

KANSAS FARMER

FOR THE IMPROVEMENT



OF THE FARM AND HOME

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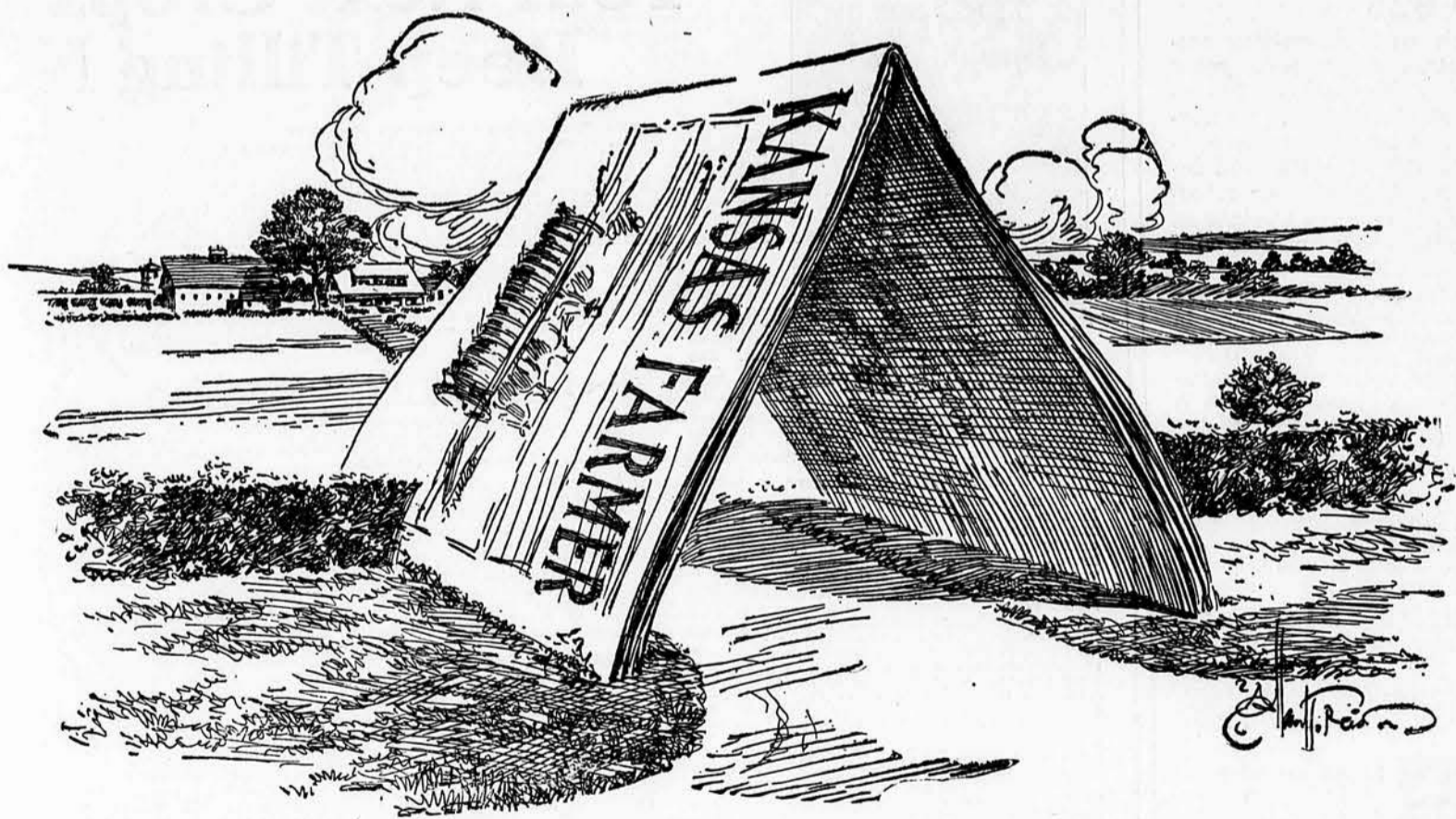
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FROM ideas to thoughts, on through plans and action to facts, man grows in potentiality to do and subdue. Lands, houses, ships, jewels and gold but evidence the value of ideas.

As every man is created with some wisdom, and no man all-wise, so each must profit from the store of his fellows. The successful experiment of one, leads to greater accomplishments by others.

Out of the needs of the various departments of human endeavor for the utmost mutual helpfulness have come the trade papers.

Representative of the greatest and most worthy industry, the farm paper stimulates ambition, initiates development, fosters progress and builds national greatness where else had been mediocrity. Who ignores it escheats opportunity and forgoes his own advantage. —O. B.



Toward Development And Progress

KANSAS STATE FAIR

HUTCHINSON

SEPT. 18, 19, 20, 21, 22, 23, 24, 25, 26 and 27, 1911

\$40,000.00 IN PREMIUMS AND PURSES

Exhibits must be in place SATURDAY EVENING, September 16th.

\$20,000.00 FOR RACING

\$1,000.00 in PREMIUMS for County Exhibits.

No other Fair in Kansas ever offered as much money to Exhibitors.

Cattle, \$6,657.00; Horses, \$7,330.00; Swine \$1,745.00; Sheep, \$1,123.00; Other Departments, \$3,775.00.

RACING

19 Harness Horse Races } \$20,000.00
36 Thoroughbred Races }

THE FOLLOWING IS COPIED FROM THE STATUTES OF KANSAS; Be it Enacted by the Legislature of the State of Kansas.

Chap. II, Sec. 5. That the Central Kansas Fair Association is hereby authorized to police its Fair Grounds and to enforce the rules and regulations of said Association.

Sec. 6. Standing. That the Fairs held and the Premiums Awarded by The Central Kansas Fair Association SHALL HAVE THE SAME STANDING AS THOSE GIVEN BY THE STATE FAIRS OF OTHER STATES.

This Fair pays more money to exhibitors than any other Fair in America, except those supported in whole or in part by taxation. This Fair is the largest in the world conducted in a city of its size. This Fair has the largest percentage of out-of-town attendance and of farmers of any Fair in the United States. Kansas loyalty to Kansas makes this Fair Great. It is for all the people and the people all attend. The meeting place of the breeder and buyer.

The Semi-Centennial—The Great Feature of 1911

Speaker Champ Clark, Sunday, Sept. 24th.

Various Governors, Monday, Sept. 25th.

President Taft, Tuesday, Sept. 26th.

Grand Parades (which will be reviewed by President Taft), Cornet Bands, Drum Corps, United States Cavalry and Artillery, State Militia, Green Men and Great People.

Ask your railway agent about train service—the railroads want to know what you want and you want to know what to get ready for. Come once and then again. It is TEN DAYS this year.

Write Col. L. A. Beebe, Secretary Commercial Club, for over-night accommodations.

Grounds in north part of city—double track electric street railway, city light and water.

A TROOP OF U. S. CAVALRY AND A BATTERY OF ARTILLERY WILL BE HERE BY ORDER OF THE SECRETARY OF WAR

There will be 363 trains into Hutchinson during this Fair.

For catalog or information address

H. S. THOMPSON, President.

A. L. SPONSLER, Secretary.

A Ticket to California for \$25

That's what a one-way second-class ticket from nearly all Santa Fe stations in Kansas and Oklahoma to California may be bought for September 15 to October 15 inclusive. The same or corresponding fare from points on other lines in connection with the Santa Fe.

If you buy one of these tickets you will save considerable money—in many cases as much as \$15. Isn't that worth something to you?

If you contemplate visiting the Pacific Coast, Arizona, Mexico, or a number of other places in the Southwest this fall, why not plan to go while these cheap tickets are on sale?

You may travel in tourist sleepers or free chair cars,—both carried on each of the Santa Fe's three fast trains that leave Kansas City daily. These

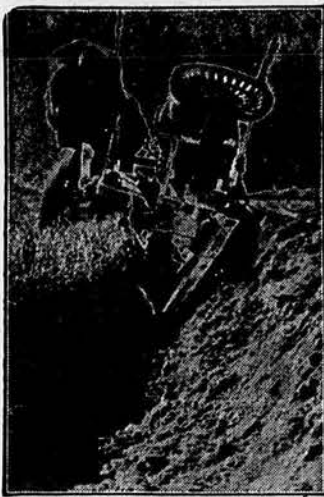
Tourist Sleepers

are of latest design and have electric lights, good beds, large dressing rooms and men's smoking rooms. Very liberal stop-over privileges give chances to visit Grand Canyon, Yosemite Valley and other points of interest.



If you are interested, I will send you a copy of "Tourist Sleeper Excursions" and other literature.

J. M. CONNELL, Gen'l. Pass. Agt. Topeka, Kansas



Spalding Deep Tilling Machine pulverizing a seed-bed 18 inches deep. Send for catalog.

Save Moisture for Your Next Crops by Deep Tilling NOW

Hopewell, S. Dak., June 28, 1911. "With a Spalding Deep Tilling Machine we plowed 10 and 12 inches deep this spring. Ground dry and hard, with a little moisture below, which makes it more tough. The machine pulverized it, while the ordinary plow, if you could get it to work at all, would throw it up in chunks, which by the time it was pulverized would be as dry as a bone. There is moisture in the ground but not enough to make a crop. Others who put in crops with disc, and plowed what little they could with common plow, their crops are all gone. Our wheat and barley field (30 acres) 20 acres of wheat is the first green field to be seen coming out of St. Pierre, 35 miles. WHERE WE MISSED IT, WAS NOT GETTING THE SPALDING DEEP TILLING MACHINE LAST FALL, AND DOING THEN WHAT WE DID THIS SPRING."

E. R. MEYERS & SONS. This letter has a priceless message to farmers all over the region of the summer's drought. If E. R. Meyers & Sons could have made a full crop by using the Spalding Deep Tilling Machine last fall—if the Spalding Deep Tilling Machine made "a green field" for them when other crops were all gone—don't you think you can insure yourself against drought, and harvest a 100 per cent yield next season, by using the Spalding Deep Tilling Machine this fall? The

Spalding Deep Tilling Machine

positively pulverizes your soil and prepares a seed-bed 12 to 16 inches deep or more—all IN ONE OPERATION. The Spalding Deep Tilling Machine works equally well in the fall, when the ground is hard and dry, as in the spring. It has never failed to thoroughly pulverize the soil to a depth of 12 to 16 inches in the fall, when the soil is so hard that an ordinary mould-board plow can hardly be made to work at all.

Conserves the Moisture

The use of the Spalding Deep Tilling Machine is especially beneficial in the fall, for the reason that the deep, thoroughly pulverized seed-bed, 12 to 16 inches deep or more, is an ample reservoir to hold the fall rains, the moisture from the winter's snow and the early spring rains.

The farmer knows that all crops suffer from drought at one time or another during the year. In some districts more than enough rain falls each year to make a crop, but it often happens that excessive rains are followed by dry weather. If the seed-bed has been prepared with a Spalding Deep Tilling Machine to a depth of 12 to 16 inches it will absorb three times as much moisture as a shallow-tilled field. The moisture will soak to the bottom of the deep seed-bed below the point of evaporation and be held there as a time of need.

plow shallow, expecting the moisture to rise by capillarity to moisten their crust and hold the drought at bay, when capillarity is already exhausted by the downward pull of gravity. Since the moisture does not rise to moisten our crust except very slightly by distillation, it is clear that the best thing we can do is to go down after the moisture. The only way to do this is to plow deeply, not only six or seven inches, but eight, nine, ten or twelve.

Saves Time and Labor

The Spalding Deep Tilling Machine prepares a thoroughly good and well-drained seed-bed, at a single operation. It so thoroughly pulverizes the soil that a large amount of harrow work, disking, etc., which has heretofore been necessary, becomes unnecessary.

No other machine ever invented will completely turn under weeds, corn-stalks, manure, etc., as well as it does. When tilling to a depth of 12 inches or more it covers such material so deep that neither a cultivator, harrow or drill will reach it.

Makes Money

Hundreds of letters as to the increasing of farm land values where the Spalding machine has been used, as well as its increasing of the crop yield, prove the value of the machine. Its use under almost any agricultural soil condition will make it the most valuable tool that any farmer can have on his place right from the start.

Facts for Farmers

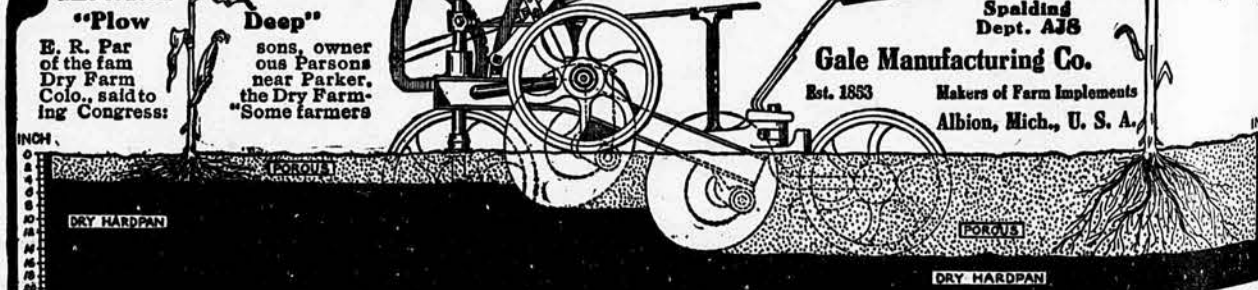
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Spalding Dept. A38

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Est. 1853

Makers of Farm Implements Albion, Mich., U. S. A.



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KANSAS FARMER

EDITORIAL

SECRET OF DRY YEAR YIELD.

A daily newspaper tells of a field of corn in the river bottom near Manhattan, which will yield 60 bushels per acre this year. The owner, William Ewing, says the secret of raising good corn in a dry year is this: "Plow the ground good in the spring. Plowed ground holds the moisture better than hard ground. Then plant the corn. Keep the weeds out of it from the start by cultivating it well, but if dry weather sets in don't touch the soil until after goods rains come."

This summer, the newspaper says, while other farmers worked from sun till sun in their corn fields, Mr. Ewing watched his corn grow and listened to the criticisms of his neighbors who said his corn would never amount to anything unless it was cultivated.

What Mr. Ewing is quoted as saying about deep plowing is generally considered the right practice, and the same is true with reference to killing the weeds and keeping the corn clean. Then conditions are extremely favorable and advantageous in a year like this and no doubt these same conditions are responsible largely for a better yield in Mr. Ewing's field than in fields not deep plowed and not clean. Mr. Ewing's early cultivation no doubt left the soil in good condition to withstand the drouth and what he did earlier his neighbors were endeavoring to do later and probably with less favorable results. Cultivation can have only two effects, first, to destroy weeds and second to keep surface in condition to conserve moisture. Millions of bushels of corn will this year be made as a result of the late cultivation. In every locality there are marked examples of good results from stirring the surface and breaking the crust after the corn had been laid by. This late cultivation must be surface cultivation—that is, shallow. Throwing the damp soil up to the drying rays of the sun and a destruction of the root system of the plant is the way not to cultivate in a drouth. Surface cultivation means a fining of the top soil, so that capillary attraction may be arrested before the subsoil moisture is evaporated through the surface. It will add available moisture from the stores below. A tearing up with big shovels will intensify the water famine.

Based on the registration in the various states and territories, it is estimated there are in the United States 519,091 automobiles, valued at \$1,000,000. New York has the most registered—70,000. Pennsylvania and California each has 40,000, while Illinois is given credit for 34,000. The fewest cars are owned in Idaho—750—while Delaware boasts only 900. That the farmers are ardent motorists is shown by the fact that Iowa has 24,200 cars, more than Massachusetts, which has 22,000, while Nebraska has 15,200. Ohio is strong with 32,400, while Wisconsin has 14,000, Kansas 12,300, Missouri 15,600, Michigan 16,059 and Indiana 15,000.

Agriculture throughout the world lost a valuable man in the death of Prof. F. H. King, which occurred recently at his home in Madison, Wis. Prof. King did more in advancing the study of the soil than any other scientist. Many valuable books have come from his pen, the best known, perhaps, being: "Irrigation and Drainage," "The Soil," "Physics of Agriculture" and "Ventilation for Dwellings, Rural Schools and Stables."

