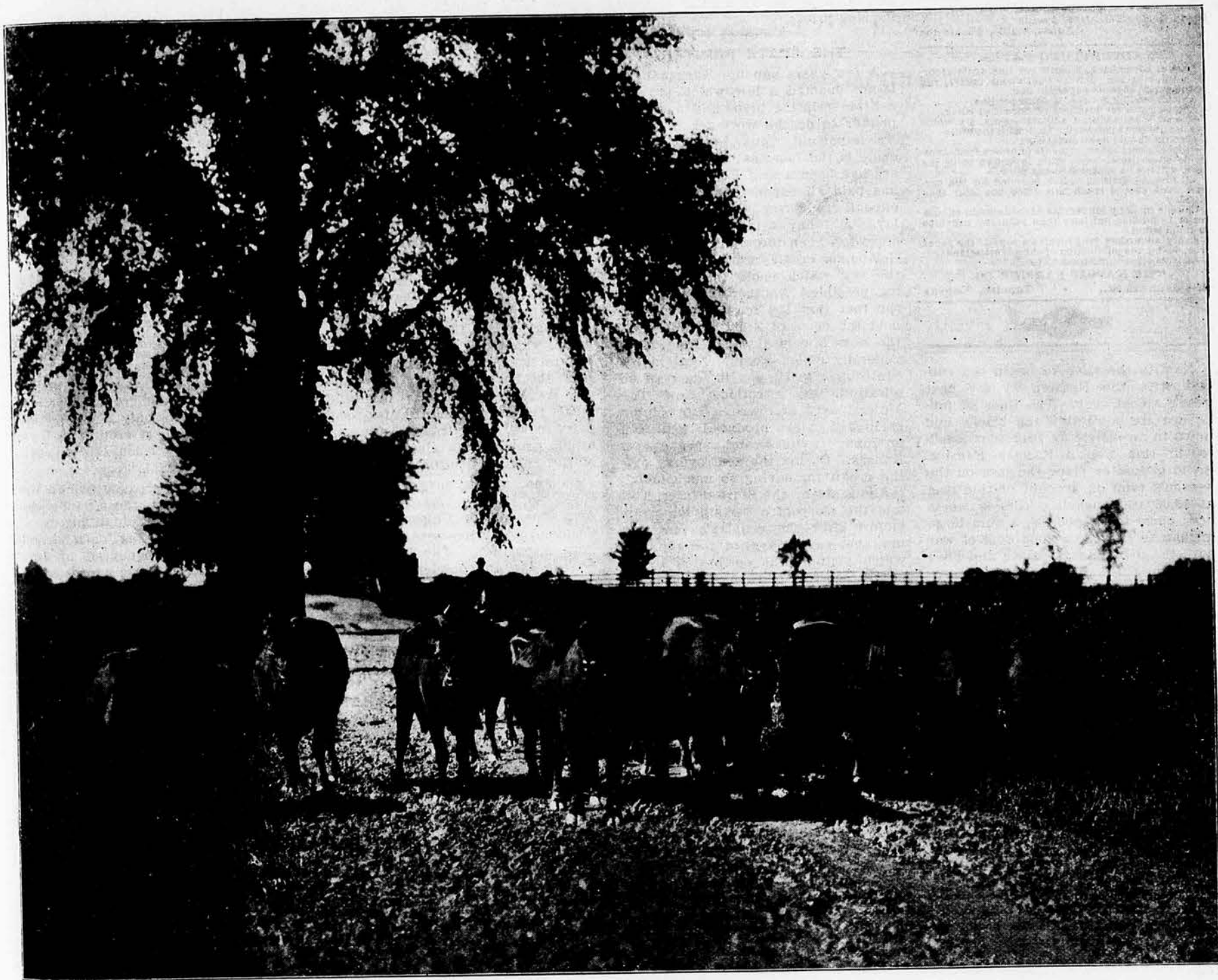


KANSAS FARMER

Volume XLVI. Number 29

TOPEKA, KANSAS, JULY 16, 1908

Established 1863. \$1 a Year



ONE OF THE WAYS IN WHICH MONEY GROWS IN KANSAS.

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Now is the time to begin the contest with the Hessian fly for next year's wheat crop. The lines of procedure are admirably and briefly laid down in an article by Professor Headlee in this week's KANSAS FARMER. Some estimates place the loss on the season's crop on account of this pest at 13,000,000 bushels. This is worth very close to \$10,000,000, a sum large enough to pay for a good deal of war with the little enemy. Read and heed Professor's Headlee's directions.

The July statement of the Kansas bank commissioner shows deposits amounting to \$75,563,431.15 in the State banks. Deposits in the National banks of Kansas are not included, these are reported to the comptroller of the currency at Washington. Their sum is usually about equal to that in the State banks. This is a good showing for mid-summer when we are making and not marketing our crops. The banks are carrying very large surplus accounts and very large undivided profits.

Secretary Wellhouse of the Kansas State Horticultural Society reports the existence of apple scab in some recently examined Kansas orchards. This scab is present to some extent every year. It is favored by moist atmosphere. On this account this season presents rather more than the usual development of the scab. No serious damage has yet occurred, however, and it is not worth while to consider the apple crop as menaced pending for the development of the disease. The occurrence of the usual Kansas weather in the latter part of July and in August will greatly discourage the apple scab.

GOOD AVERAGE CROPS.

The Government report shows that for every 1,000 acres of winter wheat in the United States at harvest time in 1907, there were 1,058 acres at harvest in 1908. The condition is also better this season. If a given area of average winter wheat produced 783 bushels last year, a like area of average winter wheat this year promises 806 bushels. The condition this year is a little above the ten-year average.

The spring wheat area and condi-

tion also exceed those of last year and the ten-year average.

For every 1,000 acres of corn that was growing July 1, 1907, there were 1,011 acres growing July 1, 1908. The condition of corn is slightly better than last year but is nearly three points below the ten-year average.

The acreage of oats is only 994 this year for every 1,000 last year. The condition of oats is better than that of last year, but is below the ten-year average.

The condition of apples is given as 57.6 this year against 44.0 last year, and a ten-year average of 62.3.

Peaches are 69.7 against 35.7 last year, and 57.9 for the ten-year average.

For every 790 watermelons last year there should be 814 this year. The question is what to do with the other 24 watermelons. Ask Sambo.

Taken altogether, the Government report indicates fair average returns in the way of crops but nowhere such excessive yields as should seriously depress prices.

THE STATE PRINTER.

A few years ago the Kansas Legislature enacted a law which provided a State printing plant and a salaried printer to do the work for the State. An important thing about the outcome is the fact that the State printer has been a first class investment, has paid all expenses and has saved enough to cover the original outlay. A funny thing about the outcome has been the claim of rival politicians for credit in the enactment of the law which made this great saving possible. Another funny thing is the fact that the only man who has held the office of State printer under the new law is Hon. T. A. McNeal, generally called Tom McNeal in recognition of merit and in token of admiration and affection. Now Tom McNeal says and writes more funny sayings than are produced by all other funny writers and speakers in Kansas. During the controversy over the credit for saving so much money to the State by the State printer, Tom told the story of a certain important victory over the country's foes during the early days of the republic, which victory was celebrated by religious services of thanksgiving. The commander under whose leadership the victory had been won attended the services. The minister was profuse and indulged in much repetition in his prayer of thanksgiving. The victorious commander listened anxiously for some allusion to the part taken by himself and his men in the great achievement, but it came not. Finally, the fighter could restrain himself no longer and interrupted by saying: "Parson, couldn't you just mention that I was there?"

Perhaps the voters of Mr. McNeal's party will remember, when they cast their votes at the primary, that during all of the time of the great saving to the State on its printing bills Tom McNeal was there. A less efficient or less scrupulous official might easily have turned these savings into losses.

SOME FEATURES OF THE COMING NATIONAL CORN EXPOSITION.

Three modern conveniences help make up the equipment of the most modern farmer. Recognizing this the National Corn Exposition, to be held at Omaha, December 9 to 19, has secured a gasoline engine, dynamo, and switch board which will be given by a Michigan manufacturer for the best half bushel of wheat in the milling test—the entries to be open to the world. The gasoline engine of the outfit may be used for any purpose for which power is needed about the farm and then run the dynamo at night, making ample light for house and barns.

An automobile worth \$600 has been offered by the Brush Automobile Company, of Detroit, Mich., for the best bushel of corn on the ear and the entries for this are also to be open to the world.

Premium lists of the National Corn Exposition will be out within a short

time showing just what the exhibitors are going to get for their effort. The list embraces \$50,000 worth of premiums offered for all kinds of grain and grass exhibits to individuals, colleges, lodges, church societies, corn clubs, and neighborhood clubs. The implement dealers, manufacturers of farm machinery, gasoline engines, automobiles, and pianos, breeders of fine stock, bankers, and business men of twenty States have made the list possible by their interest in the big show. Most of the premiums offered are modern farm equipments or articles like pianos, steel ranges, and furniture for the farm home, lodge, or club rooms. Copies of the list may be secured by writing the National Corn Exposition, Omaha.

Alfalfa scored another victory the last week according to Omaha papers. Joe Lommers, of Stanton, Neb., shipped four carloads of fat cattle to the Omaha market and received \$8.10 per hundred for them and they averaged 1,572 pounds. Mr. Lommers bought them the middle of last November for \$4.60 per hundred when they weighed 1,110 pounds each. He placed them on a balanced ration of corn and alfalfa and put 462 pounds on each animal. The price of \$8.10 per hundred was paid by Swift & Co., and was the highest price paid for a carload of cattle at a Missouri River market since 1902.

To show those interested in agriculture and cattle feeding the results of feeding alfalfa with corn and why the balanced ration is the best for giving cattle such a finish as will bring top prices, the National Corn Exposition to be held at Omaha December 9 to 19 has prepared to build a regular alfalfa palace. In this strange house of grass, which will be beautiful as well as practical, may be seen everything from the best machinery for handling the wonderful grass to the alfalfa-meals being manufactured for feeding dairy cows. Illustrated lectures on alfalfa growing will also be a feature of the great agricultural fair.

Indiana, which gave the world a chase for the big money at the first corn show held in Chicago, seems determined to win place at the National Corn Exposition. The Indiana grain dealers are so confident of success that they are coming to Omaha with the corn growers on a special train, while many Indiana business men have offered special premiums for those who bring trophies back to the Hoosier State.

SHAWNEE HORTICULTURISTS.

On Thursday, July 2, the regular monthly meeting of the Shawnee County Horticultural Society, which was to have been held at Garfield Park was broken up by the incessant rains; a dozen or so, however, met in the rooms of the State Horticultural Society at the State House and listened to a most instructive paper by Dr. C. F. Menninger on the "Food Value of Fruits."

The Doctor showed that fruits had in themselves an intrinsic value as food in addition to their being a desirable food accessory. He showed the processes by which food is transformed into energy and heat, and assists in the building up of the living frame and in the repair of waste. In the chemical changes that take place within the body the latent energy contained in the food becomes active; potential energy is changed into kinetic energy. The amount of energy developed within the body exactly balances the amount of energy contained in the food taken into the body.

The eating of peaches, if done for hygienic purposes only, falls short of the best reason for eating them. Three pounds of peaches, for instance, contain as much energy as one pound of hens' eggs, 1½ pounds of potatoes, or five pounds of watermelon. Four pounds of white bread; four pounds of white bread; four pounds of grapes are equal to one pound of round steak or one pound of spring chicken. Nuts have a much greater quantity of energy stored within than almost any other food. The lecturer recommended fruit-growers to breed

up their fruits by judicious selection until they shall contain double the quantity of proteid and a much smaller percentage of water.

Edwin Taylor, president of the State Horticultural Society, who was present, questioned the wisdom of such a proceeding; and said he ate an apple now for its juice and pleasant flavor; and wanted to know whether breeding an apple up to the point recommended by the lecturer would not make it taste "wooly" and destroy its desirability. Others discussed the paper more favorably and all voted the meeting a success, even if the rain did greatly reduce the attendance.

The next meeting will be at Berryton, August 6, and will be a picnic meeting with the Berryton Grange at their annual picnic. Papers will be read by H. H. Wallace and W. H. Barnes on "The Grange," and "Cold Storage."

CORN AND CASH.

The prices at which corn is now selling place this staple product of the farm very close to the line of luxuries to be used sparingly or not at all according to the condition of the bank account of the user. Persons who deal largely in corn and therefore watch carefully for information likely to affect the price, have compiled the following table, which exhibits the estimated yield of corn for 1908, as indicated by the July report of the Department of Agriculture, in what are known as the corn surplus States, compared with the yield in the past two years:

	1908.	1907.	1906.
Ohio	118,000,000	118,000,000	142,000,000
Indiana	147,000,000	169,000,000	184,000,000
Illinois	291,000,000	343,000,000	347,000,000
Missouri	207,000,000	241,000,000	223,000,000
Kansas	190,000,000	155,000,000	195,000,000
Iowa	301,000,000	270,000,000	373,000,000
Nebraska	249,000,000	179,000,000	250,000,000
Total	1,508,000,000	1,475,000,000	1,720,000,000

It will be seen that this estimate places the probable crop of 1908 in the surplus States at only 28,000,000 bushels above the short crop of last year, while the expectation is for a yield far below that of 1906.

To those who produce and to those who must buy corn, these figures point to a continuance of high prices. To the farmer who has corn growing which would be benefited by immediate cultivation, these figures suggest that at this season of the year when his best judgment is required to determine what to do and what to leave undone he can afford to resolve doubts in favor of the late corn which may yet be benefitted by cultivation.

Another suggestion is for the planting or sowing of such catch crops as may be substituted for some of the corn usually fed on the farm.

Corn and cash are likely to be very nearly synonymous terms for a good while.

A CITY ASKS ADVICE.

EDITOR KANSAS FARMER:—From the fact that the drainage ditch along a railroad is not deep enough at some places, land above the obstruction is not properly drained, water remaining on it and in the drainage ditch until it is dried up by the sun.

The above is the condition through our town. Is there any authority vested in the city council to compel the railroad company to make the necessary ditches to properly drain the adjoining land and let the water out of the ditch?

A MEMBER OF THE CITY COUNCIL.

McPherson County.
Since your city has, or should have, a duly appointed legal adviser in the person of its city attorney, it seems scarcely proper for the editor of THE KANSAS FARMER to presume that he is not able and willing to examine this question fully and advise wisely as to the legal rights of the city in a matter of this kind.

It may be suggested, however, that a course more likely than legal proceedings to produce the desired result will be the appointment of a committee from the city council to present the matter to the general manager of the railroad through the local agent. A clear statement of the case accompanied by a request that the proper remedy be applied will almost certain-

ly result in a visit from a member of the railroad's engineering force and the issuance of orders that will bring about an abatement of the cause of complaint.

Miscellany

Hessian Fly.

J. T. HEADLEE, ENTOMOLOGIST, KANSAS EXPERIMENT STATION, IN PRESS BULLETIN NO. 163.

During the past year Kansas wheat has suffered great damage from Hessian fly. Some estimates place the total loss at slightly more than 10 per cent of the estimated crop, as based upon the acreage sown. The attack has been more severe in Central and Southern Kansas, but, with the exception of the extreme north and the extreme west, the fly has attracted attention throughout the wheat belt.

When we realize that the habits of this insect are such that the use of proper cultural methods at the right time will largely prevent it from causing noticeable damage, it is plain that information of this sort should be in the hands of every man who has recently suffered from its ravages.

HABITS AND LIFE HISTORY.

Where the Fly Is Now.—Just now the flies may be found as small, brown, long-oval, seed-like objects about one-fifth of an inch long, lying between the sheath and the straw just above the joint, where the straw breaks over, or they may be found packed in with many of their fellows about wheat heads which never emerged from their sheaths.

Indications of Its Work.—At this time perhaps the most characteristic evidence of fly appears in the broken-down wheat straws. These stalks are usually broken rather close to the ground.

What It Will Do This Summer, Fall, and Winter.—With a few exceptions the fly will remain as a quiet, brown flaxseed until next September and October, then the long-legged gnat-like adults will emerge and lay their long-oval reddish eggs lengthwise in the grooves on the upper sides of the volunteer or early-sown wheat plants. These eggs, which are just large enough to be seen with the unaided eye, soon give forth tiny reddish larvae that wriggle down inside the leaf-sheath until they reach the joint. Here they rasp the tissues of the stem, feed, and grow.

It is usually the central stalk that is worst infested, while the tillers,

many of which grow up after the flies have deposited their eggs, will be almost or entirely free. The maggots soon lose their reddish color and turn white, the majority reaching maturity and transforming into brown flaxseeds before cold weather. Thus they pass the winter, safely tucked in between the sheath and the main stem just above the joint, and usually below the surface of the ground.

Indication of Fall Work.—In the late fall the presence of the fly is indicated by the form of the plant. The stalk infested with maggots has no strong central shoot, but appears leafy and bushy. The first effect of the fly is to make the wheat tiller freely, covering the ground and giving the field a deep green color, thereby deceiving the inexperienced into thinking the prospects for wheat unusually fine. Later, if enough flies be present, the deep green will be exchanged for a sickly yellow appearance, and it is then evident to every one that something is wrong.

What It Will Do Next Spring and Summer.—With the coming of spring the long-legged, gnat-like flies will crawl out of the flaxseeds and fly about over the wheat, depositing eggs on the blades. (In the spring of 1908 the flies came forth in March and collected in some wheat fields in sufficient numbers to redden the soil.) From the eggs laid at this time will come the maggots that feed on the wheat, weakening the stems and causing them to break and fall over before harvest. Some of these maggots will reach maturity and transform into flaxseeds, from which will come adult flies in May. These flies will deposit eggs on the blades of the most immature stalks and the larvae develop about the heads, so sapping them that they may never emerge from their sheaths. It is probable that the bulk of damage to the wheat crop is effected by the work of the fall and early spring broods, and that those flies emerging in May do little real damage to the crop, because they appear to confine their attacks to young plants that spring up from the base of older stalks. This habit does, however, increase the numbers of the destructive fall brood.

NATURAL ENEMIES.

Certain tiny wasp-like insects prey on the Hessian fly, and when these are present in large numbers the fly disappears as an injurious insect. Not enough study has been given to these parasites to enable any one to say under just what conditions they thrive and do their work. They were present and working on the fly during this spring and early summer, at least in the eastern edge of the wheat belt, but the farmer can not afford to sit back and wait for them to destroy the pest. He must take hold of the matter himself.

METHODS OF COMBATING THE FLY.

Destruction of Flaxseeds in Stubble.—The Hessian fly is now in the flaxseed stage, resting in the stubble just above the joints between the sheath and the stem. The flaxseeds may be found just above any of the joints, appearing from the surface of the ground upward. They can easily be destroyed by burning the stubble over or by disking it just after harvest and plowing it so deeply two to four weeks later that none of the straws or volunteer wheat plant shall be left sticking out to form passageways for the flies when they emerge from the flaxseeds.

The latter method has the advantage of increasing the amount of humus.

Destruction of Volunteer Wheat.—All volunteer wheat should be plowed under deeply before the regular crop is sown, so the flies infesting it will be destroyed and not left to attack the main crop.

Trap Crop.—Inasmuch as it has been found that the flies can wait for some time in order to secure a desirable place in which to deposit their eggs, it is often desirable and worth while to sow early a strip of wheat about or across the prospective wheat field, and, before the main crop is sown, to plow this fly-infested wheat

(Continued on page 778)



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Agriculture

Breeding, Multiplying, and Disseminating Improved Seed Grain by the Experiment Station.

Delivered by Prof. A. M. TenEyck before the American Society of Agronomy in annual session, July 10 and 11, at Ithaca, N. Y.

I do not propose in this paper to discuss methods of plant breeding; rather my purpose is to emphasize the importance of using the experiment stations as breeders and distributors of improved and well-bred seed of the several standard crops, and I hope to encourage the extension and enlargement of such work by our experiment stations. The breeding of crops is a part of our agriculture which, until recent years, has been largely neglected. Ten years ago very few experiment stations were doing any work in plant breeding; to-day the breeding of crops is the most popular work in agronomy line, and almost every experiment station is beginning or carrying on some work of this kind and several are not only breeding breeding crops but are producing and distributing among the farmers considerable quantities of seed of the improved varieties.

In order to learn the present condition of the seed-breeding and seed-distributing work which is being undertaken at the several State experiment stations, I have addressed a letter of inquiry on the subject to the agronomist of each of the stations.

STATES CARRYING ON SEED-BREEDING AND SEED-DISTRIBUTING WORK.

Replies have been received from thirty-four States. Of these, only four are carrying on seed-breeding and seed-distribution to any considerable extent. These States are Minnesota, North Dakota, Wisconsin, and Kansas. The following States are doing some work in seed distribution: Indiana, Tennessee, South Dakota, Colorado, Louisiana, Maryland, Washington, Nebraska, and Kentucky. The following ten States are carrying on some plant-breeding work, and have distributed some improved seed, usually in small quantities and intend to undertake more extensive work in this way: Texas, Virginia, Pennsylvania, New York, Ohio, Michigan, South Carolina, Oklahoma, Utah, Arkansas, and New Hampshire. The New Jersey Experiment Station is doing considerable work in distributing garden seeds in packets, having distributed some 2,500 packets during the past season, largely different varieties of sweet-corn and tomatoes.

THE MINNESOTA EXPERIMENT STATION'S GOOD SEEDS.

The Minnesota Experiment Station has distributed more good seed of the standard crops than any other experiment station. This work was begun by Prof. W. M. Hays in the early 90's and has been continued to this date. Regarding the work and its progress, Prof. Andrew Boss writes: "We have disseminated among the farmers of Minnesota three varieties of wheat, two of oats, one of flax, two of barley, and one of corn. A few other varieties have been distributed in a smaller way. Our plan is to increase the seed on our own farm until we have from 500 to 1,000 bushels, and then distribute the seed where we think it is especially well adapted for growing. We usually sell the seed at about double the market price of grain, limiting the amount to each farmer to two to four bushels, and selling only to those who will give the seed good care and plant it on land which is free from weeds. We list the names of these farmers, and are thus able to keep in close touch with them in their seed-growing business. If they grow a good quality of grain and it is free from weeds we refer inquiries from that immediate locality to them when seed is wanted again. By circular letter once or twice a year we can easily keep informed of the amount, kind, and quality of seed of any improved variety in the State which can be used for seed. We have distributed, on this basis since 1897 or 1898 with increased

satisfaction each year. We have distributed in the neighborhood of twelve to fifteen carloads of good seed-grains in the manner described. Our object in selling in small quantities is to insure its universal distribution throughout the State."

NORTH DAKOTA STATION WORK SIMILAR TO MINNESOTA.

For many years the seed breeding and distribution of the North Dakota Station has been similar to that of the Minnesota Station. A full report of the distribution work of the North Dakota Station is published in Bulletin Number 79. Altogether 2,462 bushels of seed of several standard crops have been distributed among 945 different farmers.

THE DISTRIBUTION THROUGH THE WISCONSIN EXPERIMENT ASSOCIATION.

In Wisconsin the distribution of improved seed is largely carried on through the Wisconsin Experiment Association, consisting of a membership of nearly 1,500, all former students of the college. Quoting from Prof. R. A. Moore; "These young farmers have become the seed-grain growers of our State, and grow this selected grain extensively for further dissemination. When parties write to us for good seed-grain we are able to refer them to one of the members of our Experiment Association who are growing this selected grain in their immediate locality. Our results are exceedingly gratifying. * * * * * The seedsmen are pushing the seed-grain grown by members of the Experiment Association. Last year one seed company paid the members of the association \$20,000 for improved seed-grains within a month. Among the improved seed-grains which have been distributed in Wisconsin are the Orderbrucker barley, especially noted as a good brewing barley, and Wisconsin No. 7 corn."

