, Calendar Year 1906," on the production of coal in 1906, by E. W. Parker, chief statistician of the United States Geological Survey, will soon be ready for distribution. Applications should be addressed to the Director of the United States Geological Survey, Washington, D. C.

Taking Care of the Harness.

GUY E. MITCHELL.

"There is nothing like leather." But there is nothing like knowing how to keep your leather goods in fine condition, too. Leather is composed of a mass of fine tendrils, intimately interlocked and entwined. When in good, pliable condition, each tendril is capable of much stretching. If allowed to become dry and hard, when the leather is subjected to a severe pull, the tendrils break instead of stretching. But this does not mean that leather boots or harness should be kept soaked with oil or dressing. Elbow grease applied in quantity is better. "All dressings should be applied sparingly," is the sound advice of a big saddlery concern. Black oil should always be used on black harness and not neatsfoot oil, as the latter will draw out the black dye and leave the harness brown. The black harness fats now on the market make excellent farm harness dressing. They contain the "nourishment" necessary for keeping the harness in good order. But first, all dirt should be washed off with luke warm water and ordinary soap. The black fat should then be applied with a cloth, given a short time to penetrate the leather and then rubbed dry with another cloth. Some make the mistake of oiling without unbuckling the harness. The parts that need nourishment most are under the buckles where the metal causes hardness and brittleness. If people would vary the holes of the harness occasionally it would last much longer.

An objection to neatsfoot oil is that it is inclined to wash off the beeswax from the stitches.

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NOW READY

THE BOOK OF

ALFALFA

History, Cultivation and Merits. Its Uses as a Forage and Fertilizer. By F. D. COBURN, Secretary Kansas Department of Agriculture.

THE appearance of F. D. Coburn's little book on Alfalfa, a few years since, has been a complete revelation to thousands of farmers throughout the country and the increasing demand for still more information on the subject has induced the author to prepare the present volume, which is, by far, the most authoritative, complete and valuable work on this forage crop ever published.

One of the most important movements which has occurred in American agriculture is the general introduction of alfalfa as a hay and pasture crop. While formerly it was considered that alfalfa could be grown profitably only in the irrigation sections of the country, the acreage devoted to this crop is rapidly increasing everywhere. Recent experiments have shown that alfalfa has a much wider usefulness than has hitherto been supposed and good crops are now grown in almost every state. No forage plant has ever been introduced and successfully cultivated in the United States possessed of the general excellence of alfalfa.

The introduction of this plant into North America, although known in the Old World hundreds of years before Christ, occurred only during the last century, yet it is probably receiving more attention than any other crop. When once well established it continues to produce good crops for an almost indefinite number of years. The author thoroughly believes in alfalfa; he believes in it for the big farmer has a profit bringer in the form of hay, or condensed into beef, pork, mutton, or products of the cow; but he has a still more abiding faith in it as a mainstay of the small farmer, for feed for all his live stock and for maintaining the fertility of the soil.

The treatment of the whole subject is in the author's usual clear and admirable style, as will be seen from the following condensed table of contents:

I. History, Description, Varieties and Habits
II. Universality of Alfalfa
III. Yields, and Comparisons with Other Crops
IV. Seed and Seed Selection
V. Soil and Seeding
VI. Cultivation
VII. Harvesting
VIII. Storing
IX. Pasturing and Soiling
X. Alfalfa as a Feed Stuff
XI. Alfalfa in Beef Making
XII. Alfalfa and the Dairy
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XXVI. Practical Experiences with Alfalfa

The book is printed on fine paper and illustrated with many full-page photographs that were taken with the especial view of their relation to the text. 336 pages (6½x9 inches), bound in cloth, with gold stamping. It is unquestionably the handsomest agricultural reference book that has ever been issued.

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The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Poultry Notes.

The poultry display at the Interstate Fair and Exposition at Kansas City, September 23 to 28, was not as large as expected, but the quality displayed was extra good. Mr. Ricksecker showed a nice string of S. C. R. I. Reds of the finest color we have seen in a long time. Dr. Adair showed some extra fine S. C. Brown Leghorns. Mr. Hunting had a big show of Bantams. The other varieties were represented with a few coops of each kind. The great attraction of the poultry show was the display of White Orpingtons and fancy pheasants by the Kellerstrass Poultry Farm, of Kansas City. Mr. Kellerstrass had five varieties of pheasants on exhibition and they were the observed of all observers. The varieties were the Golden, Silver, Lady Amherst, Reeves, and the English Ringneck. The comments on their beauty were continuous by all who saw them. Mr. Kellerstrass' display of White Orpingtons was fine, eleven of the birds being valued at $7,000, one, a male, at $2,000 and a hen at $1,500. The poultry show only lasted one week, and many were the complaints of the visitors in the second week of the fair that the poultry department had been closed. Two weeks is a long time to keep chickens cooped up at a show, but we are satisfied that it was a mistake to let any of the displays go away before the end of the fair. It was a great fair all the way through, though the wet weather on several days curtailed the attendance considerably. This being the first year for the management to run a fair, several things were not as they ought to be, but they were willing to learn, and we believe that if it becomes an annual event that the future fairs will be much more ably conducted than the present one.

That the poultry industry of the country is not appreciated to the extent that it deserves, is easily noticed by reading the premium lists of the different fairs. For instance at the Interstate Fair over $500 was offered on Shetland ponies and one man took nearly all the money, for there was no one competing against him. The premiums given on poultry were only a little over $100. One man took $192 premiums on hogs, and on cattle and horses the premiums were high, yet on poultry, which overshadows them all in the aggregate amount of value, is put away with a mere pittance.

Not only do the fair managers fail to appreciate the importance of the poultry business, but the average farmer considers it a small business also, not realizing that the poultry products of the country amount to the stupendous sum of $500,000,000 annually, beating the horses and cows and hogs by several million dollars. He tries to improve the horses, cattle and hogs by introducing thoroughbred stock into his herds, but he never thinks of improving his fowls, but keeps the same old scrub stock from year to year. A hen is a hen to him and she is nothing more. His hens probably do not average over fifty eggs per year, whereas by having pure-bred stock he could easily raise this average two hundred per cent. His fifty-eggs-a-year chickens probably pay him, for they succeed in finding their own food, which otherwise would go to waste. How much better it would be for him to get one hundred and fifty eggs a year from his hens, with very little more cost for feed. All pure-bred hens will pick up the waste feed and act as scavengers for the farm the same as the scrub hens do. The aim of the true poultry fancier is to raise better poultry and more eggs, and while there are many different tastes as the color and variety of the fowls they keep, still they all aim either for better flesh or more eggs.

How to Tell Cholera.

Fowls may get cholera at any time of the year, but its ravages to the greatest loss set in from the hot months on into the late fall, and it is well to know how to distinguish from diseases which are not so much to be dreaded. An authority on the subject of diseases of poultry says of cholera:

"This disease begins with lassitude and no inclination to move. As a rule, diarrhea is a prominent symptom, although at times it does not occur. The birds, if young, may eat until they die. Others again refuse to eat and are very thirsty. The temperature of the body runs to 110 degrees. Sometimes the comb turns very dark, in other cases it turns a grey white. Excrement is voided often and is largely made up of urates, thin and yellow, sometimes frothy. It may change to green. Its crop is often full of food and is paralyzed. Inoculation from one bird to another occurs in from ten to more hours. In some cases the disease runs a rapid course, in other cases longer.

Examination after death finds the liver enlarged, very large in some cases, and very dark, sometimes a dark green, sometimes spotted. Its gall bladder is mostly distended with a thick, discolored bile. Its rectum and intestine are congested. When attacked a bird rapidly loses weight. Literally the flesh seems to shrink, shrivel, and disappear into the air.

The germ under the microscope shows up in form both oval and round. Its deadliest effect is felt between a temperature of 85 and 100 and over. Damp, hot water is best. It can not move of its own accord, as some other forms of germs do. And it is easily killed, will die out of itself when dried; has weak resistive power and can be easily killed by disinfectants, such as carbolic, bonzoic, salicylic or sulphuric acids. By playing a spray of hot water on infected spots for ten or fifteen minutes, the germs are killed. One per cent solutions of the above acids will utterly destroy it. But some substances deadly to other germs in a certain per cent solution, will not kill the cholera germ, such as alcohol, iodine, potassium, etc.

The value of disinfection in the disease goes without saying. Kill off and burn the sick fowls, then disinfect, is the remedy. Germs must pass into the stomach or get into an abraded place on the fowl to cause the disease. It is brought on the place usually by other fowls or wild birds; or the disease germs, yet rife in the soil, are carried on the feet of dogs or cats to the yards. Fowls are now in certain localities inoculated against death by cholera. The virus inoculated upon sheep, horses or man forms an abcess where the virus entered, but shows no other symptom and does no harm, but some of the smaller animals it immediately kills. In passing from the sick to the well fowls be very careful that you do not carry some of the virus on your hands or clothes to the fowls not yet inoculated.

There are still several localities in Kansas and Oklahoma where The Kansas Farmer does not have regular resident representatives. The pay is good and sure. The work is pleasant and profitable. Write us about it.

Job Printing.

The Job Department of The Kansas Farmer has recently added new equipment and is prepared to do a general job printing business such as commercial printing folders, pamphlets, briefs, blanks, circulars, visiting cards, wedding invitations, etc.

We make a specialty of fine stock printing—catalogues, stationery, cards, sale bills, etc, and have on hand an assortment of cuts representative of the breeds. Here is a good assortment which every stockman should have on hand, 250 bill heads, 500 business cards, 1,000 envelopes, 1,000 letter heads, 1 stationery case, The Kansas Farmer one year; shipments free to your express office; all complete for $10. Good quality of paper and work guaranteed.

Every farmer should have his name, postoffice, and rural route printed on his envelopes, with printed paper to match. How is this for a combination: 250 envelopes, 250 note heads, 50 visiting cards for the wife or daughter, The Kansas Farmer one year. All postpaid to your address for $3.00.

Address The Kansas Farmer Job Printing Office, B. A. Wagner, Mgr., Topeka, Kans., Telephone, Ind. 1737.

Thousands of Acres to Be Thrown Open In California

LOS ANGELES, Oct. 9.—Under the new arrangement just announced governing the sixth opening in California lad, actual residene upon the land is not necessary, but it must be improved with buildings, orchards or irrigation ditches during the first year, which insures population, activity and rapid growth. Applications may now be filed for land in the new settlement, up to December first.

We will send you the New Plan Book of Instruction to Homeseekers for 10 cents (stamps or coin) and include a three months' subscriptions to the Western Empire, a valuable California magazine about the wonderful industrial development of California rural life, sports, adventure, etc. Also sample copies of the Pacific Fruit World and the Live Stock Tribune, the two leading farm and poultry papers of California—all for 10 cents, which may result in a long life and modest fortune for you.

Address, Home Extension Committee, 253 Los Angeles Chamber of Commerce Bldg., Los Angeles, California.

BUFF ORPINGTONS.

ORPINGTONS—1000 to sell to make room. Cat. free. W. H. Maxwell, 1996 McVicar Av., Topeka, Kans.

CHOICE Buff Orpington and B. P. Rock, cockerels, Collie pups and bred bitches. Send for circular. W. B. Williams, Stella, Nebr.

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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, Clay Center, Kans.