Recipes for the preservation of eggs are numerous, and many have appeared in papers recently. The object is to provide the farmer with a means by which he can preserve eggs when cheap and sell during the winter when prices are higher. Probably every farmer's wife has such a recipe, and the same can be used in Kansas for the preservation of eggs for home use. The laws of Kansas forbid the sale of such preserved eggs.

California has set an example worthy of emulation by her sister states, when she voted a bond issue of \$18,000,000 for the building of good highways throughout the state. The roads will be so planned as to be main arteries of travel. There is no phase of life in the country, social or economic, that is not affected by good roads. No conscientious man or woman living in a small place can afford to ignore the close relation between bad roads, bad health, bad morals and bad citizenship.

With which is combined FARMER'S ADVOCATE, established 1877.
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PICTURES—Good photographs, drawings and plans are especially solicited. Senders' names should always be written on the back of each picture. KANSAS FARMER can not be held responsible for any picture submitted, except under special written agreement.

CONTRIBUTIONS—KANSAS FARMER is always glad to have correspondence on all farm, live stock or household subjects. Your name should be signed to all communications and they should always be addressed to

KANSAS FARMER COMPANY, TOPEKA, KANSAS.

MONEY VALUE OF EDUCATION.

That an education is actually worth money seems pretty well established. That the farmer who is educated has a greater earning power than the uneducated farmer is shown by figures obtained as a result of an investigation by the New York Experiment Station. That investigation was made in one county in that state for the purpose of finding out just how much money the farmer was getting for the work he put in. It was found that out of 573 farmers, 398 had never gone farther than the district school, that 165 had gone to high school, while 10 had received further education. The 398 district school farmers received yearly for their labor \$318, the 165 farmers who had been to high school received \$622, while the 10 who had received at least some college education received \$847.

If 5 per cent interest is allowed on the money, the above figures will show that a high-school education is equivalent to a \$6,000 investment, and a college education equivalent to an investment of \$10,500. The investigation showed, as could be expected, that the poorest of the college and high school farmers made more money than the best of those who had only a district school education. So, with or without education, the results are dependent upon the man. The human equation is, after all, the important factor.

No man—farmer or what not—can afford to be an "average" man in his business. The product of the average farm in the United States is worth \$850. The figures show that the farmer who uses the most improved implements and methods produces 50 to 100 per cent more than the average. There are only about 200 good working days in the year on the farm, and every day must be made to count.

The dairy farmers of Shawnee county are most enthusiastic silo users. Close to 100 silos will be filled by them this fall. The farmers of Shawnee were slow compared with farmers of other counties of the state in taking hold of dairying, but now they are well in the lead. Ten years ago Shawnee farmers thought their land too high priced to devote to dairying—now they find that dairying of the good kind is about the only thing that will make high priced land pay.

What would appear to be a backward step was taken by the German government when it abandoned the tuberculin test for imported cattle and will, after July 1, rely upon clinical examinations. The test has long been the subject of contention as one of the chief obstacles to the importation of foreign meat. This action is the result of recent unsuccessful experiments.

Dairying has become permanent in Kansas. It is easier to dairy in this state than in any other. The climate is favorable, the best of feeds grow, every town affords a cream market, and spot cash is paid for cream.

NO DANGER FROM SMALLPOX.

A letter from a Junction City reader to Kansas Farmer says he and his family will spend the entire week of September 11 to 16 in Topeka attending the State Fair if the conditions regarding smallpox are not dangerous. To assure this reader as well as to state the situation to many others interested the editor on Monday morning made investigation that was thorough and painstaking.

At no time has the quarantine extended beyond a few blocks, and that was on the extreme east side of the city, over a mile away from the fair grounds. So small has been the danger of spreading that at no time has it been necessary to close places where crowds congregated, churches, parks, opera houses, picture houses, etc., and no spread of the disease was occasioned by these assemblages. The Daily Capital's annual children's picnic, which was attended by ten or fifteen thousand people, mostly children, and the great annual outing of over three thousand Santa Fe employees with their families, were held at Vinewood Park during the height of this so-called "epidemic," and no spread of the disease came of it. If there was an epidemic of smallpox in Topeka, such gatherings would not be permitted, and if permitted would not be attended by a handful of people.

City Commissioner Stotts says there was a tendency to enlarge upon the facts during the entire scare. The records of the health department show eight cases at present, and but two of these are violent cases. The city physician says the cases now quarantined will be released long before the month is out. "But, I will say that the spread of the smallpox was checked long ago, has been confined within a small district far removed from the busy portion of the city, and a full mile from the fair grounds. There can be no possible ground for belief that when these eight cases are released from the strict quarantine that a further outbreak will occur," said the city physician.

STIRRING THE SOIL.

Cultivation is too often regarded as necessary for weed destruction only. Cultivation has a much more important effect, however, than the killing of weeds. It is absolutely essential in order to produce available food for the plants of the growing crop.

The refuse of plant and animal remains cannot be used by plants until it is transformed into a soluble condition. This work is accomplished by several classes of bacteria. One class ferments ammonia; another class attacks the ammonia and forms it into nitrous acid, and another class attacks the nitrous acid and forms it into nitric acid.

The nitric acid unites with certain mineral constituents in the soil to form nitrates. Nitrates are available as food for green plants. The whole process of the formation of nitrates out of the manures is called nitrification, and the bacteria producing the change must have conditions necessary for their growth, such as plenty of moisture, proper temperature and good aeration.

NO PAY FOR GOOD ROADS.

Important and interesting good bill has been introduced in congress by Representative Shackelford of Iowa. The bill provides that the government shall pay an annual rental for roads used by rural free delivery mail. The better the roads the greater the rental, and it is the presumption that the government will devote the rental money to improvement of the roads. If these roads fail to measure up to a certain standard, no rental will be paid for use.

Director of the office of public roads, Department of Agriculture is made judge of roads used in rural free deliveries. His decision is final. The money is to be paid to the representatives of state treasurers by the States treasurer, upon warrants by the postmaster general. The governments are to be left to divide the money among the municipalities to participate therein.

The bill divides the roads into four classes, as A, B, C and D. Class A roads embrace all well graded public roads outside incorporated cities, towns and villages of not less than five miles length. The steepest incline upon this class must not exceed 9 per cent and the sharpest curve 9 degrees. The road must be not less than eighteen feet wide and the ditches, well drained, with a way not less than twelve feet wide composed of macadam, well maintained and so crowned as to shed water to the side ditches. It is provided that the government shall pay at the rate of \$80 a year for each mile of such roads.

Class B roads should have the same conditions as class A roads, except that the roadbed in the former shall be well compacted gravel. A rental of \$100 a year for each mile is provided. Class C roads are to be of clay and gravel; the rent for this class would be \$20 a mile. Class D roads would have the same conditions as the others except that class D roads should be dirt, and in good condition by dragging or grading means. The rental for these roads would be \$10 a year.

Compensation is provided for the use of roads which would not fall within these classifications.

The American Royal, Kansas City, October 9-14, will this year be the year's breeder show, and will give the exhibitors large opportunity to rub elbows. All the beef departments, Hereford, Shorthorn, Galloway and Angus, classes this year for feeder cattle roads that have not been fed grain. The division has classes for feeders 2 years old, 1 year old and under 1, and all championships for the three classes, \$50 and \$100 prizes for first and second. This feeder show means much more than the chance for the cattle raiser—it means a large collection of the finest feeder cattle for the man who wants to enter in the fat cattle market. A. M. Simpson, secretary, has offices in the Stock Exchange, Kansas City, from whom questions regarding entries are received, and where entries are received in all departments except breeding cattle.

Probably fifty chautauqua meetings are held in Kansas each year. At most of them for several years past they have had a "farmers' day" on which day are addresses by a speaker or speakers with a reputation for knowing something about farming, at least for the time being, and what to tell farmers to do with their land. The Old Salem Chautauqua at Urbana, Ill., undertook last year to have a school of agriculture under the leadership of the college of agriculture of the University of Illinois and the state board of live stock commissioners. It was a great success, and the plan seems a good one by which to get agricultural instruction before the masses in Kansas take notice!

The principal object of diversified farming is to so extend the farm operations to include a number of crops, so that the danger of failure may be reduced and in the diversification the land may be given better care. A crop should not be grown for variety's sake alone. There should be some specific reason for growing each crop. It should be a good market crop and a good feed crop—the best of its kind for the purpose for which it is

BREEDING DRAFTERS

From Standpoint of Corn Belt Farmer Who Understands the Requirements

By W. S. CORSA, Illinois

The draft horse is the logical horse for corn belt conditions. The proper tilling of the soil and the scarcity of farm labor require power for the large and larger machinery devised to perform the most work at the least expense for manual labor per acre of ground, or bushel of grain. This evolution of agricultural machinery to the large model has been rapid and wide spreading, until, in the west, powerful tractors are in common use. There the climate and soil and extent of ground to be covered point to the use of such massive machinery, but in the corn belt, upon the majority of farms, and in the general run of seasons, the draft horse will prove the most economical source of power in producing our crops for some time to come.

In the corn belt we don't breed draft horses to cultivate fruit, nor to raise cotton, but wheat, corn, oats, clover, alfalfa, the very best feeds to develop the draft horse to his best estate. It is a weakness of human nature to feed more liberally when you raise the feed than when it is brought in over the railroad. Draft horses, for their proper development, require generous feeding. So that nowhere else in all the country are the natural conditions for developing the draft horses so favorable as in the corn belt.

The custom and training of the corn belt farmer is to handle stock in bunches. The kindly disposition of the drafter, his quiet, friendly manner; his peaceable ways with those of his kind, as well as other kinds and mankind, enable him to fit in most acceptably with the prevailing methods and equipment on a corn belt stock farm. As with cattle, you can double the average bunch of draft horses and practically the only expense you have doubled is the expense of feed. Here is an economic feature which has considerable bearing on the successful contraction or expansion of such an enterprise. At home we have a 2-cent parrot in a \$20 cage, but a bunch of somewhat valuable draft mares went all winter and never saw the inside of a barn. An hour's chill would do up the parrot, but who ever heard of a draft horse, that had plenty to eat, freezing to death in the corn belt—if, on a day like this, one can imagine anything ever freezing. Woodland bluegrass pasture and grain twice a day, and today 21 colts saved out of 22 foaled, a result in no small measure due to abundant out-



BLOOD MARES—PRIDE OF THE FARM IN KANSAS CORN BELT.

of-door life and plenty of feed.

We overlook our hand when we fail to remember that the horse is an out-of-door animal; that the corn belt furnishes a well-nigh perennial and salubrious out-of-doors climate for the drafter at a minimum expense per head for equipment.

There has been—and is—much argument as to whether there exists such a creature as a "dual-purpose" animal. Permit me to lead forward a corn belt draft mare and mark her exhibit "A." She produces the crop which sells for cash and a colt which, from weaning time on, may be transmuted into more coin than the average individual offspring of any other farm animal at the same age. Jane produced \$1,400 worth of colts and Daisy \$900 worth, and performed their full share of labor on the crops. Later, branded by wire and marked with age, they sold for approximately their original cost. The depreciation in the power plant of the corn

belt farmer is at a minimum when the units are drafters; and when these units are draft mares, it is the only power plant I know of that renews itself while producing profitable labor. Many corn belt farmers have their own good grade draft mare, Jane and Daisy, and these mares have been busy.

The census bulletin shows that in 1900 Illinois had horses to the value of \$69,600,000, while in 1910 our horses were worth \$163,000,000. Part of this gain may be attributed to increase in value, but not all. There has been a large increase in the number of horses, and it is safe to say that the increase has been largely of the draft breeds.

In this same year—1910—the Illinois Stallion Registration Board issued up to October 1, 9,370 licenses. Of this number 3,397 were for pure-bred draft stallions—all breeds—an average of about 35 pure-bred draft stallions to the county, of this, the greatest draft horse state in the Union. A mighty little leav-

en to leaven \$163,000,000 of dough.

Reports from neighboring states on a similar story. In spite of the automobile and auto truck, the growth of population has brought about a great demand for farm and city work. The corn belt farmer wants to awaken the use of only pure-bred draft stallions and to the necessity of increasing the number of such stallions in every community, to the exclusion of the mongrel and the scrub.

"Grading up," as Dr. Alexander so states, "means using a pure-bred stallion for the first cross and continually crossing the resultant female progeny with pure-bred stallions of the breed used until all impure blood has been practically bred out." And that "as far as possible in every community unsound, unsuitable, undersized breeding animals should be discarded—sound, high-class mares substituted, and only pure-bred stallions patronized."

But the call of the times is to breed pure-bred as never before. The expense of maintenance is the same; the labor of the pure-bred is equal or superior to that of the grade. Lineage is no license to loaf in either man or beast; and the profit and pleasure in breeding pure-breds is incomparably greater. The pure-bred drafter on the corn belt farm spends better farming, better fencing, practical elimination of the barb wire, and the barbarian scrub, and the maintenance of our heritage unimpaired as the bed of the draft horse industry.

Other lands are casting eyes toward the United States for breeding stock of the beef breeds of cattle. Breeders of dairy cattle are at this very time anticipating the production in America of the choicest specimens of their favorite breeds. Already we have distanced foreign lands in the production of ideal types of swine. Is it possible that, having drawn to this country for years the highest type and best individuals of draft horses, that the day will not come when the draft horse in the splendor of his massive form, graceful carriage and symmetrical outline, will not be sought for in our own country by our own breeders and the breeders of foreign countries? It is an indictment of the intelligence and perseverance of our people to deny it, and when that day arrives, the drafter of our ideals and our dreams will be found on the land of the corn belt farmer.

KANSAS CROP REPORT

The Kansas State Board of Agriculture, last week issued its crop bulletin, showing that Kansas produced 51,000,000 bushels of wheat this year and that the corn prospect was 54.3 on more than 7,500,000 acres.

While the report of the Kansas State Board of Agriculture, indicating about two-thirds of an average crop of winter wheat for Kansas and a condition of 54.3 for the growing corn crop is not what Kansas is accustomed to read at this time of the year, the same thing may be said of about every other agricultural state in the Union. It is purely relative. By comparison Kansas is probably as well off as usual, and it is more than likely that prices will largely make up the difference. The great fact is that the state has escaped crop failure by so handsome a margin in such an unusually trying season and that there is still opportunity for further recovery, thanks to the rains. The report says:

The present inquiry reveals that the winter wheat crop of Kansas in 1911 was approximately 51,365,000 bushels, or nearly 9,000,000 bushels under that of 1910, and the smallest since 1899. It is one-third less than the average production for the decade ending with 1910.

From the assessors' returns from 88 counties it appears, however, that the acreage sown to wheat last fall was considerably in excess of that indicated in earlier unofficial reports. In April correspondents estimated that the probable acreage sown to wheat aggregated 6,950,000 acres, while the official returns for the 88 counties, and approximations from reliable data for the other 17, make it nearly 7,260,000 acres, or the greatest in the history of the state, the next largest having been 7,235,283 acres, sown in 1906. This year's acreage figures, as given here, however, are subject to such

changes as the substitution of the assessors' returns for the 17 counties will make. Likewise the statement as to yield is preliminary and the final figures may be modified somewhat according to the later returns, when threshing is more

nearly completed, but such variations will be of minor importance and the present figures should serve every practical purpose.

Of the 7,260,000 acres of wheat sown, the growers now estimate that nearly 37

per cent was a failure. This deducted, 4,597,079 acres from which this year's crop was harvested.

The counties having the highest average yields per acre are without exception in the eastern third of the state. Lyon leads with 28 bushels, and Doniphan and Coffey are next with 25 bushels each. Others reporting 20 or more bushels per acre are: Chase, Osage, Brown, Jefferson, Woodson, Elk, Pottawatomie, Shawnee and Wyandotte. The counties with the largest acreages, however, farther west, and in many of these the losses were heavy, not a few, especially in the western third, reporting practically total failures. Yields per acre gradually diminished from east to west, and in five or six counties no wheat was harvested.