COLORADO STATION THE FIRST TO DISTRIBUTE IMPROVED SEED-GRAIN

The Colorado Experiment Station was one of the first to distribute improved seed-grain. The work was begun by Prof. A. E. Blount in the early 80's. The Defiance wheat was one of the first improved varieties distributed, and nearly eighty per cent of the wheat-growing area of the State is now annually planted with the Defiance wheat, which the millers declare to be the best spring wheat for milling purposes which has ever been brought into the State. Prof. W. H. Olin, agronomist of the experiment station is now improving this variety by selection and breeding and has already distributed some of the improved seed. Colorado No. 37 oats is an improved variety which is also being distributed. The seed distribution work of the Colorado Station has not been extensive during recent years, but is now being revived under the efficient management of Professor Olin.

WHEAT THE LEADING CROP AT WASHINGTON STATION

The Washington Experiment Station has distributed in large quantities only one standard crop, namely; wheat, which is the leading crop of that State. Prof. Geo. Severance, writes: "We make a practise to distribute seed of new varieties, after two years tests, on a large scale, furnishing usually not to exceed ten bushels to one farmer. We furnish this wheat at \$1.00 per bushel, which is a little more than the regular market price. The station is now taking up the development of corn and has distributed free, during the past season, 280 peck samples. The growing of peas, other legumes and several varieties of grasses is also being encouraged in the same manner.

DISTRIBUTION OF VARIOUS IMPROVED VARIETIES

The South Dakota Experiment Station is distributing seed of some of the best-producing varieties as shown by the variety tests, usually in small quantities. Formerly the Kentucky Experiment Station made a business of distributing improved seeds of various crops, but for some reason the work has been, in part, discontinued, the only seed which is being distributed at all at present being tobacco

seed of certain types which have given the best results at the experiment station.

The Louisiana Experiment Station has widely distributed the seed of the improved sorghum number D 74. The distribution of the seed of this cane was begun about ten years ago. Prof. R. W. Dodson estimates that fully one-half the cane, crop of the State this year will be from this seedling variety. That station has also distributed improved seed of different varieties of cotton in a small way.

The Tennessee Experiment Station has made a practise for some time to distribute good seed of the standard crops among the farmers of the State, largely for trial, but never on an extensive scale. Prof. C. A. Mooers, writes: "Seed of the following crops has been distributed: soy-beans, oats, barley, corn, sorghum, wheat, and rape. In a majority of instances we have distributed small lots of the most promising varieties, but with wheat and a few others we are distributing selections made at the station. The results are encouraging, but I have no special data on the subject."

COOPERATIVE TESTING AND EXPERIMENT.

The seed distribution work of the Indiana Experiment Station is largely in small quantities for the purpose of cooperative testing and experiment. Prof. A. T. Winanko, writes: "We usually distribute the product of six or eight acres each year. We have not sufficient ground available for the production of seed in large quantity, although I believe that it would be an excellent plan to be able to produce enough of leading varieties of the various field crops to furnish from one to five bushels to farmers at cost. We get many letters from farmers for seeds, but often they do not care to bother with the small amount we are able to furnish."

IMPROVED VARIETIES OF CORN.

The Maryland Station distributed some seed of improved varieties of corn in the early history of the station. Director H. J. Patterson, writes: "The results of this distribution work have materially changed the varieties grown in many parts of the State. Currell's Prolific wheat is now largely grown on the eastern shore as a result of the early seed distribution from this station. * * * * * This station is again beginning to distribute improved seeds and a considerable quantity of seed-corn, improved by breeding and selection, was distributed last season."

THE WORK OF THE AGRONOMY DEPARTMENT AT THE KANSAS STATION.

During the past three years the Agronomy Department of the Kansas Station has distributed nearly 3,000 bushels of good seed of the best-producing varieties of winter wheat, 1,500 bushels of well-bred seed corn, 800 bushels of seed oats, 550 bushels of barley, and smaller quantities of emmer, rye, flax, millet, cow-peas, soy-beans, Kafir-corn, and sorghum or a total of about 6,500 bushels. Our seed grain is sold by order to anyone who pays the price and is distributed in relatively small quantities—not more than twenty bushels of wheat or five bushels of corn to a single purchaser. This method allows for a wide though not a very uniform distribution. We advertise through correspondence, by circular letters and through the farm papers, mainly by publishing replies to inquiries. We keep a record of each sale and record the address of each purchaser and usually ask for reports from them every season, sending out a list of questions for each grower to answer.

Some twenty questions are asked in the blank forms which are sent to the several growers. These questions are usually not very fully answered, yet on the whole, some valuable data is being secured in this way regarding the adaption and productiveness of the several different varieties in different sections of the State. One of the main purposes of the report, however, is to learn the purity and quality of the seed and what quantity of seed-grain the party has for sale.

Quoting from a letter just recently received, Mr. Wm. McLeod of Marysville, Kans., says: "I am certainly

"OHIO" ENSILAGE CUTTER

There are ensilage cutters that look as well as the "OHIO." But don't judge by appearances. You want the work of cutting and filling the silo to go right along when the corn is just right. "Ohio" Blower Ensilage Cutter gives you assurance that everything will go right.

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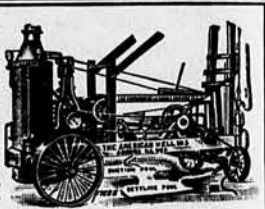
A dozen features, little and big make up the "Ohio" superiority. Isn't it worth something to know that you can cut as fast as you can possibly get your corn up! That you can blow it into the highest silo! That you can distribute it and pack the silo with no inside labor! That the machine feeds itself perfectly! That there will be no skips or breaks of delays after you get started! Write for fine-page catalog and let us show you why "Ohio" Blower Cutters are the machines to buy.



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NEW PROCESS MFG. CO., SALINA, KANS.

pleased to note the interest that you take in those who have purchased seed from you. It has certainly paid me to patronize your college. * * * * I bought five bushels of your Kharkof wheat in September, 1906, and sowed it on about five acres of upland well plowed and harrowed. The Kharkof wheat was sown through the middle of a one-hundred acre field so that I might learn whether there was anything in the choice of seed of variety. * * * * I thrashed 247 bushels of Kharkof wheat from the five bushels which was sown on about five acres, and the grain tested 65 pounds per bushel at the elevator. My other wheat averaged about 30 bushels per acre on the same land and with the same care. I planted all Kharkof wheat last fall and will have some 2,000 bushels of good seed wheat for sale. I have been careful not to get it mixed with other wheat or other grain and am satisfied that it is pure."

It is true that not all of the replies are favorable but the unfavorable results may be usually traced to carelessness in handling or to unfavorable conditions of soil or season.

These replies are listed and the list is sent to other farmers who inquire for improved seed-grain. We have in the last few weeks listed some twenty farmers who grew Kharkof wheat last season and who will offer for sale some 20,000 bushels of this variety for fall seeding.

Up to this time the seed distributed by the department has been simply well selected and well graded seed of some of the best standard varieties or new importations which have been tested and proved superior to the common varieties generally grown. In the judgment of the writer the distribution of such seed has been of immense value to the State. There is a vast difference, as every agronomist knows, in the productiveness and hardiness of different varieties of the same crop, and it is true of nearly all crops grown on the farm that they are all badly mixed. Take wheat for example: Kansas is one of the great wheat-producing States and yet I find in traveling over the State and observing samples of grain exhibited and delivered at the elevators that we have no pure-bred wheat; it is all mixed. There is some well bred wheat, especially since the station began to distribute seed wheat of Kharkof and other well-bred varieties and some farmers are doing good work in grading their seed wheat and keeping their wheat as pure as possible, but there is no pure-bred seed to start with. The station is producing pure-bred varieties by breeding by the "head-row" method, but even the best varieties with which we start are usually badly mixed. While varieties of wheat may vary greatly in yield and quality of grain produced, the product from planting the grain of selected heads of a single variety in separate rows may show even greater variations than the average crop from different varieties. With nearly all of our standard crops, the first step towards improvement is to secure a pure-bred strain of variety.

VARIETY TESTING.

The first step toward distributing improved seed of any crop is variety testing. That the varieties of domesticated plants under cultivation vary in productiveness, quality, and hardiness when grown in different soils and climates, is a fact well authenticated but not fully understood. Prof. C. A. Zavitz of Ontario Agricultural College says on this point: "I am convinced that the proper selection of varieties of cereals is of great importance not only from the farmer's standpoint, but also as the basis of work for the improvement of cereals by plant breeding." Further he discusses his observations in the handling of more than 2,000 varieties of farm crops during a period of five years. He finds that some varieties are adapted to rich, loamy soils, others to heavy, clay lands, and others to soils of a light character. Varieties differ remarkably in yield when grown under exactly the same conditions. Siberian and Black Tartarian varieties of oats, as an average for sixteen years, gave a

difference in yield of sixteen bushels per acre per annum. Two strains of Six-rowed barley, Mandscheuri and Mansury varied in yield for the same

*Vol. 11 A. B. A., page 119. period, eleven bushels per acre per annum. Great differences were observed to exist between different varieties of grain crops in length of straw, strength of straw, susceptibility to rust and in quality of grain as well as in yield.

With some fifty varieties of winter wheat tested at the Kansas Station during the past four seasons, partly standard varieties, planted and grown in the State and partly new importations, supposed to be of superior quality, the yields have ranged as follows:

	Bus. per. Acre.
1904.	19 to 37
1905.	31 to 47
1906.	39 to 51
1907.	29 to 48

There was even greater difference in the grade and quality of the grain. A few varieties, as Kharkof, Malakoff, Red Turkey, and Fultz yielded uniformly high each season.

TRIALS WITH OATS.

In our trials with oats three varieties out of some thirty tested, have given decidedly the higher yield. These are Sixty-Day, Kherson, and Red Texas. Out of some eighty varieties of corn tested during the last four years, ten of twelve may be selected which are decidedly above the average in yield and quality of product. There is no question but that there is a great difference in varieties in their adaption to different soils and climates and it should be the purpose of the State experiment stations, with the help of the farmers and the sub-stations, to determine which are best-producing varieties for the State and for different sections of the State.

Almost every experiment station has some data along this line proving the difference in value of varieties for growing in a particular soil and climate. A large amount of this work of variety testing has been done in several States, but usually with very little results. I found on studying up this question two years ago that while some States had tested a great number of varieties of standard crops through a long period of years and had finally made a report showing that certain varieties were the best producers, that at that time these best-producing varieties were not even grown in the State, and the station was then testing an almost new lot of varieties. The tests had been made and the seed simply thrown away. Such work has very little value. To know that a certain variety is better than another does not help the farmer unless he can get the seed of that variety and grow it. The farmers want some of the seed of that best-producing type of corn, wheat, or oats, and it has been my plan at the Kansas Station, not only to test varieties but as soon as I am satisfied that some varieties are better than others the seed is planted in increase plots, multiplied in quantity and distributed to the farmers of Kansas at a nominal price. There is no question but that as we get these varieties separated, and as we get them pure in type, we have something better than the average, something far better than the farmers of the State are growing. This is not only shown by our own tests at the Experiment Station Farm but the reports from growers of our Kharkof wheat, Kherson oats, Kansas Sunflower corn, pure-bred White Kafir and other crops, indicate that these pure and better bred varieties are far superior to the average crops in productiveness as well as in quality and purity of grain produced.

SELECTION AND BREEDING.

Three principal factors largely determine the value of a variety of any cultivated crop, namely; yield, quality, and adaption, and the last named is really the deciding factor which determines whether a variety may be successfully grown in any locality. It is a waste of time and money to breed or improve varieties not well adapted to the soil or climate.

We find a demonstration of this principle in the fact that wheat and

(Continued on page 780)

The "LITTLE GIANT" Wagon Dump and Grain Elevator



Save 75 per cent of Your Time and all the hard work by letting the horses unload your corn. This picture shows you the model unloading outfit, the only one that has proved satisfactory in every way. Three to five minutes are enough to unload the largest load you can haul, putting it just where you want it; in the crib or bin by means of shifting conveyors or stationary drags.

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Portable Elevator Mfg. Co.

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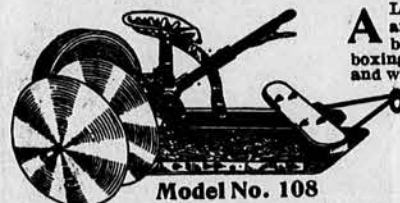
Bloomington

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"LITTLE GIANTS" for unloading ear corn and all small grains.

Pioneer un-loader. The only one that's perfect working.

"ANY FARMER CAN REPAIR ME"



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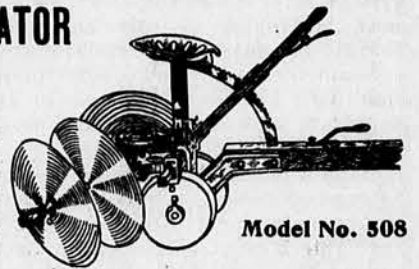
A LEADING feature of the Sled here shown is its simplicity and ease with which repairs may be made. The discs are bolted to a steel shaft which is rotatably mounted in wood boxings. These boxings are cut from the best selected oak stock and will wear under ordinary usage from two to four years, and when worn out can be replaced in an hour's time by any farmer. The wood boxings have proven a popular feature of the sled. Without doubt the

WILSHUSEN WILL - SUZEN DISC SLED

is easily the leader among the many disc sleds now on the market. As a corn tool it is unexcelled. The discs can be reversed to throw the dirt outward in going over small corn. As a "middle buster" or ridge worker, in preparing wheat ground, it has no equal and is a great favorite among the wheat raisers. It is a substantially made of the best material. Wood runners, heavily soled and sided with steel. The discs are 18-inch and 20-inch and are interchangeable. Our new Adjustable Disc Arm provides more adjustments than are found on any other sled. The adjustments are extremely simple and are positive—no slipping. The discs can be set at any desired pitch or angle, and can be adjusted to any width or depth of ditch. More than 10,000 of these sleds are now in use in Kansas, Oklahoma, Missouri and Nebraska. Ten thousand satisfied customers constitute a strong recommendation for the machine.

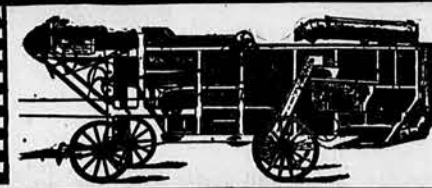
THE WILSHUSEN WHEEL CULTIVATOR

Is something new in the line of farm tools, yet it has attained a wonderful popularity in the short time it has been on the market. Like the sled, this is a combined corn cultivator and ridge worker, and its simplicity of construction, many adjustments and lightness of draft make it a marvel among farming implements. It has the same working equipment as the sled and performs the same functions, but is much lighter draft and can be used on larger corn. It is strong and durable made and will stand many years' wear. Both the sled and the wheeler are made also in double row. Two single row machines are combined by means of an attachment, and are readily interchangeable. All machines guaranteed. Send for prices and give name of your dealer. Address



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We manufacture the machine shown in the cut; it threshes, separates, hulls, and cleans ALL the seed for market. No other machine will do it. You should write us and get our Alfalfa Booklet FREE. It will give you valuable information. Mention this paper.

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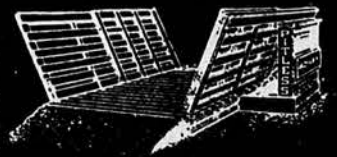
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NEW CASTLE, IND. — KANSAS CITY, MO., Station A.



Hessian Fly.

(Continued from page 775.)

under deeply, thus not only inducing the flies to lay their eggs but destroying their progeny.

Late Sowing.—By far the most important measure is to be found in the practise of sowing the wheat only after the bulk of the flies have deposited their eggs. This time, however, varies with the nature of the season from year to year, and can be determined only by experiment. Experimental sowings during the past year have shown that wheat sown after October 15 in Southern Kansas, that sown after the first week in October in Central Kansas, and that sown after September 30 in Northern Kansas has been almost entirely free from infestation.

Useful General Practise.—Where the succeeding field of wheat can be sown some distance from that of the previous year, the fewer of insects will be able to reach the grain to deposit eggs. It is obvious that any method that makes a stronger, healthier plant will mature a better crop in spite of the fly than would be possible where plants equally infested are neglected. Therefore, the choice of good seed, enriching the soil, and careful preparation of the seed-bed are important measures in reducing the damage due to Hessian fly.

Manhattan, July 7, 1908.

Plans for Schoolhouses.

EDITOR KANSAS FARMER:—As our school district intends to build a new schoolhouse this summer, will you please give us, through our paper, architectural designs for building, heating, and ventilating and an up-to-date district schoolhouse which will seat fifty pupils and so designed that the teacher can do the janitor work.

Does the law require the district board to insure bonds for all the money voted at the bond election? Or can the district vote an excess and then the board issue bonds for just the amount needed? Has the board a right to purchase blackboard, furniture, and pictures with money derived from the sale of bonds?

Cowley County. W. C. MEAD.

This inquiry was referred to the State Superintendent, who replied as follows:

"We are now engaged in the preparation of a booklet on schoolhouses and grounds, ventilation and heating. In this we hope to illustrate the best type of rural school buildings, such as may be found in this and other States; we shall also include certain recommendations and descriptions that will, I trust, be of use to any boards of education who may desire to erect new school buildings.

"It is a matter of regret to me that we are not ready to publish at once. However, we hope within a month to have this booklet available for distribution.

E. T. FAIRCHILD,
"State Supt. Public Instruction."

Hubert Heath Leaves the Kansas Farmer.

In the last issue of THE KANSAS FARMER announcement was made of the retirement of H. A. Heath from active connection with that publication. For almost twenty-seven years Mr. Heath has been recognized among live-stock breeders in Kansas as the head and shoulders of THE KANSAS FARMER. This is not saying a word against any other member of THE KANSAS FARMER force, but Mr. Heath has been and is more generally known among the live-stock men of the West than the others. Probably there is not one among them all that would have otherwise than good words for Hubert Heath. His work as fieldman and as business manager of the paper has been of material aid in the upbuilding of the improved stock business in the State. Much of the success of the Kansas Improved Stock Breeders' Association is due to his efforts. Mr. Heath retires on account of other business that requires more attention than he could give it and retain his active connection with the paper. He does retain, however, a considerable financial interest in THE KANSAS

FARMER. We certainly wish for him the greatest success in any other line of business with which he may connect himself.—Breeder's Special.

"Farm Day" at Chautauqua.

The Topeka Chautauqua will hold its second Annual Assembly at Vine-wood Park, July 21-30. The success of the session of 1907 has demonstrated that Topeka is a Chautauqua center and this year gives every promise of being superior in attractions offered and in the interest taken by Topeka and vicinity in this great educational movement.

Wednesday, July 22, is set apart as "Farm Day." M. L. Bowman of the State Agricultural College of Iowa will give an address on "Corn."

This will be followed by several ten-minute talks on farm topics by farmers from different parts of the county. The Industrial Institute will furnish a display of farm products under the direction of Bradford Miller. A picnic dinner will give opportunity for a social time.

The Midland Jubilee Singers, with their old plantation and Southern melodies, will be an interesting feature of the afternoon program.

If you cannot take ten days off and "camp out" at the Chautauqua then come with your family and lunch-basket for Farm Day.

OFFICIAL PROGRAM.

Tuesday, July 21.

Children's Hour at 10.30 a. m. each day at the Missionary Headquarters.
2.30 p. m.—Royal Hungarian Orchestra.
3.00 p. m.—Senator J. P. Dollivar.
7.45 p. m.—Marshall's Band.
8.30 p. m.—Grand Concert, Royal Hungarian Orchestra.

Wednesday, July 22.—Farm Day.

8.30 a. m.—Morning Vespers, in charge of Y. W. C. A.

FARMERS!

We want good Farm Loans. Write us for rates. Prompt service. No red tape. We loan our own money.

THE PRUDENTIAL TRUST CO., Topeka, Kans.

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4.00 p. m.—Domestic science, Mrs. Julia A. Wiley. "Bread and Baking Powder Biscuit." Council Tent.
5.00 p. m.—Conference hour at Missionary Headquarters.
7.45 p. m.—Marshall's Band.
8.30 p. m.—Concert and moving pictures.

Friday, July 24.

8.30 a. m.—Morning Vespers, Y. W. C. A.
9.00 a. m.—The Gospel of John, Rev. F. L. Hayes, D. D. "The Problem of Entrance to the Kingdom." (Chapter 3).
9.45 a. m.—The Mohammedan World, Mrs. J. P. White. "Social and Moral Evils of Islam."
10.30 a. m.—Travel Talks, Mrs. Jessie MacKenzie Walker. "Europeans as I Met Them."
11.30 a. m.—Kansas History, Mrs. Margaret Hill McCarter. "Nature's Masonry."
2.30 p. m.—Prelude by Moving Picture Company.
3.00 p. m.—Senator Charles Curtis. "The Philippines."
4.00 p. m.—Domestic science, Mrs. Julia A. Wiley. "Pattie Shells, Timbales and Croquettes." Council Tent.
5.00 p. m.—Conference hour, Missionary Headquarters.
7.45 p. m.—Marshall's Band.
8.30 p. m.—Gold Medal Contest, under the auspices of the W. C. T. U. Mandolin Club will furnish music.

Saturday, July 25.

8.30 a. m.—Morning Vespers, Y. W. C. A.
9.00 a. m.—The Gospel of John, Rev. F. L. Hayes, D. D. "The Meat and Drink of the Kingdom." (Chapters 4 to 7).
9.45 a. m.—The Mohammedan World, Mrs. J.

2.30 p. m.—La-Dell-Fox Concert Company.
3.00 p. m.—Hon. J. G. Camp. "Daughters of Eve."

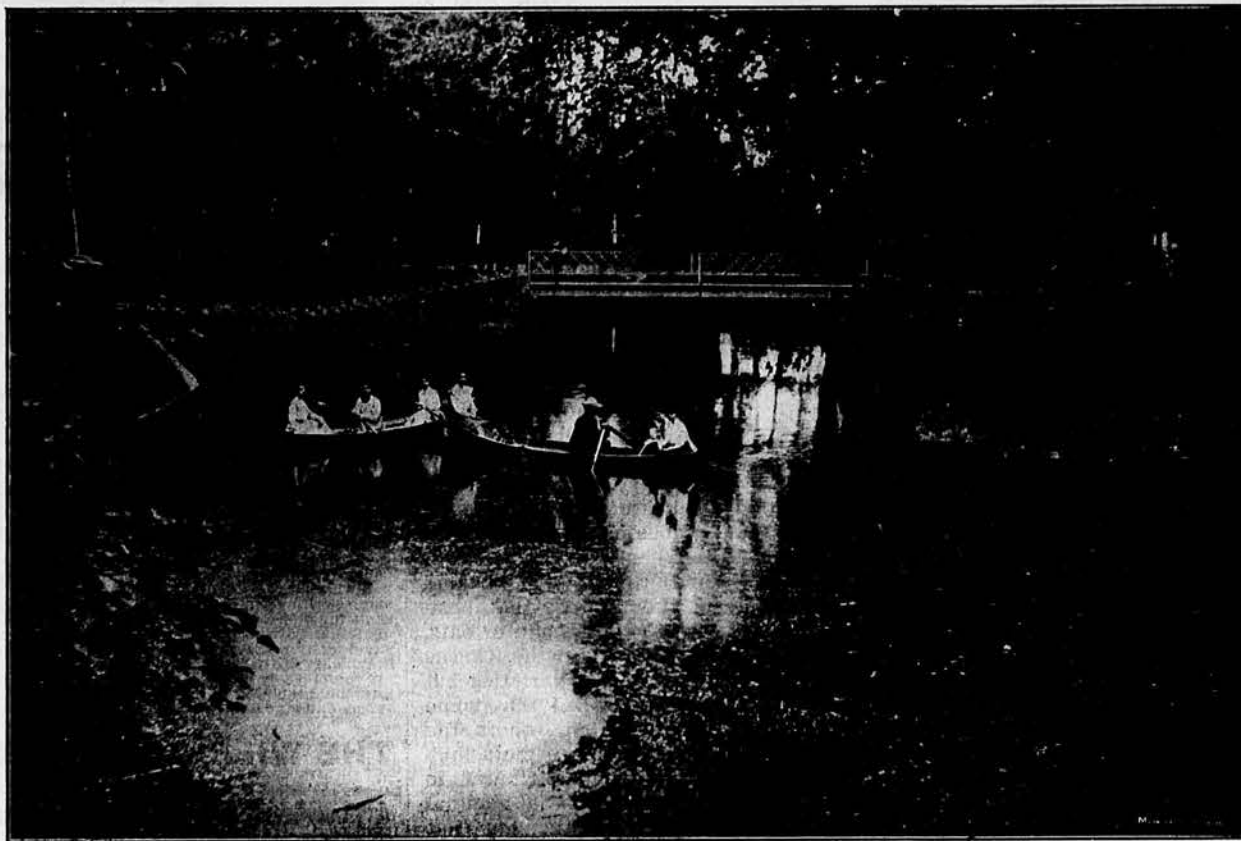
4.00 p. m.—Domestic science, Mrs. Julia A. Wiley. "Pastry, Pies Especially." (Including gelatines and other Preserves.) Council Tent.
5.00 p. m.—Conference hour at Missionary Headquarters.
7.45 p. m.—Marshall's Band. La-Dell-Fox Concert Company, grand concert.