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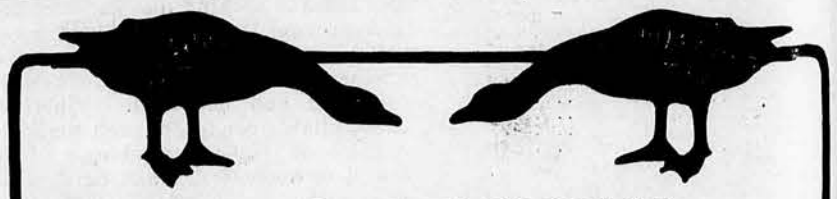

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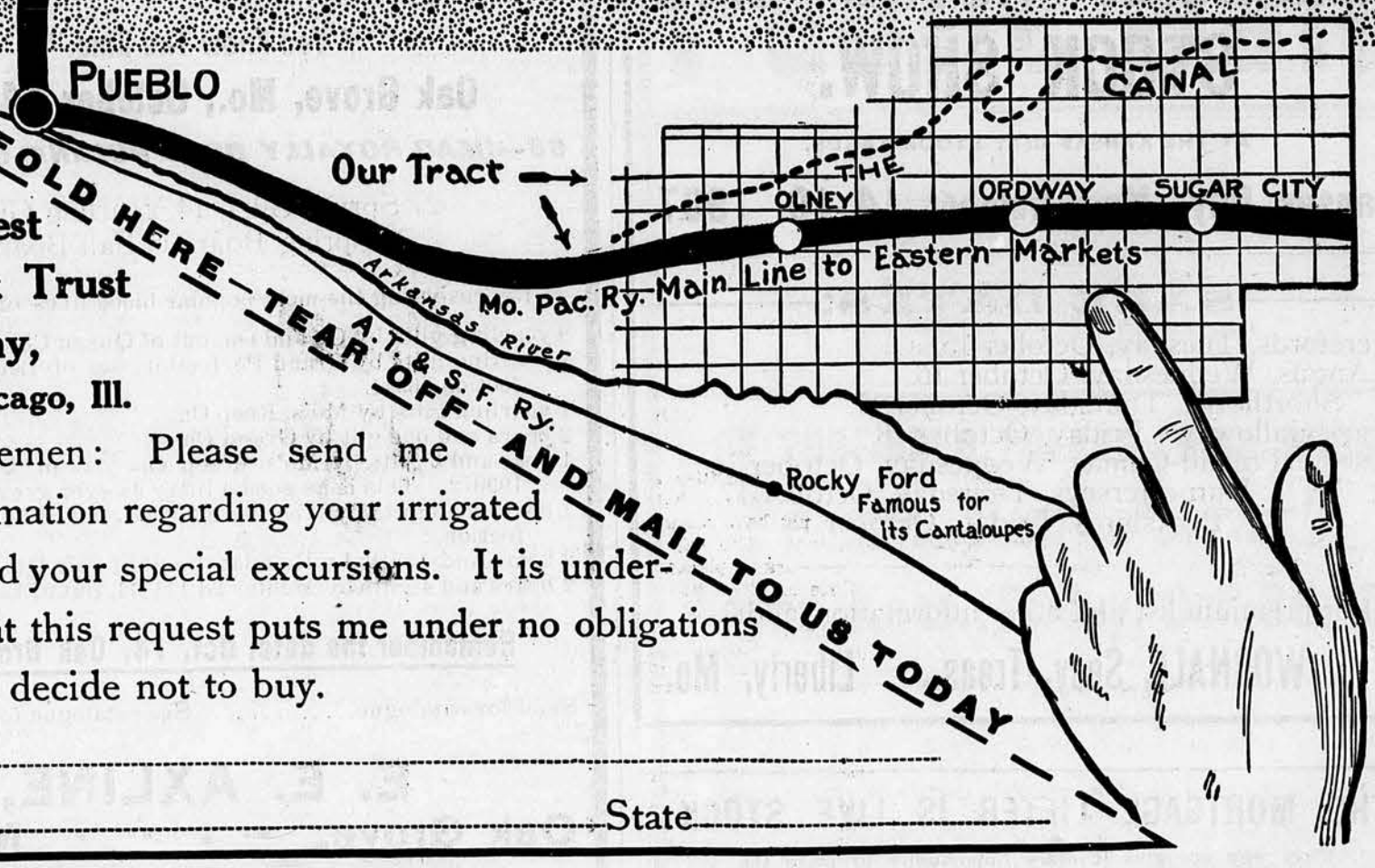

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Beatrice, Neb., Oct. 18, '07.

It's a variety breeding offering—that is—a bunch of high class spring and fall stuff sired by a variety of well-bred boars. Everyone of which has been a winner but one.

CORRECTOR, a Tecumseh bred boar and a good breeder, will sell.

4 Grand Look (the undefeated '06 yearling) spring boars from a dam holding class and sweepstakes honors in the leading shows.

They're Bred Right, Fed Right and Are Right. Send for catalogue to

C. A. LEWIS,

Beatrice, ∴ ∴ Nebraska

Send bids to auctioneer, Col. Lafe Burger.

AMERICAN ROYAL LIVE STOCK SHOW.

AT THE KANSAS CITY STOCK YARDS.

Kansas City, Mo., October 14-19, 1907

SALE DATES:

Herefords, Tuesday, October 15.
Angus, Wednesday, October 16.
Shorthorns, Thursday, October 17.
Galloways, Friday, October 18.
Poland-Chinas, Wednesday, October 16.
Duroc-Jerseys, Thursday, October 17.
Berkshires, Friday, October 18.

For premium list and other information address

T. J. WORNALL, Secy.-Treas., Liberty, Mo.

THE MORTGAGE LIFTER IS LIVE STOCK

Then why not give it every opportunity to make the greatest growth. **Iowa Hog and Cattle Powder** makes Stock thrive. It is not a Stock Food, but a conditioner that puts the animal's system in the best possible condition to digest and assimilate its food. Farmer's wanted in every county to act as our agents. Many of our men are making from $2,000 to $5,000 a year selling our goods. If you want an agency write us and mention the Kansas Farmer.

Iowa Hog & Cattle Powder Co.
SOUTH OMAHA, NEBRASKA

A. B. Topnotcher Sale
Duroc-Jersey Swine

Summerfield, Kans. — October 16

I will sell at the Commercial livery barn
Wednesday, October 16

24 Sows and Gilts--22 Growthy Spring Boars

These are nearly all by my herd boar, A. B. Topnotcher, a grandson of Topnotcher 8803; 2 of the sows will have litters by Pawnee Chief, a son of Nebraska Wonder. I will also sell a yearling boar that is a litter brother to Pawnee Chief. This offering contains some good boar prospects, and everything offered will be in the best possible condition for future usefulness. This is my first annual sale and I want you to attend whether you buy or not. Trains will be met at Burchard on the B. & M. Ry.

Send bids to the auctioneer, or L. K. Lewis of this paper.

For catalogue address

G. W. COLWELL, - Summerfield, Kansas

Col. Manifold, Auctioneer.

AXLINE'S

Great Poland-China Sale

"You Know The Kind."

Oak Grove, Mo., October 14, '07

68--HEAD ROYALLY BRED POLAND-CHINAS--68

27 Spring Gilts, 14 Yearling Gilts,
22 Spring Boars, 5 Fall Boars

Representing the most popular blood lines of the breed.

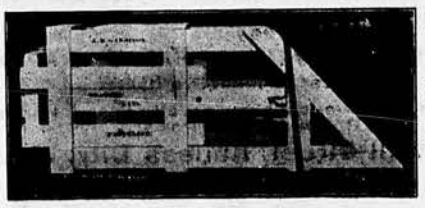
2 yearling gilts by On and On, out of Queen Chiefess.
2 yearling gilts by Grand Perfection, out of Lady U. S. Perfection 96544.
7 yearling gilts by Mo's. Keep On.
2 boars and one gilt by Grand Chief.
1 boar and 3 gilts by Mo's. Keep On, out of Darkness Lady 199972. This is as good a litter as ever grew on my farm.
1 boar and 3 gilts by Meddler 2d 36902, out of Lady U. S. Perfection.
2 boars and 4 gilts by Regulator, out of Fair Queen.
2 boars and 4 gilts by Medler 2d 111111, out of Lady Irene.

Remember the date, Oct. 14, Oak Grove, Mo.

Send for catalogue..... See catalogue for auctioneers.

E. E. AXLINE,

Oak Grove, - - - - Missouri



GARRISON'S COMBINATION BREEDING AND RINGING CRATE.

Endorsed by the leading breeders of the country; in use in six states; can be adjusted to any sized animal; can be used for breeding, ringing or loading hogs. Made of the best material; will last for years. Every breeder and farmer should have one. Write for price and description.

A. B. Garrison -:- Summerfield, Kans.

Those Six-Horse Hitchers.

(Continued from page 1112.)

ise on an animal or team it ans something. In fact, it seems tural for Americans to be proud of ise which comes from the old coun- whether the commendation is be- wed by king or people, on a man a horse.

An American team of horses went to gland last summer and literally k the Englishmen off their feet. r weeks the papers were full of stor- and descriptions and pictures of this m, staid old journals going so far to publish quarter-page half-tone otographs of the team. It was a markable ovation, and even more as- nishing in that Englishmen are so oud over their own skill with horses. The team which created so profound sensation was the Armour sixes, the autiful dapple grays which visitors the American Royal saw last year en they won the prize in the six- rse class, but which then had not be- me so famous. They will be at the yal again this year.

The famous team had a triumphal rch through the islands. They were hibited at all the important shows, d many special events were arranged r their display at big cities, such as asgow, Birmingham, Newcastle-on- ne and Manchester. They were the feature wherever they went, and en at the International horse show Olympia, the horse show of the hole nation, the American grays and eir clever driver, Billy Wales, at- acted more attention than any other ature.

The crowning honor paid the team, least from a British standpoint, was ter the exhibition at the Royal Agri- lture show at Lincoln, in June, when private exhibition was given for ing Edward, arranged at his special mmand. The visit of the team to gland was, in fact, due to the inter- t of the king in the American six- rse hitches, a special request having en made by him that the horses be own over there.

The Armour team will be practically e same at the Royal this year as at which toured England. This will its first appearance since its return om abroad.

Anderson's Durocs.

C. O. Anderson, of Manhattan, Kans., rites about his Duroc-Jersey swine as llows:

"They are all good, heavy-boned sty fellows in the best of growing ndition of March and April farrow, eighing from 125 to 200 pounds each. hey are sired most of them by the rand herd boar, Blue Valley Boy 8017, his sire, Hunt's Model 200177, the inner of fourth place in junior yearl- g class at the World's Fair at St. ouis. His dam is Missouri Girl 4th 7668, a daughter of Old Missouri Girl, hich has many noted State fair win- ers to her credit.

"I have a few pigs coming on sired y King I Am 61817, he carrying the lood of Kant Be Beat and Old Orion. his boar is a very promising fellow ith good heavy bones, stands very ood on his feet, deep heavy hams, road, nicely arched back with even de line. His head and ears are per- ect. I bought him at a long price last inter and he is proving an excellent erd boar. I have a few gilts for sale ired by Lincoln Wonder 56575, one of he ribbon eaters this fall at Lincoln, nd Des Moines, and his brother, if I am ight, was first and champion at Lin- oln. This speaks well for this strain nd the gilts sired by Lincoln Wonder re the best I have raised. Lincoln Wonder is by Ohio Chief 41419. My rade has been fair and the crops are ood around here. I have shipped ver two dozen spring pigs up to date, very one satisfactory."

Ford Skeen's Durocs.