On the whole the quality of the crop is reported more than usually excellent and of extreme weight, the medium grades being limited mostly to those portions where yields were lightest. Only three counties west of the 99th meridian report so much as 10 bushels per acre. Even though the higher yields per acre were in the eastern third of the state the 18 counties having 1,000,000 bushels or more each are, with one exception, in the central third, and aggregate 27,837,334 bushels, or about 54 per cent of the total crop. Three counties have more than 2,000,000 bushels each, Reno leading with 2,849,265 bushels, followed by Stafford with 2,350,569, and Barton with 2,310,143 bushels.

Contrary to popular belief, the acreage in corn is markedly less than a year ago. Incomplete assessors' returns indicated a planting of about 6,930,000 acres, and adding to this the abandoned wheat acreage reported planted to corn, brings the total to 7,681,330 acres, or 15 per cent less than last year, but larger still than (Continued on page 15.)

FOUNDATION FOR POULTRY PROFIT

By H. M. COTTRELL, Agricultural Commissioner of Rock Island Lines

The foundation for profit in poultry is laid in August. The foundation for profit consists in culling. Severe culling should be done in August, and the process should be kept up during the other eleven months.

The farmer who keeps poultry in a careless way to get eggs and some meat for his table, the egg specialist and the breeder for prizes alike need to cull their flocks in August and to cull them relentlessly.

The average farm flock at this time of year consists of a number of choice early-hatched pullets, a lot of runty late-hatched chicks, a few yearling hens, a number of old hens, some of whom ceased to lay several years ago, several long-spurred old roosters and a lot of active cockerels, whose chief business is to annoy the hens and dig up the garden.

Such a flock will average 60 eggs a year per female. Dispose of all but the choice early-hatched pullets and the best yearling hens and the average will rise to 120 eggs per hen per year. The feed bill will be cut in half.

A hen should be kept only through her second laying season. All the older hens should be fattened and eaten or sold. The young cockerels and the surplus pullets, well fattened, will bring as much in August as they will two or four months later, and it costs from 10 to 12 cents a month to feed each one that is kept over. Male birds should not be allowed with the layers except when the eggs are wanted for hatching, and in most flocks half to two-thirds of the old roosters can be sold and a saving of \$1.25 in feed be made for each one gotten rid of.

The breeder should cull out all his misfits and retain only such birds as come up to his standard and that he is willing to have shown in different parts of the country as his stock.

I learned this rule of rigid culling from Prof. W. E. Vaplon of the Colorado Agricultural College. The year before he accepted the position at the college he made an average from a large flock of \$5 a hen above the cost of feed.

ROUND THE FARM

Editorial Mention and Otherwise On General Topics of The Farm

days a great deal is written of dry farming, a method of cultivation which has been persistently urged upon those west of a line which roughly follows the 98th meridian. Kansas farmers have often stated that dry farming, speaking in a general way, is a good cultivation—such as it is—practiced in places where the rainfall is in excess of that in which dry farming is being taught. In this statement is correct, but the variations which the dry land farmer finds necessary and which really make this kind of farming in a class distinct from the ordinary. The editor has been into this subject of dry farming thoroughly of late and will this winter have more to say about investigations by experiment stations which have given dry farming care and attention convince us that there is to be expected from the methods of cultivation recommended, but these same investigations have prevented us from being so pessimistic as is much of the press and sales agents of dry farming. The editor has recently had opportunity to note actual results obtained by land farmers and these results are wonderful when compared with those obtained under methods formerly practiced. The man who will master and apply what is already known about the cultivation in western Kansas and eastern Colorado can make in those areas.

part of good stacking is almost a lost. The loss of hay, grain and other crops from poor stacking is astounding. The loss of wheat and oats is not so great as would otherwise be on account of the practice to thresh from the stack. The loss from these grains is increasing as a result of not stacking. The big loss from poor stacking is in the case of alfalfa hay, and recently compiled figures place this loss at less than an average of 25 per cent. This loss comes very largely from the fact that stacks of alfalfa are allowed to stand 2 or 3 or even 5 years, trip through eastern and central Kansas will prove. Poor stacking means the first year and an increasing loss each year the stack stands. The recently inspected a four-year-old stack of not less than 100 tons and one-half the hay was badly damaged—so damaged that it would not be valuable and at least 25 tons was of no value whatever as feed. With alfalfa selling around \$14 per ton the loss

alfalfa stacks are now given a new sort of treatment. The damage from poor stacking is recognized. Canvas covers are used in many localities but this is a sensitive method. The rains and sun destroy the best canvas. Another method is a covering of over-lapping wire mesh together and settling close to the hay. This is the best and cheapest temporary covering observed. But a hay shed is best and permanent, reducing the loss to a minimum, and not costing but little more than the making of the hay shed equipped with a stacker will pay.

reason for so much poorly stacked hay is because of the use of insufficient help on the stack when stacking machinery is used. No one man can stack after a stacker. The hay lays in the stack where it fell. The man cannot get it around. The old rule "keep the stack full and tramp, tramp" is a rule which one man cannot make good on a stacker.

mistakes agriculturally show plainly during a dry year. It is a poor farmer, or doctor or lawyer, who will not try to correct his mistakes when he has the error of his practice. A plain farmer of the corn grown this year is that of indifference and carelessness in stacking. Thousands of acres will this year yield practically nothing because the stacks are too thick. The favorable season in many sections resulted in growing of every corn kernel planted and stand far too good. Expecting that half of the corn planted would be lost, two times as much as was needed was planted and the result, no crop. Had the season been wet the net result would have been satisfactory.

thick planting of corn is the direct result of poor selection in seed corn. In endeavoring to select ears with kernels of uniform size, the farmer too

often fails to give uniformity a thought—he even shells into the seed corn tips and butts which makes the variation in size the more pronounced. Kernels uniform in size are required for uniform planting. The planter plate used may be just right to drop one large kernel in a hill the desired distance apart. The same plate will drop two or more small kernels. The farmer knows this, but figuring that a part of the corn will not grow he guesses the stand will be all right. A favorable season for germination gives him too many stalks and a dry growing season a short crop or a crop of nubbins.

To avoid the mistake select ears with uniform sized kernels, then select the planter plate desired, testing out the plate before using. After selecting the seed corn make a germination test and know whether or not it will grow. If the seed is of low germinating power get good seed. One vigorous stalk every 12 to 14 inches and not a hill missing and producing one or two ears per stalk will make plenty of bushels per acre in a

another farm not more than three miles distant it took 25 acres to fill a 100-ton silo. The market value of the land was about the same. It can thus be seen that estimates on the cost of production will vary greatly, probably due more to the amount of ensilage produced per acre than to the cost of filling, although that is no small item. The variation in estimates will not be so great if it is figured on the basis of the bushels of corn produced per acre at market value.

"Professor Mumford of Illinois states corn yielding 42 bushels per acre and worth 35c on the market will give ensilage at \$2.75 per ton. In my own instance, last year where it took 18 acres to fill two silos of 110 tons each, and with an estimate of the corn at 60 bushels per acre, at 35c per bushel, and with the labor of filling extending over a period of four days, and costing \$110, and allowing the stalks to be worth \$1 per acre on the market, the cost of ensilage per ton was \$2.59.

"Professor Haecker of Nebraska Station bases his estimate upon the cost of growing the corn and states that ensilage

"Deep Early Plowing Ahead of Eleven Other Methods"

The results of experiments in wheat growing at the Kansas Experiment Station as reported by lectures on the wheat train recently operated by the Rock Island are:

Land disked, but not plowed, cost \$1.95 per acre for preparation, and produced 4½ bushels of wheat per acre. The crop, when sold, returned \$1.47 paying for labor required to prepare the ground.

Land plowed three inches deep (too shallow) September 15 (too late for best results) gave a yield of 14½ bushels, a return of \$8.52 per acre after paying for labor required to prepare the ground.

Land plowed a proper depth, seven inches, September 15 (too late) produced 15½ bushels per acre and gave a return of \$9.08 per acre after deducting the cost of preparation.

Land double disked July 15, to stop waste of moisture, plowed seven inches deep September 15 (too late for the best results, even when land has been previously disked) produced 23½ bushels per acre, showing a return of \$14.50 per acre after paying the cost of preparation.

Land plowed August 15, worked sufficiently to preserve soil mulch thereafter, yielded 27¾ bushels per acre, with a net value of \$18.29 per acre.

Land plowed August 15 seven inches deep, not worked until September 15, showed a yield of 23 2-3 bushels per acre and a return of \$15.34 after deducting the cost of preparation.

Land double disked July 15, to save moisture, plowed August 15 seven inches deep, produced 34 2-3 bushels per acre and gave a net return of \$21.44.

Land plowed July 15 three inches deep (plowed at the right time, but too shallow for the best results) produced 33½ bushels per acre and a net return of \$22.32.

Land listed July 15 five inches deep, ridges split August 15, gave a return of 34 1-3 bushels per acre and \$23.73 over all expenses.

Land listed July 15 five inches deep, worked down level at once to avoid waste of moisture, gave 35 bushels per acre, from which there was left \$24.35 after paying cost of preparation.

Land plowed July 15 (the right time) seven inches deep (the right depth) gave a yield of 38 1-3 bushels per acre, the highest yield in the experiment. After paying for the cost of preparation, there was left \$25.74 per acre, the largest net return of any method under trial.

good year, and in a poor year will make more corn than the thickly planted. Kansas Farmer knows one man who followed the above plan this season with very satisfactory results and will endeavor to have him tell our readers how he does before corn planting time next spring.

Farm Produce in Iced Cars.

The Public Utilities Commission will ask that the railroads furnish refrigeration for milk, butter and eggs for local hauls. They are taking a great interest in the care of eggs, butter and milk. It is generally conceded that hundreds of thousands of dollars are lost by Kansas every year because of the methods of handling shipments. Refrigerator cars are furnished by the railroads for long hauls, but frequently eggs become unfit for food while getting to the concentrating point where the refrigerator cars are stationed.

Cost of Filling Silo.

The cost of a ton of ensilage depends upon the methods employed in growing the corn and in filling the silo. If a man is a good farmer and raises a large crop of corn and the cost is based on the cost of producing an acre of corn, it will be seen that his ensilage will cost a great deal less per ton than the ensilage produced by his neighbor who uses a small amount of corn. P. W. Pugsley, Nebraska, says:

"Last season I saw one farm where eight acres filled a 100-ton silo, while on

can be grown and put in the silo at \$1.95 per ton. Mr. Richardson of Scott County, Iowa, says that it cost him for growing and filling \$1.15 per ton. I believe careful farmers can easily produce ensilage at \$2.50 per ton, figuring the cost on the market value of the corn if it had been harvested and sold, and at this rate it is one of the cheapest and best foods in connection with alfalfa or clover hay that can be produced in the corn belt."

Discing Stubble Before Plowing.

We must of necessity do more work on our land, pointing to a better system of cultivation. There is in our correspondence indication the farmers are awakening to the advantages of better tillage. A subscriber asks why it is advantageous to disc stubble before plowing. The fact is that the pulverized surface soil is turned under and aids in promoting a uniform distribution of moisture by maintaining proper porosity of the soil. This fine soil is conducive to maintaining or holding the moisture and resisting droughts.

These conditions establish the ideal seed-bed that will admit of the plant-roots reaching down to the very depth of the cultivated soil, while the stubble, small weeds, and all other materials turned under and mixed with this fine soil will form a sort of fertilizing mulch in which are stored those elements so essential to a quick, healthy germination of the seed and a rapid, vigorous

development of the crop, it having an abundant supply from which to draw sustenance anew as its roots reach farther and farther away from the plants.

Seed Corn—Land Preparation.

Answering Subscriber J. G. E., Hope Kan.: Kellogg's Pride of Saline is a variety of white, and Kansas Sunflower, a yellow variety of corn adapted to Dickinson county uplands.

If you are desirous, as you say, of doing a great deal of work on your wheat stubble land in preparation for corn next spring, you could do no better than to plow deep this fall. Plow before weeds seed, as the ground should be clean for corn planting. The weeds and stubble plowed under will add humus and plant food, which will next year be available for the corn plant. This is a point in addition to the summer fallow worth considering.

In your section listing corn is the common and best practice. List deep. Test your seed corn. Use a drill plate that will drop one kernel in a hill and 14 inches apart. Too frequently corn is planted too thick. A good ear to the stalk and one stalk every 14 inches will make a big crop.

Manure Helps Alfalfa.

A view in alfalfa cultivation not heretofore expressed is given by Wing, the Ohio alfalfa expert. He says:

"From experience I feel sure that I had rather take a poor piece of land, well manured, for alfalfa growing, than a naturally rich piece of land with no manure." In another part of his book he says:

"I once saw a field sown to alfalfa in Canada that was so well inoculated that in six weeks after the alfalfa was sown, the tiny nodules were found on the roots and this field was the first sown in that neighborhood, nor was it artificially inoculated. It had simply been well manured. In other states I have seen the same curious results. In Iowa, on the Experiment Station Farm at Ames, a field was sown in alfalfa. All the seed was sown the same day and in no way was the treatment of one part of the field different from the treatment of any other part, yet there was secured a fine stand of thrifty alfalfa on one side of the field and very thin and poor alfalfa on the other side. The explanation seemed to be that on a previous year one side of this field had been manured and sugar beets grown thereon. Yet all the field seemed very fertile, and Director C. F. Curtiss thought that planted in corn all of the field was rich enough to grow 80 bushels to the acre. But that addition of some stable manure a year or two previously made one side of the field eminently fit for alfalfa, while the other side remained in unprofitable condition so far as alfalfa was concerned."

Meritorious Resolutions.

These resolutions of the Manhattan Grange set an example for all the granges of the state, as well as for all other organizations interested in the best agricultural conditions:

"Whereas, There is an effort being made to introduce the cultivation of tobacco into Kansas, therefore,

"Be it resolved, by Manhattan Grange, P. of H., that we view this movement with concern and disfavor, for the self-evident reason that Kansas can ill afford to devote to a useless and soil-destroying crop the best and most fertile of her land, which is becoming more and more in demand with increasing population.

"And, be it resolved, That we very respectfully, but most urgently, request those of our Agricultural College who have influence in directing agricultural activities in the state, to use their best efforts to encourage the useful and beneficial in agriculture and discourage the useless and wasteful.

"And, be it resolved, That the regents of the Kansas State Agricultural College be most earnestly requested to lend their assistance toward the same ends."

The committee drafting the resolutions was A. Munger, R. A. Willis and Alfred Docking.

Old or New Seed Wheat?

Ellsworth county subscriber: If your last year's wheat has been kept in good condition, not heated, wet or wormy, and is of better quality than this year's crop, there is no reason why you should not use it for seed. In fact, it will be better seed than the new crop which you describe.

FARM POWER

You'll be Hot



and tired and thirsty after many a dusty drive or weary walk this summer. For this—and just any time for pure deliciousness—drink a glass or a bottle of

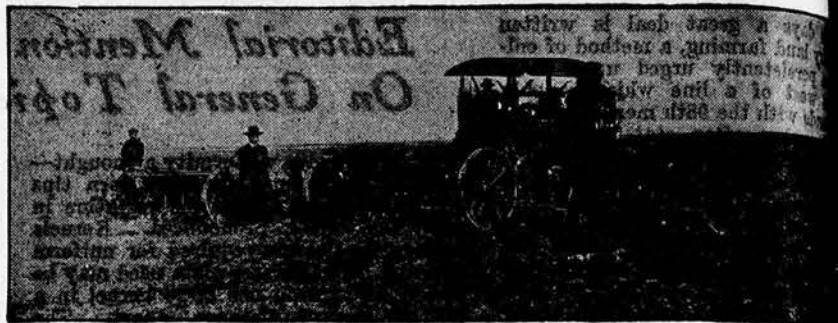
Coca-Cola

The pure and wholesome beverage. A regular liquid breeze that blows away thirst, fatigue and heat. Delicious—Refreshing—Thirst-Quenching 5c Everywhere

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Send for our interesting booklet, "The Truth About Coca-Cola"

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TRACTOR, 45 HORSEPOWER, PULLING FIVE 12-FOOT DRILLS, SEEDING STRIP 60 FEET WIDE AT THE RATE OF 90 ACRES PER DAY.