Tuesday, July 28.—Temperance Day.

8.30 a. m.—Morning Vespers, Y. W. C. A.
9.00 a. m.—The Gospel of John, Rev. F. L. Hayes, D. D. "The Liberty and Peace of the Kingdom." (Chapters 8, 10, and 14).
9.45 a. m.—The Mohammedan World, Mrs. J. P. White. "Missionary Problems and Opportunities Among Mohammedans."
10.30 a. m.—United States History, Frank F. Stephens, Ph.D. "Andrew Jackson and the Supremacy of the West."
11.15 a. m.—Kansas History, Mrs. Margaret Hill McCarter. "Wilderness Trails."
2.30 p. m.—Smith & Gorton.
3.00 p. m.—Rev. Sam Small. "Personal Liberty."
4.00 p. m.—Domestic science, Mrs. Julia A. Wiley. "Thanksgiving Dinner." (Including poultry and oysters.) Council Tent.
5.00 p. m.—Reception at Temperance Headquarters by the W. C. T. U. ladies.
7.45 p. m.—Marshall's Band.
8.30 p. m.—An Evening of Sand Pictures and Clay Modeling. Smith & Gorton.

Wednesday, July 29.—"Kansas Day."

In charge of Woman's Kansas Day Club.
8.45 a. m.—Devotional hour.



Boating on the Lagoon at Vinewood Park.

9.00 a. m.—The Gospel of John, Rev. F. L. Hayes, D. D. "The authenticity, authorship, and analysis of the book, with the contrast between John and the other three gospels."
10.00 a. m.—The Mohammedan World, Mrs. J. P. White. "Mohammed the Arabian Prophet."
10.45 a. m.—Travel Talks, Mrs. Jessie MacKenzie Walker. "A Pilgrimage to Stratford-on-Avon."
2.00 p. m.—Midland Jubilee Singers.
2.30 p. m.—M. L. Bowman. "Corn."
3.15 p. m.—Short talks on farm topics by practical farmers.
4.00 p. m.—Domestic science, Mrs. Julia A. Wiley. "Soups, Breads, Sticks, Etc." Council Tent.
7.45 p. m.—Marshall's Band.
8.15 p. m.—Midland Jubilee Singers.
8.25 p. m.—Everett Kemp. Impersonation of Holland's "Seven Oaks."
Display of Agricultural Products by the Industrial Institute, Topeka.

Thursday, July 23.

8.30 a. m.—Morning Vespers, Y. W. C. A.
9.00 a. m.—The Gospel of John, Rev. F. L. Hayes, D. D. "The Divine King." (Chapter I and 18:37).
10.00 a. m.—The Mohammedan World, Mrs. J. P. White. "What the Mohammedans believe and Practice."
10.45 a. m.—Travel Talks, Mrs. Jessie MacKenzie Walker. "Glimpses of Famous Continental Capitals."
2.30 p. m.—Prelude by Moving Picture Company.
3.30 p. m.—Father Joseph E. Nugent. "Philosophy of Civilization."

P. White. "The Mohammedan Woman."
10.30 a. m.—United States History, Frank F. Stephens, Ph.D. "Alexander Hamilton and the Tendency to Monarchy."
11.15 a. m.—Kansas History, Mrs. Margaret Hill McCarter. "Thumb-Prints of Spain and France."
2.30 p. m.—Imperial Entertainers.
3.30 p. m.—Denton C. Crowl. "Sam Jones' Fun, Philosophy and Facts."
4.00 p. m.—Domestic science, Mrs. Julia A. Wiley. "Salads." (Including salad dressing, fancy sandwiches and menu for picnic lunch.) Council Tent.
5.00 p. m.—Reception at Missionary Headquarters.
7.45 p. m.—Marshall's Band.
8.30 p. m.—Hon. G. A. Gearhart. "The Coming Man."
9.30 p. m.—Imperial Entertainers.

Sunday, July 26.

Services will be arranged for these on the ground and announced from platform and bulletin.

Monday, July 27.

8.30 a. m.—Morning Vespers, Y. W. C. A.
9.00 a. m.—The Gospel of John, Rev. F. L. Hayes, D. D. "The Power of the Kingdom." (Chapters 6 to 16).
9.45 a. m.—The Mohammedan World, Mrs. J. P. White. "Fruits of Missions to Mohammedans."
10.45 a. m.—United States History, Frank F. Stephens, Ph.D. "Thomas Jefferson and the Rule of the Democracy."

9.00 a. m.—The Gospel of John, Rev. F. L. Hayes, D. D. "The Judicial Processes of the Kingdom." (Chapters 12 and 16).
9.45 a. m.—The Mohammedan World, Mrs. J. P. White. "The Duty of the Church to the Mohammedan World."
10.30 a. m.—United States History, Frank F. Stephens, Ph.D. "The Triumvirate and the Law of Compromise."
11.15 a. m.—Kansas History, Mrs. Margaret Hill McCarter. "The Shadow of Old Glory."
2.00 p. m.—Colonial Saxophone Quartette, Rev. Elliott Boyd. "The Making of Man." Colonial Saxophone Quartette.
3.30 p. m.—Judge, A. W. Benson. "Other Days."
4.00 p. m.—Domestic science, Mrs. Julia A. Wiley. "Cakes and Ices." Council Tent.
7.45 p. m.—Marshall's Band.
8.30 p. m.—Colonial Saxophone Quartette.
9.00 p. m.—Shungopavi, Indian Magician. The ladies of the Woman's Kansas Day Club will be "at home" all day to their friends.

Thursday, July 30.

8.30 a. m.—Morning Vespers, Y. W. C. A.
9.00 a. m.—The Gospel of John, Rev. F. L. Hayes, D. D. "The Citizen's Relation to the Conquests of the Kingdom." (Chapters 17 to 21).
9.45 a. m.—The Mohammedan World, Mrs. J. P. White. "The New Crusade."
10.30 a. m.—United States History, Frank F. Stephens, Ph.D. "William H. Seward and the Higher Law."

11.15 a. m.—Kansas History, Mrs. Margaret Hill McCarter. "The White Man's Burden."
 2.30 p. m.—Norton's Band and Orchestra.
 3.15 p. m.—Mr. Stephen P. Morris (representative of National Child Labor Committee), "Rocks, Recks and Rescues."
 4.00 p. m.—Domestic science, Mrs. Julia A. Wiley. "Meats in General." Council Tent.
 7.45 p. m.—Marshall's Band.
 8.30 p. m.—Hon. Walter M. Chandler, "The Trial of Jesus from a Lawyer's Standpoint." Norton's Band and Orchestra.

Government Crop Reports.

The Crop Reporting Board of the Bureau of Statistics of the Department of Agriculture find, from reports of correspondents and agents of the Bureau, as follows:

The preliminary estimate of the acreage planted in corn is 100,996,000 acres, an increase of 1,065,000 acres, or 1.1 per cent, as compared with the final estimate of the acreage planted last year.

CORN.

The average condition of the corn crop on July 1 was 82.8 per cent of a normal, as compared with 80.2 on July 1, 1907, 87.5 on July 1, 1906, 85.6 the ten-year average on July 1.

Comparisons for important corn States follow:

	July 1, 1908.	July 1, 1907.	10-year av.
Illinois	80	82	87
Iowa	83	78	88
Missouri	74	82	85
Nebraska	84	80	86
Texas	83	78	78
Kansas	78	84	85
Indiana	83	78	86
Oklahoma	74	86	90
Georgia	88	89	85
Ohio	87	75	83
Kentucky	83	81	88
Tennessee	87	80	87
Alabama	86	80	85
North Carolina	92	83	89
Arkansas	81	79	85
Mississippi	86	75	83
South Dakota	84	77	86
United States	82.8	80.2	85.6

SPRING WHEAT.

The average condition of spring wheat on July 1 was 89.4 per cent of a normal, as compared with 95.0 last month, 87.2 on July 1, 1907, 91.4 on July 1, 1906, and 87.6 the ten-year average on July 1. Comparisons for important States follow:

	July 1, 1908.	July 1, 1907.	10-year av.
North Dakota	93	88	85
Minnesota	90	85	86
South Dakota	95	89	88
Washington	65	95	94
United States	89.4	87.2	87.6

WINTER WHEAT.

The average condition of winter wheat at time of harvest was 80.6, as compared with 86.0 on June 1, 78.3 at harvest, 1907, 85.6 in 1906, and 80.2 the average at time of harvest for the past ten years. Comparisons for important winter wheat States follow:

	At harvest, 1908.	At harvest, 1907.	10-year av. at harvest.
Kansas	71	60	77
Indiana	88	80	74
Illinois	80	91	76
Nebraska	81	84	86
Missouri	74	85	81
Ohio	83	80	75
Pennsylvania	92	93	86
Oklahoma	78	61	80
California	79	77	76
Texas	79	50	73
Michigan	92	75	71
United States	80.6	78.3	80.2

The average condition on July 1 of spring and winter wheat combined was 83.9, as compared with 89.4 last month, 81.6 on July 1, 1907, 87.8 on July 1, 1906, and 82.9 the ten-year average.

The amount of wheat remaining on farms on July 1 is estimated at 5.3 per cent of last year's crop, equivalent to 33,797,000 bushels, as compared with 54,853,000 on July 1, 1907, and 42,012,000, the average for the past ten years of the amount on farms on July 1.

OATS.

The average condition of the oats crop on July 1 was 85.7, as compared with 92.9 last month, 81.0 on July 1, 1907, 84.0 on July 1, 1906, 92.1 on July 1, 1905, and 87.5 the ten-year average on July 1. Comparisons for important oats States follow:

	July 1, 1908.	July 1, 1907.	10-year av.
Iowa	89	88	92
Illinois	75	80	86
Minnesota	91	88	89
Nebraska	87	86	89
Wisconsin	95	90	92
Indiana	70	74	86
Ohio	82	79	88
Michigan	84	75	90
North Dakota	94	89	86
South Dakota	95	91	89
New York	89	86	91
Pennsylvania	88	86	89
Kansas	80	40	78
United States	85.7	81.0	87.5

The acreage of Irish potatoes is es-

timated as 3,198,000 acres; that is, 2.4 per cent, or 74,000 acres more than last year. The condition of the crop on July 1 was 89.6 per cent of a normal, as compared with 90.2 on July 1, 1907, 91.5 on July 1, 1906, and 91.6 the ten-year average on July 1.

The average condition of the hay crop on July 1 was 92.6 per cent of a normal, as compared with 96.8 last month and approximately 82 on July 1, 1907. The condition of timothy on July 1 was 90.2 per cent, as compared with 82.2 on July 1, 1907, and 86.0 the ten-year average on July 1; clover 95.5 on July 1, as compared with 76.4 on July 1, 1907, and 84.0 the ten-year average on July 1.

The condition of the apple crop on July 1 was 57.6, as compared with 66.0 on June 1, 44.0 on July 1, 1907, and 62.3 the ten-year average on July 1.

C. C. CLARK,
Acting Chief of Bureau, Chairman.
Washington, D. C., July 8, 1908.

Their Business Is Advertising.

Some of the developments of modern business methods are well illustrated in a complimentary notice of the Chicago firm of Lord & Thomas by Printer's Ink, the old standard New York magazine devoted to the various phases of advertising. The notice is well worth reading and is as follows:

"Chicago is a city of live wires and, in the opinion of some people who are in pretty good position to know, the livest wire there is the advertising agency of Lord & Thomas. When they go after a new account in earnest they get the account in about ninety-nine cases out of a hundred. The odd case happens when their representative has a sunstroke or is run down by an automobile. One of the happy consistencies of the Lord & Thomas concern is that they have the courage to do themselves what they recommend to other business concerns. There is no other advertising agency of the present time which has advertised itself and advertised advertising so extensively and so wisely as Lord & Thomas. They have occupied liberal space in leading newspapers and magazines, they have advertised in Printer's Ink from its earliest days, and they are numbered among the staunchest admirers of a monthly publication issued in Chicago called Judicious Advertising. Just how live a wire Lord & Thomas are was shown when the news of Printer's Ink's new ownership reached Chicago. The return mail brought a communication, not a congratulatory letter, but nevertheless a very simple and easily understood piece of literature—namely, an order for twelve pages. When a solicitor from Lord & Thomas approaches a prospective advertiser, he doesn't have to assume an apologetic attitude. He is in position to assert boldly: 'We have made a success in advertising our own business and we are prepared to do the same for you.' And this abiding faith in the power of advertising (not shared by all advertising men) is not merely explanatory of why Lord & Thomas have done and are doing a great business. It is evidence that they are going to continue to do it."

"Kansas State Fair."

The Kansas State Fair for 1908 will be held at Hutchinson September 14-19. The fair this year promises to be larger and more attractive than ever. The premium list of the fair has been received by THE KANSAS FARMER and is a neat booklet of 120 pages, giving full information about the fair and premiums. The quality of this booklet is due to A. L. Sponsler, secretary. He will send one to anyone addressing him at Hutchinson, Kans. Be sure and attend this big fair.

Farmer's Day.

An excellent Chautauqua program will be given at Vinewood park, Topeka, the week of July 21-30. A detailed program is given elsewhere in this paper. The farmers are especially urged to be present on farmer's day, Wednesday, July 23. Everything will be at the disposal of the



No Need to Buy Paint Blindly

If there were no way of knowing good paint materials from bad, except by waiting to see how they may wear, painting would necessarily be the lottery which many people make it.

The paint lottery is not necessary. Pure White Lead and Pure Linseed Oil are the essential elements of good paint. White Lead can be tested absolutely. The commoner adulterants of Linseed Oil can be also detected. See that they are pure and properly put on, and the paint will stay put.

To test White Lead, a blowpipe is needed. If you intend to paint this season, ask us for a blowpipe, which we will send you free, together with full directions for using it. The test is so simple, that any man, woman or child can make it.

Ask for "Test Equipment"

Full Weight Kegs

The Dutch Boy Painter on a keg guarantees not only purity, but full weight of White Lead. Our packages are not weighed with the contents; each keg contains the amount of White Lead designated on the outside.



NATIONAL LEAD COMPANY

In whichever of the following cities is nearest you:
 New York, Boston, Buffalo, Cleveland, Cincinnati,
 Chicago, St. Louis, Philadelphia (John T. Lewis
 & Bros. Co.), Pittsburgh
 (National Lead
 & Oil Co.)

farmers on that day. It will be a day of pleasure and instruction. The street car fare will be reduced to one fare for the round trip and there will be free admission to the park. Come in and enjoy Topeka's hospitality. A special program is provided for this day.

"Kansas State Exposition."

The annual Kansas State Fair and Exposition is to be held at Topeka September 7-12. At this fair will be shown attractive exhibits of the varied resources of the State. Large contributions have been made to pay live-stock and agricultural premiums and efforts are being made to make it a "State-wide fair." The premium list is now out and can be had by addressing R. T. Kriepe, secretary, at Topeka.

"The Story of Alfalfa."

The Barteldes Seed Company has just issued a booklet on alfalfa called "The Story of Alfalfa." This is a valuable little booklet and gives some reliable information about raising this much talked of plant. The history and life habits of the plant are given and questions of preparation of the seed-bed, time and methods of seeding, cutting, and curing are discussed.

Some figures also are given showing the benefit of alfalfa to the soil and its value for feeding. Valuable pointers also are given about quality of seed, the assertion being made that "Kansas grown seed beats them all." Barteldes handles Kansas grown seed and his goods are reliable.

Copies of this booklet have been sent for distribution among the members of the Shawnee Alfalfa Club. Those who are not members may receive copies free on request.

Every man has a right to help himself to the best there is in life until he has all he wants, but he should not want more than he ought to have.



A Gang Plow That Pays for Itself

That's right—you can save the cost of this plow in a short time by saving the price of the labor of one man and two horses.

Rock Island Liberty Gang With Patent Low Swung Foot-Lift

Makes work a pleasure—a boy can operate it—and it's easy on your horses, too. Write for "Plow Book" today—mention this paper and we'll send you a TAFT AND BRYAN Presidential Puzzle.

Rock Island Implement Co. Kansas City, Missouri.

The man who isn't moved to optimism after eating a good, square meal, is badly out of harmony with his surroundings.

If it cost a dollar an hour for the privilege of hoeing potatoes, and there were a special costume for the sport, golf would soon be forgotten.

Corn Harvester.

A most practical corn harvester is made by the New Process Mfg. Co., of Salina, Kans. It is said that it will do almost anything that a corn binder will do, and costs only a fraction as much. With it a man can cut and shock from four to six acres a day, and it is so simple in construction and operation that a boy can run it. It has been sold in every State in the Union, and has given universal satisfaction. Look up their advertisement on another page and write for particulars.

Breeding, Multiplying, and Disseminating Improved Seed Grain by the Experiment Station.

(Continued from page 777)

other grains, brought from the Steppes of Russia and Turkey, are well adapted for growing in the western plains region of the United States, which has a climate and soil very similar to that of the countries named. The Turkey Red wheat, for instance, has largely replaced all other varieties of winter wheat grown in the West, because of its greater hardiness and productiveness, and yet some of the varieties which it has succeeded had been grown in the West for many years and seemed to be fairly well adapted to western climatic and soil conditions. This superior hardiness and adaptation which the Russian and Turkey varieties of grain appear to have in our western country may be largely credited to the centuries of training which these varieties have had in an environment almost identical with that of similar latitudes in the West, while the varieties which the Russian and Turkish grains succeeded are, as a rule, those which have been gradually moved from the Eastern and Middle States farther west; and although many of these varieties have gradually become more or less hardy and fairly well adapted for growing in our western climate, yet in the comparatively short period during which they have been grown under western conditions, apparently they have not become so hardy and well adapted to those conditions as the Russian and Turkey varieties.

BREED CROPS IN SOIL WHERE THEY ARE TO GROW.

Again it is necessary to breed crops in the soil and climate where they are intended to grow. There is little to be gained from breeding drought resistant crops in Eastern Kansas for growing in the Western Counties of the State, and a crop intended for growing in a light, sandy soil would not be bred and selected for that purpose in a heavy clay loam. It is advisable in my judgment, however, to give breeding plants the best possible natural conditions for growth in the soil and environment in which they must continue to grow. A well bred plant is an artificial product; it has not been produced by natural conditions. Nature never made an ear of corn such as we have to-day. I have never seen the native corn plant, and I do not know that I would know it if I saw it. I understand that it grows down in Mexico on the plateaus. The wild corn has only a few kernels on the ear. We would not recognize it as an ear of corn. The present corn has been produced by giving it better conditions to grow in than the wild plant has. We have in corn to-day an artificial product which has been made under conditions which are correlative with nature, but which are not entirely natural; and any crop will deteriorate if left entirely dependent on nature, without the help of man. Then if we would improve our crops or keep them up to a high grade of perfection, we must have fertile soil and practise the best methods of culture.

CROSS-BREEDING.

I have little regard for cross-breeding in producing improved strains or varieties. Much valuable time has been lost and years of labor and some money has been thrown away by some "scientists" who thought they were breeding plants when they were simply producing scrubs and novelties. I say "scientists" because I believe it is the men who have had a little more science than practise who are apt to make this mistake. Botanists, especially are apt to develop great enthusiasm over novelties. We have a little joke on our botanist at the Kansas Station. A few years ago he succeeded in crossing corn and Gama grass and produced a few cross-bred seed. He was enthusiastic, commented extensively on the remarkable fact and on the possible value to agriculture of this new crop, publishing articles through the farm papers and daily press. But we did not hear any more about the Gama Grass-corn. One day a year or so later in conversation I remembered the incident and asked

him how the cross was coming on. "Oh," says he, "we lost that, the seed would not germinate."

The Botanical Department of our station has been breeding wheat for ten years and has tested and bred hundreds of varieties. The Department has stacks of records, but has never distributed a bushel of improved pure-bred seed wheat. The work has recently been reorganized and the present plan is to discover or develop superior foundation stock and turn it over to the agronomy department for multiplying and distributing, and we hope, in the near future, to secure some improved varieties from this source.

If the breeder has a definite object in view there may be some gain by cross-breeding. For instance, a certain variety of wheat may be a great producer but shatters badly when mature; by crossing such a variety with a variety having tighter glumes it may be possible to produce individuals having the desired characters of both of the parent plants and these individuals may become the foundation stock of a new and improved variety. It is a question, however, whether the same result may not be sooner attained by simple selection of likely plants from either variety. Artificial crossing within the strain may be used to induce variation, yet I do not think it necessary, as a rule, even in the breeding of close fertilizing plants like wheat, since sufficient crossing doubtless takes place naturally. Selection discovers the great individuals and selection is always the process by which new varieties are established and maintained.

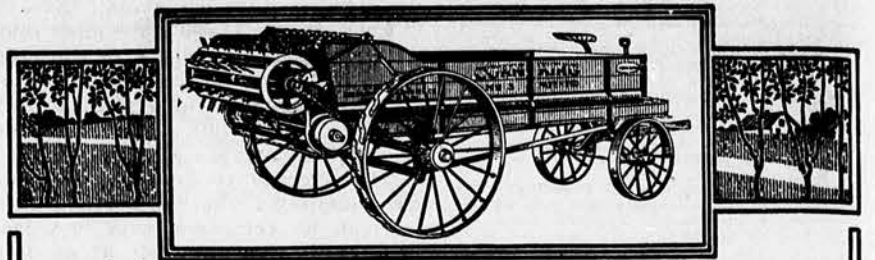
KEEPING BREEDING RECORDS.

Avoid voluminous records. Keep only sufficient records to determine the initial factors of yield, quality, and hardiness and to establish the identity of the individual and pedigree of the variety. Too many plant breeders have buried all their results in great volumes of records which no one will ever study and which probably contain little of value even if a man was found who had the time, energy, and perseverance to dig the stray kernels of wheat out of the piles of chaff. If voluminous records are kept the plant breeding is apt to become largely mechanical, the work being left largely to students or immature assistants who often have little or no interest in the work or the results. The breeder's judgment in the field and laboratory is often worth more than records; at least close observation and judgment must be associated with the records to make them of great value. Performance records must necessarily be kept to test and correct the judgment, and assist in making selections for continued breeding.

"HEAD-ROW" METHOD.

The agronomy department of the Kansas Experiment Station is breeding wheat and other grains by the "head-row" method, similar to the "ear-row" method of breeding corn. The plan is to make a large selection of choice heads from the general field, taking care as far as possible to select heads from the best plants. These heads are carefully examined as soon as the grain is well dried and many of the inferior ones are discarded. Perhaps two hundred or the choicer heads out of a thousand or more are saved, and each of these is shelled separately on a piece of white paper and the number of kernels counted, and the quality of the grain observed. If there is a relatively large number of kernels and the grain is plump and of good color, form, and size, the grain of this head is reserved for planting, certain records being made as to length of head, number of kernels, color, grade, weight of grain, etc. Finally, perhaps fifty heads are selected out of the two hundred saved, and thirty grains of each head are planted on separate, adjacent rows, one seed in a place, six inches apart in rows six or twelve inches apart. (The writer prefers the wider rows with cultivation.)