Mr. Ford Skeen, of South Auburn, Neb., who breeds the choicest and most prolific strains of Duroc-Jersey swine, ells us that he is making sales right along, but still has plenty of tops left with which to supply his mail orders. The pigs are doing fine and he says he is getting the best returns from his feed that he has ever had because the pigs are doing better than ever be- fore. The get of Shorty Orion are practically all herd headers, with plenty of size, finish, and quality to make them all high-class. Every hog that is sent out from this farm is guar- anteed as represented. Mr. Skeen has won a reputation for the quality of his hogs and for square dealing that is second to none. Write him what you want.

Mule Fours at the Royal.

The mule show at the American Royal this year will be a big thing. W. A. Elgin, superintendent, sends word that at least 40 animals will be en- tered in the various competitions, in- cluding all ages, and teams of all di- mensions up to sixes. The individual and the fair classes will be well filled and the competition will be warm. One of the most interesting features will be unusual ,the four-mule teams. It is not often that even a single team of this size is shown at a mule exhibi- tion, but Mr. Elgin has assurances that at least two will enter that class of the Royal. Everybody who knows mules knows Mr. Elgin, who has superin- tended the mule department of state and larger shows all over the West for years. He says the mule show will be great, and so it will.

Gossip About Stock.

Geo. Morehead, of Beloit, Kans., well- known as a Poland-China breeder of that place, has claimed November 13 for his sale of Polands. We will have more to say about the high quality of this herd later. Be sure you are on his mailing list for a catalogue.

The butter test at Elm Ridge re- sulted in a vitcory for Kansas. The Continental Creamery Company of To- peka winning first prize with a score of 97 points, and the Van Leeuwen Cheese Company of Ottawa, winning first on cheese with the same number of points. On butter the Merritt Creamery Company of Great Bend won second the Concordia Creamery Compa- ny third and fourth. Lower scores were made by other Kansas and Mis- souri exhibitors.

Samuelson Brothers, of Bala and Cle- burne, Kans., have just sold a sweep- stakes boar pig which won at the Clay County Fair, to T. S. Larrowe, of Mil- tonvale, Kans., for a good fat price. The Samuelson Brothers' Durocs are gaining in popularity because of their quality and with such herd headers as Rose Top Notcher 54059, Doty Wonder 41889, You Bet 3111, Geneva Chief 48049, Buddy Onward 61453, and Hanley Onward 61451 in service, it is not sur- prising that they should have good hogs to sell.

John Schowalter, owner of the Gold- en Banner herd of Duroc-Jersey swine at Cook, Neb., announces a sale of his splendid Durocs for October 29. In the offering will be found some yearlings that were sired by Ohio Chief, Tip Top Notcher, Kant Be Beat, and Proud Ad- vance. There will be 21 fancy spring gilts and 17 spring boars in the sale that were sired by six different boars. Remember the date as this sale is an important one for both breeders and farmers who want to secure the best of stock at reasonable prices. His an- nouncement of the sale will be found on another page.

Mr. Geo. Kerr, of Sabetha, Kans., who is one of the best known breeders of Duroc Jersey swine in Northern Kan- sas, makes a special announcement in THE KANSAS FARMER advertising col- umns this week. He offers spring pigs sired by Lincoln Chief 49447 by Ohio Chief, and by Leader 32477 by Tom Watson. Among the sows represented in this herd are Kansas Belle 110562, Maud B. 139574, Crimson Maid 139586, Clara C. 32156, Lady Orion 126358, Elsie 2d 138566, Nice I Be 139570, Molly 3d 139580, and the pigs are just as good as the breeding. Write for what you want.

C. B. Weaver & Son, who owns the Engleside herds of Poland-Chinas and Shorthorns, have just purchased a new herd boar. This is Victory by Cor- rector and out of Beauty and the Engleside farm paid $750 for one-half in- terest in him. This boar with four of his sisters will be shown at the Ameri- can Royal. Mr. J. C. Weaver an- nounces a sale in the near future and his young stuff is coming along fine and will be in excellent shape for it. Here is a breeding firm that it will pay to keep in touch with. We hope to show our readers a picture of this splendid young boar Victory in the near future.

H. B. Walter, of Wayne, Kans., writes that he has been quite success- ful of late in the show ring with the get of Stylish Perfection 40313. At Belleville he won first on boar under six months; first on get of boar, the most coveted price in the whole list; first on herd under a year. The young herd was headed by Stylish Chief, which was also sweepstakes boar. At Hutchinson this same boar won third place in a ring of eighteen. Mr. Walter is advertising boars and gilts of the same breeding and of outstanding merit for sale in this issue. Look up his ad and give him an order as he guarantees satisfaction.

Manwaring Bros., owners of Ridge- view Berkshires, R. 1, Lawrence, Kans., report some good sales in the last few days. They have sold one boar to Wm. Overmiller, one to C. Blackler, Elmont, one to T. F. Hoderhorst, Stockton, nine gilts to C. W. Strickland, Junction City, one to C. E. Sutton, Lawrence, one boar to L. Spencer, Sabetha. It pays to own Black Robin Hood blood and with Forest King at the head of their herd it is no wonder that the Manwaring Brothers have numerous in- quiries and make many sales. The prospects now are that they will be sold out before the season is over. In- cidentally they won five first prizes and four seconds on their Berkshires at the Douglass County Fair.

W. C. Bonniefield, Beloit, Kans., showed three spring boars by J. J. Ward's great breeding boar, Skybo at the Mitchell County Fair last week and won first second and third on them. Geo. Morehead bought the first prize- winner at a good long price, and Wm. Wales, of Osborne bought the second. Skybo stuff is winning everywhere this season and Mr. Ward is to be congratu- lated on his good fortune in owning such a great sire. At the Norton Coun- ty Fair his get won the lion's share and also at the Smith County Fair. Mr. Ward will sell a draft of young boars, a large number of which are fall far- row and by Skybo on October 28 at Belleville, Kans. Also some choice gilts, open sows and some bred sows. Get his catalogue which is now ready.

W. P. Whitney owner of the Silver Lake herd of Duroc-Jersey swine at Agra, Kans., reports that his chief herd boar, Buddy Kansas 59797, is making a fine record for himself and his fall pigs are as fine as any Mr. Whitney has ever seen. A goodly num- ber of the sows in his winter sale will be bred to this boar. There is also at the head of this herd a good son of Parker Mc out of Bessie H. that will be used. These two boars with Lone Jack 30291 made a trio of boars that are hard to beat. Agra is in Phillips County, right in the heart of the best Duroc region of the West, and here are some of the best Duroc hogs in the West. Write Mr. Whitney what you want.

Bonnar, the senior yearling boar by Indiana that stands at the head of Knorpp Brothers' herd of Poland- Chinas at Pleasant Hill, Mo., captured the first prize ribbon in the 6 months and one year class at the recent Illinois State Fair in one of the hottest hog shows ever witnessed on those grounds. Knorpp Brothers purchased this pig of E. L. Jenneson at Independence last March for $520, and it was these gen- tlemen that fed and developed him for the show. Congratulations are due them for the victory in this their first show. Bonnar is a great hog and in the hands of these efficient gentlemen

Chester Thomas'

NEBRASKA WONDER and KANSAS WONDER

SALE OF DUROCS

At Farm Near Waterville, Kans., Wednesday, October 23, 1907

55 Head---35 Sows and Gilts, 20 Males 55

Boar Attractions

9 spring males by Nebraska Wonder, and nearly all out of Kansas Wonder sows. 2 spring males by Ripley, by Top Notcher. 3 spring males out of Crimson Queen, dam of the $500 Vail's Special and by a grandson of Ohio Chief.

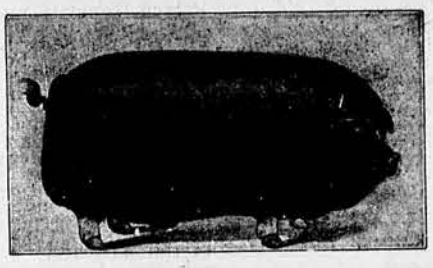
Sow Attractions

16 spring and fall gilts by Nebraska Wonder and out of Kansas Wonder sows. 1 daughter and 11 grand-daughters of Kansas Wonder. 3 grand-daughters of Junior Jim, 5 gilts by Ripley, by Top Notcher, 3 gilts of spring farrow out of Crimson Queen, dam of the $500 Vail's Special and by a grandson of Ohio Chief.

These are the absolute tops of my large crop of spring pigs. I do not make a winter sale, hence the best I have go now. Write for catalog and if you cannot be present, send bids to J. W. Johnson in my care.

Chester Thomas, Waterville, Kansas

Public Sale



OF PURE-BRED POLAND-CHINA HOGS

At my farm 6 miles south and 6 miles east of Belleville, and 2 miles north and 1 east of

Wayne, Kans., Friday, Oct. 25, '07

38 HEAD

20 Boars, 15 Spring Gilts, 3 Sows bred or with breeding privilege to any Boar on farm including Stylish Perfection 40313, Sweepstakes Boar at Nebraska State Fair 1906.

Also two lots of summer pigs consisting of 3 sows and 1 Boar not related.

These pigs are sired mostly by Stylish Perfection and Billy K., an extra heavy boned fellow of the big type. Every one guaranteed a breeder.

Send for catalogue. Terms cash or bankable note. Sale begins promptly at 1:30 p. m. Free lunch at noon.

H. B. WALTER, - - Owner

Jas. T. McCulloch, B. F. Carson and W. L. Zech, auctioneers.
GEO. M'CLURE, Clerk.

will no doubt make a brilliant record in the future. Knorpp Brothers also have some great brood sows on the farm, and their bred sow sale next February promises to be something great. All hats off to you, boys!

October 28 is the date of J. J. Ward's sale at Belleville, Kans. Mr. Ward is known extensively as a breeder of high-class Polands, and his sale on the 28th will contain much noted breeding. A fine lot of fall boars, good enough for herd headers, sired by Skybo, will be sold, and also some choice spring boars and gilts sired by Skybo, Guy Hadley, Anchor, and others. Also some choice open sows by Skybo and some very choice sows bred for February farrow. Mr. Ward's offering is going to be in the best possible condition to do the purchaser good, and it is going to be a mighty good place to pick up a spring or fall boar. If you want something real good for immediate use and a boar that will go on and improve your herd, be at this sale and buy a big, growthy fall boar sired by Skybo. Bids may be sent to fieldmen or auctioneers in Mr. Ward's care at Belleville.

H. S. Chapman & Sons, of DuBois, Neb., will sell a draft of fifty head of choice early pigs from their Walnut Grove herd of Poland-Chinas on October 25. The sale will include both males and females which are of the large, smooth type, with good feet, black color, nice head and ears, and weighing 250 pounds by sale day. Their breeding is up-to-date and includes among the sires, King Dodo by Expansion, Columbia by Columbia Chief, Cook's Chief, a grandson of Chief Tecumseh 3d. Among the sows in the herd are Queen Corwin by Corwin Medium, Miss Huber by Butler's Chief, Queen's Lady by Highland Chief, and a score of other choice ones. The sale will be held at the farm which lies about equally distant from Pawnee City and DuBois, Neb. The sale will be held under cover and will not be postponed on account of weather. Free transportation from the farm. Write for catalogue at once.

This issue of THE KANSAS FARMER contains the sale announcement of John R. Triggs, at Dawson, Nebr., October 24. Mr. Triggs is raising the big type of Poland-Chinas and in this consignment which consists of 40 head of boars and gilts, will be found some individuals of unusual merit. The most of them are sired by Major M. 31527 and Bright Chief 42473, two of the largest animals in Nebraska. Bright Chief was the top of John Blain's sale last year and easily the best individual in that offering, and he is not only an animal with lots of quality ad size, but has proven to be a breeder of more than ordinary worth. The dams of this offering come from such famalies as Corwin, First Quality, Bright Look, King Dodo and other animals which have been known by reason of their great size. Breeders who desire this type of Poland-Chinas will make no mistake by attending this sale because it will give them an unusual opportunity to obtain good stuff at reasonable prices. See his sale announcement in this issue of THE KANSAS FARMER.