Joy riding by chauffeurs or drivers in borrowed cars is rated as larceny by the New York state laws, punishable by fine and imprisonment of one to five years.

or disadvantages of the machines named. Inquiries are also solicited and answered from competent persons will be given.

Somewhere the statement has been made that deep plowing will result in an increased yield of \$5. to \$10 per acre of land. If this is so, and the mules cannot get the plow point into the soil deep enough, an engine can.

The Useful Tractor.
The tractor on the farm arose
Before the dawn, at four;
It drove up cows and washed the clock
And finished every chore.

A gas tractor eats nothing while resting, never tires and is ready for work at a turn of the wheel. It can't set anything afire; works in all temperatures from 0 to 100 in the shade.

Then forth it went into the field
Just at the break of day;
It reaped and threshed the golden yield
And hauled it all away.

A concrete or cement block garage is a great satisfaction as well as a good fire protection for the auto. Such a garage is water tight and fireproof. A cement floor is easily cleaned and will permit washing the machine inside the building. Build floor so as to drain to one corner.

It plowed the field that afternoon,
And when the job was through
It hummed a pleasant little tune
And churned the butter, too;

In a recent 150-mile railroad trip the editor observed three tractors pulling a road grader and putting into shape country roads. The tractor and grader were doing excellent work. Tractors are largely used by city paving contractors in furnishing the power for excavating machines. The stretches on this work are short and the objection to making frequent turns seems no longer to exist.

And pumped the water for the stock
And ground a crib of corn,
And hauled the baby round the block
To still its cries forlorn.

Thus ran the busy hours away,
By many a labor blest,
And yet, when fell the twilight gray,
The tractor had no rest.

For while the farmer, peaceful-eyed,
Read by the Tungsten's glow,
The patient tractor stood outside
And ran the dynamo.

—George Fitch



THIRTY HORSEPOWER TRACTOR DOUBLE DISKING IN CORN STUBBLE AND DRILLING OATS AT RATE OF 20 ACRES PER DAY.

Siren horns and other noise-making implements which have been attached to automobiles for the purpose of notifying the pedestrians of the approach of a machine have been prohibited in Chicago by ordinance. The freakish noises resulting from these horns more often serve to scare horses than does the pulsation of the engine or appearance of the automobile.

"Over the line" in Canada, specifically in Alberta, Manitoba and Saskatchewan thousands of these modern gas tractors are plowing, seeding, disking, hauling, making roads, etc. The size most used is an engine equal to 25 to 30 good horses or mules. In the corn belt Iowa and Kansas they are using a smaller engine, equal to 15 to 20 good horses or mules.

This column, devoted to automobiles, farm tractors, motorcycles, stationary engines, each principally of gasoline or kerosene type, will be a permanent feature of Kansas Farmer. This is the first agricultural paper in the west to add such a feature to its columns. The fact that Kansas has nearly 15,000 automobiles, as many or more motorcycles and two times as many stationary engines, and the number of gasoline tractors daily increasing, indicates how interested the Kansas farmer must be in this kind of power for general farm utility and for pleasure. It will be our purpose to give such information as is obtainable and authentic, and invite correspondence from users setting forth the advantages

Deep plowing is being urged upon the farmer, and its advantages are apparent on every hand. The farmer is today requiring more power than ever before to do his work. More work on the land is necessary and the hired man problem no nearer solution than 10 years ago. His hope, therefore, lies largely in the gang plow, the large harrow, the 12-foot drill and other large machinery which can be operated at a minimum of man labor. The gas tractor will be required to furnish the power instead of a large amount of horse flesh.

A subscriber asks what a tractor rated at 45 horsepower will actually do. (Continued on page 15)

FREE DIAMONDS **FREE WATCHES**

An opportunity to obtain a fine diamond ring or a full warranted watch ABSOLUTELY FREE.

IF YOU HAVE NO PIANO IN YOUR HOME.

LIST OF PRIZES.

1 Cluster Diamond Ring.	11 Fine Brass Clock.
2 Cluster Diamond Ring.	12 Gold Brooch.
3 Solitaire Diamond Ring.	13 Gold Brooch.
4 Solitaire Diamond Ring.	14 Gold Brooch.
5 20-year Gold Filled Watch.	15 Fancy Locket.
6 20-year Gold Filled Watch.	16 Ladies' Chain.
7 Imported Swiss Watch.	17 Fancy Silver Comb.
8 Imported Swiss Watch.	18 Set Beauty Pins.
9 Gun Metal Watch.	19 Pair Roller Skates.
10 Gun Metal Watch.	20 Beautiful Doll.

FOUNTAIN PENS FREE, every one gets a fountain pen ABSOLUTELY FREE, also credit purchasing letter good towards the purchase of any new piano in our store.

GREAT "WELLINGTON 30 PUZZLE."
CAN YOU SOLVE IT? IT CAN BE DONE.

It is said that at the Battle of Waterloo, Lord Wellington massed a portion of his army in the form of a "square," so that he could instantly move 30 brigades of troops in any direction—forward, backward or obliquely. By solving the puzzle as shown below, which is now known as the "WELLINGTON STRATEGY," you will learn how the Great Napoleon was in part defeated.

THIS PUZZLE CAN BE SOLVED. CAN YOU SOLVE IT?

	10	

DIRECTIONS:—Place any number from 6 to 14, inclusive in the EIGHT vacant squares on the above or any similarly arranged sheet of paper or other material in such a manner that any way the numbers are added, perpendicularly, horizontally or diagonally (including the number in the center square), the total will be 30. The same number cannot be used more than once. Few will get all 8 columns. Some will possibly get 6 columns. Write your name and address neatly, accurately and plainly on your answer and mail or deliver your solution before 6 p. m. Tuesday, Sept. 5, 1911 to the E. B. GUILD MUSIC CO., 722 Kansas Ave., Topeka, Kans. Winners will be notified by mail.

Only one member of a family may enter.
Only one solution will be accepted from same contestant.

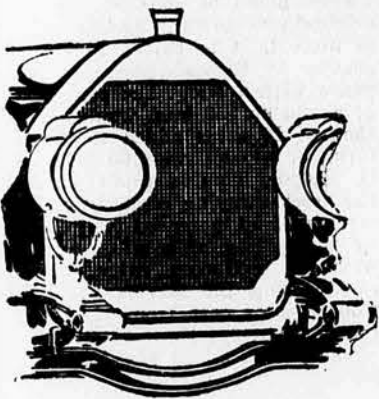
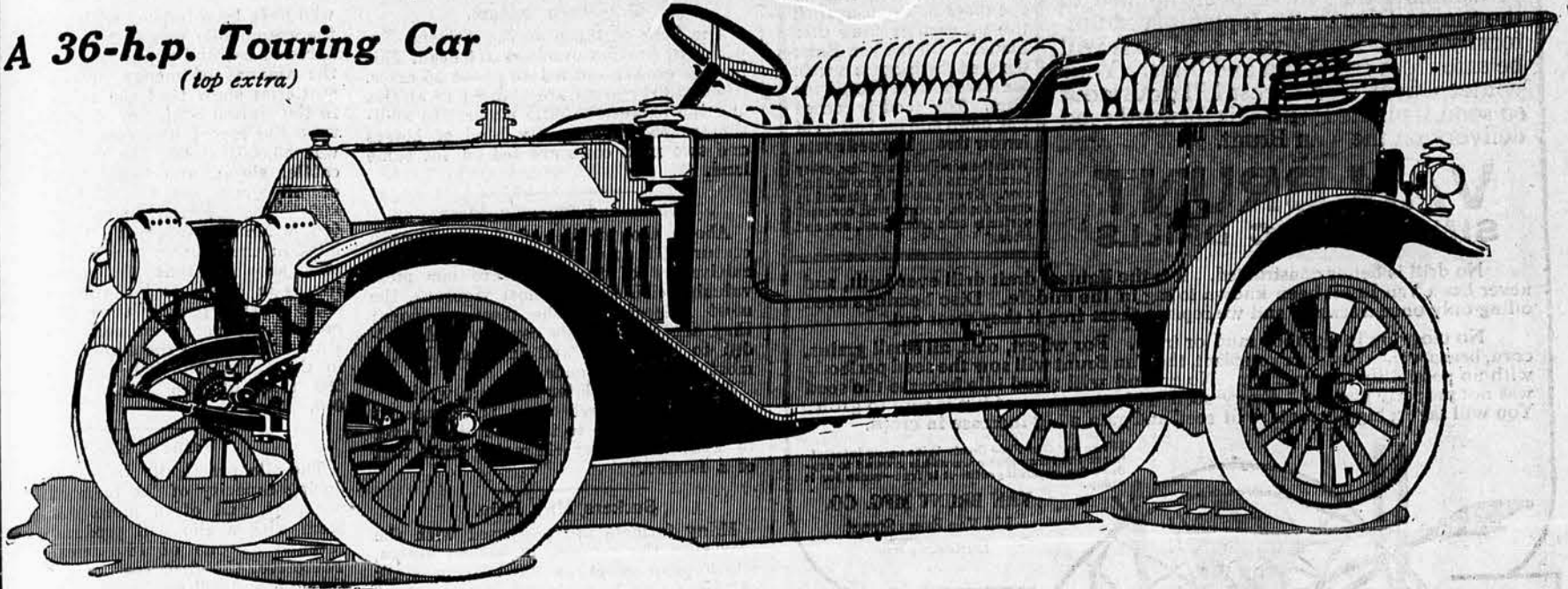
Neatness, besides the correctness of the reply sent us, will be taken into consideration in awarding first prizes.
Address Puzzle Department K.

E. B. GUILD MUSIC CO.
722 Kansas Avenue. Topeka, Kansas.

You can't possibly have an implement of greater value in the dairy than a two or four bottle Babcock tester. It will help you determine whether or not the cream tests received at the station are correct; also you will get to testing the cows and will show up those that are not paying their way.

This Big New Maxwell \$1280 1912's Undisputed Leader

A 36-h.p. Touring Car
(top extra)



POWER, STYLE and RIGHT PRICE will determine the successful car of 1912. In building the new MAXWELL SPECIAL, the 36-horsepower Touring Car for \$1280, the United States Motor Company has developed these elements to their utmost. Never before has such a car been offered at this price.

We realized that most cars today are reliable and efficient. Therefore, we set out to build a car that would outclass all others in these three essentials.

We instructed our corps of engineers to embody abundant power and surpassing style in this new car, knowing that our purchasing and manufacturing facilities enabled us to build the car at a lower price than any of our competitors.

When we were satisfied with the car, we found we could fix the price at the surprisingly low figure of \$1280.

The new 36-h.p. Maxwell Special unquestionably assumes instant leadership for 1912.

POWER

The Secret of power in this new Maxwell Special is its 4½ x 5½ long stroke, smooth-running motor. Large valves, adjustable push rods, self-contained automatic oiling system, Stromberg carburetor, dual ignition with Splitdorf magneto and batteries, combine to produce more power and greater speed than will ever be needed.

The power is there for emergencies. Gear shifting is reduced to a minimum, as this car takes the steepest hills with ease, and with enough reserve force to cope with the unexpected.

Other mechanical features include large clutch discs, full-floating rear axle, sliding-gear transmission, drop-forged "I"-beam front axle and Columbia Honeycomb type of radiator. Wheel-base, 114 inches.

STYLE

This new ventilated fore-door, flush-side vestibuled steel body, with inside control, is the very latest thing in motor-car design. Its sweeping curves with a Columbia Honeycomb type radiator, new designed bonnet, and long, smooth flush-sides are strikingly beautiful. Finished in Royal green with Wedgwood green wheels and black upholstery, deep and well tufted, this car has an atmosphere found only in the most expensive cars. It is an aristocrat; the most artistic creation of the season.

PRICE

The price of this car is made possible by the unequalled factory facilities of the United States Motor Company, now recognized as the leading builders of automobiles in America. No car selling for \$500 more than the price we ask can match the Maxwell Special. Comparison with other cars will prove this statement beyond argument. We urge comparison.

Maxwell

THE NEW MAXWELL SPECIAL will be unquestionably the Leader for 1912. In addition we announce three other models:

The Maxwell Mercury, a 30-h.p. mile-a-minute Roadster, for \$1150.

The Maxwell Mascotte, a 25-h.p. Touring Car, for \$980; or a Roadster body for \$950.

The Maxwell Messenger, a 16-h.p. Runabout, for \$600.

MAXWELL MERCURY

A 30-h.p. Roadster, \$1150

Here is a test-proven mile-a-minute roadster with smooth, flush-side vestibuled and ventilated fore-door body, which is the height of perfection. Wheel-base, 110 inches. It is equipped with high-tension racing magneto, Stromberg Carburetor, Columbia Honeycomb type of radiator with new designed hood, demountable rims, and a wealth of refinements, and is listed at \$1150 (top extra). It is another instance of exceptional Maxwell value.

MAXWELL MASCOTTE

A 25-h.p. Touring Car, \$980

No car has ever achieved such unswerving popularity as the Model "I" of which the MASCOTTE is the offspring.

We regret our inability to supply all the cars of this type that were demanded this season, but the increased production next year should enable us to meet the demand. It is the prettiest four-passenger touring car you have ever seen.

Among its features and refinements are a four-cylinder motor (4 x 4), supplying 25-h.p.; 104-inch wheel-base; new ventilated fore-door vestibuled body with smooth, flush-sides and

inside transmission control, artistically finished in dark blue with battleship gray wheels; oil reservoir, cast integral with the crank case; Columbia Honeycomb type of radiator with new hood of beautiful design; irreversible worm steering-gear mechanism; Stoddard-Dayton type of spark and throttle control under steering wheel which will be 17 inches in diameter; springs of imported English steel, ball-bearings of German Chrome Vanadium. The touring car with extra-wide rear seat, \$980; fore-door roadster at \$950.

MAXWELL MESSENGER

A 16-h.p. Runabout, \$600

This runabout with numerous refinements is beautifully finished in dark blue, with light-blue wheels. The car should have no trouble in retaining the leadership in runabouts that has been held by its predecessor, known as the Model "AB." Every manufacturing year has seen a shortage in these cars. The price is the same, \$600, equipped with magneto, top, three oil lamps, two gas lamps and generator.

Satisfied Owners' Free Inspection Service

To facilitate constant and unflinching service of Maxwell cars, and to eliminate unnecessary repairs caused by oversight of required minor repairs and adjustments, lack of experience in, and mechanical knowledge of, the construction and skillful operation of his car, upon the part of the owner, we have instituted a Free Inspection Service.

The few motor troubles in cars of today are generally due to neglect of unsuspected minor difficulties and can be avoided by frequent inspection and instruction as to proper adjustment.

For one year after date of purchase, a Maxwell owner may take his car to the nearest Maxwell branch or dealer once a month, if necessary, for a thorough inspection without charge.

By the use of our Free Inspection Service, you reduce your car trouble and repair expense to a minimum.

This monthly inspection service is in addition to the Company's standard warranty against defective material and workmanship, as published in our catalogue.

We care for your car wherever you are.

Ready for immediate delivery at our 27 branches and 1800 dealers. Send for advance catalogue.

Maxwell-Briscoe Motor Company Broadway New York
at 61st Street

Division of **UNITED STATES MOTOR COMPANY**





Ten Sheep to Acre.

The flock of sheep at the Arizona Experiment Station numbers 371 head. This flock is grazed and fed on about 35 acres. About thirty acres are planted to alfalfa and the balance to milo maize. In addition to these sheep, six head of horses and two milk cows are fed on the same land.

Thomas Jefferson's Ideas.

About the middle of the eighteenth century Thomas Jefferson wrote: "The cultivators of the earth are our most valuable citizens, the most vigorous, the most independent, the most virtuous; they are tied to this country and wedded to its liberty and interests by the most lasting of bonds."

Some 40 years later he again wrote: "When I entered upon the stage of public life I came to the resolution never to wear any other character than that of a farmer."

Suckers May Help.