Notes are taken on this grain during its growth, and at harvest time, and a careful inspection and judgment is made as to which rows are the most desirable to save. Several of the



Make the manure bring you \$4 a ton

Thousands of Successful Farmers Are Doing It

There is no charm or secret about it. You simply spread it with a machine, and thus make it go twice as far, get twice as much good from it on the first crop, do your land more permanent good, and save half the time and labor of handling.

Manure is generally estimated to be worth \$2.00 a ton handled the old way. There is no doubt that it is worth twice as much to the farmer who spreads with a machine.

Three of the most practical and valuable machines manufactured for farm use today are the **Corn King, Cloverleaf, and Kemp 20th Century manure spreaders**. They are each made in a number of sizes.

These machines differ somewhat in construction and operation, but all three are right working and of great durability.

They are proven machines. They embody the best mechanical ideas, the materials used in construction are the best for the purpose, they are made as simple

as possible, and they handle manure in all conditions to the perfect satisfaction of users. Proof of all this is to be found in the record each machine has made in the field.

Is it not to your interest to own and use one of these spreaders on your farm?

Figure out for yourself and you must agree that it will be a paying investment, even if you do not have over twenty-five loads of manure to spread in a year.

You can't help but be pleased with the work, the easy handling, the light draft and the substantial making which saves you the annoyance of breakage and repairs.

Call and see these spreaders with the local International agent. He will gladly point out to you the superior features of these machines, as well as supply you with catalogue, colored hanger or other information.

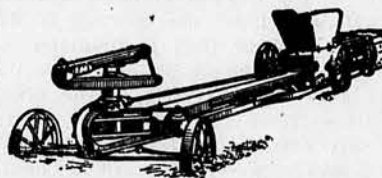
INTERNATIONAL HARVESTER COMPANY OF AMERICA

(Incorporated)

Chicago, U. S. A.

Big Profits Baling Hay

Two men can run it. Record, 3 tons in one hour. **Auto-Fedan Hay Press—Three Stroke** Smooth bales, easy draft, automatic feed, free trial. Satisfaction guaranteed. Ask for catalog of Auto-Fedan Hay Press Co., 1521 W. 12th Street, Kansas City, Mo.



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THE OLD RELIABLE IN USE 25 YEARS

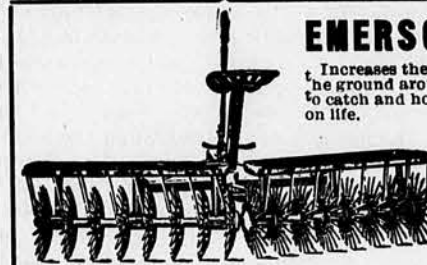
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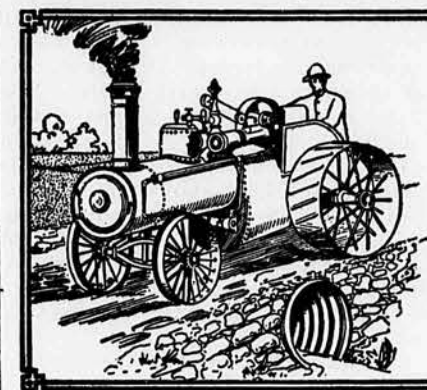


EMERSON'S ALFALFA RENOVATOR

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.

Address, **EMERSON-NEWTON COMPANY,** 1318 West 11th, Kansas City, Mo.



CORRUGATED METAL ROAD CULVERTS

made by us stand up under the heaviest traction engines. Made any length. Easy to place. Cost no more than wood or tile. Our culverts are used by the U. S. Government and many railroads. The safe, economical culvert for every road. Illustrated catalogue free.

Corrugated Metal Mfg. Co., Emporia, Kan.

choicer plants are marked in each of these rows and the whole product of each row is then harvested and bound together in a bundle. Several of the choicer heads from selected plants of selected rows are reserved for further study and selection to secure heads for future "head-row" planting. By careful thrashing, weighing, and grading the grain, the best producers are determined.

The product of the most inferior producers is discarded, while the product of a few of the best producers is reserved and the grain planted in separate plots, or in combination, for increase.

Only a few heads of the best-producing rows are planted in the "head-test" the next season, but a large selection of heads is again made from the field as described above.

This method of breeding wheat or any other grain does not aim to train

the grain or improve it by a long process of breeding and selection; rather it aims to discover the great individuals, which at once, merely by separation may become the foundation stock of a pure and improved strain or variety.

The department has completed only one "head test" with seven different varieties of wheat and barley, but the results are remarkable. With Khar-kof wheat, for example, the yield varied from 179 grams to 376 grams per head-row, while the grade of the grain from the several head-rows varied all the way from No. 3, 80 per cent soft wheat, to No. 1, 98 per cent hard red winter wheat.

The "head-row" method of breeding has two great advantages over the "cent genre" method. First, it is possible to start with a large number of individuals and the selecting of new individuals from the general field is

continued each year, thus greatly multiplying the chances of discovering mutants or great producing individuals. Second, this method is much less cumbersome. By the "cent genre" method, a comparatively small number of individuals are chosen at the beginning, but the succeeding "cent genres," all from these few, original individuals, soon multiply into hundreds before the process of elimination begins, while the "head-row" method is largely a process of elimination, the breeder being able usually to discard a large number of the more inferior individuals after one test.

By the "head-row" method of breeding, if the product (300 grams weight) of a single great producing head of wheat is planted each year, and yields at the rate of thirty bushels of grain per acre, secured, there will have been produced 8,910 bushels of wheat of the improved variety in four years after the first "head test" which discovered the great producer.

MULTIPLYING THE IMPROVED SEED.

Multiplying the improved seed in order to secure large quantities for distribution would seem to be a simple proposition, but on account of the necessity of handling a large number of small plots, harvesting and thrashing and keeping the grain separate and pure, I have found it rather difficult. There is a danger of keeping too many selections and attempting to carry out breeding experiments with too many varieties. Let me suggest right here: do not undertake too much; one breeding test with one variety carefully carried out and completed is worth a dozen partly completed tests.

With live stock, the great individuals, the great performers who were able to transmit their good qualities are rare. This is true of plants, also. Breeding by the "head-row" method should be largely a process of elimination. Test a great many individuals, and do not be afraid to throw a large part of the less promising stock. Two or three of the very choicest selections of each variety are enough to carry to the multiplying plot. Practise the method of a famous breeder of blue blooded dogs, "raise many and kill many." Many of the "head-row" stocks may be discarded at once by the single test. It is advisable, however, to give the more promising stocks a second trial by planting a small plot from the seed of each. From this test the few which are pure and better in other points than the others may become foundation stock for planting in larger plots the third year, and this crop should supply seed for planting a multiplying plot of several acres the fourth year; by the fifth year a large field may be planted with the improved seed, and the general distribution begins on the sixth year after the first "head test" was made.

Briefly, the plan may be outlined as follows:

- First year, head-row test.
- Second year, test row or test plot.
- Third year, foundation stock plot.
- Fourth year, multiplying plot.
- Fifth year, field.
- Sixth year, distribution.

It is possible to secure this distribution in one year less time by making the selection for foundation stock from the head-test plot, and with certain crops which multiply rapidly some seed might be distributed by the fourth year. The plan suggested will work well with wheat and close pollinating grains. With corn, some plan of crossing the best individuals to maintain vigor will doubtless be necessary.

THRASHING MACHINERY.

For thrashing the small lots the small cent-genre thrasher perfected by Professor Hays is used at a number of stations. M. A. Carlton, of the United States Department uses the Farquar Baby Separator, which he has improved and perfected so that its work is very satisfactory. Up to the present time, at the Kansas Station all "head-row" lots are thrashed by hand by placing the heads in a sack and beating the grain out and winnowing in the wind. Larger lots are thrashed by hand or the grain is stripped from the heads by a spike

What is "Soil Culture"?

What is The New System of "Scientific Agriculture"?

Nothing more than judgment and common sense shown in handling the soils of our western tracts so that the rainfall may be held for immediate absorption by the root fibers of growing crops. It's a system that every farmer—East, West, North or South—can profitably follow. It is the very essence of practical agriculture. It is a distinct revelation to Eastern and Central State farmers who have been depending on 24 to 30 inches of rainfall yearly. They wonder how our Colorado "Scientific" farmers can gather such remarkable crops on lands once called "half deserts."

Happy Prospects. Denver is rubbing its eyes, stirring itself in wonder, gazing in admiration at the great tracts bursting into green and growing crops of alfalfa, corn, wheat and fruits, etc. (Explanation of cuts below.) White-faced farm houses, broad-gabled barns, bowing maples, pink-blossomed orchards, dairy farms, wheat and corn fields greet gladdened eyes at every angle. Campbell's "Soil Culture" is making wealth for Colorado farmer and manufacturer, for merchant and implement maker, for mail order concern and local merchant.

"Young Man! Go West," said Horace Greeley. Within a decade or two there will be little "West" left. Hundreds of thousands have heeded the call of the early fifties. Thousands now are heeding our call.

"Hurry to Colorado" Now

Buy with a few hundred dollars one of the cheap tracts now so generously offered. Start to be independent. Have a home of your own. Come! Breathe the lung-invigorating, health-giving ozone of Colorado. Enjoy the gladdening sunshine. Get more gladness out of life next to the soil. Plant trees, orchards, lawns, watch them grow as you nurse and tend them. Be free!

Start Small. You can start on a small acreage—40 to 80—at prices running from \$8.50 to \$16 per acre. We don't insist on all cash. A fifth or smaller part is sufficient if you are a settler.

Location. The Bijou Ranch is only 42 miles from Colorado Springs, 65 miles from Denver, 5 miles from two easily reached railroads—the Union Pacific and Rock Island. A new branch of the Rock Island has recently been surveyed straight thro' the property.

Crops. Alfalfa roots and grows rapidly, sucking up through its great "root pipes" the "sheet water" which underlies the Bijou Ranch. 35,000 acres overlay this great supply of moisture that comes as near as 6 feet to the surface. This is not a lake or open cave, but is the under-soaking of the melting snows from the "earth ridge" formed by the Eastern slopes of the Rockies. This water is easily, in most places, reached by the average hand pump. Corn, wheat, sugar-beets, oats, speltz, rye, potatoes, barley, fruits of all kinds, vegetables, grow readily under this system of Scientific Agriculture.

Book Free. Our new free book fresh from the press is described below and tells why you'll be glad after you "Hurry to Colorado." Send for it now.

Explanation of Cuts Below.

Photo at left. These are stacks of Alfalfa on the farm of D. J. Shearer. Photo at right. An enormous potato field—40 acres—harvesting over 8000 lbs. to acre—320,000 lbs. in all and sold on the ground for \$3200.00.

"Hurry to Colorado" Now

Here's a fast passing opportunity. Here are cheap lands, fertile soil, railroads, possibilities for great increase in land values, healthful climate, schools, etc. Embrace this chance. Do it now. Get in line with hundreds of others. Send for our new book—free, yet valuable—"The New Colorado." It's a question-answerer. Shows ten-inch map of location of lands, distance from great centers, markets, shipping points, schools, churches, etc. It tells how much money you'll need to get started; how to figure profits; describes the glorious climate with its sunshiny days and life-renewing nights. This book explains what "Soil Culture" is and why it is forcing Colorado to the front as a wealth-producing state far ahead of its gold and silver mines. You learn in this book about soil, water, markets, schools, profits, crops; how to plan, what to buy, how to reach the ranch and its free board and lodging, etc., etc. Send now for it, to Dept. 29

The Farmers Land & Loan Co.,

145 LaSalle Street,
Chicago, Ill.



FORTUNES IN FIG ORCHARDS

TEXAS FIGS ARE WORLD'S FAIR PRIZE WINNERS

10 Acres Magnolia Figs Worth 100 Acres Kansas Corn Land

Fig Preserves made at Aldine, near Houston, best known. Figs never fail to bear here. One acre set in Figs and one town lot at Aldine, both \$230. Payable \$10 down, \$10 a month, without interest, no payments when sick. Clear warranty deed in case of death. Single crop of figs more than pays cost of land and lot. Local cash market for fruit. There is nothing that offers a surer and steadier income to the investor under proper management than the cultivation of Magnolia figs. Five or ten acres set out in figs will pay all cost in four years, and yield an annual income thereafter of \$1,000 to \$3,000, quite enough to support an ordinary family. If you can't buy five, better buy less, and even one acre pays as well in proportion to the amount invested. If you want to enjoy life in South Texas under your own vine and fig tree or make a small, safe, profitable investment, better than bonds, savings banks or life insurance, write for particulars. AGENTS WANTED.

E. C. ROBERTSON,

Gen. Mgr., 501 Klam Bldg.,

HOUSTON, TEXAS

tooth cylinder, and winnowed in the wind or run through a fanning mill. The grain from plots, one-tenth acre in area and larger is all thrashed out with our large Avery Separator, but we have a device for blowing all dirt and grain out of the machine which prevents the mixing of varieties, and

allows for keeping our foundation stock of breeding lots practically pure. This blowing outfit consists of a 4 by 6 Clayton Air Compressor, a storage tank two feet in diameter and five feet long, and a four-horsepower gasoline engine all mounted on a platform which rests on trucks and which

may be moved with the machine. This apparatus has just been perfected this season and is working satisfactorily. Heretofore we have set our thrashing machine near the shops and used air from the large air pressure tank which has been conducted to the thrasher through about 600 feet of

garden hose; an ordinary one-quarter inch water nozzle is used to confine the current of air and direct its force. This is a very necessary apparatus. In fact it would be impossible to do a large amount of variety testing and seed breeding without it.

DISTRIBUTING THE IMPROVED SEED.

This has proved to be a rather simple affair at the Kansas Station. Our plan of selling the seed grain at about twice the market price has worked well. Orders have greatly exceeded the supply each year. However, it requires a great deal of careful work to handle the large quantities of seed in many small lots. We have found it necessary to have a seed-house especially arranged for such work, and employ a seed-house foreman who looks after the cleaning, storing, packing, and shipping of all seed grain. The orders are received at the office and entered in loose leaf blanks in duplicate; one copy is kept on file at the office, the other goes to the seed-house foreman who fills the order, and notes in the order blank the date of shipment, etc. This record is placed on file.

The following is a copy of our order blank and shipping statement:

Kansas State Agricultural College and Experiment Station, Agronomy Department, Seed Order Blank.

Date, 1908.....

To whom directed, 1908.....

Name,

Address,

Shipping point,

Route via,

Copy of order,

Instructions to order clerk,

Charges,

Amount paid,

Date paid,

Dictated by,

Date of shipment, 1908.....

Destination,

Invoice,

No. of packages,

No. of sacks or boxes,

Charges for sacks or boxes,

By whom packed,

By whom billed,

Remarks,

Each sack or package of seed is labeled inside and outside, giving name of variety, grade of seed, etc.

In Minnesota and Wisconsin some attempt has been made to place the first lots of improved seed of any variety in the care of the more prominent and responsible farmers in order to insure its continued propagating and distribution. This is accomplished through the Cooperative Experiment Association in Wisconsin, and through farmers' organizations in Minnesota and other States. In Minnesota, also, the seedsmen are made cooperators in distribution, a large amount of seed being sold to those who wish it so that they may multiply the seed rapidly and in large quantities.

It is not advisable to give away improved seed. For cooperative experiments, seed may be distributed free in order to have the trials made, but the farmer is willing to pay a good price for good seed of standard crops. In fact, he will appreciate the seed more and take more interest in propagating it and keeping it pure if he pays a good price for it. Again, at the Kansas Station we have found it necessary to charge a good price for the seed in order to secure funds for carrying on the work. The State has never appropriated money for this purpose, and the Office of Experiment Stations objects to our using the Government funds for seed distribution.

Alfalfa in Standing Corn.

Please let us know what has been done by seeding alfalfa in standing corn. Some of us have some sandy ground, on which we see that others have difficulty in getting a "stand" of alfalfa and we have been talking about

seeding on such ground in standing corn for the protection it will give from the wind. Would you advise it? If so, about what time would you seed it? What about seeding on good, rich ground in standing corn if the ground has been carefully worked down?

Russell County. E. W. VOORHIS.

I have had no experience in seeding alfalfa in standing corn. Usually in this section of the State the plan would not work well since the corn grows late in the fall and would prevent the alfalfa from making a start. With early-maturing corn this method of seeding may give good results. It will be necessary to cultivate the corn well and keep it free from weeds. At seeding time, a harrow-tooth cultivator would do good work in preparing the seed-bed and covering the seed. Perhaps the one-horse drill may be used to sow the alfalfa. I would advise to sow rather early in the fall, say by the first of September, or even the last week in August.

A. M. TENEYCK.

Horticulture

A Shade-Tree Pest.

PROF. J. T. HEADLEE, KANSAS STATE AGRICULTURAL COLLEGE.

The nests of the fall web-worm are now forming unsightly white blotches on the rich green foliage of our shade trees. They are most frequently found on the elm, box elder, hickory, ash, apple, and plum, but occur only less commonly on many other sorts of deciduous trees.

LIFE HISTORY.

The insect that constructs these webs passes the winter as a dark brown, helpless creature entirely unlike either the "worm" from which it came or the moth into which it transforms. This dark brown pupa, enclosed in a thin cocoon of silk intermixed with hair, is stored away in some crack or crevice, under rubbish or even in the ground itself. In April or May the nearly or quite white moth emerges from the cocoon, flies into the trees, and in some cases deposits as many as five hundred eggs. These eggs are set close together on one leaf, forming a single tier and covering an irregular patch on the surface. The larvae, hatching, construct a tiny web under which they feed. As they increase in size more and more foliage is included in their web until it may exceed three feet in diameter. When the caterpillars become fully grown they crawl down the trees and seek out hiding places as already described in which to transform and lie during their helpless stage. From the cocoons thus formed, in late July or early August, the second brood of moths emerges and deposits its eggs on the leaves for the second brood of "worms." This brood, on reaching maturity, forms the cocoons in which it passes the winter.

NATURAL ENEMIES.

Ordinarily certain two- and four-winged flies parasitize a sufficient per cent of the caterpillars to prevent them from seriously threatening the life of any well-grown tree, but this parasitism is rarely sufficient to prevent the formation of some webs.

METHODS OF COMBATING.

The property owner, who values the beauty of his shade trees, can not afford to depend on natural enemies but must resort to artificial measures. If the nests are within reach, the simplest method is to wipe them out of the trees and crush their contents. If they are beyond reach they may be destroyed in any one of three ways: they may be burned out by means of a long handled torch; they may be cut away with pruning shears and their contents crushed or burned; their occupants may be poisoned by thoroughly spraying the foliage immediately about the nest with arsenate of lead at the rate of three pounds to fifty gallons of water. (Paris green mixed with twice its weight of unslaked lime and used at the rate of six ounces to fifty gallons of water may be substituted for the arsenate of lead, but does not stick to the foliage so well.)

Field Notes

LIVE STOCK REPRESENTATIVES.

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

E. R. McAnlis, editor of the Jersey Bulletin, Indianapolis, Ind., was a pleasant caller at THE KANSAS FARMER office last week. He had attended the Jersey sale of R. C. Kurtz of Topeka, who dispersed his small herd at very satisfactory prices. Mr. McAnlis was somewhat surprised to note that the heavy buyers at this sale of Jersey cattle came from other States. Utah and Nebraska being especially prominent for their purchases. He seems to think that there is something wrong with Kansas men when a good bunch of Jerseys like this is allowed to be taken out of the State. Maybe there is.

C. O. Anderson, the Duroc breeder on Route 3, Manhattan, Kans., makes a change in his advertising card this week. He says that his spring pigs are doing fine, and that he has some right good boars that he wants to sell. He states that they are choice individuals of the very best breeding, and sure to please in quality. He further adds, "I have spring boars sired by King I Am 6187; E's Kant Be Beat 57563, a grandson of Kant Be Beat, the \$6,000 sire; Gold Finch 7549, the champion and sire of noted prize winners at the leading State fairs; Von Billie K 42579, his sire Billie K 20373, the sweepstakes boar at the Nebraska State Fair. All four of these are extra good boars and among the leading sires of the breed. Among the sows in the herd there are daughters sired by Lincoln Top 55287, winner of first prize and sweepstakes at the Nebraska State Fair in 1907, and afterwards sold at auction at an enormous sum. Two daughters sired by Lincoln Wonder 56575, sweepstakes at Sioux City, Iowa, in 1907, and also winner at the Nebraska State Fair the same year. His sire is the noted Ohio Chief 41419; others are daughters and granddaughters of noted prize winners. My spring pigs are running at large on alfalfa pasture and with a balanced ration of corn and mill feed are doing very well. I intend to show at some of the fairs this fall. I shipped three head a few days ago to a banker at Lucas, Kans., and he wrote back saying that he was well pleased. I always try to please my customers by culling close and seeding the best."

Baler's Welcome Herd of Poland.

The writer recently had the pleasure of visiting J. M. Baler's Welcome herd of Poland-Chinas located at Elmo, Kans.

Mr. Baler is comparatively a new breeder, but with the energy characteristic of the young man, he has not spared time nor expense to build one of the good herds of this valuable breed of swine in that part of the State.

The herd females are nearly all by, or closely related to the great champion and prize-winning sires of the breed—such as Meddler 2d, Keep On, Impudence, On the Dot, Chief Perfection 2d, Corrector 2d, S. P.'s Perfection, Anchor, Tom Lipton, and Perfect Challenger. To head this array of nice breeding, Mr. Baler purchased from F. M. Lall at the long price of \$1,000 the prize-winning boar, Tom Lipton 116567, to head his herd.

Tom Lipton is by Grand Chief, who was champion at the Missouri State Fair, 1903, and from whom has come a long line of prize-winning blood.

Tom Lipton's dam is June Rose by the mighty Corrector. As an individual he is hard to fault, being strong in all the essential parts that makes for the outstanding breeding animal. He has a good head and ears, a strong arched back, great spring of rib, measures 70 inches around the heart and flank, and stands on the best of feet with bone like a Norman horse, measuring 9½ inches in the smallest place.

Tom Lipton has been a consistent winner of first prizes at many of the State fairs, and as a sire he has more than made good.

To assist him in the herd Mr. Baler has Iron Clad by Corrector 2d, dam Cute Keep On by Keep On; Star Pointer, by Masticator, out of the celebrated Thistle Top, making him a half brother to Meddler 2d; he also has Torpedo by Meddler 2d.

Because his entire services are not needed in the herd Mr. Baler is offering to sell a one-half interest in Tom Lipton. This opportunity to secure an interest in a boar with the prize-winning and breeding record of Tom Lipton should not be overlooked, for it takes breeding, time, and money to make the reputation that stands behind this great hog. Mr. Baler is prepared to make liberal terms and this opportunity to secure an interest in a boar with an inter-State reputation should not be passed by.

Mr. Baler also has for immediate sale some richly bred young males. One of these is the yearling boar Cyclone by Meddler 2d dam Maxey by Chief Perfection 2d, and there are two of September, 1907, farrow by Tom Lipton. The dam of one of these is Springtide by Meddler 2d, and her dam is the famous Louise of Oakwood; the other is out of a Chief Perfection 2d dam. These are all outstanding good ones, fit to head good herds and will be priced right.

Among the females we were shown the fine sow, Miss Keep On by the great Keep On. She has a show litter by Meddler 2d. Also Guana by On the Dot, who is a litter sister to Banker, who won first in class at the Illinois State Fair, 1907. There are many other ones that we have not space to mention.