Kansas is taking more interest in sheep-growing than she has for many years though still not enough. There ought to be more sheep in Kansas. For some breeds she is especially adapted and a very large number could be grown here with profit. It is not to be understood that we would urge the sheep business as a substitute for the cattle, hog, or dairy business, but we would urge that there is a place for a few sheep on almost every farm, and that these sheep will be money-makers. Interest in this subject is awakened, however as is shown by the many letters of inquiry that come to this office both as to what kinds of sheep and where to buy them and as to some book that will give full information in regard to them. We are glad to say that we can now answer the latter question in a most satisfactory manner. "Modern Sheep; Breeds and Management," by the Associate Editor of the American Sheep Breeder exactly fills the bill. This book sells for $1.50 and may be had at this office. This book and one full year's subscription to THE KANSAS FARMER for only $2.00.

R. G. Sollenburger, Woodston, Kans., is a Duroc-Jersey breeder who has bought liberally of the best from the very best herds in the country in the past and now owns one of the finest herds of Durocs in the West at his farm near Woodston, Kans. November 1 is the date of his fall sale and on that date he will sell 35 head, 20 males and 15 gilts. The offering was sired by Haverlock Wonder 48977 by Crimson Wonder, Choice Goods I Am 49175, Collossal 18817-a by Golden Rule 1401-a, Improver 2d, Kansas Wonder, Bell's Chief 2d 62881, Rosebud Chief 33257 by Ohio Chief, and several others. When it comes to breeding that is called in the purple, Mr. Sollenburger's herd has it. It is at all times in the best of growing condition, and while it is growthy enough and has plenty of size it is not loaded up with fat and anything bought in this sale is sure to give the best of satisfaction. Mr. Sollenburger invites Duroc breeders generally to be present at this sale. He is arranging to take good care of his guests on sale day and those from the East going to sale can go straight through on the morning train on the Central Branch of the Missouri Pacific and return leaving Woodston at 7 o'clock.

One of the biggest sales as well as one of the most important to Duroc breeders is the Chester Thomas sale of Duroc-Jerseys at Waterville, Kans., October 23. Fifty head will be sold and fifteen to twenty spring boars will be sold and fifteen tried sows and fall yearling gilts and the balance will be spring gilts. Mr. Thomas had intended holding a bred sow sale in February, but lately decided to not do so. Consequently all the good things that he had been reserving for this February sale will go in this sale of October 23. A large per cent of the younger stuff in the offering was sired by Nebraska Wonder and are out of his big Kansas Wonder sows. Nebraska Wonder is pronounced by those competent to judge to be the best boar ever sired by Old Crimson Wonder. Kansas Wonder, the sire of the dams, is the big smooth, 1,000 pound boar owned by Mr. Thomas. There will be some rare attractions in this sale, and you want to arrange to be there. Everything will be in the pink of condition on sale day and goods purchased from this offering is sure to strengthen your herd. If you know Mr. Thomas you know what to look for here on sale day. J. W. Johnson, representing THE KANSAS FARMER will attend the sale and biys may be sent to him in care of Mr. Thomas at Waterville, Kans.

Makes harness proof against heat and moisture. Gives a glossy black finish. Prevents rot. Imparts pliability, strength and durability to leather. Saves bills and mishaps. Keeps a new harness looking new and makes an old harness look like new. Contains nothing rough to cut and chafe. For axle troubles use

BOSTON COACH AXLE OIL

Better and more economical than castor oil. Will not gum or corrode. Lasting, reliable, satisfactory. Highest Award World's Columbian Exposition. Sold everywhere—all sizes.

MADE BY

STANDARD OIL COMPANY
Incorporated

J. F. Chandler, the Duroc-Jersey breeder of Frankfort, Kans., is offering 50 boars of early spring farrow for sale. Those familiar with his reputation as breeder of the best of Durocs and for square dealing, will readily see the advantage of writing him early while he still has the tops to offer. He will not hold a fall sale but will sell them on mail orders and at prices that will not be considered high. The sire of most of the thirty boars was Chandler's Wonder he by Nebraska Wonder and he by Crimson Wonder. Nebraska Wonder is the great sire at the head of Chester Thomas' herd at Waterville and Chandler"s Wonder is considered one of his very best sons. He is a great breeder and valued very highly by Mr. Chandler. A few of the offering were sired by Headlight he by a son of Ohio Chief. A few good gilts by the same boars will also be sold. The dams of this offering represent such boars as Red Chief I Am, Ohio Chief, Kansas Wonder, Orion, and Improver 2d. Mr. Chandler is one of the very oldest breeders of Durocs in Kansas and his herd at Frankfort has been kept up-to-date and is today one of the strong herds of the West. For prices and descriptions address him at Frankfort, Kans., mentioning THE KANSAS FARMER.

Logan & Gregory, Poland-China breeders at Beloit, Kans., are selling at that place a draft of 40 head from their spring crop of over 100 head of spring boars and gilts. Twenty-five are choice young males and 15 are toppy gilts. They were sired by Prince Henry, a male of wonderful size and smoothness, Dude, Longfellow, Perfect Challenger, Honeyman's great prize-winning boar, Guy Hadley, Thompson's Choice, and Messenger Boy, all are boars of note and the offering is a very toppy one in every respect. An attraction in the sale is two males and two gilts from a litter of ten sired by Perfect Challenger and out of Mischievious Sarah. Perfect Challenger is known the world over and Mischievious Sarah is a wonderful brood sow that is bred in the purple. She was sired by Mischief Maker and is a half sister to the boar that won first at Hutchinson, '05. Logan & Gregory bought her of W. J. Honeyman and paid a long price for her. We doubt if there is a better litter of perfect Challenger pigs in this part of the State and there are several litters. The four that go in this sale are good size and have lots of finish and are really very toppy and for the breeder looking for something hot-blooded they surely ought to suit. Catalogues are now ready and are being mailed upon request. J. W. Johnson, of THE KANSAS FARMER, will attend this sale. Bids may be sent to him at Beloit, Kans.

L. D. Pagett & Segrist, breeders of Duroc-Jerseys, at Beloit, Kans., have 25 spring boars they want to tell you about if you will write them. They are the pick of their boar crop this season and are very toppy. They are not going to hold a fall sale and desire to hear from those in need of a big, growthy March or April boar. They were sired by Chief Perfection, the first and sweepstakes boar at the Mitchell County Fair '06, and one of the best Duroc sires ever owned in that county. He was sired by Van's Perfection, and is a half brother to the sow that sold in Gilbert Van Patten's last winter sale for $1,500. Chief Perfection is also the sire of Chief Perfection, Jr., also owned by this firm, and one of the outstanding young males of the West. Another great herd board in this herd is is Chief Wonder by Ohio Chief and bred by H. J. Harding, of Macedonia, Iowa, the owner of Ohio Chief. Nothing in the gilt line is being offered, but is being reserved for their bread sow sale February 11. An attraction in the herd worth going miles to see is a litter of seven farrowed in May and sired by he great Kant Be Beat, and out of Ida M., a sow bought by this firm in Nebraska last winter bred to this great sire at an extremely long price. This firm will put in their bred sow sale February 11 some of the cream of the breed. Due notice will be given in THE KANSAS FARMER and those on the lookout for choice breeding and individuals should be prepared to attend. In the meantime write them about a boar and kindly mention THE KANSAS FARMER when doing so.

Mrs. Henry Shrader, of Wauneta, Kans., who won prizes on her Duroc-Jerseys at the Kansas State Fair at Hutchinson last month, writes: "What is the matter with you Red Hog people? I know that we could outnumber any class if you only would all come out and show the public that you are there with something you are proud of. I well know that the Reds are gaining ground from year to year, not alone in Kansas, but in the United States. They are also shipping them to Cuba and Mexico. I know this from personal experience. We have shipped to Indiana, Mexico, Texas, New Mexico, Arkansas, Oklahoma, Indian Territory, Nebraska, Missouri, Iowa, and all over Kansas. I just have a bred sow and a male to go out into Oklahoma in the morning. The fair is the place to get acqainted with people, and to learn all you can, see where your stock is lacking or where they are strong. There you can get what your herd is falling short on. I don't know of any better way. Then don't get discouraged if you don't win. Go right to the pen that you suffered defeat at and examine where they are ahead of yours, if you can't see where the other fellow is ahead; go and talk to the judge and have him come to your pen and show you wherein your pig lacks. Don't get mad and give the judge the dickens for your failure, if that is what you would call it. Showing is a good advertisement at any time, providing you have something good to show; it will bring you inquiries and make you sales. Now brother and sister breeders, let's begin now to pick for next year's show stock. Let's all try and come out with a good bunch of stuff, push ahead and bring our ideals to the front where they rightfully belong, as they are hard to beat. Let us not have them beaten any longer in Kansas. Look at the Nebraska State Fair or look at Iowa how they bring out the Reds."

A FINE STYLE BOOK FREE.

Nebraska Clothing Company Issues Elegant Book Printed in Two Colors—Sent Free for a Postal.

The Nebraska Clothing Co., have just issued their semi-annual fashion book for men and boys, showing every correct and approved style for the season 1907-8.

This book is valuable to every household—with it you do not have to guess at the correct dress for any occasion. It tells you and tells you correctly.

Forty pages of illustrations and descriptions of every popular article of apparel for men and boys, with a liberal assortment of samples of the newest cloths.

This book will be sent you for the asking—a postal will do. Simply address the Nebraska Clothing Co., 1131-1115 Main Street, Kansas City, Mo., and ask for Book 16 and mention THE KANSAS FARMER.

RAISING HOG LICE.

Does It Pay? Farmers Answer the Question by Dipping Hogs in Car-Sul.

The practise of dipping hogs is growing at an astonishing rate. Nowadays the man who permits his hogs to become infested with lice is the exception. It is so easy to keep hogs clean, healthy, and free from parasites that there is no excuse for raising a crop of hog lice. The farmer who sends a load of lousy hogs to market is generally disappointed in the size of the checks he gets in payment.

The clean, thrifty hogs raised by farmers who use Car-Sul Dip command the best prices. A load of such hogs will weigh in heavier than the lousy load every time. The healthy hog fattens much quicker than the hog that is overrun with hungry blood-sucking lice.

Another great advantage of dipping hogs is that such treatment insures them against hog cholera and swine plague, the terrible germ diseases that carry off so many millions of dollars worth of swine every year.

Car-Sul Dip is the original hog dip and disinfectant and is more widely used than all other dips combined. It costs very little and is easy to use.

The Moore Chemical & Manufacturing Company, 829 Southwest Boulevard, Kansas City, Mo., makers of Car-Sul Dip, publish a very valuable pocket encyclopædia of information for hog-raisers for free distribution. It is called "Diseases of Swine," and is the work of Dr. H. J. Whittier, president of the company. It not only tells how to prevent and cure hog diseases, but gives advice on care and management, feeding, sanitation, etc. In fact, the book covers the whole subject and makes a valuable addition to any farmer's library. In writing for a free copy of the book, be sure to state that you are an owner of hogs.

Kansas City Grain Market.

Wheat prices this morning got up to new high levels for the year, owing to small receipts at Minneapolis and decided strength in English markets. Liverpool prices were up equal to over 2 cents a bushel, notwithstanding unusual large world's shipments for the week.