Many farmers are possessed with the idea that the suckers, or earless stalks, which grow from an ear-bearing stalk of corn, are a hindrance to the best growth of the latter and valuable hours are sometimes spent in removing them. But actual experiments during two successive years on Nebraska farms demonstrated that corn with suckers left undisturbed outyielded that from which the suckers had been removed. Their leaves, like the others, would seem to perform a useful office in absorbing nutritive elements from the atmosphere for the benefit of the ear on the main stalk.

Late Manuring of Alfalfa.

A Sedgwick county reader says that late in the spring he heavily manured a piece of thin alfalfa and the growth this season has not been as good as on that part of the field not manured.

The reader says the field was manured late, and with the small amount of rainfall this season, the manure has not been available for food for the alfalfa plant. Lack of moisture in all probability left the ground in worse condition than if it had not been manured. It is unwise to manure pastures or meadows late in the spring. Fall manuring, giving the rains and snows a chance to dissolve the manure and the fertilizing contents a chance to soak into the ground, is advisable.

Kansans at Dry Farming Congress.

Kansas is to have an important place in the deliberations of the international dry farming congress at Colorado Springs, October 16 to 20, and a notable exhibit will be made at the exposition of dry-farmed products. President Waters of the Kansas Agricultural College, will address the congress on the magnitude of the dry farming movement and the significance of its development. Dean Webster is to prepare an address on "Live Stock and Its Relation to Profitable Dry Farming," and Prof. W. M. Jardine is to discuss "Potatoes as a Dry Farming Crop." Supt. J. H. Miller or the farmers' institute department, will have charge of one of the institute sections of the congress.

Plow Deep.

Here is the kind of proven advice Farm, Stock and Home is giving the farmers of Minnesota, and the advice is equally good for Kansas farmers: "Don't be afraid to put the plow down and break through the 'plow sole,' or hard pan that has been formed by years of one-depth plowing. When your neighbors tell you that it will spoil your land to plow deep, ask them what land is good for unless it holds enough water to grow and mature the crop. Deep plowing increases the water reservoir; it gives a larger feeding ground to the plant; it is insurance against drouth and hot winds, and marks the beginning of increased yields and assured crops. Sharpen the lays, put on an extra team, raise the clevis, and plow deep."

Room for Horse and Automobile.

The last government statistics on the animal industry of the United States prove considerable of a surprise to those

who have been imbued with the idea that the automobile was fast superseding the horse in use and popularity as well as the amount of money invested. The statistics show that the value of horses in the United States of all classes at the time the report was compiled last year was \$3,500,000,000; the value of all cattle, sheep, and hogs, \$2,500,000,000 of all grain crops (1910) \$3,000,000,000; the cotton crop, \$1,000,000,000, while the value of all the automobiles in the country was only \$600,000,000, showing that the value of horses in the United States was almost \$3,000,000,000 greater than all the automobiles. The government report also states that while the amount of increase in the automobile industry is \$100,000,000 that of the horse is \$500,000,000.

Value of Silo.

The silo practically increases the producing capacity of the farm at least 10 per cent, and often more. A 100-acre farm with a silo will produce as much revenue as one of 180 acres without. Therefore, the first cost of a silo—like that of a dwelling house, a barn or team—should be considered part of the original investment. And, if one's capital is limited, it is better to buy a farm smaller by 10 per cent, rather than dispense with a silo. The producing value of a silo on \$50 land would be equal to that of 20 acres added to the 100-acre farm, or \$1,000; on \$100 land, it would be \$2,000. This is a low estimate, for the stock-carrying capacity of the farm often will be increased fully 25 per cent by the adding of a silo. As compared with its producing value, the cost of constructing the silo is small. Round wooden silos cost from \$1.50 to \$3 per ton of capacity; those of stone, brick or cement, from \$2 to \$4.—Minnesota Bulletin.

Moisture in Roads.

Stone is perhaps the ideal road material, but it is usually out of the question, writes W. C. Palmer, road expert. Earth roads can be made. The keynote to success in making them is controlling the moisture. When there is too much of it the earth becomes mud; when too little the result is dust. There is a happy medium between these two extremes, when the soil packs hard. In most soils, excepting clayey ones, it is not difficult to maintain this favorable moisture content. Keep the center of the road higher, so that water cannot remain there. When it does, the result is ruts in wet weather and in dry weather the sides of the road are ground up into dust. Drainage ditches should be provided along the road. If water stands there it will soak under the roadbed and soften it. Another important factor is to keep a space of 15 to 18 feet free from grass and weeds, which, if allowed to grow on the road, take up so much moisture that the soil grinds up into dust.

Corn and Alfalfa Compared.

On an Illinois experiment farm last year equal areas were in corn and alfalfa. The proceeds from the alfalfa crop were more than three times those from the corn.

Comparing the amounts of plant food removed by the alfalfa and the corn, we find that a ton of alfalfa removes 50 pounds of nitrogen, 4 pounds of phosphorus, and 24 pounds of potassium, worth at market price, exclusive of the nitrogen, \$1.92. The nitrogen in alfalfa is not taken into account, because the alfalfa can get its supply directly from the air, through the bacteria on its roots. A ton of corn, equal to 35 5-7 bushels, contains 35 5-7 pounds of nitrogen, 6 1-14 pounds of phosphorus and 6 11-14 pounds of potassium, worth at market value, \$6.37.

The nitrogen in the corn must be considered, since this plant does not and cannot secure a supply of this element, except through the soil. A crop of corn, therefore, depletes the soil of this element. For a 72-bushel crop of corn, the value of the plant food removed will be \$12.74, and for a 5-ton crop of alfalfa the value of the elements taken from the soil is \$9.60.

New Invention Perfects Seeding

The new forward seed delivery on the Van Brunt is one of the greatest improvements that have been applied to the Single Disc Drill. It plants seed uniformly and covers every seed so it will be safe from frost, sun and birds. Your winter wheat won't frost kill or dry out so soon if planted with this forward seed delivery on the Van Brunt.

VAN BRUNT SINGLE DISC DRILLS

No drill is better constructed. It is the lightest draft drill ever built, and never has a Van Brunt been known to sag in the middle. Disc bearings need oiling only once a season, and we replace them free if they wear out.

No clogging in gumbo, mud or trash. For wheat, oats, all small grains, corn, beans, etc. Whatever you plant, the Van Brunt will sow the seed perfectly with no possibility of bunching. No ground will stand idle because the seed was not properly planted. Every seed with the germ of life is sure to grow. You will save a big percentage of seed and gain a big increase in crops.

Forward Seed Delivery

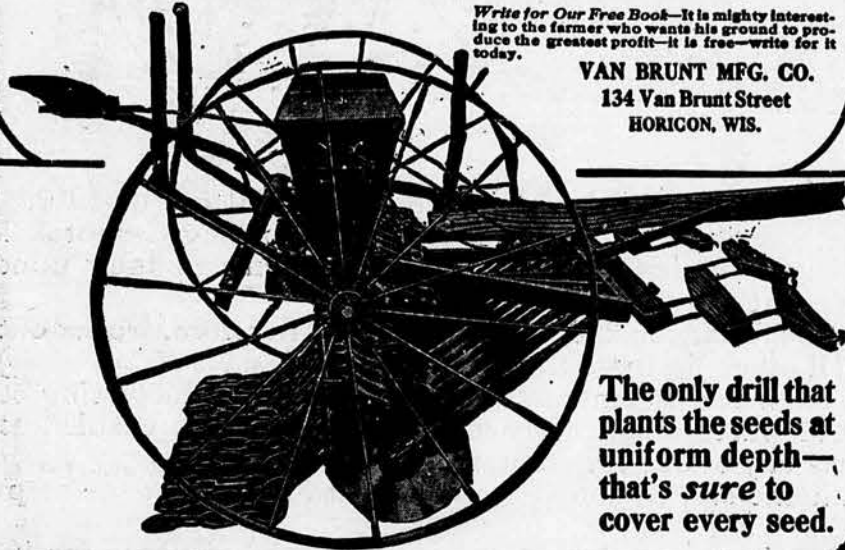


The seed discharge on ordinary drills is behind the discs or open against the upward turning disc blades. On the Van Brunt the seed discharge is within the circumference of the discs. The seed is carried way down into the bottom of furrow through closed boots.

With the new Van Brunt Disc, every kernel beats the dirt into the furrow. Every seed is planted at equal depth, and is well covered, perfectly safe from frost, sun and birds.

Write for Our Free Book—It is mighty interesting to the farmer who wants his ground to produce the greatest profit—it is free—write for it today.

VAN BRUNT MFG. CO.
134 Van Brunt Street
HORICON, WIS.



The only drill that plants the seeds at uniform depth—that's sure to cover every seed.

We Invite Comparison of This With Other Engines

A great many engines are advertised for pumping purposes. We have nothing to say against any of them. In fact, we urge you to write for other catalogs and get all the information possible. Study the quality of materials, the design and the records of these engines as well as our own. You need not be an engine expert to make a wise selection. Just use common sense and good judgment. We are willing to take our chances that you'll decide on the

Fuller & Johnson Farm Pump Engine

The "Complete-in-Itself" Engine

You will find that the Farm Pump Engine is a complete power-plant. Everything but the gasoline comes packed in the shipping crate. Needs no belts, no pump jack, no anchor posts or specially constructed platform. Just bolt it to the pump standard and start it. It will pump

400 to 1,500 Gallons Per Hour

Supplies abundance of fresh water for all farm purposes. Runs any Domestic Water Pressure System. Gives instant fire protection. The engine is as high grade as best automobile engines. It is built and guaranteed by FULLER & JOHNSON MFG. CO. (Estab. 1840)



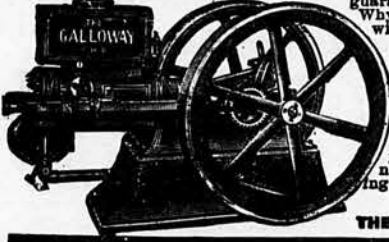
Patented in the United States, Canada and other foreign countries. Other patents applied for.

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ranging from our famous 1 3-4 H. P. Pumping Engine (\$39.50) up to 28 H. P.

Buy from a real engine factory—save dealer, jobber and catalog house profits. No such offer as I make on this high quality engine has ever been made before in all gasoline engine history. I operate the largest factories of their kind in the world; manufacture engines in tremendous quantities and sell direct to the user with just one small profit added to cost of material and labor. No use paying big profits to a lot of middlemen. GALLOWAY WILL absolutely and positively save you from \$50 to \$300 on a gasoline engine that will exactly meet your requirements. Anyone can afford an engine at the prices I am charging. I sell for less than dealers and jobbers can buy for, and I give you besides, the best engine possible to build with a 5-year guarantee, and 30 day free trial.



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fully illustrating and describing all Galloway engines. The most complete engine book ever written. Printed in four colors and containing hundreds of letters from men all over the country who have long been using Galloway engines and know just what they are. Don't wait—don't put off! Sit right down now and write me for this book, because it actually means a saving to you of from \$50 to \$300 on a Gasoline Engine. It will pay you.

WM. GALLOWAY, President
THE WM. GALLOWAY CO., 385 Galloway St., Waterloo, Iowa

Cost of Growing Crops in Nebraska.
 An average of reports for two years shows that it cost the farmers reporting 15 cents per bushel to produce corn, 12 cents to produce oats, 54.9 cents to produce wheat, \$5.37 per ton to produce hay, \$4.18 per ton to produce clover and \$3.10 per ton to produce alfalfa.
 The figures used were secured by correspondence with the best farmers in various communities. The yields are considerably higher than the average yields of the state.
 The cost of production does not include marketing, and includes time for man and team at the average rate of \$5 per day only while in the field.
 It was found that the two greatest factors influencing the cost per bushel per ton were the price of land and yield per acre. The yield per acre can be increased by enriching land, using better methods of cultivation and better seed.
 At the average market price, the most profitable crops were alfalfa, winter wheat and corn. Crops which are profitable in one section of the state may not be profitable in another.
 It was found that the growing of winter wheat and alfalfa in rotation and the use of barnyard manure greatly reduced the cost of growing corn per bushel.

English Farmers' Methods.
 "The English farmer and stockman practice many valuable methods which could be adopted to some extent by our American farmers," says Prof. J. G. Miller, who has made a six months' study of European live stock centers. The breeding and feeding of live stock in England is done with more business ability and thus avoids losses and reverses such as frequently occur in this country.
 "The even climate and abundant rainfall favor the growth of grasses and permit grazing almost the year around, particularly in the south of England. The animals are not subjected to severe frosts due to intense heat or severe cold, and a uniform growth results. These meadows are very carefully established, being sown with mixtures of seeds often containing a dozen or more varieties of grasses and clovers. The land is thoroughly tilled, for in tillage practice the English farmer is much more thorough than his American cousin. They often fertilize, manure being carefully spread, being supplemented, when needed, by commercial fertilizers.
 "A reserve feed supply in the form of hay, straw or roots is nearly always available to be used in case of an unexpected shortage or the unusually high prices of grain. Grains are very carefully fed and are not wasted. The grass and roots are the basis of the ration, and grain is used only for particular purposes, such as finishing market animals or developing breeding stock. This practice keeps down grain bills, which are likely to be high where grain is so expensive.
 "Whether he is a builder of fine breeding stock or a producer of market animals, the English farmer keeps fully informed on market demands and prices. He frequently visits two or three local markets a week to study the changes in values and the classes of stocks in which he is interested. He thus gains quite valuable experience as a judge and can recognize merit at sight. England has the finest market in the world and the wide-awake English farmer is ready to meet its highest demands.
 "The low cost of farm labor—75 cents to \$1 a day—permits the farmer with a tract of 100 or 150 acres to hire all his field work done and to devote his own time to managing its affairs. The English farmer is a good business man and keeps posted on values of grains, stock, etc. He does considerable dealing, buying and selling for a small margin because of the good local markets."

Why Not Fertilizer?
 The farmer in any fertile country deplores the time when he will find it necessary to use commercial fertilizer on his fields, yet he will continue cropping year after year without a thought of replenishing the soil with the elements of fertility removed from it. The manufacturer continually improves his plant with the view to the greatest possible output from his machinery and labor. Why not the farmer strive to make his land richer year after year, realizing a maximum of crop production at a minimum cost? The thought of purchasing commercial fertilizers may not be a pleasant one, because associated with it is the thought of worn out land and agricultural poverty.
 There is one other phase of the matter which appeals to the wise farmer,

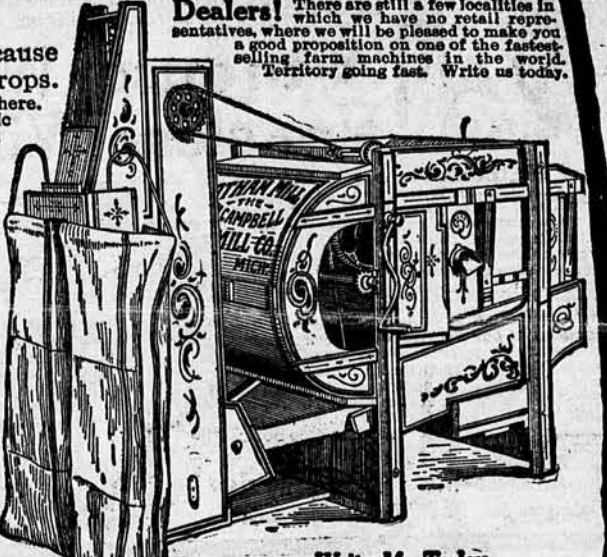
Install My Chatham System on Your Farm and You'll Be Richer by Thousands of Dollars

MANSON CAMPBELL
 Father of the Famous Chatham System of Breeding Big Crops

I'll Prove This Free
 Over a quarter million farmers are now getting RICH, because they have taken up the Chatham System of Breeding Big Crops.