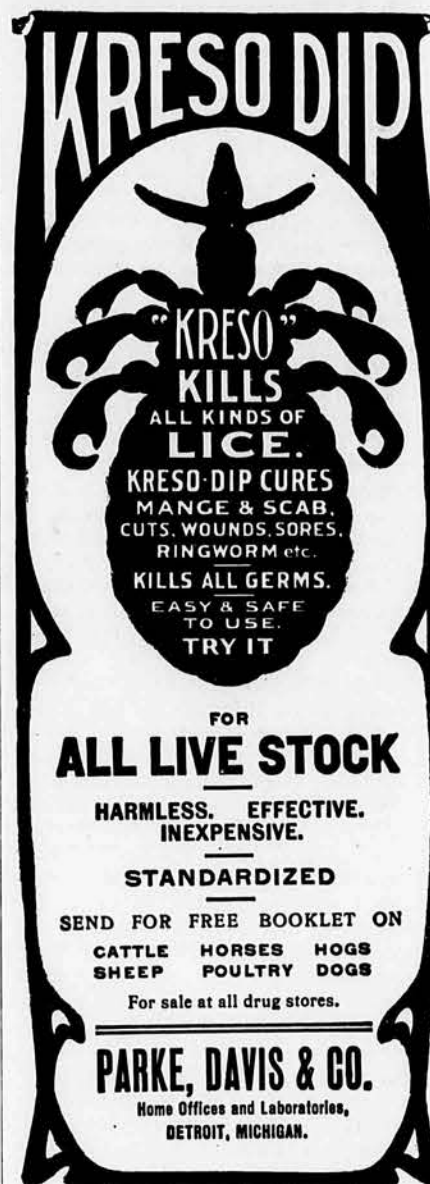
The spring farrow has been a good

Horse Owners! Use GOMBAULT'S Caustic Balsam

A Safe, Speedy, and Positive Cure
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Cleveland, O.

BEST ON EARTH

Don't experiment. You can make and keep your horses sound with the time-tried
Kendall's Spavin Cure
For much more than a generation it has been the great cure for Spavin, Ringbone, Curb, Splint, Swellings, Sprains and Lameness.
"I have used your medicine nearly 40 years. A horse with two bog spavins, at the end of four months, was as smooth as the day he was foaled."
John Smith, Johnville, Que.
Also a great family liniment. \$1 a bottle, 6 for \$5. All druggists. Free book, "Treatise on the Horse."
DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.



KRESO DIP
"KRESO" KILLS ALL KINDS OF LICE.
KRESO-DIP CURES MANGE & SCAB, CUTS, WOUNDS, SORES, RINGWORM etc.
KILLS ALL GERMS.
EASY & SAFE TO USE.
TRY IT
FOR ALL LIVE STOCK
HARMLESS. EFFECTIVE. INEXPENSIVE.
STANDARDIZED
SEND FOR FREE BOOKLET ON CATTLE HORSES HOGS SHEEP POULTRY DOGS
For sale at all drug stores.
PARKE, DAVIS & CO.
Home Offices and Laboratories, DETROIT, MICHIGAN.

JONES NATIONAL SCHOOL OF AUCTIONEERING.

THE ORIGINAL SCHOOL.
If you want to be a Zaan, a Snyder, or a McCulloch, attend this school. Summer terms open July 20 and August 23. Free catalogue. Carey M. Jones, Pres., 1215 Washington Blvd., Chicago, Ill.



DEATH TO HEAVES Guaranteed
NEWTON'S Heave, Cough, Distemper and Indigestion Cure. A Veterinary Remedy for wind, throat and stomach troubles. Strongly recommended. \$1.00 per can, of dealers, or exp. prepaid. The Newton Remedy Co., Toledo, Ohio.

THE ROYAL HOTEL, Lincoln, Neb
Modern, fire proof, only American Plan Hotel in the city. Centrally located. 15th and O Sts

Big Bargain for Threshers

36 60 Reeves Separator with wind stacker, all new; 32 H. P. Reeves Engine, used one year; four 6-disc LaCrosse High Private gang plows, used one year. Fine condition guaranteed. Will sell one or all at practically your own price.

The Greenstreet Ranch, Yuma, Col.

When writing our advertisers please mention this paper.



"THE OLD RELIABLE"
DIETZ LANTERNS
THERE ARE NONE "JUST AS GOOD" WHEN YOU BUY A LANTERN INSIST ON A "DIETZ"
MADE BY M. E. DIETZ COMPANY NEW YORK
Largest Makers of Lanterns in the World
ESTABLISHED 1840
PIONEERS AND LEADERS

one, and numbers ninety fine pigs, most of which came early. These are by Tom Lipton, Meddler 2d, S. P.'s Perfection, Iron Clad, and Star Pointer. Mr. Baler also has a nice lot of young gilts of fall farrow. These are largely by Tom Lipton.

Mr. Baler has claimed October 6 as the date of his fall sale, and he will offer at that time an exceptionally fine class of animals, consisting of pigs of both sexes of early spring farrow, some fancy well grown fall yearling gilts, and some good mature sows of known breeding qualities. Watch for future advertising in THE KANSAS FARMER.

Canady's Chester Whites.

Among the good hog breeders of southeastern Nebraska is E. S. Canady, Peru, Neb., owner of the Clover Ridge herd of Chester Whites. Mr. Canady has been a farmer and breeder for a number of years and knows the kind of hogs to raise that will pay out when fed for the market. He gives the pigs his personal attention, and when we saw them a short time ago they were a good, thrifty, growthy bunch with lots of Chester White character and conformation and ought to grow into individuals of high merit.

The boar at the head of this herd is Johnnie C., sired by King by old Correy. Johnnie C.'s dam was Lady Cheaf by Capt. Sheaf. This is a hog of strong Chester White type and conformation, good head, ears, back, loin, ham, and legs, and would make a prize winner if fitted for the show ring. The brood sows in this herd are mostly from the Garnett and Perfection families. They are large, smooth individuals, showing Chester White character and quality. One of the good ones is Iowa Quality, sired by Captain, the champion boar at St. Louis Exposition. Garnett, the sire of some of the brood sows in this herd, was a great prize winner at the Kansas City Royal.

With the individual merit and show record in and back of this herd Mr. Canady can and is producing a good lot of pigs. Notice Mr. Canady's card elsewhere in this paper and write for prices.

N. R. Rogers' O. I. C's.

Among the breeders of high class Chester White hogs in the West is Mr. N. R. Rogers, Peru, Neb., owner of the Nook herd of Ohio Improved Chesters. Mr. Rogers is a practical stock man and gives his personal attention to the care and breeding of his hogs. His aim is to produce a hog of size, quality, smoothness, and strong bone, the kind that pays when fed out for the market. In selecting breeding stock he tries to get animals as near



the type and standard of the breed as he can secure from the best known herds of Chester Whites. A visit to his herd a few days ago convinced us that Mr. Rogers was meeting with a good deal of success for his pigs were showing up in good shape and ought to grow into hogs that would be of credit to the breeder as well as the breed.

The herd boars used in this herd are Rogers' Choice 13119, sired by Climax the boar that won first as a yearling at Nebraska State Fair in 1905. The dam of Rogers' Choice was Deafy 2d 18150, sired by that great prize-winning boar Pan American 119435.

Mr. Rogers has in Plush Goods 15247, sired by Choice Goods 15059, a promising young herd boar. Among the good sows in the herd are Luene 18998. She has a choice litter of good pigs. May 2d 1910 is raising good litter of eleven pigs out of fifteen farrowed. Rogers Ideal 22566 is raising a nice litter of pigs. This sow farrowed thirteen pigs her first litter, which shows what the Chester Whites are as breeders. "You must get pigs before you can raise them." Laura 22570 raised a nice litter of February pigs.

Mr. Rogers ships pigs on approval and pays express charges. What more can any breeder do? Notice his advertisement elsewhere in this paper and write him for prices.

Ridgeview Berkshires.

The writer recently visited Ridgeview herd of Berkshires owned by Manwaring Bros., of Lawrence, Kans.

Manwaring Bros. are among the oldest breeders of Berkshire swine in the State and in the eleven years that they have been maintaining their herd they have developed many valuable animals, and have done much to improve the breed.

Manwaring Bros. bred the prize-winning boar Beau Nash 102111, who won first in class and reserve junior champion at the American Royal last year, and he would have stood to win greater honors if it had not been for his untimely death in April. Beau Nash was sired by Columbia Moonlight 66244 (one of the chief herd boars in the Ridgeview herd.) His dam is Queen Forest by Forest King. Beau Nash is the sire of the major portion of the fine crop of ninety spring pigs that we saw, and judging by his get his breeding qualities were of the highest order.

The other herd boar in service is King Forest 89628, by Forest King. He is a massive fellow of great length, strong bone, and splendid general conformation. His work as a sire has been very satisfactory and he has exerted a strong influence on the herd. Forest King blood predominates in the female portion of the herd, a large part of the matrons being by him. These are remarkable for their great length, heavy hams, even lines, and prolific qualities. Some of the best spring litters we saw were from these dams, by Beau Nash and Columbia Moonlight.

Some of the other noted sires represented in the sow herd are Lord Lee, Premier Longfellow, Imp. Toronto Pride, British Dick, and Columbia Moonlight. Among the spring farrow are seventeen very fancy pigs by Forest King. This is a last chance to get pigs from him, for he died last spring. King Forest and Columbia Moonlight are both well represented in the spring farrow and the nice lot of fall young stuff that we saw.

Manwaring Bros. have for immediate sale an outstanding yearling boar by Forest King and three extra good ones of November farrow by Masterpiece's Rival; and they will be headquarters for the very best spring pigs both sexes this fall.

Manwaring Bros. are regular advertisers in THE KANSAS FARMER. Look up their card and write them for prices and descriptions. They will treat you right and everything will be priced worth the money.

A Great Breeding Establishment.

One of the largest and most complete breeding establishments in the West is Kinloch Farm at Kirksville, Mo., owned by Messrs. Still & Laughlin.

This farm is devoted exclusively to the breeding of the pure-bred Berkshire hog, and Jersey cow, and it is here that they seem to have attained that degree of excellence worthily coveted by the most competent and careful breeders of every generation.

The records made by the animals from the Kinloch Farm in the show-ring are well known to every breeder of consequence in the entire corn belt.

They have been exhibited in many of the great and most hotly contested live-stock shows of America and have come out bearing the honors that place them in the foremost ranks of the breed.

For the Best Service

and a

Square Deal

Ship your Live Stock to

Evans-Snyder-Buel Co.,

Kansas City Stock Yards.

Also, Chicago, St. Louis, Ft. Worth.

Ask your Banker Concerning us.

Write us.

STATE WIDE FAIR!

DON'T FAIL TO ATTEND

\$20,000 in Pures and Premiums

DON'T FAIL TO ATTEND

TOPEKA, - KANSAS
September, 7-12, 1908

DON'T overlook what promises to be the best Fair ever held in Kansas. Plenty to see and hear. Kansas Music Festival. Twentieth Kansas Reunion. Free Sensational Exhibitions. Fat Stock. Farm Machinery. Farm Products. Races Galore.

M. A. LOW, President

R. T. KREIPE, Secretary

HOG CHOLERA VACCINE

Successfully used upon 700,000 head of swine.

SORBY VACCINE CO.,

163 Randolph Street

CHICAGO

From these shows these gentlemen came back to their beautiful suburban farm, not to rest in the honors won, but to ply energy, tactfulness, and ability to rise to even greater heights in the breeding world than they had hitherto reached.

A review of this herd will convince one that the profoundest wisdom and business acumen are behind this enterprise and that the supreme purpose of the promoters is to produce a type of hogs of the highest possible quality and usefulness.

The accompanying illustration is a

correct likeness of Rival's Champion, a young boar of this herd who is perhaps the best young boar of the Berkshire breed, at least he has been so pronounced by many of the most competent judges of the Berkshire hog.

On August 20 a draft from this famous herd will be offered at public auction, and at which time as grand a lot of hogs will be offered for the consideration of the breeding public as has gone through the sale ring in many a day. At this sale will be afforded an opportunity for those desiring the very cream of the Berkshire breed to purchase such animals as they think will serve them best in their herd.

These hogs are in the very best of condition, having been fed and cared for with a view to the profit of their future owner, and every hog sold from this farm bears the endorsement of Still & Laughlin, who stand behind every animal that goes from this herd.

If you are in the market for really high-class Berkshires it will pay you to ride many miles to attend this sale.

Catalogues will soon be ready and we would suggest that you write these gentlemen with reference to this proposition and have them send you one.

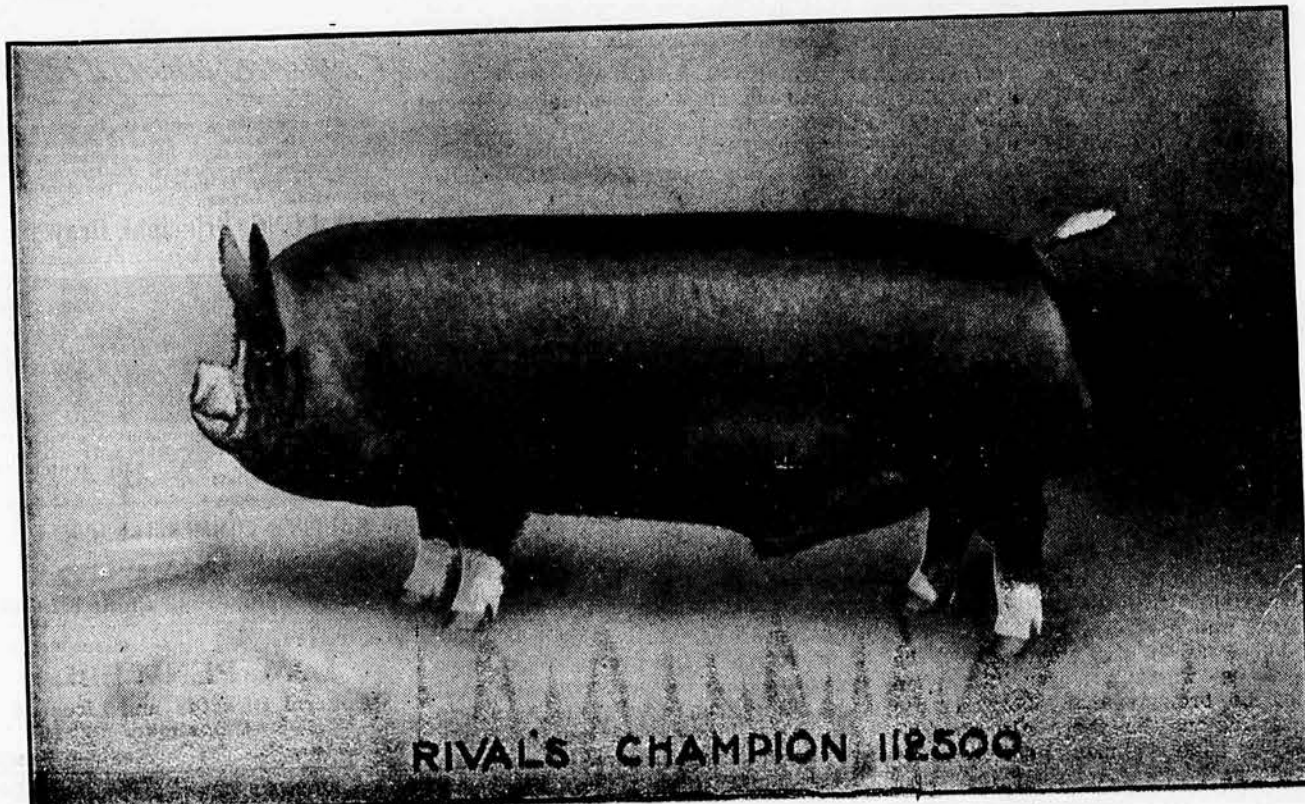
Stroh's Durocs.

Among the good breeders of Durocs in southeastern Nebraska is J. Stroh, of De Witt, Neb. Mr. Stroh is a good judge of a hog and understands the care and management of a breeding herd to produce the kind of pig the breeder, as well as the farmer, wants. This breeding herd is composed of individuals of strong Duroc type and conformation — the large, smooth, strong-boned quick-feeding kind.

At the head of the herd is that great boar Hogate's Model, the sweepstakes winner at the Nebraska State Fair in 1906. This hog is looking well to-day and with a little fitting would go out and put up a royal fight for premier honors with the best of the breed, and what is best of all he is proving a good sire. His pigs are the large, deep, wide, level backed kind with good heads and legs.

Another boar used in this herd is Kruger's Success, by old Kruger, a full brother to Kruger Lad, a boar that won first under 12 months at Iowa State Fair in 1906 and first yearling in 1907 at Iowa State Fair.

Mr. Stroh has a good lot of brood (Continued on page 790.)



RIVAL'S CHAMPION 112500

Home Departments

CONDUCTED BY RUTH COWGILL.

WHEN YOU COME TO THINK ABOUT IT.

When you come to think about it—on this old terrestrial ball, rimmed with roses in the springtime, heaped with fruitage in the fall; though we all were born a-growlin'—though we're axle-deep in doubt, there is really very little for the world to growl about.

When you come to think about it—did your growlin' ever pay? Did it ever bend a rainbow—chase a thunder cloud away? Don't it deafen all the angels when they try to sing an' shout? Don't they know that there's but little in the world to growl about?

When you come to think about it—but the best way's not to think! There's a spring there, by the wayside, stop ye travelers, an' drink! There's a green tree in the desert, 'neath a firmament o' blue, An' a hive that's dripping honey for the famished lips of you!

—Frank L. Stanton.

It is Within You.

There is a desire, a growing desire, in the hearts of the American woman to get back to a more simple way of living. Not that they love ease and are seeking a "soft place," not that they are unwilling to toil, or want to shirk responsibility and necessary care, but that they may get out of the rush and turmoil and complexities that mark the present age. Some even look back with longing to the primitive life when everything was "hand-made" and "home-made," but it is better to look forward than backward, and adjust ourselves to the situation. The "simple life" sounds sweet and restful to the weary woman, and the weary woman is not always the woman who toils, it is more often she who worries or carries unnecessary burdens on her mind. It is more often she who lives in style with many servants and keeps up with the fashions and follies of "society." It is more often those who have too much, than those who have not enough, who are tired of everything and long for the simple life. They are in the whirl and see no escape.

The simple life, like the Kingdom of God, is within you, and you will have to make it yourself. When the sewing machine came we thought we would have a surplus of time on our hands and wondered how we would use it, but instead of making life easier it made it more complex, or rather, we used it to make life more complex. We could not be content with plain clothing, but we must have ruffles and tucks and more widths of goods which consumed more strength, energy, and time than it did to make them plainly by hand. This added to the work of washing and ironing, and it is said by physicians that the sewing machine has injured the health of many. It is not the fault of the sewing machine. We would not have them banished. We could have continued to make plain clothing and used the time gained or saved to some good purpose, such as resting, recreation, reading, or necessary work. It is so with all our blessings. God sends us blessings but we turn them into curses by our insatiable and craving natures. The trouble is for the most part with our own selves, and not with existing conditions.

The simple life does not mean freedom from work, but enjoyment of it, and a use of time in such a way that we may enjoy the things God gave us to enjoy, the simple and natural pleasures of every day. I am not one to say "blessed be nothing," but until we learn to choose and select out of the time allotted to us here the things that are most needful, in other words, until we learn the economy of time, and simplify our desires and tastes we can not attain to the simple life. Margaret Sangster talks on this subject in the Woman's Home Companion and in this beautiful paragraph gives a description of the simple life:

"A felicitous phrase takes us all by storm. The simple life! What does it not convey to us of tenderness and

sweetness; of homely tasks and homely fidelity; of children sleeping in the cradle; of flowers blooming in the courtyard; of the loaf and the cup provided by honest toil; of old husbands and old wives sitting together on the veranda, while the moonlight plays on the leaves of the vine; of snatches of remembered melodies; of wafts of fragrance from summer nights in the long ago. The simple life! It was ours when we carried our dinner to school, when we fished in the brook, when we were married in the blithe heyday of youth, that laughed at poverty and courted the day of small things, when we were confident and daring and as happy as the birds on the boughs. No wonder everybody longs for the simple life. The phrase is a song without words, a silvery refrain, a beckoning hand to ascend to a higher level."

From Boyhood to Manhood.

BY HON. ELMER E. BROWN, AN ADDRESS DELIVERED BEFORE THE CONGRESS OF MOTHERS, WASHINGTON, D. C., MARCH 10, 1908.

The President of the United States, in assigning to me the high honor of coming before you as his representative, expressed his deep and serious interest in our undertaking. To promote the general welfare by way of a betterment of American childhood, is, as I understand it, the main object of your activities. In this solicitude all patriotic Americans must share. Your purpose is, indeed, the broad purpose of making a joyous childhood universal in this land as the best introduction to an honorable manhood and womanhood.

We are seeking to make a childhood of wholesome play lead up to a mature life of wholesome work from which the spirit of play has not been altogether lost. We think it worth while to provide for childhood with its play. We think it worth while to provide in a thousand ways for the work of grown up years. But just at this time we are chiefly interested in the passage from the age of play to the age of work. The school is largely concerned with the transformation of a playing child into a working man with some of the play still left in him. So the question of which I speak is the question of fitting together the later years of school with the earlier years of work. Here is one of the most penetrating questions of our time, and one to which you may fairly devote your most earnest planning and study.

I trust I may be pardoned if I appeal for illustration to my own personal recollections. They take me back to a childhood on the farm and in a country village in northern Illinois. Before I was ten years old my village life had begun. Before I was eleven the ambition was moving to take some share in the family burdens. I was eager to earn money and pay my part of the costs. After anxious searching and inquiry I found employment in the village which did not interfere with school hours; in vacation time I began working on neighboring farms. With various alterations of work and schooling, and later with short terms of teaching school, the time went on until I was prepared to enter upon my chosen profession. It was a happy life on the whole. There was a fair amount of play in it, and I enjoyed the play a good deal more than the work. But there was interest, too, and pride in the work. Let me repeat that the point to which attention is here particularly directed is the overlapping, or dovetailing, of school life with the life of a wage earner and producer.

There are surely methods to be found by which a closer interaction may be brought about between the schooling and the labor. Already such devices have begun to appear. In the great agricultural States of the West many boys and young men are divid-

ing their time between farm work in summer and studies in agricultural schools and colleges in winter. At the University of Cincinnati and the Carnegie Technical Schools in Pittsburgh young men and boys divide their time between an apprenticeship in the shop and theoretical study in the class room. It would be practical for many children in their teens to place the school alongside of the factory or the shop, and to have the pupils divide their time between the two. In every way it would appear that any great progress in these matters is dependent upon a full and harmonious development of our systems of enforcement. It will be safe to make the laws flexible, to adapt them to a great variety of conditions, in proportion as their administration becomes exact and dependable. To strengthen these conditions on the administrative side is accordingly one of our chief concerns at this time. The great need is that the opportunity for sound growth and education shall be equalized for our children throughout the land. If opportunity is the very thing our democracy means, then we must realize democracy, as far as possible, by making the opportunity for the child born in one part of the land as fair and encouraging as that of the child born in any other part of the land.

Under modern conditions there is need for a great deal of mothering by those who are not mothers themselves, a need for foster-mothering, if the term may be permitted. In recent years the profession of kindergarten and the profession of hospital nurse have been created, so now another new profession for women must be established, the profession of babies' nurse or nursery governess. The training would in part resemble that of a hospital nurse; in part it would draw near to that of the kindergarten; in part it would be different from either—a special training for this new profession alone. A leading place should be given to the care of the little ones' health and nourishment. But there should be a place too for the principles of baby education, which might consist in the prevention of too much education and the securing of a healthy nervous system, capable of standing the strain that school life will put upon it in after years.

Bryan is an Ideal Father.

Among his townspeople Mr. Bryan is known as the finest sort of a father, but just how great a reputation he had in this capacity he did not realize until a few years ago, says Mabel Potter Daggett, in the July Delineator. One day Mr. Bryan received a letter from a boy away over on the other side of the world. From the cherry-groves of Japan he wrote: "I have chosen you to be my father. Will sail at once for the United States. Yamachita." In Japan, it seems, it is not an unusual custom for an aspiring youth to adopt some man of eminence as a foster-father, and the individual so honored assumes the care of the young man until he comes of age. But Mr. Bryan, having a family of his own to provide for on a rather limited income, did not feel that he could accept the honor and wrote Yamachita to that effect. The Japanese boy, however, as if the protest were but a polite evasion of the honor, heeded it not. He arrived at San Francisco and wrote from there that he would in time reach Nebraska. The Bryans were then living in the little house in Lincoln and Mrs. Bryan in alarm



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insisted, "Why, Will, we can't possibly have him," and Mr. Bryan again wrote his correspondent. Meanwhile Yamachita had obtained work in the prune orchards of California to earn the money for the rest of his journey. And every day when he went to work he stopped to leave in the care of the mission-house a precious package. It contained a treasure purchased with ten dollars of carefully-saved money. A number of months later there was a knock one evening at the Bryans' front door. Mr. Bryan, opening it, saw a dark youth. "I have come," he said. "I am Yamachita." In his hand he held the gift that Japanese courtesy required. It was the package the missionaries had guarded for him. He opened it and gravely presented to Mrs. Bryan a delicately modeled small bronze stork.