Opening prices for Chicago December wheat were $1.02⅛ to $1.02¼, up ¼c to ⅞c over Saturday"s close. There was an additional advance to $1.03¾, followed by a setback to $1.03⅛ in the final dealings.

The Chicago May price rose to $1.09¾, the highest that it has reached this year. The December reached $1.05½ last May.

Kansas City December wheat started out ¾c higher at 96⅝@96¾c, and rose to 98c, or 2c over Saturday's close. The closing price was 97⅜@97½c.

In Minneapolis December wheat advanced 2¾c to $1.11⅛ and closed at $1.10⅞.

Women Who Wear Well.

It is astonishing how great a change a few years of married life often make in the appearance and disposition of many women. The freshness, the charm, the brilliance vanish like the bloom from a peach which is rudely handled. The matron is only a dim shadow, a faint echo of the charming maiden. There are two reasons for this change, ignorance and neglect. Few young women appreciate the shock to the system through the change which comes with marriage and motherhood. Many neglect to deal with the unpleasant pelvic drains and weaknesses which too often come with marriage and motherhood, not understanding that this secret drain is robbing the cheek of its freshness and the form of its fairness.

As surely as the general health suffers when there is derangement of the health of the delicate womanly organs, so surely when these organs are established in health the face and form at once witness to the fact in renewed comeliness. Nearly a million women have found health and happiness in the use of Dr. Pierce's Favorite Prescription. It makes weak women strong and sick women well. Ingredients on label—contains no alcohol or harmful habit-forming drugs. Made wholly of those native, American, medicinal roots most highly recommended by leading medical authorities of all the several schools of practice for the cure of woman's peculiar ailments.

For nursing mothers, or for those broken-down in health by too frequent bearing of children, also for the expectant mothers, to prepare the system for the coming of baby and making its advent easy and almost painless, there is no medicine quite so good as "Favorite Prescription." It can do no harm in any condition of the system. It is a most potent invigorating tonic and strengthening nervine nicely adapted to woman's delicate system by a physician of large experience in the treatment of woman's peculiar ailments.

Dr. Pierce may be consulted by letter *free* of charge. Address Dr. R. V. Pierce, Invalids' Hotel and Surgical Institute, Buffalo, N. Y.

Late in the season it was claimed that 630,000 bushels of wheat in all positions had been sold for export, notwithstanding the advance in prices.

Liverpool wheat quotations were only ⅛d to ¼d higher at the opening, but gained strength throughout the day, closing 1¾d to 1⅞d higher. The advance was attributed to unfavorable crop news from India and to advices from America. World's shipments were 13½ million bushels last week, 2 million bushels more than a year ago. The amount on passage increased 3 million bushels. Prices of wheat were ½c up in Berlin, ⅝c to 1¼c higher in Antwerp, ¼c lower in Budapest and ¼c to ½c higher in Paris.

Northwest receipts were 798 cars, 263 cars more than last Monday and 271 cars less than a year ago. The deficiency was entirely at Minneapolis, as Duluth received more than a year ago. Minneapolis received less than half as much as on the corresponding day last year. Winnipeg receipts exceeded last year's 454 cars, against 383 cars a year ago, but the Winnepeg market was reported to be very strong. Receipts at Kansas City were only 218 cars, compared with 325 cars a year ago. Chicago and St. Louis received more than a year ago.

The visible supply statement was not completed. The day's exports were 658,000 bushels of wheat and 35,000 packages of flour.

Partly in sympathy with the rise in wheat and partly on account of a falling off in receipts, December corn in Chicago sold up ¾d to 59¼c. The Kansas City December price rose 1¼@1¼c to 52¾. Closing prices were fractionally below the top.

Chicago received 42 cars of corn, compared with 350 cars a year ago. The estimate for Tuesday is 476 cars. English corn prices closed ¼d to ½d up. The week's world's shipments were 3,651,000 bushels, ¾ million more than in the previous week and ½ million bushels more than a year ago. The amount on passage increased 1¼ million bushels. The day's exports were 112,000 bushels.

The range of prices of grain and provisions in Chicago today were as follows:

	Open.	High.	Low.	Close today.
		WHEAT.		
Dec.	102⅛-½	103¾	102⅛	103¼
May.	108¼-¾	109¾	108¼	109¼
July.	104⅜	105¼	104⅜	104¼
		CORN.		
Dec.	58½-¾	59¼	58½-⅝	59¼
May.	59⅝-½	60	59½	60
July.	59½	59¾	59¼	59¾

Kansas City Live Stock Market.

Kansas City Stock Yards, Oct. 7, 1907.

The cattle run last week was better distributed through the week than usual, and the total of 87,000 head received, including 11,000 calves, was larger than supply first two days indicated. The market improved slightly on killing grades during the week, but stockers and feeders lost ground last days of the week, and closed 15 to 25 cents lower for the week. The supply today is heavy at 22,000 head, while Chicago is suffering under the excessive run of 37,000 today. The market here is steady to 10c lower, grass killing steers showing most decline. Choice fed steers are worth a little above $7.00, and few lots of fair to good steers sold here are worth a little above $7.00, and few lots of fair to good steers sold here today at $6.40 to $6.80. Grass westerns bring $4.00 to $5.25, with

occasional sales of heavy steers up to $5.60, and short fed steers $5.25 to $6.50. Cows and heifers have regained a part of the loss sustained a few weeks ago, having had an upward trend the last two weeks, steady today, cows at $2.75 to $3.75, heifers $3.00 to $4.50, a few fed cows up to $4.50, heifers to $5.75, bulls worth $2.50 to $3.75, veals around $6.00, heavier steer calves $4.00 to $4.50, heifer calves $3.50 to $4.00. Outgo of stock and feeding cattle last week exceeded 900 car loads, slightly smaller than shipment of this class previous week. Good to choice fleshy feeders, worth $5.00 and upwards are practically unavailable, only a few sales at these figures last week, bulk of feeders at $3.75 to $4.65, stockers $3.25 to $4.50.

Hog prices made a net loss of 7 per cent per cwt. last week, after a great many fluctuations, affecting all weights. Shipping orders from St. Louis called for heavy weight hogs one or two days, which put this class within closer range of the light weights, but the week closed with light hogs showing the customary margin above the others. Run is 7,000 today, market 5 higher, light hogs selling at $6.25 to $6.45, medium weights $6.10 to $6.35, heavy hogs $6.00 to $6.25. Receipts are now running slightly heavier than at this time a year ago.

Sheep supplies were well strung out last week, and the market improved all week on killing grades, closing 15 to 25 cents higher than close of previous week, while country grades weakened after Wednesday, and closed a quarter lower than first of the week. The run today is a record breaker for Kansas City, practically all of it range stock, 28,000 head, market on killing stock steady to strong, lambs up to $7.35, but country kinds are lower again, and this week will be a fine opportunity for feeders to secure supplies worth the money, feeding lambs around $6.50, wethers and yearlings $5.00 to $5.50, ewes $4.50 to $5.50. J. A. RICKART.

South St. Joseph Live Stock Market.

South St. Joseph, Mo., October 7.

There was only a fair showing of native dressed beef and export steers on the market today, and the fair to medium grades that sold at $6.20@$6.55 held fully steady with the higher close of last week. Common to fair qualities of light and medium warmed-up and half-fatted steers did not meet with very strong competition and values ruled somewhat easier, as did the moderate offerings of westerns. Demand ruled strong at the prices for all kinds and packers were disappointed in the small receipts. There was also a reduction in the supply of butchers stock and market ruled quite active and fully steady, trade being rather slow on the better styles of cows, although values ruled no lower than at the close of last week. There was a fair showing of stockers and feeders among the fresh arrivals, and as dealers carried over more than 1,000 from last week, there was no activity out of first hands and prices generally were weak to 10c lower.

The receipts of hogs at the five large markets today were approximately the same as for the corresponding day last week, but a better feeding was manifest and values ruled strong to 5c higher, bulk selling at the full advance. Light to butcher weights were scarce, offerings being mostly a common to fair class of mixed packers and rough heavy. Prices ranged from $5.90@6.35, with the bulk selling at $6.00@$6.20. Pigs were in large supply and good to choice kinds sold steady at $5.25@$5.75. Local demand continues broad and many more than are coming could be disposed of to advantage.

Sheep receipts were only moderate and values held about steady, despite the lower prices prevail elsewhere. Lambs are quotable at $6.75$7.50; yearlings at $5.50@$6.25; wethers at $5.40@$5.75 and ewes at $4.75@$5.25. Stock sheep and lambs are meeting with good demand and prices are very renumerative to the shipper. WARRICK.

PURE-BRED STOCK SALES.

Shorthorns.

Oct. 23.—A. C. Shallenberger and Thos. Andrews, Alma, Neb.
October 24—J. F. True, Jr., Perry, Kans., and H. E. Huber, Meriden, Kans., at State Fair grounds, Hutchinson, Kans.
November 4—Davies County Shorthorn Breeders Association sale at Gallatin, Mo.
Nov. 5.—E. D. Ludwig, Sabetha, Kans.
November 6 and 7—Purdy Bros., Kansas City.
Nov. 6—Purdy Bros., Harris, Mo.; sale at Kansas City, Mo.
November 7.—O. P. Hendershot, Hebron, Neb., dispersion sale.
November 26—M. C. Vansell, Muscotah, Kans.
Feb. 19—J. F. Stodder and others, Burden, Kansas; sale at Wichita, Kans.

Herefords.

Feb. 20—A. Johnson and others, Clearwater, Kansas; sale at Wichita, Kans.
February 25, 26, 27—C. A. Stannard, Emporia, Ks.
February 25-28—C. A. Stannard and others, Kansas City, Mo.
September 28.—James A. Carpenter, Carbondale, Kans.
October 29—Will H. Rhodes, Tampa, Kans.

Poland-Chinas.