Yet there are farmers who continue to handle their crops in the regular way, content to reap but half what their land might just as well be producing. They lose as many dollars each season as they put in the bank.
 It is not because the Chatham System won't work on their farms that they are not practicing it. It is because they have never looked into the Chatham System. They don't understand it—how simple, how inexpensive, how astonishingly profitable it is.
 Now, as you are among those who have not put my Chatham System to a test, I will make you this proposition:
 I will install the Chatham System on your farm and bear all the expense. I will not only furnish all instructions free, but all Equipment as well.
 No matter how much or what kind of land you have, what kind of crops you grow or how you cultivate them, I'll show you how your crop profits can be increased by hundreds of dollars and possibly by thousands.
 I'll show you how you can do this not one season, but every season—how you can grow bumper crops when your neighbors grow ordinary crops and fair crops when they have failures—how you can do this without plowing one extra furrow, without hiring one extra man, without using one extra team, without spending one extra cent, save the small cost of the original equipment.
 To show you all this, I am first going to send you my latest and finest book on the Chatham System of Breeding Big Crops. It pictures, diagrams and explains the Chatham System completely. It is a wonderfully interesting explanation of my Chatham System, told in story form.
 Then, a little later, I am going to lend you the full equipment, including my latest model Chatham Mill. I will pay the freight and everything clear to your station. You can try out the Chatham System on your farm without paying or pledging to pay one red cent.
 The Chatham Mill is a marvelous machine. I'll

tell you a little about it here.
 At one operation this magic machine grades, cleans and separates seed grain—and at the enormous rate of 100 bushels per HOUR!—not merely Wheat, Oats, Barley, etc., but all other small grain, Grass Seed and Corn! Takes out all dust, all dirt, all weed seed, all skinny, poor grains and automatically bags the fine, healthy grains. It runs so easy a boy can operate it, yet can be hitched to a gas engine on a moment's notice.
 With a Chatham Mill on your place you need buy no seed. Neither do you haul your seed grain to the elevator to be cleaned. You have the purest seed in the world right at home without expense, bother or trouble. Does it pay to plant pure seed? You bet it pays—it's the surest way on earth to grow bumper crops.
 The Chatham Mill pays you another big profit when market time comes. It handles grain so fast that you can clean your seed before it gets to market. It's the surest way on earth to get the best price for your grain. It's the surest way on earth to get the best price for your grain. It's the surest way on earth to get the best price for your grain.
Remember, I'll Prove It Free
 I don't care to argue about the wonderful success of the Chatham System. I'll just put it in on your farm free and let you be the judge of how many hundred dollars it is worth to you. All you do is write me you're interested. I'll do the rest. I'll tell you all about the System and furnish you all the apparatus free. If that isn't fair enough, please tell me what is and I'll do that.



Dealers! There are still a few localities in which we have no retail representatives, where we will be pleased to make you a good proposition on one of the fastest-selling farm machines in the world. Territory going fast. Write us today.

Write Me Today

I'd like the chance to show you how to make that good old farm of yours grow bigger crops. You don't realize how easy it is to grow hundreds of bushels more grain with no extra work or expense.
 Just tell me what crops you grow, how many bushels you are getting per acre and I will show how we can beat it. I don't care how well you've done, we two will do it better. Use pencil and postal if it's handier than a letter. My 44 years' successful experience in boosting crop profits is yours merely for the asking. Let me hear from you at once. Write nearest office, Dept. N.

CHATHAM MILL
 Grain Grader, Cleaner and Separator

MANSON CAMPBELL, President Manson Campbell Company
 Detroit, Michigan
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 See the Chatham Mill at your dealer's. If he hasn't it and won't get it, tell us and we will see that you are supplied (5)

and that is regarding the liberal use of fertilizers on already productive land, provided he can figure out a profit from the application. The unwise farmer will not use them, even if he can figure a profit from so doing.
 Here is an astonishing fact: That many men, after having fully recognized the value of fertilizer using, still continue to scratch over half-fertile land, which they farm often at no appreciable profit.
 Today more than ever before we have a vast fund of information on the value of fertilizers. Almost every phase of agriculture has been investigated as to its relations to the various kinds of fertilizers that are available. The books are full of the experiments, and the various governments are constantly sending out new bulletins telling what results can be obtained.
 It is certain that if the liberal use of fertilizers were not a paying process, the campaign of education in favor of them would long ago have died out. The fact that the education is continued from decade to decade and from century to century proves of itself that the matter is one of vital interest to the farmer and to the food-consuming world at large.
 This thought must be kept to the front: It costs just as much to till an acre of land that is not fertilized as one that is fertilized. Probably it is safe to say that it costs far more to till an acre of non-fertilized, little-productive land than it does an acre of productive land.
 The writer has seen the wonderful effect of fertilizers again and again. He has in mind one very highly fertilized piece of land that was last spring put into several kinds of garden truck. Now, when the hot weather is daily wilting many fields, this highly fertilized acre is a mass of green and does not show any signs of deterioration. The roots of the plants have struck deep and evidently are in a stratum of moist soil that is supplying them with all the moisture they need. This is always the effect of high fertilization. Drought resisting plants are the deep-rooting plants, and plants do not strike deep into soil that is deficient in plant food.

Principles of Weed Control.
 Weeds may be roughly divided into two classes: Those which grow and spread entirely from seed and those which, in addition to this, propagate by means of perennial roots or underground stems. The first class is made up largely of annuals, plants which start from seed, produce flowers and ripen seeds the same season, after which the whole parent plant dies. The pigweeds, tumbleweeds, marsh elders, wild sunflower and mild mustard are examples of such weeds. They are best controlled by rooting them up while young, as in hoeing, cultivating, pulling by hand, and, in some cases, by chemical sprays. To prevent their going to seed is the principal thing.
 In the second class are found the poverty weed, iron weed, Canadian thistle and field morning glory. Such plants, when once established, are very persistent and constitute our worst weed pests. When cut off or pulled up, new sprouts soon appear from the underground parts, while cultivation in the ordinary way often serves to scatter pieces of the plant to other parts of the field, where they may take root. The only remedy consists in digging out and removing every part of the plant, in choking it out by means of some stronger growing crop plant, such as alfalfa, or by starving the underground parts of the plant. The last method is accomplished most frequently by careful and constant hand hoeing and pulling, on small areas, supplemented by thorough cultivation on large areas. To be effective this method requires that every sprout which comes above the surface be cut off, or pulled, or otherwise destroyed.
 The food of such plants is manufactured in the leaves that come to the light, hence if every sprout is cut off before the leaves have time to get to work, it is merely a question of one or two seasons until the underground parts are no longer able to put up new sprouts.
 Anything that kills the foliage will also accomplish the same thing. Unfortunately, most of these plants are not greatly injured by chemicals other than those that are poisonous also to animal life.

BARGAIN IN WHITE ROCK COCKERELS.
 I have a few exceptionally fine White Plymouth Rock cockerels, hatched in May. Some of these birds will develop into prize winners, worth from \$15.00 to \$50.00. Owing to limited room I will ship one of these cockerels to any address desired for only \$3.00. If not satisfactory will refund money without question. References German American State Bank, Topeka, Kansas. Address
J. E. SPALDING,
 334 Laurel Ave., Topeka, Kan.

Turning the infested area into a sheep or hog pasture for two or three years, especially if the animals are somewhat crowded, has been found effective in some cases, such as land infested with the field morning glory.
 In any case, persistent, thorough work is necessary to success in eradicating weed pests of this character and the best time to begin is just as soon as the weed is discovered, and before it covers large areas.—Colorado Experiment Station Bulletin.

Because you are feeding the calf liberally on skim milk do not conclude that he needs no water. The calf requires water. See that he gets it.

A high grade, guaranteed durable live rich red barn paint is sold by the Sunflower Paint & Varnish Co. of Ft. Scott, Kansas, direct to the consumer at only 85c per gallon in 5 gal. cans freight prepaid. This is a paint proposition worth considering by every farmer. This is a reliable company and now is paint season. Try this paint.

Farm Boy Takes Care of Himself.
 An exchange suggests that what we now need is a city life commission to report upon the way people in the cities are living. There is very much more poverty, ignorance and incapacity in the cities than in the country. The country boys can make a living, no matter where they land, and that is more than can be truthfully said of the boys of city rearing.

Get Our Price On The Only Cyclone Proof Mill



IT'S a wonder. Here's your chance. Absolutely the only reliable, self-regulating windmill—adjusts its folding wings automatically to all winds—cannot break or carry your tower down. Large wind surface—works in lighter winds than other mills. It requires less attention than others. Patent grease cups hold grease enough to oil it for a year—no climbing towers. No creaking or groaning noises—no sleep lost. *This mill is the greatest wind-engine ever built.* Made to fit any tower, or we furnish tower. Costs practically nothing for repairs in a lifetime's service. Many in use over 40 years. Will outlast any two steel mills—gets one stroke of the pump with each revolution. If properly cared for, there is no "wear-out" to

Oil Once a Year

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Every part is built of the very best material. Every mill is tested and inspected by experts before it leaves our factory. You can't go wrong when you choose this mill. Thomas Cripps of Cottage Grove, Wis., who bought one in 1873, writes: "This mill has given me perfect satisfaction. The cyclone, which destroyed thousands of dollars worth of property, had no effect on it." Don't decide on any mill till you have all the facts. Get our *Free Book on Wind Power*. Read about the miraculous triumphs over cyclones. You'll be surprised at this wonderful mill. Without an equal. The letters of farmers who have tried other makes prove it. Biggest power value for the money. Our ironclad guarantee protects you. A free book for you. Write a postal for it now.

The Althouse-Wheeler Company
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Steady and Long Service

The Wings Fold and Fool the Storm

LIVE STOCK



Contagious Abortion Investigation.
There has been so much trouble in Wisconsin over contagious abortion that the departments of veterinary science and agricultural bacteriology of the Experiment Station of the University of Wisconsin are conducting an investigation of the disease with a view to finding means of prevention and cure.

White Scours.
Replying to Orleans (Kan.) reader: When calves are attacked with white scours, usually within 24 to 48 hours after birth, they generally succumb to it. The disease is caused by a contagious germ which passes to the calf's body through the naval chord shortly after its birth. Tie this end of the cord at birth and apply to it a disinfectant.

"Big Black Pig."
A subscriber asks what we know about the Big Black Pig and if we would recommend his breeding them.

The breed is new in America, but has for more than 100 years been bred in England, where it is said the breed is quite popular. It is claimed that the breed possesses fine bacon qualities and that the sows are prolific breeders, the litters running as high as 17 and 18 pigs, and usually 14 to 15 are saved, and that they rapidly mature and fatten quickly.

We would advise our reader to stick to the well-known breeds which have been successful in this section.

Value of Manure Per Animal.
The manure product from a single cow, according to figures of the Department of Agriculture, ranges in value from \$30 to \$40 a year. The corresponding figures for horse manure are not presented, but it is presumed that the value would be equally great, if not greater, since horse manure is heating, and if kept from fire-fanging, has an additional value beyond its own fertility, in causing bacterial fermentation and rotting of bedding and other waste material. This estimate of the value of cow manure alone, however, indicates how very important it is to the farmer to finish his live stock on his own farm and thus build up his soil.

Now's the Time to Hold On.
The season has been such as to cause the usual panic among live stock growers. Every year of short pasture or short outlook for feed sees thousands of cattle rushed to the market and sold at a low figure. Many of these animals are sold to sections which have poor feed, but still a large percentage is killed, and the net result is a shortage. When there is a shortage, or a shortage is in sight, it is the farmer's business to hold. Higher prices follow a shortage, always. The farmer can hold, if he's determined so to do. With his few head of cattle he can hold much more easily than the man who has thousands. Under such conditions strive with might and main to keep the cows and calves, because when things look better, they will be worth much more money than now. To sell now would mean a sacrifice in price and to buy next spring will require a long figure. Don't get panicky. Stand to your guns.

Movement for Pure-Bred Sires Spreads.
The Pure-Bred Sire League, which was recently originated by Dr. Alexander of Wisconsin, is spreading rapidly. The live-stock breeders of Illinois organized a "Pure-Bred Sire Club" last month and the plan has been introduced in Indiana, Michigan, Louisiana, Colorado, and some other states. In joining this club each farmer pledges himself to use only pure-bred registered sires in the production of all farm animals so far as possible; to advocate the general use of pure-bred sires and secure at least one new member to the club; to work for the improvement of pure-bred sires in breed, character, individual excellence, quality, size, soundness and prepotency; to discourage the use of grade, mongrel and scrub sires, and the sires and dams, irrespective of breeding that are diseased, hereditarily unsound, constitutionally unfit or undesirable in conformation and character.

Oats as Horse Feed.
The oat grain contains a higher proportion of muscle-building material than does corn or wheat, while the other fat-forming materials exceed that of wheat and nearly equal that of corn. This grain in itself contains a well-balanced ration for the horse. The mettle shown by horses fed on oats has caused some people to believe that this grain contains a stimulating principle.

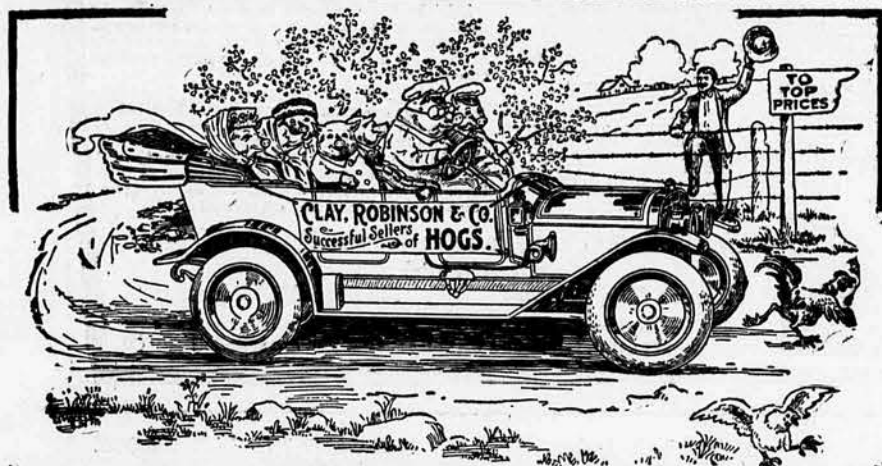
New oats will soon be on the market for feed. Old oats are usually so called after they have gone through the sweat. There is a change which takes place in this sweating process, because of which old oats may be fed without fear of danger to the digestion of the horse. Not so with new oats. Care must be taken in feeding new oats, or oats, in other words, that have not gone through the sweat. New oats are not fit to feed hard-working horses. They loosen the bowels of the horses, soften the horses, make them sweat easily and in general put them out of condition. Often colic results.

Good Roads Would Help.
"Along with educating our young people to get the most out of farming," said W. F. Rankin of Torkio, Mo., "good roads are the most important things to develop in this state. There is only one way to get them, and that is to tax ourselves for them. We have very good roads in our county, but very poor bridges. The stone and concrete bridges are the only ones that are really economical to build. Iron and wooden bridges are too short lived."

"I am not one of those who consider the buying of motor cars in any sense a craze. When things get adjusted the motor car will take an important place in the work of the farmer. It is a good roads advocate. It puts an end to the loneliness of farm life. One would not think of driving eight or ten miles behind a team to attend a lecture or an entertainment or to spend an evening with a friend, but that is just exactly what one would do in a motor car in the country. The motor car and the telephone keep the whole country in communication."

Lime for the Cow.
"The importance of lime has been shown by some experiments at the Wisconsin Experiment Station in relation to milk production. It seems from investigations that lime is indeed one of the greatest factors in agriculture. Not many years ago our best scientists ignored this important substance on the ground that plants under favorable conditions can grow without the element of calcium, which is the basis of lime, but further investigations have shown that in practical agriculture the lime is essential in bringing about the favorable conditions. But it is not only plants that need the medium of lime to enable them to make growth; animals are in even greater need of it. A cow, according to the Wisconsin investigation, gives in her milk and manure two ounces of lime a day. A cow that was fed what might be otherwise considered a good ration for 120 days was really only getting one ounce of lime a day, so that she had to draw on her body for an ounce a day."