The Bryan family, were, indeed, overcome; but they really could not turn Yamachita away. So they made room for him with their other children, of whom there were three then Ruth, William, and Grace. Including relatives he was the sixth child whom Mrs. Bryan took through algebra and Latin, and in time he was graduated at Nebraska State University. He has now gone back to Japan to fill a position of trust. Here he always called himself Yama Bryan. Once after they went to Normal to live, a farmer's wife alighted from the trolley-car at the foot of the hill with her arms full of bundles. Yamachita, who got off at the same time, wanted to relieve her of them. "Oh, but," he insisted gravely, "I must; my father would." To the neighbors he always said: "I came because I wanted to be like him—my father. Some day I shall go back to Japan to be to my country what he is to his."

Some Delicious Recipes from the De-licator.

To make a rich and delicious peach ice-cream, pare and stone enough peaches to make a pint of pulp when pressed through a sieve. Add to this pulp one cupful of sugar, or more if the peaches need it, the juice of half a lemon, and one pint of rich cream. Freeze as any other ice-cream, using three parts of cracked ice to one part of salt.

For peach sherbet, pare and stone enough peaches to make a cupful and a half of pulp; add the juice of three oranges and one lemon, and a sirup made by boiling one quart of water and one pint of sugar for twenty minutes. Let the sirup cool before adding the fruit juice. Freeze the same as the peach ice-cream.

For peach shortcake, prepare a good dough with three cupfuls of flour, half a cupful of lard (or butter), three heaping teaspoonfuls of baking-power, half a teaspoonful of salt, a heaping tablespoonful of sugar, and enough milk to make it soft and kneadable. Roll into a round and bake in a jelly-cake tin. Have ready about two dozen ripe and mellow peaches, pared, sliced and mixed with sugar. When the shortcake is done, split it and butter both sides while still hot. Lay one on the serving plate and cover with the peaches. Lay the other half of the shortcake on this, and cover in turn with peaches. Sift a little powdered sugar over the top layer of peaches and send to table at once with either plain or whipped cream.

Sweet-potato Pie.—Parboil a pound of good sweet potatoes, and when quite cold grate them. Cream half a cupful of butter with three-quarters of a cupful of white sugar, stir in the beaten yolks of four eggs, a teaspoonful each of cinnamon and grated nutmeg and the juice and grated rind of a lemon. Whip in the grated potato, a cupful of milk and two tablespoonfuls of brandy and, last, the beaten whites of the four eggs. Bake in open pastry shells or as a pudding in a deep baking-dish without a crust. Eat cold.

Gooseberry Tart.—Pick over your gooseberries, "top and tail" them and put into a saucepan with enough water to prevent burning. Simmer until they break, and sweeten to taste. If the gooseberries are green they will stand a great deal of sugar. Set them aside to cool and when cold pour into

pastry shells. Cover with a thickness of puff-paste and bake well.

The Perfect Baked Apple.—When the skins are thin and of a deep red color I frequently do not pare the apples, but at all times I am careful to remove all the core, especially every bit of the lining of the seed cells, and to bake them in granite or earthen never in tin, as tin gives them an unpleasant flavor and a dingy color. Fill the core cavities with sugar, heaped or scant according to the tartness of the apples; add also a few grains of salt, and sufficient water to half cover the apples. Bake in a quick oven and baste frequently.

Picked-Up Codfish.—Wash enough salt codfish to fill a cup when flaked. Pick it apart, removing bones and membrane. Cover with cold water and let it heat gradually to the simmering point. When ready to serve drain off the water and cover with hot thin cream or with a cupful of white sauce. Cook one rounded tablespoonful of flour in one of butter, melted, add gradually one cupful of hot milk, a dash of salt and pepper and then the fish. Just before serving, add one beaten egg, and stir until the egg is blended. Garnish the dish with toast points, or slices of bacon or minced sweet green pepper or hard-boiled eggs halved lengthwise.

Baked Potatoes that Tempt the Appetite.—The secret of a good baked potato is first a sound structure, then a smooth surface, a well-scrubbed skin, and a hot, but not too hot oven; if baked too quickly the part nearest the skin chars, but when just right, the thin outer skin will peel off easily, leaving a mass of snowy meal inside. Bake from thirty to forty minutes and when soft on pressure remove and serve at once.

Corn Cake that Melts in Your Mouth.—Mix one cupful of sifted bread flour, one-half cupful of yellow granulated cornmeal, two level teaspoonfuls of baking-powder, one-half level teaspoonful of salt and one rounded tablespoonful of sugar; stir in one cupful of milk, one well-beaten egg and two tablespoonfuls of melted butter or lard. Beat it thoroughly and turn into greased muffin-pans and bake in a quick oven about twenty minutes.

Household Hints from Here and There.

A clean, dry sponge is the best thing to use in removing lint from woolen material.

When cutting fudge when cold, or any candy, if it does not cut nicely, try heating the knife and it will cut much easier.

If by some misfortune your cake should burn, an effective instrument for removing the burned crust is a flat grater. It is far better than a knife in that it does the work more evenly and leaves a smoother surface for the icing.

During damp weather salt shakers are apt to become clogged. By placing a few rice grains in each shaker and adding the salt last the delivery is better.

Put your silver in a pan, cover it with thick sour milk and let it stand half an hour. Wash and rinse. The silver will then be bright as new. This is better than scouring.

To replace the handle in the lid of the teakettle, coffee- or teapot, fit a screw in the hole from underneath and screw a large cork on the screw.

When a silk or cloth garment is torn, procure a few threads of the warp of the goods and darn as you would a stocking. If you have no pieces from which this may be obtained, perhaps there is a straight edge on one of the seams from which a few threads may be taken. In this way the repair is made of exactly the same shade as the cloth.

It is quite difficult to arrange the jelly bag when making jelly so that it is easily managed. A very good plan is to hem the edge of the bag over a large embroidery hoop. Sew a tape firmly to the hoop by which to hang it when put to drain. With this arrangement the hot fruit may be poured without spilling and there is no danger of the bag slipping or burning oneself. A jelly bag should always be made with a point or angle



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For those who fit buttered papers in their cake tins it is a good plan to leave small projections of the paper on two opposite sides which can be used as handles in removing the cake.

True Value of Lemons.

Lemons are very useful in health and sickness. Hot lemonade is one of the best remedies for an incipient cold. It is also excellent in cases of biliousness. For malaria the "Roman cure" is prepared by cutting the rind and pulp of a lemon into a pint of water, then boiling until there is only half a pint. One teaspoonful is taken before each meal. This has cured obstinate cases when quinine failed. Lemon syrup made by baking a lemon twenty minutes and then squeezing the juice upon half a cupful of sugar is excellent for hoarseness and to break up a cold. Tie a piece of lemon on a corn at night for five nights, leaving it on all night. Soak the foot in warm water and the corn can be easily removed. When the root of

the corn is taken out, cover the toe with collodion, or some other preparation to protect the skin, which will be sensitive, says the Woman's Life. Unless the tender skin is protected it will soon form another corn. A piece of cotton saturated with vaseline and put over the toe will doubtless protect it just as well.

The Judgment of Women.

I have been beloved by the four women whose love was of the most comfort to me; my mother, my sister, my wife and my daughter. I have had the better part, and it will not be taken from me; for I often fancy that the judgments which will be passed upon us in the valley of Jehoshaphat will be neither more nor less than those of women, countersigned by the Almighty.—Ernest Rehan.

Don't neglect sleep. You can sleep yourself into good looks. A warm bath and a long nap will make any woman more attractive and lift years from her shoulders.

The Young Folks

OUR FLAG ON THE CONGO.*

DR. H. W. ROBY, BEFORE THE FARMERS' EDUCATIONAL AND COOPERATIVE UNION AT GARFIELD PARK, TOPEKA, KANS., JULY 4, 1908.

On the fourth of last July,
Where the glowing Afric sky
Bends above a sylvan scene
Clad in everlasting green;
And two lines of burning sand
Stretch away on either hand,
Barring out the Congo's tide,
From the hills on either side,
And two walls of living green
Shut us in from wider scene;
We were lying in the shade,
Which the mighty banyans made,
Drowsing through the sultry hours,
Mid the fragrant tropic flowers,
Waiting till the evening breeze
Should come fanning through the trees,
And disperse the glow of noon,
Holding Nature in a swoon.

We were talking of that day
In the home-land far away,
Of its blessings and its joys,
Of its happy girls and boys,
And the mighty waves of sound
Rolling upward all around,
Crackers, bands, and cannon's roar,
Sounding out from shore to shore;
How on every dome and crag
Breezes kissed our starry flag.

Yet, we lay there, ill at ease,
Dreading death or foul disease;
Round about us savage men
Crouched in every gorge and glen;
On the driftwood's gruesome heap
Poisoned serpents coiled in sleep;
Crocodiles on every hand
Slumbered on the burning sand;
Apes and monkeys swung at ease
Mid the tangled vines and trees;
Fierce chimpanzees there withstood
Huge gorillas in the wood;
Mid the jungle's thorny shrubs
Tigers gambolled with their cubs;
And from vantage-ground of crags,
Lions stalked the antlered stags;
While great mammals sweating blood,
Wallowed in the steaming mud.

Do you marvel that our band
Longed for home and native land?
While we talked of these things,
And the blessings freedom brings,
Suddenly there came a sound
From the forest depths profound,
Like that heard on Shiloh's field,
Where the charging squadrons
wheeled.

As it smote upon our ears,
And redoubled all our fears,
From the ancient forest broke
Clouds of dust, like battle smoke,
And a wild camelopard,
Strong and old and battle-scarred,
Cleared the forest with a bound,
And, amid the open ground,
Stood there as a king might stand,
Giving all the world command.

Dumb and speechless with amaze,
We had only power to gaze,
While our hearts with rapture swelled,
At the sight of our eyes beheld!
For before our wondering eyes,
As if dropped from out the skies,
Borne aloft on living staff,
(Neck and crown of wild giraffe,
Sunward blown, then trailing down
From his flowing mane and crown,
Like a beacon on a crag,
We beheld our country's flag:
Lines of light, vermilion bars,
Field of azure, flecked with stars,
Freedom's greeting, heaven sent
To that dark old continent.

Then we lost our craven fears,
Rent the air with shouts and cheers,
As that wild camelopard
Like a beetle's shining shard
Backward flung the light of day
As he turned and fled away,
Followed as he swept along
By that great Zarafa throng,
Whose resounding hoofbeats came
Like a roaring sea of flame,
And retreating, fled away
Where the lights and shadows lay.

Mid that forest's endless night
Staff and banner fled from sight,
While the welkin loudly rang
With the joyful songs we sang,
"Home, Sweet Home," most sweet and
grand,
In that mighty Congo land.

*Stanley had caught several giraffes a few days before in a corral, and tied American flags on their manes and crowns and turned them loose in the forest to awe the Zambesees and impress them with his power.

The Pueblos and Their Dances.

Most devout of all American peoples are the Pueblo Indians of New Mexico and Arizona. They alone have solved the problem of serving two masters. They have performed the impossible, in reconciling the two hostile and divergent religious systems of Paganism and Christianity. They worship the numberless gods of their forefathers with unflinching fidelity, pay due deference to the hereditary aboriginal priesthood, decorate every butte and point of rock with feather-tufted prayer sticks, and keep the sacred fires burning in their estufas from generation to generation, even as their ancestors did for a thousand years or more before the white man ever set foot upon this hemisphere. At the same time, they are loyal and devout Catholics. They attend mass and confession with exemplary punctiliousness, learn their catechism, say

their prayers and fall not in reverence to the priests of the church. They are baptized, married, and buried in accordance with the rites of Catholicism, but each ceremony is followed by another, conducted by the native pagan priest, in which the immemorial customs of the aborigines are sacredly followed. In thus paying reverence to the "jealous God" of the white men, and at the same time remaining faithful to the numberless deities of their ancestors, they appear to be conscious of nothing incongruous or inconsistent. From their point of view, if one religion is a good thing, two must be all the better. There is always room for another god or two in the Pueblo pantheon; and the more deities they can worship the stronger is their assurance that they are on the right path. Thus they are sincere Catholics and faithful pagans at one and the same time.

This doubling up of religious duties and obligations necessarily make serious inroads upon the time of our copper-colored fellow-citizens of the Southwest (for the Pueblos are not "wards of the government," but citizens of the United States, under the terms of the treaty of Guadalupe Hidalgo). Their native feast days and fast days are numerous enough, in all conscience. But to these have been added all the saints' days and holy days in the Catholic calendar, as well as the holidays customary observed by all patriotic Americans. All special occasions, whether feast days, fast days, days of mourning, or days of jubilation, are celebrated by tribal dances. Hence it happens that among the Pueblo Indians the dance is one of the main affairs of life. In the dance, the loves, hates, joys, sorrows, hopes, fears, prayers, and aspirations of the people find their fullest and freest expression. Most of the Pueblo's time, therefore, is spent getting ready for the dance, dancing, or recovering from the effects of the dance.

DANCE ON ALL OCCASIONS.

Each Pueblo town has its own particular and characteristic festival, which is not duplicated or imitated by any of the others. Most famous of these are the Acequi dance of Isleta, the Snake dance of Walpi and Oraiba, the Deer and Bear dance of Tesuque, the harvest dances of Acoma and Laguna, the feast of San Geronimo at Taos, and the Corn dance of Santo Domingo. The Corn dance of Santo Domingo is really the first of the season's harvest dances, of which each community has one. It always occurs on August 4.

Every few days thereafter, a harvest festival and dance is held at some other community until each one of the thirty has shown its devotion in this way to the ancestral Pueblo gods of the harvest. In some communities the dance and festival are in the nature of a prayer for a bountiful harvest. In others, it is a thank-offering for the crops that have been gathered. In Santo Domingo the annual Corn dance partakes of both features. The corn crop is then regarded as measurably safe, and thanks are offered to the tribal gods for promising conditions, but at the same time supplications are offered up that no untoward event may destroy the maturing grain.

Santo Domingo is really nothing but a handful of squalid adobe dwellings huddled on the eastern bank of the Rio Grande, a few miles below Lamy Junction. The tribal land grant comprises 74,743 acres of land, which is exceeded only by the holdings of Acoma, Isleta, Laguna, and Zuni among the Pueblo towns. It boasts of a fairly well preserved mission and two estufas, so that it may be counted somewhat above the level of the average Pueblo, although ranking far below Isleta, Acoma, Laguna, and Zuni. The estufa, or kiva, it may be well to explain, is the most characteristic feature of the Pueblo community. It is an underground ceremonial chamber which no white man, and no stranger of other tribes is ever permitted to enter. It is the Pueblo's holy of holies, consecrated to religious and ceremonial uses. In it the sacred fires are kept burning from generation to generation throughout

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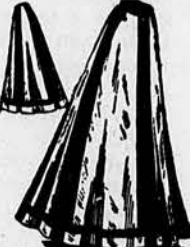
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frequently throughout the day and are indescribably weird, the voices pitched in a minor key, and blending in such unison through every cadence that but for the volume of sound the listener would think he heard but the voice of a single singer.

CLOWNS AMUSE THE ONLOOKERS.

Just as in the circus, so in the Corn dance, the clowns are far more interesting than the regular performers. They are naked, excepting for a breechcloth, and are painted from head to foot with red and white adobe clay. Some are painted solid white, some red, and some are made still more grotesque in appearance by having one side painted white and the other red. Twisted into their long black hair, which is fastened in a knot on top of the head, are bunches of dried grass, and the whole is thickly plastered with white clay. Bands of evergreen are fastened about the wrists, ankles, and waist, and snake-like designs are traced in black over their bodies, adding to the fantastic appearance of their make-up. Their contortions, gesticulations, and irre-

the ages. In times past it has been necessary for many of the communities to migrate from one place to another, either to secure better pasturage or to escape the pressure of hostile nomadic tribes. In such cases, the sacred fire is taken along, and is kept burning until installed in a kiva in a new home of the people. Should the sacrifice fire become extinguished it is believed to presage dire calamity, such as the destruction of the whole community. From the estufas emerge the "Delight makers"—the clowns that furnish amusement to the crowd on the occasion of the Corn dance. For three days prior to the festival, the native pagan priests remain in the estufas, performing the secret rites of the old-time faith. In what these rites consist no man but the members of the native priesthood knows.

When the morning of the 4th of August arrives every trail and road that leads to Santo Domingo is dotted with horsemen and wagons, and now and then a pedestrain, bound for the village. They come from all the Pueblos within traveling distance—San Felipe, Santa Anna, Jemez, Zina, Isleta, and Tesuque. A few white tourists are also in evidence. All jostle together in the narrow streets until the village is crowded to suffocation, with the exception of the plaza. That is kept clear, for it is there that the grand march begins and that the dance takes place.

The signal for the beginning of the day's ceremonies is given by the boom of a big tom-tom. The fiesta is opened by ceremonies in the church, conducted by the priest. Then the weddings occur—for the day of the Corn dance is selected by most of the youths and maidens of the Santo Domingo community as the most appropriate mating season.

The grand march is an event of no mean spectacular interest, accompanied as it is by the firing of guns and a dirge-like song that seems like a wail for the dead. These songs re-

tional actions are irresistibly funny. But apparently their jokes and ejaculations are more so, although most of these are couched in the native Indian dialect and the rest in bad Spanish, so that the white auditors miss the point of their sallies of wit.

In marked contrast with the antics of the clowns is the sedate and dignified demeanor of the dancers. Not one of them is ever seen to smile while the performance is going on; and the more hilarious the crowd becomes the more austere and funereal becomes the behavior of the dancers. One might think that the fate of the universe depended upon their performing every evolution of the dance with clockwork regularity and mathematical precision. They resemble wooden automations more than flesh and blood creatures, and all appear to be worked by the same wires drawn by the same hand, so regular and so nearly identical are their movements. The illusion is heightened by the fact that all are dressed exactly alike. Their long hair falls over their shoulders. Their bodies are nude to the waist, painted yellow. Strands of beads, turquoise, silver, shell, and other materials encircle their necks. Bands of evergreen and strings of rattles made of hollowed sheep-hoofs are fastened around the arms, waist, and ankles. A kind of apron is worn, to the back of which is fastened the skin of a silver fox, with head attached to the belt and the long, bushy tail sweeping the ground.

In front of the line goes the standard bearer, or master of ceremonies, carrying a long pole, to which is fastened a brilliantly colored tassel, and a long streamer of colored cloth, ornamented with gaudy feathers. To the motions of this wand the dancers respond as if to the command of a captain. Every motion is a signal, perfectly understood and implicitly obeyed by the performers.

After the first set of performers has held the plaza or open square for about an hour, another emerges from the estufa. These are so exactly like the first that if one did not see them come upon the scene and watch the others withdraw he would hardly believe that there had been any change. Thus from morning until the sun sinks behind the western horizon, the two sets of dancers alternate, with tireless energy and a power of endurance that makes spectators of the "superior" white race wonder wherein lies the secret of the physical strength of the Pueblos. As the shades of night begin to darken the dancers are called to a feast of meat, chilli, and tortillas. Then the alien whites must steal away, for the Pueblos resent too bold intrusion into their privacy, and hold the curious, prying, kodak-snapping pale faces in as profound contempt as they hold the dogs gathered around to snatch the crumbs that escape the lips of the revelers.—Kansas City Star.

A Young Man's Diary.

George Williams, the founder of the Young Men's Christian Association, began his business career as a clerk in a store and made a fortune, honestly. He had ability, and won influence and used it for making the world better. He lived to be eighty-four years old and after his death his diaries written when he was a young man were brought out. They contained something more than a chronology of the weather and his health. Many pages he filled with notes about business, but the secret of his success in life, in the business world and the social, is found in these entries made in his diary, written for no eye to see, but as the conviction of his heart and purposes of his life:

"What is my duty in business? To be righteous. To do right things between man and man. To do honestly. Not to deceive or falsely represent or color.

"What is my duty to those under me? To be kind, patient, winning, and respectful. When I see a fault, to call the party aside, and talk to him rather than rebuke him before others.

"Oh, my soul, do all under me think I am sincere? Where is the difference between my daily actions and another

man's? Am I more kind, more forbearing?

"I would be righteous and holy in business, doing it as for Christ. O Lord, thou hast given me money. Give me a heart to do thy will with it. May I use it for thee, and seek to get wisdom from thee to use it aright."

The Little Ones

THE CATERPILLAR.

Good-morning, Mr. Caterpillar, with your coat of brown; Where are you going this fine day to walk about the town? You do not in a hurry seem, I think you're rather slow, If I had sixteen legs I should a little faster go. But then you're dressed so very warm you can not travel fast; How very glad you'll be, I'm sure, to put away at last, That shaggy coat of black and brown which all the time you wear, Why, just to see you in that fur makes me warm, I declare. But one fine day when you a lovely butterfly will be, You'll surely hardly know yourself, or so it seems to me.

—A. S. in Child Garden.

The Tea-Set.

REBECCA D. MOORE.

It was hard to be off visiting alone without father and mother, but to be without one's brand-new china tea-set was simply unbearable.

This was the way it had happened. The day before, father had rushed into the house and told Marjorie that she was going to make a short visit at Aunt Ann's. Carrying her little suit case, marked with her initials, he had whisked her off to the station without so much as saying good-by to mama and brother. On the way he had explained that he and mother must go away from them all for a little while, and she was to stay with Aunt Ann. A friend was to look after her on the train and deliver her into Aunt Ann's hands.

The excitement of the trip kept Marjorie cheerful for a while. Then Aunt Ann had been very kind, and had made her little teeny-weeny biscuits for supper. But that had all been yesterday; to-day she was lonely.

When Aunt Ann had said that the minister's daughter was coming over a little while that afternoon, Marjorie had brightened at the thought of having a little girl to play with, but alas! a big, grown-up young lady had entered Aunt Ann's little parlor. Miss Alice, however, had very pretty pink cheeks, and smiled in such a way that it was not long before Marjorie was telling her all about papa, mama, brother, and the new tea-set.

"How would you like to make a tea-set?" said Miss Alice, who, smiling and taking Marjorie's hand, led her into the garden. They went straight to the circle of bright poppies, where Miss Alice selected a big poppy-pod from which the petals had all fallen. A straight piece of stem stuck in one side made a spout, while another curved piece was the handle. A tiny bit of stem left on where the pod had been picked was enough for the handle of the cover. Now there was a truly teapot that would not tip over, because the flat part of the pod made a neat little stand.

"And can you make cups and saucers, too?" exclaimed the delighted Marjorie.

Miss Alice said nothing, but began to look for some smaller poppy-pods that would stand up nicely. With her little pearl-handled knife she cut off the top, and adding a curved handle of stem, she had a little cup, with a saucer all fastened to it.

Marjorie made the next herself, and then they worked together until enough were finished for a large family. "Wouldn't nasturtium leaves make good plates?" suggested Marjorie.

"The very thing," replied Miss Alice. "Now our dishes are all ready, so you may set the table on that flat rock. Then I must go home, for it is nearly my tea-time."

"O, Miss Alice," cried Marjorie, clinging to her, "it's a lovely tea-set, and I don't want you to go, for you are as nice as a truly little girl!"

Lawrence Business College, Lawrence, Kansas.

Gilbert Ostrander has accepted a position as private secretary to the president of the Commerce Trust Company, Kansas City, Mo.

Donald S. Alford, of Nome, Alaska, spent three months on the business course last term. Mr. Alford has worked two years in the gold fields of Nome, and left to return to his work in Alaska.