Oct. 11—J. F. Hastings, Edgerton, Kans.
October 12—D. C. Stayton, Independence, Mo.
October 12—Sam Rice, Independence, Mo.
October 14—E. E. Axline, Oak Grove, Mo.
Oct. 15.—John Blain, Pawnee City, Neb.
October 15—Bernham & Blackwell, Fayette, Mo.
Oct. 16—Thos. Collins, Lincoln, Kansas; sale at Salina, Kans.
Oct. 16.—Geo. Hull, Burchard, Neb.
October 17—Charlie W. Dingman, Clay Center, Kans.
October 17—J. T. Ellerbeck, Beatrice, Neb.
October 18—C. A. Lewis, Beatrice, Neb.
October 19—Geo. Falk, Richmond, Mo.
October 21—H. C. Dawson's Sons, Fairbury, Neb.
October 21—F. D. Winn, Randolph, Mo.
October 22—F. A. Dawley, Waldo, Kans.
October 22—W. N. Messick & Son, Piedmont, Kas
October 22—Jas. Mains, Oskaloosa, Kans.
October 23—John M. Coats, Liberty, Mo.
October 23—A. P. Wright, Valley Center, Kans.
October 23—Dietrich & Spaulding, Richmond, Kans.
Oct. 24—Geo. W. Crooks, Clay Center, Kans.
October 24—G. M. Hebbard, Peck, Kans.
October 24—J. B. Triggs, Dawson, Neb.
October 25—W. J. Honneyman, Madison, Kans.
Oct. 25.—H. G. Chapman, Dubois, Neb.
October 25—H. B. Walter, Wayne, Kans.
October 26—A. B. Hoffman, Reece, Kans.
Oct. 26—L. J. Boner, Lenora, Kans.
October 26—B. F. Ishmael, Laredo, Mo.
October 28—Howard Reed, Frankfort, Kans.
October 28—Bollin & Aaron, Leavenworth, Kans.
October 29—Leon Calhoun, Potter, Kans.
October 30—The Big 3, Centerville, Kans.
October 31—L. C. Caldwell, Moran, Kans.
October 31, H. L. Faulkner, Jamesport, Mo.
October 31—C. B. Weaver & Son, Wakefield, Kans.
November 1—Harry E. Lunt, Burden, Kans.
November 2.—Thos. F. Walker, Alexandria, Neb.
Nov. 4.—Charles Pilcher, Glasco, Kans.
November 4—C. S. Nevius, Chiles, Kans.
November 5—Lemon Ford, Minneapolis, Kans.
November 5—E. L. Calvin, Bolcourt, Kans.
November 6—W. R. Crowther, Golden City, Mo.
November 7—T. P. Sheehy, Hume, Mo.
November 8—D. E. Crutcher, Drexel, Mo.
November 8—U. S. Ison, Butler, Mo.
November 9—H. H. Harshaw, Butler, Mo.
November 11—Adams & Lorance, Moline, Kans.
November 12—W. N. Messick & Son, Piedmont, Kans.
November 12—I. E. Knox and Wm. Knox, Blackwell, Okla.
November 13—Geo. W. Morehead, Glen Elder, Kans.
November 13—J. C. Larrimer, Wichita, Kans.
Nov. 13—W. H. Bullen, Bellville Kans.
November 14—C. W. Dingman, Clay Center, Kas.
November 16—C. G. Mills, Pleasant Hill, Mo.
November 18—J. J. Ward, Belleville, Kans.
November 19—A. & P. Schmitz, Alma, Kans.
November 19—C. E. Tennant, New Hampton, Mo.
November 20—Bert Wise, Reserve, Kans.
November 20—R. E. Maupin, Pattonsburg, Mo.
November 20—R. M. Buck, Eskridge, Kans.
November 21—F. D. Fulkerson, Brimson, Mo.
November 21—Everett Hayes, Hiawatha, Kans.
November 21—O. B. Smith & Son, Cuba, Kans.
November 22—C. E. Hedges, Garden City, Mo.
November 23—F. F. Oreley, Oregon, Mo.
November 30—Martin Lents, Atherton, Mo.
December 4, Geo. Null, Odessa, Mo.
January 10—Wm. Wingate, Trenton, Mo.
January 18—M. Bradford & Son, Rosendale, Mo.
January 28—H. B. Walters, Wayne, Kans.
January 29.—Dr. B. P. Smith and H. J. Reickley, Miltonvale, Kans.
February 5—C. E. Tennant, New Hampton, Mo.
February 6—R. E. Maupin, Pattonsburg, Mo.
February 7—F. D. Fulkerson, Brimson, Mo.
February 8.—Thos. F. Walker, Alexandria, Neb.
Feb. 13—Charles Pilcher, Glasco, Kans.
Feb. 25—L. D. Arnold, Abilene, Kans.
Feb. 26—W. H. Bullen, Bellville Kans.
Mar 12—W. C. Topliff, Esbon, Kans.

Duroc-Jerseys.

Oct. 16.—G. W. Colwell, Summerfield, Kans.
Oct. 30—Rathbun & Rathbun, Downs, Kans.
Oct. 31—D. O. Bancroft, Downs, Kans.
Nov. 1—R. G. Sollenbarger, Woodston, Kans.
November 2—Jos. Lynch, Independence, Mo.
Nov. 5—J. C. Logan, Havensville, Kans.
November 12—John M. Morrison, College View, Nebr
November 13—W. F. Hutchinson, Cleveland, Mo., at Independence, Mo.
November 15—U. S. Bryne, Agency, Mo.
November 26—Geo. Hannon, Olathe, Kans.
November 26—Marshall Bros. & Stodder, Burden, Kans.
January 21—Jas. L. Cook, Marysville, Kans.
Jan. 22—E. H. Erickson, Olsburg, Kans.
Jan. 23—Samuelson Bros., Bala, Kans., bred sow sale.
Jan. 28—Grant Chapin, Greene, Kans.
February 4—Chester Thomas, Waterville, Kans.
February 5—C. G. Steele, Barnes, Kans.
February 6—J. F. Chandler, Frankfort, Kans.
February 7—Joseph Reust, Frankfort, Kans.
Feb. 8—Sherman Reedy, Hanover, Kans.; bred sows.
February 11—John M. Morrison, College View, Nebr.
Feb. 14—John W. Taylor, Edwardsville, Kans., brood sow sale.
Feb. 18—John W. Jones, Concordia, Kans.
Feb. 19—T. P. Teagarden, Wayne, Kans.
Feb. 20—E. E. Axline and Knapp Bros., Independence, Mo.
Feb 27—D. O. Bancroft, Downs, Kans.
Feb. 28—Rathbun & Rathbun, Downs, Kans
Feb. 29—R. G. Sollenbarger, Woodston, Kans.

O. I. C.

October 17—Frank Walters, Rockport, Mo.
November 2—Alvey Bros., Argentine, Kans., at Independence, Mo.
January 8—John Cramer, Beatrice, Neb.

Percherons.

November 8.—O. P. Hendershot, Hebron, Neb., Percheron brood mare sale.
December 3.—Percheron and other draft horses, Watson Wood Bros. & Kelly, Lincoln, Neb.
Feb. 22—D. E. Reber, Morrill, Kans.
Feb. 18—J. W. and J. C. Robison, Towanda, Kansas; sale at Wichita, Kans.
February 28—R. J. Ream & Co., Kansas City, Mo.
March 12—R. J. Ream & Co., Denver, Col.

Jacks and Jennets.

March 8—Limestone Valley Jacks and Jennets L. M. Monsees & Sons, Smithton, Mo.

Combination Sales.

October 18—Galloway Asso., Kansas City.
December 6—Galloway Asso., Kansas City.

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.

CATTLE

FOR SALE—25 head of fine Polled Durham cows and heifers. C. M. Albright, Route 2, Overbrook, Kans.

FOR Red Polled bulls or heifers, write to Otto Young, Utica, Ness County, Kansas.

SPECIAL SALE—5 straight Cruickshank Shorthorn bulls for sale at bargain prices for quality. H. W. McAfee, Topeka, Kans.

ABERDEEN-ANGUS CATTLE and Percheron horses, Stock for sale, Garret Hurst, breeder, Peck, Sedgwick County, Kans.

SWINE.

FOR SALE—Pure-bred Duroc-Jersey boars and sows. Mrs. Ralph Robinson, Medora, Kans.

FOR SALE—Large boned, extra size thoroughbred Poland-China boar, 2 years old, best of breeding.—J. W. Cunningham, Route 2, Meriden, Kans.

FOR SALE—Thoroughbred Duroc Jersey boars, large enough for service; also my herd boar. Prices right. Address I. W. Poulton, Medora, Reno Co., Kans.

FOR SALE—Forty registered Duroc sows and gilts bred for August and September farrow. Also a few unpedigreed sows, bred to fine boars. R. O. Stewart, Alden, Kans.

POULTRY.

FOR SALE—Single and Rose Comb Rhode Island Red cockerels. Fine shape and color; pure breeding. Mrs. Chas. Matson, Route 2, Cheney, Kans.

REAL ESTATE

FARM LOANS Made at LOWEST RATE. Annual or Semi-annual interest. Privilege of paying part or all of the loan at any time. Interest and principal PAID AT OUR OFFICE IN TOPEKA. No delay in closing loans. MONEY ALWAYS ON HAND. Write for rate and terms.

DAVIS, WELLCOME & CO.,
Stormont Bldg., 107 West Sixth St. TOPEKA, KANSAS

FOR SALE—40-acre fruit and poultry farm, Wright County, Mo. Price $100, $10 down, $5 per month. Address Harry McGuire, Mt. Vernon, Ill.

Washington County, Arkansas, Comprises a large part of the Ozark Fruit Belt and wants twice its population. Fayetteville, "The Athens of the Ozarks," the county seat and metropolis of Washington County, wants new business enterprises. A land of great opportunities for business man and farmer alike. Write for new descriptive and illustrated booklet. The Commercial League of Fayetteville, E. R. Wilson, Secretary, Fayetteville, Ark.

FINE DAIRY FARM CHEAP.
200 acres, 100 acres in cultivation part of which is in tame grass, 100 acres in fine native meadow, good house, cellar, barn and orchard, 2 wells and cistern. 1¼ miles to school, 5 miles to Garnett. Price $5500, Will loan $2500. Mansfield Bros., Garnett, Kans.

HORSES AND MULES.

FOR IMMEDIATE SALE—A fine jack, coming 3 years old. Have sold farm and must dispose of jack at a bargain. Will earn twice his price the coming season. He was selected for me by expert judges of the State College at Manhattan and has all the "points." C. O. Scudder, Whiting, Kans.

STALLIONS, all breeds, for sale on shares. Write for particulars. Will buy 20 head registered stallions. E. E. Gray, Hinsdale, Ill.

PERCHERON STALLION FOR SALE—Owing to circumstances I am forced to sell my 7-year-old registered Percheron stallion. He is sound, kind, big, has a fine action and is a perfect show horse. Will fully guarantee him. Terms: Cash, approved notes, or will trade for cattle. J. B. Weldon, Eureka, Kans

TWO JACKS FOR SALE—3 and 4 years old, Missouri bred. Address S. C. Hedrick, Tecumseh, Kans.

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

SCOTCH COLLIES.

Scotch Collies.

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

MISCELLANEOUS.

FOUND—Article to remove ink and rust from white goods without injury. Package 25c. Savis Supply Co., Dept. 6, Brandonville, Pa.

WANTED TO BUY—Second-hand well drill, also hay press and 3 to 6 horse-power vertical gasoline engine. Must be in good running order. State make and price. Grant Ewing, Blue Rapids, Kans.

STOCK FOOD AGENTS WANTED—Albert Cure & Son desire a good farmer or stock raiser in every vicinity to sell their Stock Powders, Veterinary Healing Powders (sample sent free) and Curozone Dip. If interested write for thier terms. Address, Albert Cure & Son, Atchison, Kans.

WANTED—Alfalfa, clover, timothy, English blue grass and other grass seeds, also pop-corn. If any to offer, please correspond with us. The Barteldes Seed Co., Lawrence, Kans.

FOX HOUNDS FOR SALE—Trained to trail. Good age, and ideal coon dogs. Ralph Swartz Americus, Kans.

FOR SALE—A "Little Giant" (McCormick) shredder and husker; used two seasons; perfect repair; half price. Edwin Taylor, Edwardsville, Kans.

CHOICE TABLE HONEY—Direct from apiaries, f. o. b. car, one can 60 pounds, net $4.25; two cans, $8.10. Prices of honey in friction-top pails on application. References, Editors Kansas Farmer. Cheek & Wallinger, Los Animas, Colo.

OLD ORCHARD rejuvenated (made young), production thribbled in quality and quantity. Wonderful discovery. Stamp for particulars, etc. T. T. Higby, Sedro, Wash.

WANTED—Manager or partner for handling grain, beet and cattle ranch, 1,000 acres Western Kansas, partly irrigated land. Address Davis, care Kansas Farmer.

WANTED—By experienced agricultural college graduate, a position as manager of an up-to-date dairy farm. Preferably in Kansas or Colorado. E. E. Greenough, Manhattan, Kans.