Mature the Pigs Early.
There is quite a general tendency among farmers who keep but few hogs to run the spring pigs through the summer as cheaply as possible and finish them on the corn crop. The trouble with this plan is that if the pigs are not kept growing throughout the season so as to have well developed frames when corn feeding begins, they will not reach market weights until late in the fall, and the cost of the finished product will be much greater than if the pigs had been fed better earlier in the season, even upon more expensive feeds. Pigs, and in fact, all young animals, make much greater gains upon a given amount of feed during the early period of their lives. It takes a certain amount of feed for a maintenance ration, simply to keep the animal alive and repair the body tissues, without making any gain at all. The longer the period during which this maintenance must be fed, the greater



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POTASH

Insist on 6 to 8 per cent. of Potash in wheat fertilizer. Some of the best growers use 10 per cent. If you have trouble in getting such brands buy Potash and add it yourself. We will sell it to you in any amount from 1 bag (200 lbs.) up. Write us for prices, naming amount needed, and for free books on *Fall Fertilizers and Home Mixing*. They will save money for you.

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26, 1911.

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Cured Spavin

Two years ago, I bought a pair of fine black horses. In about six months one had a spavin. I simply used your Spavin Cure, and cured entirely, which mystified all the horsemen.

Yours truly,
M. B. Culver, Union City, Conn.

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the cost of the gains secured. Then the animal that is not well fed from the start and continuously to maturity, does not get a corresponding development of his digestive organs as compared with the well fed individual, and when it is desired to finish such an animal it will be found that he has not the capacity to digest and assimilate a large quantity of feed, and that for this reason he will not make as rapid or as profitable gains as the one that has been well nurtured from the start.

Then this common plan of carrying the bulk of the spring pigs through for a late finish has a bad influence on the market, since large numbers of this class of hogs are dumped onto the market at a time when it is over supplied, with the natural result that prices take a slump. As a practical proposition, it is usually the "early bird that catches the worm" in the maturing of the early spring pigs.

Feeding Hogs Green Corn.

It is a common practice to begin feeding green corn to hogs as soon as it is in the "roasting ear" stage, giving stalk and all. Green corn fed thus may be made very beneficial to their growth or very detrimental to their health. If fed sparingly at first, without decreasing the amount of old corn or the regular ration for several weeks, the animals will eat just enough of the green corn to become accustomed to it. Then as the green corn turns it may be gradually increased and the amount of old corn fed decreased till by the time the new corn is ready to gather the hogs can be on a full feed of it.

Sudden changes from one diet to another, and especially from dry to green corn, derange the system and make it susceptible to disease. Many of the so-called attacks of hog cholera are but results of suddenly changing to new corn.

W. H. Underwood, a successful hog grower of Johnson County, Illinois, writing on this subject says:

"My plan has always been to begin feeding a little green stalk about August 1. It does not matter whether the corn is out of or just in silk, the hogs will eagerly devour the leaves and the larger part of the stalk. I usually begin by feeding one good sized stalk to each hog. In no case do I decrease the amount of old corn; thus the animal does not eat the green stalk because he is compelled to, but because he wants to.

"After feeding one stalk a day to each hog for a week, I increase the allowance to two stalks a day. When they cease eating the leaves and stalks I then feed them the snapped ear. By this time I have decreased their old ration somewhat, and when the new corn is ready to gather I give them a ration of half old and half new. By gradually increasing the amount of new and decreasing the amount of old corn, in a short time after the new crop is gathered I have the hogs on a full feed of it.

"I had the value of this plan made quite plain to me several years ago. Cholera was raging in our neighborhood, and I dreaded the time when I must change from the old to the new corn, fearing that I could not maintain the good health of my herd. In late July I began feeding a little green corn, although but little of it had begun to "shoot." I gradually increased the amount till the middle of August, when I began to decrease the quantity of old corn, and by the middle of September I had them on a full feed of new corn.

"I never saw a bunch of hogs do nicer, and though a neighbor across the line lost nearly half his herd, mine showed no signs of disease. I do not claim that this gradual change from the old to the new corn was alone responsible for the good health of my herd. I kept every thing clean around the pens and used carbolic acid and slacked lime freely for disinfectants."

Feeding Straw.

From sections where roughage will be scarce this winter, many inquirers are asking if wheat straw can be used in ways other than commonly fed, viz., in racks in the feed lot. The information here is given by W. A. G., an Indiana farmer:

Here is what to do to make the straw into a very nourishing and palatable food, and guarantees but little waste. Cut the straw quite fine, which can be done by hand or on a power cutter, and make it into what we used to call "chop." That is, we used to cut sheaf oats finely, and, after dampening, fine corn meal, middlings, and wheat bran were mixed thoroughly through the cut material for feeding. It was called "chop feed," and we recommend that now in trying to feed straw, it should be put through the same process. Use

enough of the mixed ground feeds named to the cut straw to cause the stock to eat it quite clean from the feed boxes or troughs. One-half a gallon to a bushel basket of cut straw makes a very rich feed, and often one-half that amount is quite enough to cause most kinds of stock to eat the straw splendidly and leave but little to go under foot for bedding.

So far as real nutriment is concerned, we do not claim that straw of itself is of a high feeding quality, but we do claim that if it is fed as recommended, it can be made much superior to poor hay. It makes bulk, and all feeders of farm animals well know that that is a very important thing.

A Great Offer.

The Daily Kansas City Star and Times, including morning, evening and Sunday editions, thirteen issues a week, and the Kansas Farmer one year for only \$5.20, the price of the Star and Times alone. Six months, \$2.60. Subscriptions may be new or renewals. Address, Subscription Dept., Kansas Farmer, Topeka, Kan.

Lightening Stave Silo.

Answering Fairview (Okla.) reader: The hoops should be so tightened when the silo is put up as to bring the staves snugly together and as the wind and sun dries out the staves, the hoops should again be tightened. If hoops are kept properly tightened, silo will not fall down, and if guy wires are kept taut and securely anchored, silo will not blow down. Where moisture in ensilage causes staves to expand there will be a slight denting at the edges and if expansion is too great, the staves will buckle, and hoops should be loosened on the first appearance of these conditions.

Millers Object to Weeds or Dirt in Wheat.

The weed seed and dirt in wheat are giving Kansas millers trouble and it is probable that the next legislature will be asked to enact a law permitting the millers to deduct a certain weight from cars of wheat because of the weeds and dirt. The millers are planning a campaign to that end. They attempted to get the state grain grading commission to adopt a ruling granting that permission, but failed.

George Hunter of Wellington, senator from Sumner county, and a miller, says the loss sustained by millers in Kansas every year because of the dirt and weed seed in wheat is enormous. He says there are instances where there will be 1,000 pounds of dirt and seeds in a car containing 1,000 bushels of wheat. The millers pay wheat prices for the dirt.

In former years the millers deducted 100 pounds from every car of wheat to cover the loss from seed and dirt. The Kansas courts held that this was illegal and the practice stopped. This year it is said that the Kansas wheat is unusually dirty and that the loss is going to be heavy. Before the wheat can be turned into flour it is necessary to screen out the dirt and weed seeds. This, in itself, is expensive, but the greatest expense is in paying wheat prices for seed and dirt when they can be used for nothing of value.

Mr. Hunter appeared before the grain grading commission when it met in Topeka and placed the millers' case before the members. The commission did not see its way clear to make any ruling extending authority to the millers to make deductions.

A Mississippi experiment showed that 10 pounds of warm separator skim milk produced as much gain when fed to calves as eight pounds of whole milk.

To give you an idea of the amount of money expended by Minnesota in boosting the dairy business and the extent of its organization in the interest of dairy, it is only necessary to say that a state dairy barn inspector has been appointed. He will inspect regarding sanitary conditions, facilities for keeping cows clean, methods of ventilation, etc. A Kansas legislator would fall dead if he were asked to support an appropriation for such a purpose.

A Minnesota paper urges the creameries of that state to accept from the farmer no sour cream, claiming that sour cream will not make the best butter, and that the production of cream should be discouraged if it cannot be delivered to the creamery sweet. There are advantages from a better quality standpoint in the use of absolutely sweet cream, but the Kansas farmer would have a hard time delivering sweet cream, and if delivery in such condition was obligatory there would be only little cream marketed in this state.

5 Special Propositions

Read Them Then Act

You want a Silo—you want the best at the lowest price—then investigate the Champion before you buy. It is made in the west for western farmers, absolutely guaranteed and with our special proposition and special price it is the best investment you can make.

Proposition No. 1
Is for the man who wants one silo and is ready to talk business now.

Proposition No. 2
Is for the man who wants a silo and cutter and is interested in price.

Proposition No. 3
Is for a club of two who want a silo each and a cutter in partnership.


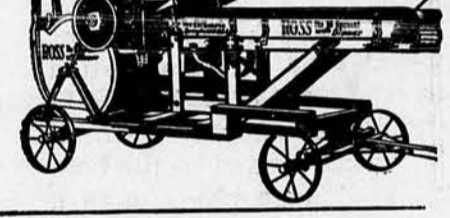
Proposition No. 4
Is for a club of three who want a silo each and a cutter in partnership.

Proposition No. 5
Is for a club of four who want a silo each and a cutter in partnership.

Write Today if You Are Ready to Talk Business

Just tell us which proposition you are interested in and how soon you will be ready, we will lay before you important facts on the Champion Silo and Ross Cutter to prove that they are the best, we will make you an offer, the best ever made, which will settle the silo proposition in the right way and at the right price. Don't miss this opportunity.

KELLER J. BELL, MANAGER,
Farmers' Co-Operative Produce Co.
801 9th Street, Des Moines, Iowa

AUTO TIRE PUNCTURES REPAIRED IN TWO MINUTES



You need lose no time on the road through punctures if you will carry a

COPE REPAIR KIT

Punctures permanently repaired in two minutes, with the Cope Cinch Button Repair Plug—pure rubber made over a soft metal core. Works as shown at the left:

- 1st. Cut puncture into a round hole; (special tool provided.)
- 2nd. Spread hole into an oblong; (special spreader provided.)
- 3rd. Insert Cinch Button Plug, and
- 4th. Squeeze together with Cinch Pliers.

All done in a jiffy—a better patch than possible to be done the old way. No cement, no gasoline, no sheet rubber needed. No need to jack up car when puncture is located.

Complete Kit With Dozen Plugs, \$5.00. Money refunded if not satisfactory.

Order one of these repair kits and insure yourself against loss of time on the road as well as the hard work of making a patch the old way.

Cope Sales Co., Topeka, Kansas
Ref. Merchants National Bank, Topeka

PRODUCTION WITH PERMANENCY

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Permanent fertility means maintaining the three necessary elements of plant food.

Your subsoil contains inexhaustible potash, Alfalfa supplies the nitrogen,

YOU NEED PHOSPHOROUS

The only permanent and economical source of phosphorous is finely ground phosphate rock.

Write us. We lead in quality and price.

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Save dealer's profits by buying at Manufacturer's prices. Any one can install in any house without trouble. We also sell, DIRECT, all kinds of

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When the jeweler shows you a HOWARD Watch—note the printed ticket affixed to the box. It states the standard price of that watch.

More than 37,000 jewelers sell HOWARD Watches—and the price of each grade is uniform everywhere.

That means that you and every other HOWARD purchaser owns the finest practical watch in the world on the same favorable terms.

It means the fullest possible service from the jeweler—his attention and advice as an expert in watches, not as a shrewd bargainer over the splitting of a half-dollar.

Send us your name on a postal card and we will send you—FREE—our pamphlet—THE STORY OF EDWARD HOWARD AND THE FIRST AMERICAN WATCH. It is a chapter of History, that every man and boy in this country should read.

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Dept. No. 112 Boston, Mass.

A HOWARD Watch is always worth what you pay for it.

Several months ago the demand for the higher-priced HOWARDS became so great that we had to discontinue the making of the models at \$35 and \$37.50.

The lowest-priced HOWARD that we are making now comes at \$40. It is a 17-jewel double roller cased in Crescent or Boss gold-filled. The 23-jewel HOWARD in a 14K solid gold case sells at \$150—there are several grades in between these prices.

Find the HOWARD jeweler in your town. When a man makes a permanent investment like the purchase of a HOWARD Watch he naturally wants to see what he is buying—he wants to get the dealer's expert advice. The HOWARD Watch is sold only by legitimate jewelers—and not every jeweler can sell you a HOWARD. The jeweler who can is a representative merchant—a good man to know.

DAIRY



Calf Cholera.

From a bulletin by the Wisconsin Experiment Station:

"When a calf comes into the world weak, puny and listless, and dies in a few hours, scouring, bawling and bawling, and has sunken eyes and bloated belly soon after death, the disease by stockmen is called calf cholera. Many calves so affected are already living abortions. They have just enough life at birth to exist a few hours and show the symptoms described and come from such cows that, during pregnancy, have been incompletely nourished upon timothy or swale hay, or coarse fodder, without an adequate supply of other foods to balance the ration; or similar calves may come from fat, flabby, corn-stuffed, beef-bred cows.

"The trouble may be prevented by proper feeding of the pregnant cow, but there is no cure. A majority of such cases, however, are due to germ infection. Cows affected with contagious abortion may produce affected calves, the afterbirth and navel cord are invaded by the germs in such cases and the calf is improperly nourished in the womb. In other instances calf cholera is due to filth germs entering the calf's system by ways of the raw navel cord stump at birth, or the mouth when the calf nurses from a manure-contaminated udder.

"Prevent infective cases by providing a clean, fresh bedded, disinfected, white-washed, sunlighted, ventilated pen for the new-born calf, and immediately wet its navel with a 1-500 solution of corrosive sublimate and repeat the application twice daily until the cord dries up, drops off and no spot remains. Also wash the hind parts of the cow and her udder with a two per cent solution of coal tar disinfectant before the calf is allowed to suck for the first time, and repeat the washing daily for at least a week. Isolate affected calves. **Buy or burn the dead.**"

Inviting Oleo Consumption.

The following editorial from the Chicago Dairy Produce presents a phase of the butter situation worth noting:

"If we could determine market quotations, we would be particularly careful to keep prices on a basis that would encourage the largest possible consumption of butter until November 1.

"We would not give the oleo trade a chance to get in until the winter season opened, when, we would figure, it could not do the damage it does by getting an early start.

"One of the causes of heavy losses to butter holders last year was the fact that prices made it possible for the oleo dealers to turn consumers to their product early in the season. The latter were so successful last year that they reached the flush of oleo output in November and kept the early hold they got on the trade through the remainder of the year.

"Last week, for the first time this season, we heard of retailers beginning to look to oleo makers for supplies. Consumption of butter has been immense and is so at the present time, and to have it fall off now will be an injury to be felt throughout the fall and winter seasons."

When the price of butter gets to a price at which the consumer begins to buy oleo the consumption of butter at once is curtailed. A commodity is worth only that which the demand creates. In the case of butter extremely high prices are detrimental to the dairy industry in that the high prices for butter cut off the demand and consumption is cut off. The dairy farmers of the country can well afford, if economical means of production are employed, to produce butter at a price which would practically force oleo off the market and increase the consumption of butter three or four times over that of the present.

Guarantee on Silo.

A southeast Kansas subscriber who is in the notion of building a silo inquires of any silo concern will sell a silo guaranteeing that the structure will not blow down. Kansas Farmer does not believe that any silo manufacturer will make such a guarantee. It does not appear reasonable that such a guarantee would be made.

The manufacturer ships all the material necessary to build a silo, and the material necessary to anchor the silo. The farmer erects the structure and the burden of setting the silo securely rests with the farmer. The lumber dealer who sells the lumber necessary to build a house or barn will not guarantee that the structure erected from his material will not be wrecked by the wind. The lumberman's position is identical with that of the silo manufacturer.

The burden of erecting a silo secure against windstorms rests with the farmer. The anchor posts should be well set by him. The anchor cables must be kept taut by him and the same securely fastened to anchor posts. If the silo lives in a locality of strong winds, the anchoring should be reinforced by him. The hoops must be kept tight by the farmer. Over these things the silo manufacturer has no control. The farmer should see that he gets plenty of anchoring material and then he must use that material properly. The very nature of this silo transaction is such that the manufacturer cannot guarantee that a silo will not be blown down.

Silos very rarely blow over. They blow in and then fall down. This is the result of not keeping hoops tight. Who is to blame if a barrel falls to pieces because hoops are not kept tight? Surely not the manufacturer. This is a case of the silo being properly erected and kept in proper condition.