Raymond Barrows and Otto Barteldes, two young men who took the shorthand course in the summer school a year or two ago, were graduated from the State University this year and received their degrees.

S. A. Kibbey, '08, of Westphalia, has a position as stenographer for a real estate firm in Kansas City. When in school, Mr. Kibbey made a straight grade of 100 per cent in spelling, both in daily work and examination.

Anda Alcott, '08, has accepted a position as stenographer to Dean Temple, State University.

In spite of the hard times, we have received more calls for young men and women stenographers and bookkeepers for positions in banks and business houses, than we have been able to furnish. The demand for expert help is always good.

J. F. Linn, '06, bookkeeper in the Santa Fe offices at Topeka, made the office a pleasant call recently. Mr. Linn surprised us by telling of a marriage ceremony recently performed in which he was one of the contracting parties.

Stilleo Still has accepted a position as stenographer in the office of "Political Headquarters," Topeka, Kans.

George W. Kuhne has been elected cashier of the Lawrence National bank and took his position July 1.

Everett Cory has taken a position as bookkeeper in the Merchants National Bank, Lawrence. This is a nice promotion for Mr. Cory.

The Man Behind Hill's Business College.



O. D. NOBLE.

We are now living in an age when merit seems to count for more than at any time in our previous history, when the young man who has mastered one thing and can do it well may find a ready market for his labor.

But the fellow who is cast upon life's sea with nothing to work with but his hands is up against a most serious proposition, and invariably "fated" to a life of humble servitude throughout his earthly career.

We shall never forget a remark dropped by an old college professor to an intimate friend of our boyhood who was undecided as to whether he had better go to school or to seek a position "just as he was." This gentleman who had spent the better part of his life in training young men for the best in life volunteered this timely injunction, "Young man if you were to go out into the field to clear a fence corner of weeds with a dull scythe you may with considerable difficulty succeed in tearing away some weeds but it would be a botch job and your work unsatisfactory."

The world frowns upon failure, but is every ready to greet success with a smile. The castle through in ruins yet bearing traces of a superior architectural beauty is an inspiring object of study. We love to read the poetry in the tumbled mass of rubbish and listen to its silent story of a brilliant past. But the building haphazardly constructed without any seeming thought for the future and to-day in premature decay is the dark side of the picture and we look upon it with apologies. The men who have succeeded in life are those who first recognized the importance of a thorough preparation, and counted the time not wasted that they spent in studying the foundation principles that are afterwards to become a part of their life work. The business of Hill's Business College, at Sedalia, Mo., is to train young men and women for a profitable and successful business career, and that it is a school where the highest possible training may be had is evinced by the great army of graduates that they now have holding positions with many of the most prominent business concerns of the country, and who are doing creditable service in their respective capacities.

This school has had a phenomenal growth since its inception in 1900, when they began with an enrollment of five students against five hundred in 1908. It is one of the best equipped of any institution of its character that we have visited for some time, modern, and up-to-date apparatus have been installed which greatly facilitates the work of the student, and every attention is given to the thoroughness of his work.

Prof. Oliver D. Noble, the president of the school, and the "man behind" it is a gentleman of culture and refinement, possessed of a genial nature that easily finds its way into the confidence and good will of his students.

When a student arrives (as one did the day we were there) he is at once met with that cordiality that makes



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one feel quite at home even among strangers and is made to feel that somebody is taking an interest in him, not merely because he has paid his tuition but heartily from a recognition of man's higher responsibility to man.

This college has issued a handsomely illustrated catalogue that gives in detail information and facts relative to this school and should you be contemplating attending some business college this fall it may pay you to give this institution earnest consideration before you decide.

When writing please mention THE KANSAS FARMER.

Maupin's Commercial College, at Chillicothe, Mo., one of the leading business colleges of the State, is adding extensive new equipment to the already splendid equipment of the college. A number of improvements will be made in the shorthand, typewriting, bookkeeping, and telegraphy departments. The past year surpassed all previous records of enrollment, and a much larger attendance is expected the coming year. Prof. G. A. Smith, one of the best known educators of the Middle West, has just been added to the splendid faculty of the college. Professor Smith will have charge of the bookkeeping department and will give instructions in the English, commercial, and common school branches.

In writing The Kansas Farmer please give your full name and post-office address.

Dairy Interests

Machine and Hand Milking Compared.

In January, 1907, the Oregon State Experiment Station installed a milking machine in the college barn. The experiment then planned was to milk half of the herd of fourteen cows with the machine, and the other half by hand, and then to compare the results. The machine was used on the first seven cows during the year 1907, and during this year is being employed in milking the other seven, and the first seven are again being milked by hand.

In this article it is intended to show the progress of the experiment up to the present time, and to make some comparisons. It is not possible with the present data to make any conclusive deductions. Some of the cows can not be accurately compared, owing to the fact that they were in their first period of lactation when milked by hand, and in the second when milked with the machine and would naturally have increased in their yield, under favorable conditions; there were also different times of the year when they freshened, but where these occur, it will be mentioned, so more accurate conclusions may be reached. In the following tabulation, the names of the cows milked with the machine and by hand are given, and the records made where each method was employed:

Name of Cow	Method	Pounds Milk	Pounds Butter
Cora.....	Hand	4,253	203.79
	Machine	6,346	315.77
Cynthia.....	Hand	2,096	113.45
	Machine	2,153	108.76
Fidget.....	Hand	1,573	61.65
	Machine	1,446	52.33
Glencoe.....	Hand	2,591	86.91
	Machine	3,765	106.25
Grand Coin.....	Hand	3,324	186.54
	Machine	3,169	171.46
Marcella.....	Hand	1,950	96.96
	Machine	1,193	55.35
Mollie.....	Hand	1,346	54.58
	Machine	1,473	58.43
Shorthorn.....	Hand	5,082	218.94
	Machine	6,691	287.68
Stump.....	Hand	4,811	258.77
	Machine	5,673	326.21
Gladis.....	Hand	5,800	276.00
	Machine	5,655	266.42
Kit.....	Hand	1,482	94.47
	Machine	2,966	183.96
Lady King.....	Hand	1,930	67.03
	Machine	2,078	79.33

From these records it will be seen that eight of the cows made advances in their milk and butter yields during the time they were with the machine; while three of them gave slightly less and one showed a very much lower record with the milking machine.

Cora, it will be noticed, has made an advance of about one-third in her milk and butter yield while being milked with the machine. The first figures

given are Cora's first year's milking and the second, in which she was milked by the machine, she would be expected to give better results. She had been milked about nine months of the second period with the machine.

Cynthia's record shows a slight gain of 54 pounds in milk and a decrease of 4.6 pounds of butter-fat during the time she was milked with the machine. This is the only cow that shows a decline in butter-fat when the milk yield increased.

The record of Fidget shows a slight decrease of 100 pounds of milk with the machine, but whether it was due to the influence of the milking machine or not, is not certain, as there might have been other factors which influenced the amount of milk yield.

INCREASE AND DECREASE OF MILK YIELDS.

Notice the remarkable record made by Glencoe during the two months of both years and an increase of 11.74 pounds of milk while being milked with the machine. It will be seen that she gave in the two months of the second year, 3,765 pounds of milk, or an average of 61.7 pounds per day for 61 days. This comparison is a very good one and shows that the machine has had no bad influence in lessening the milk flow.

Grand Coin shows a decrease of 255 pounds of milk and 15.08 pounds of butter-fat from the record of the preceding year when she was milked by hand. This is only a slight decrease for the four months which were compared. This is also a good comparison as she calved on the same date both years.

Marcella is the only one of the fourteen cows that has not taken kindly to the machine. She has held up her milk more or less since the machine was used on her, although she made no outward objections to its use. It will be seen that she gave about 767 pounds less milk during the time she was milked with the machine, which was from February 1 to May 1.

Mollie, Shorthorn, and Stump all show an increase over the previous records, while they were milked by hand. The latter two of the cows gave very good comparisons between the two methods of milking, as they are mature cows, and the records for both hand and machine milking were for a year.

Gladis's record shows a slight decrease in the amount of milk and butter-fat. This is a very good comparison for Gladis as the conditions both years were about the same.

Kit's records show an increase of 1,484 pounds with the machine milking, in the six months that the comparison was made, but this increase is largely due to the fact that the first record was made during her first period of lactation, when she was 2 years old, and the second record during her second period, when she was 3 years old, and the heavier milk record made during the time she was milked with the machine was on account of her being more mature; but this comparison is enough to illustrate that the machine was not detrimental to her increasing milk yield.

Lady King's record is a comparison during a period of forty days at the beginning of each lactation period. The amount of milk and butter yields are about the same, with a slight increase during the time she was milked by the machine. This comparison seems a fair one as far as other conditions are concerned. It will be noticed that during the time of her second record, she gave an average of 51.95 pounds of milk per day, and any serious results from the machine would have easily been noticed.

GOOD RESULTS OBTAINED FROM USE OF THE MILKING MACHINE.

While these comparisons of the records of hand and machine milking show slight variations both in favor of and against the machine milking, it is safe to say that the machine has given equally good results as hand milking. No bad results upon cow udder, in any way, have been noticed from the use of the machine. The cows stand as quietly and contentedly while being milked with the machine as they do while being milked by hand. The

machine seems to be a more natural way of milking than by hand, as the action of the pump upon the cow's udder is always even, and the suction is similar to that of the calf in suckling.

The time of milking seven of the cows with the machine was from 45 to 50 minutes, while with the same cows by hand, including the weighing of the milk and taking of samples for testing, it was 53 and 54 minutes. This gives the machine an advantage of from four to eight minutes, with the disadvantage of having to milk one cow alone on account of the old number. The advantage of time is not very great in favor of the machine, but one man has ample time to operate two machines. This would mean a considerable advantage with the milking machine.

The washing of the machine is not very difficult, as the parts are very simple. The rubbers are all made to stand hot water or steam. With plenty of hot water at hand, the machine can easily be washed in ten minutes.

The milking machine has no doubt come to stay, as it is a great labor-saver to the dairyman, and can be made a more sanitary way of handling the milk, which is an item of great importance. The experiments so far show that the machine is safe and reliable to use, and its general adoption by the farmers of the State will no doubt follow in the near future.—Geo. A. Nelson in Oregon Countryman.

Feeding Grain to Cows on Pasture.

C. H. ECKLES, PROFESSOR DAIRY HUSBANDRY, UNIVERSITY OF MISSOURI.

One of the most common questions which we are asked at this time of the year is whether it is best to feed dairy cows grain while they are on pasture. We have been giving this subject attention for some time and find that, in general, the ordinary cow does not give return for grain she receives as long as the pasture is abundant. A larger quantity of milk can be secured from any cow by feeding grain while on pasture. For this reason, if it is desirable to secure the very largest amount of milk regardless of expense, there would be no question regarding the feeding of grain to cows on pasture. Any ordinary cow, however, will not increase the amount of milk more than one or two pounds for each pound of grain fed, which makes the cost of production entirely too high.

The conditions are altogether different, however, with a heavy producing cow. It is not only economical, but absolutely necessary to feed grain in addition to pasture to a very heavy milker, or she will decline rapidly in the amount of milk produced. It is impossible for a sufficient amount of grass or roughness to be consumed by any animal to enable such quantities of milk and butter to be produced as the best cows now a days are capable of producing. As long as a cow is producing not over one pound of butter a day, it is possible for necessary food to be secured from the pasture but when the production begins to go higher, the necessity for feeding grain comes in. It can not be expected that any cow will produce 1½ to 2 pounds of butter a day for any great length of time on grass alone.

One result of feeding grain while on pasture which is often overlooked is that cows that have been so fed do not decline as rapidly in milk production during the period of short pasture or between fall and winter conditions, when they usually lack feed. It is often observed that the cows having had grain in the summer will produce milk better even through the following winter. This result is not surprising as it simply shows that the animal has been accumulating reserve material on the body which enables periods of short feed to be bridged over with less effect on milk production. This after effect of feeding grain should always be taken into account.

Ordinary pasture grasses are sufficiently narrow in their nutritive ratio, that is, they have a sufficient amount of milk-producing material so that



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there is no reason why corn should not be the principal grain fed to those cows that need it while on grass. Up to four or five pounds a day corn alone is as effective as any other grain feed in addition to pasture but in case of cows that are very heavily fed other feeds should be added in addition to corn, such as bran, oil-meal, oats, or any common feed.

In case there is not plenty of pasture, it will always pay to feed something to keep up the production of milk. If green feeds are available, they are the cheapest and just as effective as grain for the ordinary cows. However, if there is no green feed at hand, it will pay to feed grain rather than to allow the milk produced to decline for lack of feed.

The whole subject may be summed up by saying that it will always pay to feed a heavy-milking cow grain while on pasture but it does not pay to feed the inferior or even the ordinary milker, as long as the pastures are abundant. When the pasture is scarce, it will pay to feed grain even to ordinary cows. It is not necessary to feed the expensive purchased feeds while the cows are on pasture, unless it be to those that are producing a very large amount of milk and for this reason are being fed a heavy grain ration.

A Kansas Scoring Contest.

We herewith report the results of the second bi-monthly scoring contest, which is being conducted by the Dairy Department of the Kansas State Agricultural College.

The number of entries was double that received for the first contest, and the quality of the butter was of a much higher grade. The most serious defect was found in the flavor. Twelve tubs were scored as being "unclean." It is interesting to note, in this connection, an apparent effect of pasteurization and the use of starters. The average score of butter made from cream ripened with a

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starter was 90.4, as against an average score of 87.6 where no starter was used, making a difference of nearly three points. One tub made by the use of a starter, however, scored 84, indicating that a starter will not always improve the flavor, a poor starter being as bad as or worse than none at all.

Five tubs made from pasteurized cream and ripened with a starter, had an average score of 91½, as against an average score of 87.6 where cream was neither pasteurized nor a starter used, or apparently making a difference of nearly four points in favor of pasteurization and using a starter.

Five samples were criticised as being high in acid, eight samples were marked greasy and seven samples were mottled.

The three having the highest scores in this contest were Mr. E. J. Alexander, Salina, Kansas; Mr. H. L. Phillippi, Salina, Kansas, and Mr. Roscoe Rush, Kansas City, Kansas.—Prof. J. C. Kendall, State Agricultural College.

Missouri Jerseymen to Organize.

As the result of a temporary organization of the Jersey breeders of Missouri during the sale at Auten Farm, a meeting will be held at Kirksville, Mo., October 20, the day of the Kinloch Jersey sale, to perfect the organization. Mr. R. F. Tesson, of Clayton, Mo., is one of the leading spirits in this movement, and all interested are requested to communicate with him. We trust that a "Missouri Jersey Cattle Club" can be founded which will do much good for the interest not only in that State, but generally.—Jersey Bulletin.

What's the matter with Kansas Jerseymen doing the same thing?

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Poultry Notes.

If you have followed the advice that we have offered in these notes, and sold off all your surplus stock of old hens, the balance of them by this time ought to be taking a new streak of laying, provided you help them with the proper feed and see that they are not molested with lice. The lice pests and the hot weather problem are the two most important things to combat just now. The lice can be eliminated with persistent sprayings of a liquid lice killer and the heat can be ameliorated by providing some kind of artificial shade, unless you have natural shade for them in the shape of trees.

Now that the breeding season is over, and the eggs are no longer needed for hatching purposes, it is a very good idea to keep the males and females separate. You not only will get more eggs, but they will keep fresh much longer than when fertilized. When possible we would advise letting the hens have free range and keep the roosters penned up, of the latter we would keep only those that we needed for next season's use. The hens will lay much without the roosters' presence and they will be rid of a great and unnecessary annoyance.

Some breeders advise the keeping of the young pullets by themselves and the young cockerels by themselves. It is quite some trouble to do this, especially when free range is allowed the young stock, but if it can be done without too much labor and expense it would be a good thing.

With corn at eighty cents per bushel and wheat and Kafir-corn at a dollar and a half to two dollars per one hundred pounds, it is quite an object to find something at a reasonable price wherewith to feed our chickens. We would try and make them eat as much alfalfa as we possibly could. It is a good feed and to make it more palatable, we would chop it up fine and mix with it some cornmeal, moist-

ening it with skim-milk or water. For a change we would get some bones from the butcher and make a soup of them, and then mix this with alfalfa and cornmeal for their mash. We do not advise bran in this mash, for alfalfa leaves and bran have pretty much the same egg-producing constituents, and bran is very much dearer, and we are now after a comparative cheap food and there is none we know of that will answer as well as alfalfa. We would therefore feed the poultry all the alfalfa we could possibly make them eat and coax them into eating it by giving it to them under different forms.

With chicken feed at more than twice the ordinary price, it would seem that eggs ought to be worth more than twelve cents per dozen, which is the price paid for them at Topeka these days. Farmers ought to demand more for them, for they are out of all proportion to the usual cost of production and ought certainly to be worth as much as a pound of beefsteak, for there is more nutriment in a dozen of eggs than in a pound of meat. A good steak will cost from 20 to 25 cents per pound and will not go near so far as a dozen of eggs towards a good meal.

Neither is the cost of poultry as high as it ought to be. In to-day's paper hens are quoted at 7½ cents per pound, old roosters 3 cents, turkeys 10 cents, ducks 7 cents, geese 4 cents. Compare these prices with the price of beef, pork and mutton and it will be seen that they are much lower in value. Yet a pound of chicken will go much farther and is more palatable than a pound of beef. Why should such things be? It is because the farmers do not demand enough for their products. If they had but a little of the gall of the meat packers they would have more money in their pockets.

Poultry Pointers.

A good layer is generally a hen with a long, deep body, with a nervous temperament and an active disposition.

As a rule chicks that can not pick their own way out of the shell are not worth saving. Set them alone while hatching.

Never raise to maturity fowls that are slow of growth, ill shaped, or have any serious defects. They are more valuable for the table than as breeders.

When buying hens select the rustlers. They are the best layers and are more easily fed. Usually those which stand around and wait to be fed will not amount to much.

A surplus of food stuff of any kind fed to a fowl over and above the amount which is digestible and convertible to its needs is a waste of food and an injury to the fowl.

The fowl for the farmer is not the fowl of fancy feathers, but rather the fowl that will produce the greatest number of eggs and the most meat with the least food and care.

As a general rule the best fowl for the table is the one having a large amount of white meat. In such a fowl the breast bone will be found to be long and the meat in it full.

The greatest loss in poultry-raising from egg to maturity is weakness in the parent stock due to inbreeding and unsanitary conditions in the houses and runs. These are all avoidable causes.

All poultry not to be carried over should be sold as soon as in good marketable conditions. This saves feed and work.

Exercise creates a healthy appetite in fowls, develops bone and muscle, invigorates the system, stimulates a healthy circulation, and promotes digestion. An active fowl is almost in-

Of Interest To Women.

To such women as are not seriously out of health, but who have exacting duties to perform, either in the way of household cares or in social duties and functions which seriously tax their strength, as well as to nursing mothers, Dr. Pierce's Favorite Prescription has proved a most valuable supporting tonic and invigorating nerve. By its timely use, much serious sickness and suffering may be avoided. The operating table and the surgeon's knife, would it be believed, seldom have to be employed if this most valuable woman's remedy were resorted to in good time. The "Favorite Prescription" has proven a great boon to expectant mothers by preparing the system for the coming of baby, thereby rendering childbirth safe, easy, and almost painless.

Bear in mind, please that Dr. Pierce's Favorite Prescription is not a secret or patent medicine, against which the most intelligent people are quite naturally averse, because of the uncertainty as to their composition and harmless character, but is a MEDICINE OF KNOWN COMPOSITION, a full list of all its ingredients being printed, in plain English, on every bottle wrapper. An examination of this list of ingredients will disclose the fact that it is non-alcoholic in its composition, chemically pure, triple-refined glycerine taking the place of the commonly used alcohol, in its make-up. In this connection it may not be out of place to state that the "Favorite Prescription" of Dr. Pierce is the only medicine put up for the cure of woman's peculiar weaknesses and ailments, and sold through druggists, all the ingredients of which have the un-animous endorsement of all the leading medical writers and teachers of all the several schools of practice, and that too as remedies for the ailments for which "Favorite Prescription" is recommended. A little book of these endorsements will be sent to any address, post-paid, and absolutely free if you request same by postal card, or letter, of Dr. R. V. Pierce, Buffalo, N. Y.

Dr. Pierce's Pleasant Pellets cure constipation. Constipation is the cause of many diseases. Cure the cause and you cure the disease. Easy to take as candy.

variably a healthy one. Good layers are among the hustlers.

The fertility of eggs depends chiefly on two conditions being observed and neither one can be disregarded: the stock bird must be in good health and the number of females allowed to each male not more than he can manage and keep himself in sexual vigor.

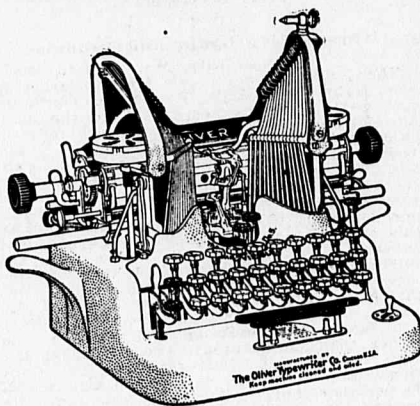
Cures Hay Fever.

New York.—A large number of hay fever cases were cured last season by the Toxico treatment and already at the commencement of the season, thousands of sufferers are seeking various methods of relief. The older methods have nearly all been abandoned and now the new Vienna Toxico treatment seems to be accomplishing wonderful results. The Toxico Laboratory, 1123 Broadway, New York City, have generously offered to send a free trial of Toxico, a cure for Hay Fever, Asthma, and Catarrh, to all who write them. This free offer will convince many skeptics who still insist that the only preventive of this malady is a change of climate.

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at half price during summer. Fine spring chicks and 1-year-old breeders. Send for circular and prices. A. H. Duff, Larned, Kans.

REMEMBER—That I have a choice lot of young stock coming on. All Smith's laying strain Rocks. Choice breeders. Prices right. Chas. E. Smith, Mayetta, Kans.

White Plymouth Rocks EXCLUSIVELY.

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

Thomas Owen, Sta. B, Topeka, Kans.

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Light Brahma Chickens

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

Chas. Foster & Son, Eldorado, Ks. Route 4

WYANDOTTES.

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, Boyers, Colo.

LEGHORN.

S. C. BROWN LEGHORN EGGS from our standard bred flock, sterling quality, rest of season \$1 per 30, \$1.50 per 50 or \$3 per 100. Our motto: fine birds, moderate prices. L. H. Hastings, Quincy, Kans.

S. C. B. LEGHORN EGGS—30 for \$1, 100 for \$3. Mrs. P. E. Town, Route 3, Haven, Kans.

STANDARD-BRED S. C. Buff Leghorns founded by stock of prize-winners of Chicago and St. Louis World's Fairs, and have taken 1st wherever shown. Stock for sale; eggs in season from pens scoring 90 to 95. No. 1 pen, \$2.50 for 15; No. 2, \$1.30 for 15. S. Perkins, 301 E. First St., Newton, Kans.

Rose Comb Brown Leghorns Exclusively. Farm raised. Eggs per setting of 15, \$1 per 50, \$2 per 100, \$3.50. P. H. Mahon, R. R. 3, Clyde, Cloud Co., Kans.

BUFF ORPINGTONS.

BUFF ORPINGTONS—1500 utility, January, February, March hatched cockerels and pullets to sell. Buy now and get the pick. Price will advance next month. Catalog free. W. H. Maxwell, 1906 McVicar Ave., Topeka, Kans.

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

SCOTCH COLLIES.

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

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

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

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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.

Incubators and Brooders

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

THOMAS OWEN, Sta. B. Topeka, Kans.

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GRAIN GRADING NOTICE.

Notice is hereby given that the "Grain Grading Commission" will meet at the office of the Governor in the city of Topeka on the 24th day of July, 1908, at 11 o'clock A. M., for the purpose of establishing grades for all kinds of grain bought, sold or handled in the State of Kansas and to be known as "Kansas Grades."