WANTED—Men to learn barber trade. Will equip shop or furnish positions; few weeks completes; constant practice, careful instruction; tools given; wages Saturdays; diplomas granted. Write nearest Branch for free catalogue, Mohler System of Colleges, St. Louis, Kansas City, Mo., or Omaha, Neb.

FOR SALE—New honey; write "the old reliable." A. S. Parsons, 418 South Main Street, Rocky Ford, Colo.

RURAL BOOKS—Send for descriptive list of books for farmers, gardeners, florists, architects, stock raisers, fruit growers, artisans, housekeepers and sportsmen. Sent free. Address The Kansas Farmer Company, Topeka, Kans.

WANTED—A second-hand traction engine, not less than 16 horse power. Dr. W. D. Barker, Chanute, Kans.

Stray List

For week ending October 10

Kearney County—F. L. Pierce, Clerk.

MARES—Taken up, August 26, 1907, by B. F. Glenn in Kendall tp., two gray mares, both branded X on left shoulder and (—T) bar T on left jaw; appraised value, one $40, the other $20.

When writing advertisers please mention this paper.

REAL ESTATE

FOR SALE.
A choice quarter, good level wheat land, six and one-half miles from town at $10 per acre. Will give time on part. R. B. Irwin, Modoc, Kans.

A BARGAIN—160 acres, Jackson County, light improvements, low price, easy terms. The Sheldon Realty Co., Topeka, Kans.

DORNWOOD FARM of 100 acres, well improved, located near city on electric line; for sale or will lease it with the stock to a competent manager. Address, Dornwood Farm, care Kansas Farmer, Topeka, Kans.

$250 WILL BUY 80 acres; Christian County, Southeast Missouri. Perfect title; terms $10 monthly. W. M. B. Williams, Mt. Vernon, Ill.

240 ACRES in the Kingdom of the Big Red Steer, 100 cultivated, 10 meadow, 130 pasture; good apple orchard and other fruit; frame 7-room house; good barn; living water; limestone soil; 1 mile to school; 5 to station; 15 to Emporia. Price $5,200. Hurley & Jennings, Emporia, Kans.

FOR SALE—Fruit lands, farms and timber. Stock do well in this section. German truck farmers can make big money. I can loan your money on good security. Campbell, P. O. Box 653, Van Buren, Ark.

FINE STOCK FARM FOR SALE
445 acres at a bargain on easy terms. Write for full description. D. P. Norton, Dunlap, Kans.

FOR SALE.
168 acres four and one-half miles from county seat, good buildings, 18 acres pasture, 6 acres alfalfa, hog-tight, balance in cultivation, one-half mile to school. Price $6,400. Time on part. I have all kinds and sizes. A. S. Quisenberry, Marion, Kans.

HOG FARM FOR SALE.
120 acres in section 2, Rock Creek tp., Pottawatomie County, Kans.; small house and stable, good crib, shed and feed yards, windmill and scales, 35 acres hog pasture, 30 acres alfalfa, balance pasture; three miles from Blaine, four miles from Wheaton on L. K. & W. railway. Worth $30 per acre, but best bid up to November 15 gets it. Don't write; if interested look it over and make offer. Geo. P. Monroe, Blaine, Kans.

MARSHALL COUNTY LAND BARGAINS 240 acres 5 miles out, improved, 190 in culti., bal. timber and pasture; price only $39 per acre. Also $2,000 hardware stock for sale at 85c on the $1 cash. A good general mdse. stock in live town, doing good business; no old stock; want cash or good land. For particulars write E. J. McKee, Marysville, Kas.

WASHINGTON STATE.
Little Fruit Farms—$5 down and $5 per month per acre in famous Yakima valley—cultivated—irrigated—planted and cared for. Send today for booklet. Oldest firm in state. Calhoun, Denny & Ewing, Inc, Dept. X, Seattle, U. S. A.

This tract of land contains 4,826 acres, and lays nine miles north of Dodge City, in the north part of Ford, and the south part of Hodgeman Counties. It is all fenced and cross-fenced; two good sets of improvements, consisting of dwellings, horse barns, cattle-sheds, granaries, etc., etc.; 175 acres now in wheat and rye; 45 acres ready for spring crop; the remainder of the land all in natural grass. Three school houses adjacent to this land. This ranch is watered by several of the finest springs to be found in Western Kansas. Sawlog Creek runs through the land, and has in it pools of clear standing water the year round. All of this ranch is the very best of wheat land, and about 500 acres is splendid alfalfa land. We will sell this entire tract for $10 per acre and carry $4 per acre of the purchase price five years at 6 per cent, or will sell it in quarters, halves or sections, at a reasonable price and on same terms. This is one of the finest tracts of land in this part of the state, being surrounded by well improved wheat and alfalfa farms. Your last chance to buy this tract of land.

FRIZELL & ELY, Larned, Lans.

160 Acres
one and one-third miles southwest of Lafontaine, Wilson County, Kans. Creek bottom land, all in cultivation except about ten acres of pasture. Well fenced into eight different fields. Will raise any kind of grain you want to plant. Has good 7-room house, porches; good barn for eight head of horses; corncrib; everything in first-class condition and a model home. Price $45 per acre. Address
C. H. CANTRALL, Fredonia, Kans.

Farm Bargains
Good farms for sale in Wilson and Montgomery Counties, Kans. We have some real bargains. Write for particulars.
THE SOUTH EAST REALTY CO.
Lafontaine, Kans.

Norton County Alfalfa and Corn Farms.
We sell Norton County lands where wheat, corn and alfalfa grow in abundance. Write us for list of farms, and full particulars.
LOWE & BOWERS, Almena, Kans.

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.

DUROC-JERSEYS

Woodlawn Durocs

Shorty Orion 53343. The great winner of first in class at the Illinois State Fair, at the head of the herd. Fancy Top-notcher 40339, the first prize boar at the Kansas State Fair, 1906, sired by Kant-Be-Beat. Fancy Chief 24923 by Ohio Chief and Woodlawn Prince 53341, second prize boar in class Kansas State Fair. 125 pigs by these great sires from dams of equal breeding. Come and see them. Write us for prices.

JOHN W. JONES & SON, - - - Concordia, Kansas

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125 Pedigreed Duroc Red Spring Pigs for sale cheap. Chas. Dorr, Osage City, Kans.

J. H. G. Hasenyager, Tecumseh, Neb.
Breeder of Duroc-Jerseys
Write me for prices.

CHOICE REGISTERED Durocs, P. C. and O. I. C. hogs; Shorthorn, Jersey, and Galloway cattle; 40 varieties poultry and pet stock at farmers' prices; stamps for cat. A. Madsen & Sons, Atwood, Ks

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DUROC-JERSEYS—Large-boned and long-bodied kind. Bred gilts and fall pigs, either sex. Prices reasonable.
E. S. COWEE, Route 2, Scranton, Kans.

HILLSIDE DUROCS.

Seventy-five head of well-bred, well-grown March and April pigs. A few one and two year old sows.—W. A. Wood, Elmdale, Kans.

DEEP CREEK DUROCS

Spring boars for sale grandsons of the great Hunt's Model 20177. Others sired by Lincoln Wonder, the $2,000 hog.
Address C. O. Anderson, Manhattan, Kans.

OAK GROVE HERD OF DUROCS

Herd headed by Choice Goods H. 36471 by Hunt's Model and Corrector's Model 34381. I have for sale a few choice males of spring and fall farrow that will be priced worth the money. Sherman Reedy, Hanover, Kans.

Pleasant View Durocs

70 early pigs by Quality King 59831, Orion Boy 42137, and W's Top Notcher 59833. Also choice fall gilts at right prices.
THOS. WATKINSON, Blaine, Kans.

PEERLESS STOCK FARM

DUROC-JERSEY HOGS.
Boar and gilt sale Nov. 1; 35 head, best of breeding and individuality.
R. G. Sollenberger, Woodston, Kansas

Pigs Shipped on Approval.

200 head of Durocs, all ages, representing the blood of Combination, Valley Chief, and a son of Kant-Be-Beat.
T. L. LIVINGSTON, Burchard, Neb.

Mission Creek Durocs

Herd headed by A. B. Top Notcher 47373 and Pawnee Chief 49559. **Fall sale October 16, 1907.** Write for catalogue.
G. W. Colwell, Route 2, Summerfield, Kans.

Silver Lake Durocs

Fall boars, bred right and priced right; also choice gilts bred to Kansas Buddy, a son of Buddy K. 225 spring pigs ready for shipment after July 1.
W. C. Whitney, - - Agra, Kans.

B. N. WELCH,

Breeder of DUROC-JERSEYS. Crimson Chief 49609 heads my herd. Young stock for sale.
WATERVILLE, KANS.

ATTENTION

Hog raisers of every kind. Had you forgotten that this is just the time to buy that male pig to head your herd? Well it is a fact and you had better get in line and come to the Rosebud and get something fine. Rosebud Stock Farm, Rathbun & Rathbun, Proprietors, Downs, Kans.

McFARLAND BROS.,

Breeders of Champion and Grand Champion Duroc-Jersey swine. Winners at World's Fair, American Royal and State Fairs. Stock of all ages for sale
Route 1 -:- Sedalia, Mo.

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, R. S. Wichita, Ks.

Vick's DUROCS are bred for usefulness. Choice young stock for sale by such great boars as Vick's Improver 47885, Red Top 32241, Fancy Chief 24926 and other noted sires. Corrdspondence invited. Visitors coming to Junction City and phoning me will be called for. W. L. Vick, Junction City, Kans.

RALPH HARRIS FARM
DUROC-JERSEY HERD

For Sale—Boars ready for service sired by Wonder Lad 17259, carrying Ingomar 7897a blood. Choice boar pigs that trace to Long Wonder, to Ingomar, and to Duroc Challenger.
Ralph Harris, Prop. B. W. White, Mgr.
WILLIAMSTOWN, KANS.
Farm station, Buck Creek, on the U. P. 45 miles west of Kansas City.

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

have a few gilts that I will sell at reasonable prices bred for April farrow. Also a few fall boars of September, '06 farrow. Write for prices and description.
R. L. WILSON, Chester, Neb.

Golden Queen Durocs

Herd headed by Crimson Jim 47995 and Lincoln Top 55287, two of the best boars in Nebraska. A number of choice gilts for sale bred to these boars for fall farrow. These gilts are all out of my best sows and will be priced right.
W. M. Putman,
Tecumseh, Neb.

DUROC-JERSEYS

MADURA DUROCS.

The home of Miller's Model, by Hunt's Model and Major Rosefelt a grandson of Ohio Chief; 100 fancy, growthy pigs; also bred sows and gilts for sale.
FRED J. MILLER, Wakefield, Kans.

Deer Creek Durocs

100 pigs of March and April farrow by sons of Ohio Chief, Top Notcher and Kant Be Beat. Ready for shipment after July 1.
Bert Finch, - Prairie View, Kans.

Orchard Hill Herd Of Duroc-Jerseys

Some splendid fall gilts sired by Norton's Top Notcher by Tip Top Notcher and bred to Kansas Chief 37491, grandson of Ohio Chief. Also some fine fall boars.
E. F. NORTON, Clay Center, Kans.

DUROC-JERSEYS.

Extra fine blocky pigs for sale at reasonable prices. Also thoroughbred Percheron horses.
W. A. SCOFIELD, Ind. Phone 6577, Station B. Topeka, Kans

WESTLAWN DUROCS

Herd headed by Bobby S., a son of 2d Climax, 1st prize boar at Missouri State Fair 1903. Stock always for sale. Choice fall boars and gilts. Also young Shorthorn bulls from heavy milking dams. Prices reasonable. E B. Grant, R. 9., Emporia, Kans.