All interested persons, farmers or associations are invited to be present or to send representatives to meet with said commission for consultation and council.

G. W. GLICK, Chairman,
J. M. CORY,
J. T. WHITE, Secretary.

July 1, 1908.

Less than .50. .50 to 1. 1 to 2. 2 to 3. Over 3, T, trace.

all ages, at right prices. T. O. Brown Reading, Pa.

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.

SEEDS AND PLANTS.

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

CATTLE.

FOR SALE—3 registered Holstein-Friesian young bulls, 2 yearlings, 1 calf; Josephine, Mechthilde, Gerben strains in line with Colanthor 4th Johanna; also some choice grade heifers. For particulars write O. J. Duncan, Route 8, Box 46, Coffeyville, Kans.

HOLSTEIN BULL—Nine months old, 2 of his official tested dams averaged 80 lbs. butter in 7 days, 5 of them 28 lbs. butter, and 8 of them over 27 lbs. butter in 7 days. \$125. Wisconsin Live Stock Association, Appleton, Wis.

FOR SALE—One richly bred Shorthorn bull and a number of good females. Owing to limited pasturage will sell these so the buyer can grow them out and save some good money. C. W. Merriam, Topeka, Kans.

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

HORSES AND MULES.

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

MISCELLANEOUS.

NEW HONEY—Fancy, \$10 per case of two 60-pound cans. A. S. Parson, Rocky Ford, Colo.

WANTED—Good steady man for general work on 160 acre farm, with some hogs, cattle, etc. One who can go ahead with work. Owner's family is there but he is away two-thirds of time. Christian preferred. If married, can provide 2-room house. Steady position for right man; send particulars, references and salary desired. C. M. Stebbins, Devon, Bourbon County, Kans.

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

REAL ESTATE.

IDAHO—If you want truthful information about sunny Idaho, price of land, etc., write me, it will only cost you a two cent stamp. Mrs. J. Stephenson, Nampa, Idaho.

SAY—If you want to buy a model farm home that will feed your family regardless of dry or wet weather, or floods, write, F. L. Williams, Agricola, Kans.

FINE alfalfa, wheat and stock farms for sale. Circular free. Warren Davis, Logan, Kans.

FARMS for sale in Catholic community; \$25 per acre and up. Ed George St. Paul, Kans.

TWO HOMES CHEAP—160, good improvements, bottom, timber, orchard, alfalfa, route, phone; price \$500. 200 acres improved, smooth, 180 cultivated, land and location good. Garrison & Studebaker, McPherson, Kans.

IRRIGATED LAND in Pecos Valley 50 cents an acre per month. Write at once for information. M. C. Magill, Topeka, Kans.

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

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

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

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

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ALFALFA GRAIN and STOCK PANCH—With cattle and ranch equipment or separately at a bargain price. 1200 acres, well located and improved. 2-story, 9-room house, large cattle barn. Tenant house and horse barn with feed lots, scale, and numerous hog and poultry houses. 400 acres in cultivation, 80 acres alfalfa. Two-thirds of this ranch is alfalfa land. Abundant living water. Good orchard. All fenced and cross fenced. 20 acres alfalfa hog tight. One and one-half miles from R. R. town. Big corn and wheat market. \$17.50 per acre for quick sale of land. 250 head of cattle.

S. P. LANGLEY, Owner, Morland, - - - Kans.

Here's a Bargain—A solid section with 300 acres under cultivation, light improvements. 6 1/4 miles from market. Can be bought for \$15 an acre. This is a snap. If interested, write.

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

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LAND BARGAINS IN TEXAS AND ELSEWHERE

125,000 acres in Pan Handle country at \$5.00 to \$20.00 per acre. 22,000 acres in South Texas consisting of rice, cotton, sugar-cane, and all kinds of fruit lands at \$15.00 to \$25.00 per acre. Also choice fertile lands in the Artesian Belt of Texas. We also have a splendid list of Kansas ranches and farms for sale, and 10,000 acres in Colorado. For detailed information,

Address, H. P. RICHARDS, 205-6-7, Bank of Topeka Bldg., Topeka

DUROC-JERSEYS

Deep Creek Herd Duroc-Jerseys—Deep Creek Durocs of the very best of breeding for sale. Choice spring boars very cheap. Write me your wants. C. O. Anderson, Mat hattan, Kans.

STROH'S HERD OF DUROC-JERSEYS

70 spring pigs for sale, mostly sired by Hogate's Model, the sweepstakes boar at Nebraska State Fair, 1906 and out of popular breeding dams. Correspondence solicited. J. STROH, R. 4, DeWitt, Neb.

GEO. KERR'S DUROCS.

Pigs for sale sired by such boars as Lincoln Chief, Leader, Lincoln Top. Out of dams from the Improver 2d, Proud Advance, Top Notcher, Wonder and Ohio Chief families. R. R. 3, Box 90, Sabetha, Kans.

MADURA DUROCS.

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

FRED J. MILLER, Wakefield, Kans.

Vick's DUROCS are bred for usefulness. Choice young stock for sale by such great boars as Vick's Improver 47865, Red Top 32241, Fancy Chief 24922 and other noted sires. Correspondence invited. Visitors coming to Junction City and telephoning me will be called for. W. L. VICK, Junction City, Kans.

HILLSIDE DUROCS and HEREFORDS—Choice boars ready for service. Bred gilts and fall pigs, both sexes. Mc's Pride III, Oom Paul V, and Crimmon Knight 62579 in service. Six good Anxiety bred Hereford bull calves. Prices to correspond with the times. W. A. WOOD, Elmdale, Kans.

SPRING CREEK HERD DUROC-JERSEYS—75 choice spring pigs of both sexes for sale, by 7 noted sires and out of popular breeding dams. Tried sows and gilts bred to farrow in August and September. Boars in service, Raven's Pride 63145 and Nordstrom's Choice 75741. Ola Nordstrom, Clay Center, Kans.

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

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

Fairview Herds--Durocs, Red Polls—20 high grade Red Polled cows and heifers, 40 Duroc-Jersey swine, mostly males, will be sold at my fall sale on October 7, 1908. Nothing for sale now. Stock doing fine. J. B. DAVIS, Fairview, Brown Co., Kans.

WOOD'S DUROCS—Good hogs are good property now. Don't you want some? A few boars and gilts of 1907 crop. Nice lot of spring pigs just right age and weight to ship. W. A. WOOD, - - Elmdale, Kans.

PEERLESS STOCK FARM—DUROC-JERSEY HOGS FOR SALE. R. G. SOLLENBERGER, Woodston, Kans.

Howe's DUROCS. 100 early spring pigs, the best I ever raised. Improver, Top Notcher, Sensation and Gold Finch blood lines. Call or write. J. U. HOWE, Route 8, Wichita, Kans.

Orchard Hill Herd Duroc-Jerseys—A few good spring boars yet for sale. R. F. NORTON, Clay Center, Kans.

OAK GROVE HERD OF DUROCS—Herd headed by Choice Goods H. 36471 by Hunt's Model and Corrector's Model 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.

SPECIAL!—I have a car of long yearling bulls, a car of bull calves, a car of yearling heifers and a car of heifer calves for sale. These cattle are all in good growing condition and are mostly reds. They were sired mostly by Baron Dry 2d 124970, Bold Knight 179054 and Headlight 2d 243305. C. W. Taylor, R. 2, Enterprise, Kans.

K. & N. Herd 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, 1908, farrow. Write for prices and description. R. L. WILSON, Chester, Neb.

RALPH HARRIS FARM DUROC-JERSEY HERD—BARTE 168068, second in class American Royal 1907, farrowed 12 pigs by Red Wonder, Grand Champion Iowa State Fair, 1907, on 22d of April. All are livings. Average weight at 15 days old, 7 pounds, 13 ounces. Remember this litter when looking for a boar in a few months. Address, RALPH HARRIS, - - B. W. WHITE, Mgr. WILLIAMSON, on Kans. Farm station, Buok Creek, 4 1/2 miles west of Kansas City.

DUROC-JERSEYS

DEER CREEK DUROCS

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

BERT FINCH, Prairie View, Kans.

Jackson's Durocs

Special Bargains in fancy, well grown spring pigs, both sexes, and choice fall males richly bred; 2 of these are double cross Ohio Chief. Also 1 good herd boar, a grandson of Desoto 15155. 2 extra good registered Shorthorn bulls for sale.

O. L. JACKSON, New Albany, Kans.

ROSE LAWN Duroc-Jerseys

Gilts bred to farrow in April and May, either sired by or bred to Tip Top Perfection 34579, by Tip Top Notcher, grand champion of the breed, also pigs in pairs or tris. And a few Hereford cattle and Lincoln sheep for immediate sale.

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

BERKSHIRES

MAPLE HEIGHTS HERD BERKSHIRES

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

Ridgeview Berkshires

—FOR SALE—One aged and one yearling boar, and spring pigs of both sexes.

MANWARING BROS., Route 1, Lawrence, Kansas

Guthrie Ranche Berkshires

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

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King's Berkshires

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

Knollwood Berkshires

Headed by Pacific Duke 56691, dam Marjorie 37491 by Baron Duke 23d 50000, a son of Baron Lee 4th, the sire of Lord Premier and Dutchess 120th 28875, grand dam of Premier Longfellow. Stock of all ages for sale. All stock guaranteed as represented.

E. W. MELVILLE, Eudora, Kans.

CHESTER-WHITES

CLOVER RIDGE CHESTER WHITES

Choice pigs from the Garnett and Captain families. The large smooth strong boned, easy feeding kind. Correspondence solicited.

E. S. CANADY, R. R. 2, PERU, NEB.

OHIO IMPROVED CHESTERS

Ninety pigs of February and March farrow, and sixteen all boars and gilts. The large deep smooth bodied strong boned easy feeding kind. I pay express, and ship on approval. N. R. ROGERS, PERU, NEB.

Closing Out Herd O. I. C.

Including two champion herd boars. Tried brood sows and choice bunch of spring pigs ready to ship. Write for prices. Correspondence solicited. John Cramer, Beatrice, Neb.

O. I. C. SWINE

Fall boars and gilts, also spring pigs. They are bred right and will be priced right. Let me know your wants. S. W. ARTZ, Larned, Kas.

O. I. C. BARGAINS

Bred sows and gilts all sold. Have a fine bunch of spring pigs for which I am booking orders. Write your wants and get prices. W. S. GODLOVE, Onaga, Kans. Prop. Andrew Carnegie herd O. I. C. swine.

POLAND-CHINAS

Becker's POLAND-CHINAS. Choice fall and spring pigs, either sex, by Dandy Rex 42706, first in class at Kansas and Colorado State Fairs, 1906-8. Prices reasonable.

J. H. BECKER, R. 7, Newton, Kans.

SUNNY SLOPE POLANDS

A number of spring pigs, either sex, the farmers' kind, at bottom prices. Gilts will be sold bred or open. Also a litter of Scotch Collie pups, the great watch and cattle dog.

W. T. HAMMOND, Portia, Kans.

BOARS! BOARS! Choice spring males, at right prices, by Grand Chief, Masterpiece, Nonpareil, Choice Chief, E. L. 2d, and other noted sires. Call on or write.

THOS. COLLINS, R. 4, Lincoln, Kans.

Stalder's Poland-Chinas.

I have pigs for sale from the leading strains of the country. Prices reasonable. Write for full particulars.

O. W. STALDERS, Salem, Neb.

KEEP ON PRINCE

by Keep On; dam, Sweet May by Chief Perfection 2d; now owned jointly by R. A. Stockton and J. M. Devlin. An 800-pound boar in show flesh. The get of this boar will be the feature of our fall sale at Cameron Mo., October 2. R. A. Stockton, Lathrop, Mo.; J. M. Devlin, Cameron, Mo.

SUNFLOWER HERD. POLAND-CHINAS—Herd boars, Meddler's Defender (119147) by Meddler (99999), dam Excitement (289586) by Corrector (63379); Allen's Corrector (128813) by Corrector (63379), dam Sweet Brier (261780) by Chief Perfection 2d (42559); Kansas Chief (128983) by Chief Perfection 2d (42559), dam Corrector's Gem (260720) by Corrector (63379). G. W. Allen, Route 4, Tongonoxie, Kans.

FAIRVIEW STOCK FARM. Special bargains in choice Poland-China gilts, sold bred or open, and a few extra fall boars by prize winning sires. Fall sale September 8.

A. K. Sell, Fredonia, Kans.

JONES' COLLEGE VIEW POLANDS.

Several first class boars that are herd-headers; from 6 to 12 months old. Prices reasonable.

W. A. JONES & SON, Ottawa, Ks.

Formerly of VAN METER, Ia., and breeders of CHIEF TECUMSEH 2d.

JOHN BOLLIN,

Route 5, Leavenworth, Kans.

Breeds and Sells Popular Poland-Chinas

The State and World's Fair winning boars, Nemo L's Duke and The Esquinet, in service. Bred sows and serviceable boars for sale.

Highview Breeding Farm

Devoted to the Raising of Big Boned Spotted Poland-Chinas

The biggest of the big. The prolific kind. Big bones, big hams, big spots. Young stock for sale.

H. L. FAULKNER, Prop., - - Jamesport, Mo.

HOLSTEIN-FRIESIANS

East Side Dairy Farm Holsteins

Now offers three or four choice registered cows; an opportunity for someone wanting foundation stock to start a herd. Also a few choice bull calves 4 to 5 months. Prices reasonable. Address F. J. Searle, Oskaloosa, Kans.

BRAEBURN HOLSTEINS AND BERKSHIRES.

A few bargains in bull calves. Some choice bred spring pigs and boars ready for service. H. B. Cowles, Topeka, Kans. Ind. Telephone, 1086.

Holstein-Friesian Cattle

Herd headed by Sir Johanna Aagie Lad 34984. His four nearest dams averaged 85.9 lbs. milk one day, 23 1/2 lbs. butter seven days, 17,824 lbs. milk one year, 727 lbs. butter one year. He is assisted by Calantha Karndike 47877, dam Colantha 4th's Sarcastic, A. R. O., 21.13 lbs. butter in seven days as senior 2-year-old, by Sarcastic Lad, out of Colantha 4th, dam of the world's record cow—27,482.5 lbs. milk one year, 1,247.82 lbs. butter one year. Correspondence solicited. B. L. Bean, Cameron, Mo.

RED POLLS

COBURN HERD OF RED POLLED CATTLE—Herd now numbers 115 head. Young bulls for sale.

GEO. GROENMILLER & SON, Route 1, Pomona, Kans.

Foster's Red Polls.

Some choice young bulls and heifers, also a few good cows for sale. Prices reasonable.

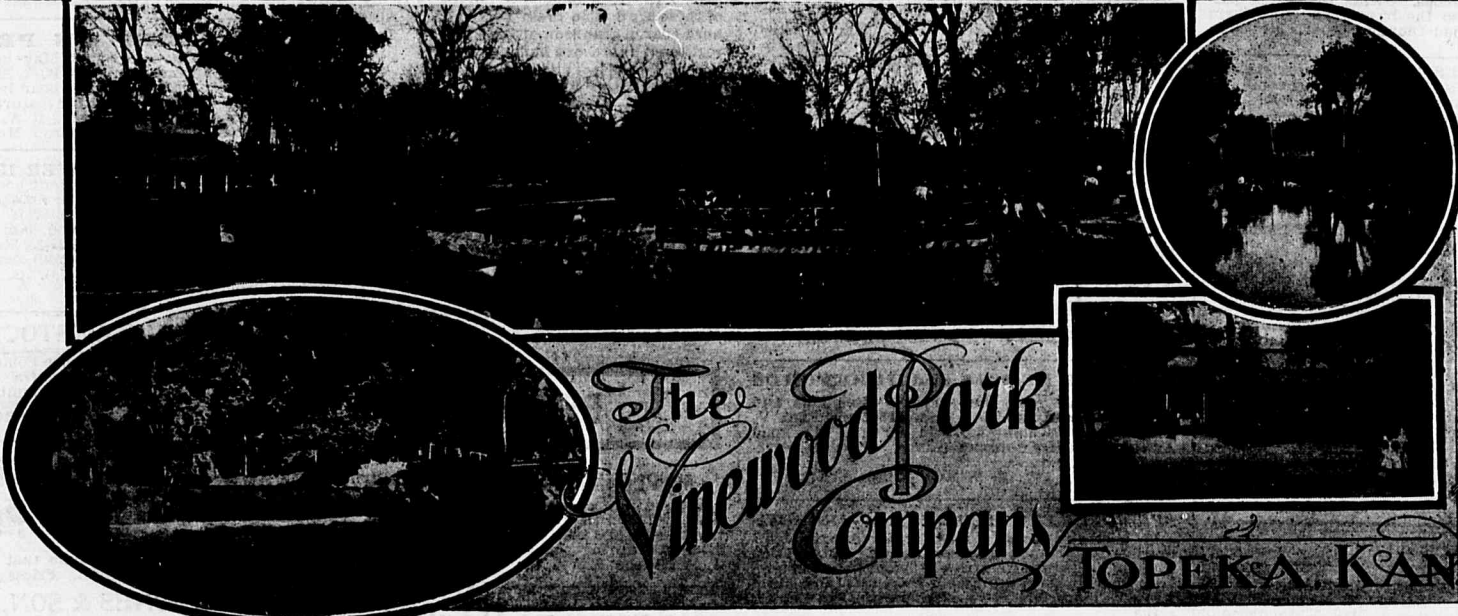
CHAS. FOSTER & SON, Eldorado, Kans.

Red Polled Cattle, Poland-China Swine.

Best of breeding. Write or come and see. Chas. Morrison & Son, R. 2, Phillipsburg, Ks.

In writing The Kansas Farmer please give your full name and post-office address.

Topeka Chautauqua, Vinewood Park, July 21-30



An outing within the reach of everyone. Ten days in "God's out-of-doors." A delightful camp ground with tents at cost. Pleasure and profit go hand in hand. The best lecturers that the American platform affords. Senator Charles Curtis, Senator J. P. Dolliver, Rev. Sam Small, Col. G. A. Gearhart and others. Two concerts every day, Marshall's Band, Jubilee Singers, Saxophone Quartette, Hungarian Orchestra, Mandolin Club. Besides these, the University Extension Courses in History, Sacred Literature, Missions, Domestic Science, are worth many times the price of your ticket. You can't afford to miss it. The Capital City itself offers a feast of good things. Washburn College's magnificent grounds and buildings should be visited. Parties of 10 to 20 can arrange by telephone to visit the observatory and view the wonders of the sky through the telescope. Topeka High School and Manual Training School buildings and equipments should be visited. Arrange by telephone for parties of 10 to 20. The State Capitol, the Santa Fe General Offices, the only Roof Garden in the Mississippi Valley, the great Santa Fe Railroad Shops, the State Hospitals and many other interesting places. The street car will take you to the Chautauqua grounds from any part of the city for 5 cents. Ask for transfers and get long rides. Apply for tents, programs, information to the Secretary, 114 W. Eighth, Topeka, Kan.

SHORTHORNS

ALYSDALE SHORTHORNS—Offer 2 bulls, 10 females. The bulls are "Lothair" by Prince Consort, dropped August 21, 1907, and "Sylvester" by Prince Consort, dropped September 2, 1907. Both out of Lord Mayor dams. Cows are nicely bred and in calf to Prince Consort or Master of Alysdale. Will be priced right to any buyer. C. W. Merriam, Columbian building, Topeka, Kans.

TENNEHOLM SHORTHORNS.

Herd headed by the Dutchess of Gloster bull, Glad-lator 261086 and B. L. E. 276673, a Cruickshank Butterfly. Cows of Scotch and Scotch topped Bates breeding. 1 yearling Barnum bull (a good one) for sale. Will make tempting prices on a few females. E. S. Myers, Chanute, Kans.

New York Valley Herds Shorthorn Cattle and Berkshire Hogs.
A large number of my Shorthorns will be sold at private sale, for lack of room, including 3 bulls from 15 to 24 months old; also 10 fall and winter bulls and heifers, and 20 head young females. Two September boars and 51 May pigs from prize winning stock. See them or write. J. T. Bayer, Yates Center, Kans.

SELDEN STOCK FARM.

Scotch and Scotch topped Shorthorns for sale. 8 young bulls from 8 to 24 months old, all reds and good quality. Sired by Baronet of Maine Valley 178876 and Secret Empress 232647. Prices reasonable. Inspection invited.

HOADLEY & SIGMUND, Selden, Kans.

PONY CREEK HERD OF SHORTHORNS.

Herd headed by the Scotch bull, Sybilla Viscount 268398 and Bashful Conqueror 2d 251505. The cows in this herd are mostly Scotch or Scotch topped from the popular and well known families such as the Victorias, Phyllis, Cowslip and Young Marys. Young bulls and heifers from this mating for sale. Correspondence solicited. Visitors always welcome, for it is a pleasure to show stock.
E. D. LUDWIG, Sabetha, Kans.

Prospect Farm (Shorthorns)

The oldest Shorthorn breeders in Kansas. The largest herd of Cruickshanks in Kansas. Herd headed by Violet Prince 145647 and Orange Commander 220590. Young stock of both sexes and some cows for sale. Quality and prices right.

H. W. McAFEE,

Bell Phone 59-2. Topeka, Kansas

HORSES AND MULES

ROBISON'S PERCHERONS

FOR SALE—Two extra good 2-year-old stallions; and some good young mares bred to Casino.

J. C. ROBISON, Towanda, Kans.

SHORTHORNS

Stewart & Downs, SHORTHORNS.

1 BULL—SCOTCH TOPPED, of serviceable age, with plenty of bone and finish; also a few choice heifers. Chief herd bulls: Forest Knight by Gallant Knight and Victor Archer by Archer. Prices reasonable. Call or write

Stewart & Downs, Hutchinson, Kans.

Greendale Stock Farm

25 YOUNG BULLS by Imp. Ardathan Mystery and Best of All for sale at bed rock prices. Can also offer some good Berkshire swine and Shropshire rams. Correspondence solicited.

COL. ED GREEN, Prop.,
Florence, Kan.

HEREFORDS

Maplewood Herefords

5 bulls, all tops, from 18 to 16 months old; and a few choice females, by the 2400-pound Dale Duplicate 2d, son of the great Columbus. Stock guaranteed. Prices reasonable. A. Johnson, Clearwater, Kan.

HORSES AND MULES

PIKE COUNTY JACK FARM

Largest importer and breeder of Mammoth Jacks in the United States. Every stall in my barns has a big Mammoth Jack, 15 to 17 hands high, 1000 to 1300 lbs.; that I will sell on one and two years time to responsible parties. If my Jacks are not just as I represent them I will pay all railroad expenses.

LUKE M. EMERSON Bowling Green, Mo.

ABERDEEN-ANGUS

10 FANCY ANGUS BULLS 10

Blackbirds, Heatherblooms, Drumlin Leys Minas and other popular families. 15 long yearling bulls, suitable for farmers or ranchmen at bargain prices. A few choice heifers and cows with calves at foot, some bred to Champion 110.

SHROPSHIRE SHEEP.

Early spring Shropshire ram lambs, sired by Imp. English rams and from choice Canadian ewes. Dandies.

SUTTON FARM, Lawrence, Kans.
Visitors always welcome. Phone us to "see 'em."

POLLED DURHAMS

Polled Durhams FOR SALE.

A choice lot of young Double Standard polled Durham bulls by Kansas Bred bull, Belvedere X2712, X5940, 263006 and inspection invited.

W. VanNice, -:- Richland, Kans.

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D. B. ROGERS,

Live Stock Auctioneer.

Brookfield, - - - - Missouri

Am now booking dates for the coming season. Write or wire me for same. Also a breeder of Duroc Jersey hogs and Hereford cattle.

L. R. Brady,

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MARSHALL, - - - MISSOURI
Twenty Years selling all breeds.

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My life work has been breeding and selling pure-bred stock.

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I am making a study of your herd and best interests from a public sale standpoint. I am conducting sales for many of the best breeders in Northern Kansas and want to make your next sale. Selling pure-bred live stock at auction is my business.