Elk Valley Durocs

Herd headed by Doty Boy 29279, a son of the champions Goldfinch and Dotie. My sows are by prize-winning boars. Choice pigs of both sexes for sale.
M. Wesley, - - - Bancroft, Kans.

PUBLIC SALE
Tuesday, Oct. 29, '07

46 head best bred Duroc-Jersey swine that will pass through any sale ring this fall.

1 fine yearling boar sired by Ohio Chief.
1 fine yearling boar sired by Tip Top Notcher.
1 fine yearling sow sired by Kant-Be-Beat.
1 fine yearling sow sired by Proud Advance.
4 other fine yearling sows sired by good boars.
21 fancy spring gilts and 17 spring males by six different boars.

Send for catalog, arrange to attend sale, or send mail bid direct to
JOHN SCHOWALTER, - Cook Neb.

Gold Dust Herd Durocs

One hundred fine spring pigs sired by boars that are bred right and out of sows purchased from the leading herds and carrying all the popular blood lines. Also a number of fall boars for sale. Write us for prices.
MINER & AITKEN,
Tecumseh, - - - Nebraska

Staadt's Durocs

Boars in service: Long Wonder 21867, the great thousand pound Nebraska State Fair winner; Nelson's Model 22095, first in class Nebraska State Fair, with over 60 in class a great son of "Can't Be Beat," out of Top Notcher sow.
Young boars for sale, by Long Wonder and Nelson's Model; also sows and gilts bred and open.
J. F. STAADT, - Ottawa, Kans.

Lamb's HERD OF DUROCS is built along the most fashionable blood lines and is noted for the individuality of its make-up. 50 fine pigs sired by the great Hanley, Lincoln Top, Buddy L by Buddy K IV, Crimson Jim, Ambition and other great sires. We invite correspondence with prospective buyers.
Elmer Lamb, Tecumseh, Nebr.

Timber City Durocs

Fall and spring boars by You Bet 31111, Doty Wonder 41889, Geneva Chief 48049, Rose Top Notcher 54059, and others. Sows bred to the above boars for sale. Over 400 head in herd, write your wants.
SAMUELSON BROS.,
Bala, Kans. and Cleburn, Kans.

Elk Creek Durocs

One 2-year-old boar by Improver 2d and out of Nebraska Bell. Also one yearling boar by Old Surprise, (a son of prize-winners) at living prices. 160 pigs of early spring farrow by Kant Be Beats Best, and Bell's Chief 2d, ready for shipment after July 1.
J. E. JOINES, Clyde, Kans.

Chapin's DUROCS. Home of Model, Chief Again, King of Col's II, Red Raven and C. E. Col. II; 175 early pigs; 45 fall gilts, and a lot of proven sows to select from for my
Public Sales to be held
Oct. 1, '07 and Jan. 28, '08.
GRANT CHAPIN, - Greene, Kans.

DUROC-JERSEYS

Capital Herd Duroc-Jerseys.

Young boars and gilts for sale from such sires as Mission Goldfinch, Long Wonder and Parker Boy, with excellent breeding on dam's side. All are good thrifty pigs. Call or write.
J. S. White & Son, R. S, Topeka, Kans.

Blue Valley Herd Registered Duroc-Jerseys

Breeders of high-class, pure-bred Durocs. Leading strains of Duroc families represented in our herd. All correspondence given immediate attention; and young stock for sale at all times. See us at "American Royal." Watts & Dunlap, Martin City, Mo.

OSAGE VALLEY DUROCS

150 early pigs. Ohio Chief, Orion, Crimson Wonder, Proud Advance and Brilliant strains. Toppy boars large enough for service. Prices reasonable.
A. G. DORR, Osage City, Kans.

REGISTERED SHORTHORN CATTLE AND DUROC-JERSEY HOGS.

Pure Scotch male, Lord Victoria 250519. Young stock for sale, W. O. Rule & Sons, Ottawa, Kans.

Walnut Lane Durocs

Headed by Neosho Chief 37161, one of the best grandsons of Ohio Chief. A fine lot of spring boars for sale reasonable.
S. A. Hands, Thayer, Kansas

Fairview Herds Durocs and Red Polled

Some good young boars by Crimson Challenger 43877 for sale. No females or Red Polled Cattle for sale now.
J. B. Davis, Fairview, Brown County, Kans.

CUMMINGS & SONS DUROC'S

100 toppy pigs of early March farrow, by Lincoln Top, Junior Jim, Tip Top Notcher Jr, Kants Model, Beautiful Joe and our herd boar OH HOW GOOD, second prize-winner at Nebraska State Fair. Sale in October; write or visit.
W. H. Cummings & Son, Tecumseh Neb.

CRIMSON HERD OF DUROCS.

Herd boars, Red Perfection by Kansas Chief, Allen Gold Dust and Red Pathfinder. Iowa Girl still farrowing good litters. The best blood lines of the breed, with size and quality combined. Eighty-five spring pigs for the trade at private sale. J. W. REID, Portis, Kans.

PRAIRIE QUEEN DUROCS

70 early springs that are tops, by the great Kant Be Beat, Alex Heir, and Wilkes Echo, out of daughters of Ohio Chief and Village Pride, and other good ones. G. H. RAMAKER, Prairie View, Kans.

FOUR-MILE HERD DUROCS

Choice fall boars by Orion Jr. 31497, and Ohio Chief 2d 41197. 50 spring boars, growthy, heavy bone, good feet, nice color; sired by the above named males, and E.'s Kan't Be Beat 57563, Crimson Chief 31263, Rose Top Notcher 54059, You Bet 31111, 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.

Otatop Herd Duroc-Jersey Swine

Composed of nothing but prize-winning blood. Pigs for sale of either sex.
JOHN W. TAYLOR,
Edwardsville, -:- Kansas

Haith's DUROCS Herd headed by Lincoln Top 55287 and Ed's Improver 43637. A fine lot of pigs for sale sired by these grand sires, Kant Be Beat, Royal Ohio Chief, Lincoln Wonder, Lincold Top, Arion and other great boars. Also a few good sows for fall farrow bred to Lincoln Top.
W. W. HAITH,
Vesta, Neb.

EUREKA MANOR HERD OF DUROC-JERSEYS.

Choice breeding stock; the best I ever raised. Fall and spring boars, fall and spring gilts, and tried sows, bred or open. Prices the lowest, quality and breeding the best. Herd headed by Eureka Tip Top 43641 sired by the great World's Fair grand champion Tip Top Notcher 20729 and Olathe Chief 61629 by Ohio Chief 8727, the world's champion. Write your wants or call and inspect my herd.
J. F. ENSOR, Olathe, Kans.

FORD SKEEN

Breeder of the Choicest and most Prolific Strains of
Duroc-Jersey Swine
Prize-winning blood, inspection invited, honest treatment insured
South Auburn, - - Nebraska

ROSE LAWN
Duroc-Jerseys

I have several high-grade Lincoln rams for sale.
L. L. Vrooman, Rose Lawn Place,
TOPEKA, KANSAS.

MAPLE LANE HERD OF DUROCS
F. C. Crocker, Proprietor. Filley, Nebraska

My pigs of March farrow are sired by the great Kant-Be-Beat by Red Knight, sweepstakes Nebraska 1905 by Hogate's Model, sweepstakes Nebraska 1906, and by "Junior Champion," who was the junior champion at New York and Ohio 1906. The blood lines of Crimson Wonder, Belle's Chief, Ohio Chief, Improver 2d, and many others of equal merit, go to make up a strong herd of individuality and breeding that can not be excelled. Fall sale October 5 at Beatrice, Neb.

DUROC-JERSEYS

CRIMSON WONDER HERD.

Our Durocs are in fine shape. 300 head to pick from. Happy Hooligan 64671 by Crimson Wonder 38755 and winner in 6 months class, Crimson Lad I Am 62653, winner of 3d prize at Kansas State Fair, are both now for sale. Mr. and Mrs. Henry Shrader, Wauneta, Kans.

Klondyke Durocs

100 choice spring pigs, both sexes, by Chief Model, and Prover, a son of Improver 2d and out of Kansas Wonder dame. Spring pigs, either sex, for 30 days at $15, $18 and $20. Only tops shipped on mail orders. Write for description and prices.
G. E. Newton, Whiting, Kans.

GOLDEN HERD
DUROC--JERSEYS

Boars in service are
Sons of Kant-be-beat, Ohio Chief, Tip Top Notcher, Proud Acvance.
All the famous strains represented.
Choice gilts bred for fall farrow and some fall boars for sale. Fall sale November 9 th.
N. J. Fuller, :-: Garnett, Kans.

POLAND-CHINAS

FAIR VIEW STOCK FARM

Show yard type Poland-Chinas, headed by Corrector Sunshine 101835. A few choice pigs for sale
A. K. Sell, Fredonia, Kans.

BOARS, BOARS.

Choice spring males at right prices, by Grand Chief Masterpiece, Nonpareil Choice Chief, E. L. 2nd, 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.

SIGLER'S Our Poland-Chinas are rich in breeding and individuality. Our prices are right and we respectfully invite correspondence with prospective buyers.
A. R. SIGLER, Pickrell, Nebr.

SUNNY SLOPE POLANDS

10 heavy boned, stretchy fall boars, by Hadley and Thompson's Choice; also gilts and tried sows bred to Impudence I-know 45180, at right prices.
W. T. Hammond - - - - Portis Kans.

POLAND-CHINAS. SHORTHORNS.

A few thrifty young bulls and boars of the best breeding from champion and prize-winning families. Prices reasonable for quick sales.
R. M. BUCK, Route 2, Eskridge, Kansas

Esbon Herd of Polands

I have some tried sows bred to Speculator 43625 for October farrow.
W. C TOPLIFF, - - Esbon, Kansas

Erie Gas Light Herd POLAND-CHINAS.

Headed by Sunshine Chief 2d by Chief Sunshine 2d, dam Queen Perfection, Margarette C, Mayflower, Ideal Sunshine 2d and other great sows in herd. Stock for sale. J. K. MAHAFFEY, Erie, Kans.

Belleville Big Boned Polands

Fall boars of the best breeding; also choice gilts bred to Pan Famo for fall farrow. 100 spring pigs by Pan Famo ready for shipment in July.
W. H. Bullen & Son, - Belleville, Kansas

Clover Lawn Polands

My spring crop of pigs is coming nicely. Those who are interested in buying a good boar or gilt should write me or arrange to attend my sale, October 24, 1907.
JOHN R. TRIGGS,
Dawson, Neb.

Home of Indiana 2d.

You all know the record of this great young boar. Come and see him and the many other sons and daughters of world and State Fair champions in our herd. PLACE TO GET HERD-HEADERS. TRY US. They have size, finish, easy feeding qualities with hot pedigrees, the kind sought after by the farmer, breeder and showman. We price them right. Come or write us.
HOWARD REED, Frankfort, Kans.

East Creek Herd of Polands.

Headed by STYLISH PERFECTION 40313, winner of first in aged class and sweepstakes boar Nebraska State Fair 1906. Stylish Perfection is one of the greatest boars of the breed and won his honors upon merit alone, and his get proves him to be a great sire as well as a great show animal. A few good spring boars and gilts sired by him for sale.
H. B. WALTERS,
Wayne, Kans.

McKeever & Sons The home of the big useful Poland-China Hog.
Hubbell, - Nebraska
Litters by Expansion C, Expansion, Grand Look and other big ones. Nothing but good ones sold on mail orders. Write us.