Beauty Is as Beauty Does.

If we should take 10 cows of one of the pronounced beef breeds; and the same number of cows of one of the special dairy breeds, and place them next each other, one could readily see that they are of different conformations. There is a certain uniformity between the different animals of the same breed, but taken as a whole the conformation of the cows of one breed differs materially from that of the other breed.

But if we take the same 10 dairy cows and try to select the most typical dairy animal, by which I mean the best producer of butter-fat, we find a difficult task confronting us. While the 10 cows are very similar, we find many minor differences, and in making a selection we are apt to be swayed by our own prejudices or the fashion of the hour.

I will recall a heifer of extreme beauty that took first as a calf at the National Dairy Show in 1908. Later when the heifer freshened she lost her good looks and proved an absolute failure as a producer. Undoubtedly many of you could mention other instances where cows have proven disappointments at the pail.

A beautiful cow arouses our admiration and we are apt to be prejudiced in her favor, but just because we like her appearance it is not safe for us to say that therefore she must be a big producer of butter-fat.

In selecting cows for production we cannot depend on our likes and dislikes, or on cow signs. Fortunately we have an invention of comparatively recent years, which when applied with good judgment, furnishes us with a fairly accurate standard of measurement of performance. It is the invention of the Babcock test. From an address before Guernsey breeders.

Elements in Milk and Feeds.

Here is a table which every dairy farmer should study. The table should be preserved for ready reference. It gives the nutrients required for the production of a pound of milk testing a given per cent of butterfat:

Milk testing	Protein.	Carbo-hydrates.	Fat.
3.0 per cent fat..	.039	.19	.013
3.5 per cent fat..	.042	.21	.015
4.0 per cent fat..	.045	.23	.016
4.5 per cent fat..	.048	.25	.018
5.0 per cent fat..	.050	.27	.019
5.5 per cent fat..	.053	.29	.020
6.0 per cent fat..	.056	.31	.022

For daily maintenance:
Per 100 pounds live weight07 .7 .01
The next step is to determine how the feed stuffs are to be combined, approximately, to provide these nutrients, and to do this the following table is given, showing the digestible

OUR FLAG COLEBROS. FRANKLIN LIGHTNING ROD. CBFR

OLDEST LARGEST BEST
1849 SIXTY-TWO YEARS 1911.

OLDEST LIGHTNING ROD HOUSE IN THE WORLD.

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This Rod has been longer in use, and has had a larger sale, than any other Rod that was ever made.

It is made of the Choicest Materials only, which are carefully selected and scientifically handled from the Ore to the finished Product.

It is the most Costly Rod made and commands the Highest Price.

It has been the Standard for more than half a Century. Hundreds of thousands in use Sixty-two years and Never Failed.

Like other superior articles it is imitated and counterfeited. There are numerous cheap imitations on the market, but the GENUINE is fully protected by our TRADE MARK.

Look for this  on all packages, and for C B F R on the  Coupling of every Rod Section.

RELIABLE AGENTS EVERYWHERE, FOR NAME AND ADDRESS LOOK FOR "OUR FLAG" IN LOCAL PAPERS.

Before you buy a Cream Separator See and try a DE LAVAL

AND YOU WILL USE NO OTHER THE DE LAVAL SEPARATOR CO

NEW YORK SAN FRANCISCO SEATTLE MONTREAL

nutrients contained in a pound of the different kinds of feed:

Feed stuffs.	Protein.	Carbo-hydrates.	Fat.
Concentrates:			
Corn meal . . . . .	.079	.667	.043
Barley meal . . . . .	.087	.656	.016
Oat meal . . . . .	.092	.473	.042
Rye meal . . . . .	.099	.676	.011
Wheat shorts . . . . .	.122	.500	.038
Oil meal . . . . .	.293	.327	.070
Wheat Bran . . . . .	.129	.401	.034
Gluten feed . . . . .	.220	.524	.026
Cottonseed meal . . . . .	.372	.169	.122
Roughage, cured:			
Podder corn . . . . .	.025	.346	.012
Corn stalks . . . . .	.017	.328	.007
Prairie hay . . . . .	.029	.413	.012
Oat hay . . . . .	.043	.464	.015
Millet hay . . . . .	.032	.485	.010
Clover hay . . . . .	.068	.358	.017
Alfalfa hay . . . . .	.110	.396	.012
Corn ensilage . . . . .	.009	.113	.007
Wheat straw . . . . .	.004	.363	.004
Barley straw . . . . .	.007	.412	.006
Oat straw . . . . .	.012	.386	.008

To make use of the above figures and to apply the same to feeding operations is a simple matter to anyone who understands multiplication of decimal fractions. When it is known what the nutritive elements are in a pound of milk containing a given percent of fat, it is easy to find the quantity in any given number of pounds. And when the quantity of the elements required to maintain 100 pounds of cow is given, it is easy to determine the quantity required to maintain a cow of any number of hundred pounds. It has been determined by long and careful research that the feeds given to the cow to produce the milk she is giving, and to maintain her body, at the least cost, must contain the quantity and proportions of the nutritive elements found in the milk and in the body requirements. Now assume that the cow will eat 20 pounds of hay and 8 pounds of meal or concentrates of some kind per day, which is about right for the average cow, and then find by trial computations how the feeds must be combined to supply nutritive elements in approximately the same quantity and proportion that the cow uses in her business.

The dairy cow affords the farmer the most profitable winter work in which he can engage. The one big advantage of dairying is that it can almost entirely be disposed of during the latter part of July and the month of August—the most unfavorable period. The fall fresh cow is the most profitable. Actual returns have long since proven this. Butterfat is highest in winter; the farmer's time is worth less; the summer is devoted to the harvest without interruption; the cow milks well all winter; goes onto grass in the early spring and is practically fresh the second time.

Grade or Pure-Bred Bull.

L. H. Fairview, Kas., has three pure-bred registered Holstein cows and two heifers to breed this fall, and is within easy reach of a grade Holstein bull, but can get the service of a pure-bred by driving eight miles. Shall he use the grade or pure-bred? By all means, the pure-bred. He can afford to drive twice the distance to the pure-bred bull. If the mothers are first-class cows and registered and the bull is registered, the offspring will be eligible to registry and saleable at two times as much money as the grade calves sired by the grade bull.

Feed Ensilage, Sure.

A Winfield reader who makes butter and delivers to town customers, asks if the feeding of ensilage will give the butter a flavor to which her customers will object. No, and by all means purchase a silo. Your situation particularly demands a silo. Milk night and morning before feeding ensilage in the barn. Keep the ensilage out of the milk and you will have no trouble. Ensilage flavor does not come through the cow, but gets into the milk from the surroundings.

One Bushel of Corn in Silo.

P. Clawson, a Clarke county, Ohio, farmer, writes an exchange thus: "Times have changed radically in a few years. The silo has become a prime factor on all dairy farms and a bushel of corn made into good silage will produce 10 pounds of butterfat if properly fed to a dairy cow. The Ohio Experiment Station finds that 2 gallons of skim milk fed to hogs in connection with corn meal gave an increased gain of 1½ pounds of pork. Ten pounds of butterfat represents from 200 to 250 pounds of milk, or, say, 25



CORN THAT'S THE ENVY OF THE NORTHERN FARMER

35 to 50 bushels per acre. The winner of the school boys' corn growing contest in Harrison county raised 163.8 bushels per acre.

NO SWAMPS—NO MALARIA—NO HOT NIGHTS—NO DROUGHTS—MILD WINTERS—SUMMERS COOLED BY GULF BREEZE

To begin with, we are not land men. Our business is lumbering. For years and years we have been purchasing timber acreage without a thought of any return except from the trees upon it.

We own 45,000 acres of splendid Mississippi land located in Harrison County, 35 miles north of Gulfport, at an elevation of some 300 feet above sea level. It is as healthy as any region in America—a pine country, sweet and fragrant—wonderful climate and almost five feet of rainfall yearly, evenly distributed.

Our district is fairly well settled. We own our own railroad so that adequate transportation is provided.

The city of Wiggins has nearly 2,000 people. Our new towns of Powers and Clarence lie just beyond. Wiggins is prosperous, has electric lights, city water works, churches, common schools and high school, telephone, and stores are up-to-date.

At Wiggins we own an extensive saw mill from which you can buy your lumber at low rates. We are only 24 hours from northern markets by express. There is already a live, prosperous truck growers' association of 75 members. Several hundred carloads of produce are shipped each year.

We started a demonstration farm under the government five years ago and we are now operating a new demonstration farm of 480 acres, with extensive buildings, where we are growing with profit a great variety of crops.

The growing crops of corn, alfalfa, millet, cane, cowpeas,

velvet beans, clover, potatoes, tomatoes, all kinds of vegetables, fruits, figs, oranges, strawberries, and pecans, are a revelation to every visitor to our farms. We have registered cattle, hogs and poultry. Today we have the largest citrus nursery in Mississippi.

All this is being done for the interest of our farmers. We want our people to succeed and are sparing no expense. You have full advantage of this demonstration farm free. You get our expert's advice free—you can ask any question you please, and you are taught how to handle any crop with which you are unfamiliar.

Our lands are gently rolling, thereby giving excellent drainage. The soil is a black sandy loam with a clay sub-soil.

Here upon our land is the farmer's future; here is his fortune. We want the right type of settler. We are in no hurry about the money but we are for the man. We guarantee our land and you can go upon it as soon as you have made your first payment.

Remember you are dealing with responsible people. We have made honesty count. We have given our settlers more help than most land companies would think the settler is entitled to, but we have not lost by it. To the man who has little capital and an earnest desire to own a farm, we present a splendid opportunity.

Full details concerning the country, climate, soil, schools, results from actual settlers, etc., are contained in our booklet and which we will gladly send you if you are interested.

We help our farmers become successful. We build roads, schools, churches and in some cases build houses, fence and clear the land ready for the plow. You can bring your problems to our experts in charge of Demonstration Farm.

Ask any of the following banks and banks if we can and will do what we promise:
Geo. M. Reynolds, Pres. Continental-Commercial Bank of Chicago, and largest bank in America.
Iowa Nat. Bank, Des Moines, Iowa.
1st Natl. Bank, Gulfport, Miss.
Peoples Bank, Wiggins, Miss.

MISSISSIPPI FARMS CO.,
1162 Commercial National Bank Bldg., CHICAGO, ILL.

OUT OUT THIS COUPON.
Mississippi Farms Co.
1162 Commercial Bank Bldg., Chicago.
Please let me know more about your farm proposition.
Name
Address
City..... State.....

gallons, or a little over 16 pounds of pork, all from 1 bushel of corn. Where a dairy cow is given all the good ensilage and prime alfalfa hay she will eat and cared for other ways intelligently, she will produce milk at a price that is hard to equal. If she will not, send her to the shambles and raise one that will.

Forcing Heifer Dry.

Answering J. W. H., Dillon, Kan.: Do not force the heifer dry. Take all feed except pasture from her, let her give what milk she will and milk her clean every night and morning. It is preferable to have a cow dry a month before calving, but some cows can be forced dry, as is likely in the case of your heifer, only at great risk of permanent injury, and in such cases continue milking. Your heifer shows wonderful persistency as a milker, and this should be cultivated. In all probability she will not give as much milk immediately after freshening as if she had been dry for a period. Do not breed her again for six or seven months. This will prolong the milking period and most likely will dry off more easily. The cow is entitled to a rest, during which time she will recuperate. The calf will have greater strength when born.

September Farmers' Institutes.

Kansas has more organized farmers' institutes and more members than any other state. More than 200 institutes will hold meetings from September 18 to December 21, and then another 200 meetings will be held in January and February. It is now about time to begin dating the fall meetings, and Director Miller of the extension department of the Kansas State Agricultural College will within the next two weeks date all meetings to be held from September 18 to October 14—probably two circuits. That is a good time for communities where it is desired to have an exhibit of produce and stock. The college will send two speakers to each institute. A local program must also be prepared. Officers who want meetings on this first circuit are asked to notify the college at once. Preference will be given applications in order. Farmers and others living in communities not now having institute organizations should write Director J. H. Miller at once, asking for dates and speakers. Probably 60 more institutes will be organized this year.

Kansas State Fair
TOPEKA

Sept. 11, 12, 13, 14, 15, 1911

EVERY DAY A BIG DAY

Large Agricultural Department. Hundreds of Horses, Cattle, Swine and Sheep. Acres of Red Machinery.

.....Evening Entertainment Every Night.....

LIBERATI'S MILITARY BAND AND 20 GRAND OPERA SINGERS.
PAIN'S "LAST DAYS OF POMPEII" AND GORGEOUS FIREWORKS.
PATTERSON'S CARNIVAL COMPANY. GREAT FREE ATTRACTIONS.
A WEEK OF INSTRUCTION AND RECREATION — SHOULD BE ENJOYED BY EVERY KANSAS CITIZEN.
SEMI-CENTENNIAL CELEBRATION, TOPEKA, SAME DATES.

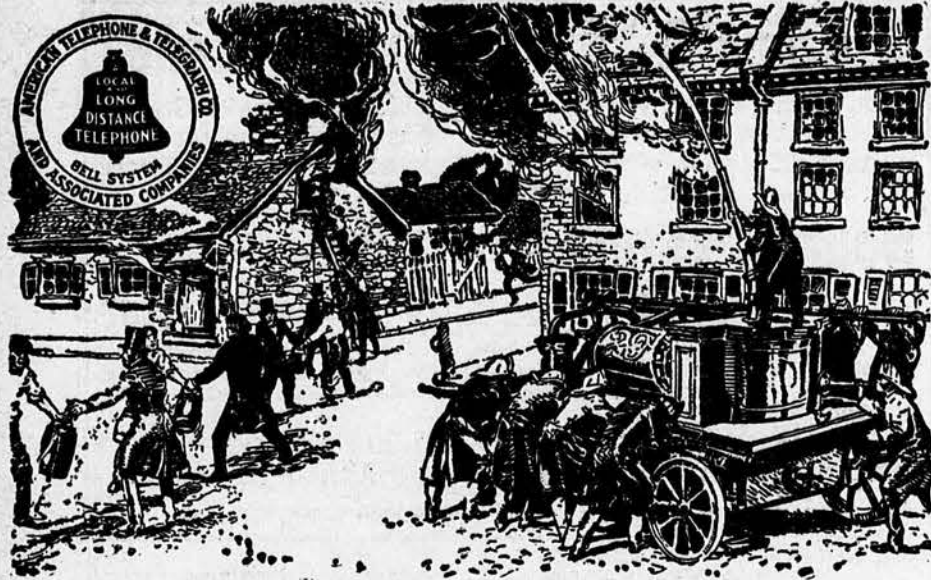
T. A. BORMAN, Pres.

H. L. COOK, Sec'y

ENTRIES FOR ST. JOSEPH LIVE STOCK SHOW
CLOSE AUGUST 31
FOR THE NIGHT HORSE SHOW
SEPTEMBER 15

Send your entries now and you will be in time, otherwise you might forget and be too late.

The Biggest Week in the History of St. Joseph



Fire Fighting and Telephoning

Both Need Team Work, Modern Tools and an Ever Ready Plant, Everywhere

Twenty men with twenty buckets can put out a small fire if each man works by himself.

If twenty men form a line and pass the buckets from hand to hand, they can put out a larger fire. But the same twenty men on the brakes of a "hand tub" can force a continuous stream of water through a pipe so fast that the bucket brigade seems futile by comparison.

The modern firefighter has gone away beyond the "hand tub." Mechanics build a steam fire engine, miners dig coal to feed it, workmen build reservoirs and lay pipes so that each nozzle man and engineer is worth a score of the old-fashioned firefighters.

The big tasks of today require not only team work, but also modern tools and a vast system of supply and distribution.

The Bell telephone system is an example of co-operation between 75,000 stockholders, 120,000 employees, and six million subscribers.

But to team work is added an up-to-date plant. Years of time and hundreds of millions of money have been put into the tools of the trade; into the building of a nation-wide network of lines, into the training of men and the working out of methods. The result is the Bell system of today—a union of men, money and machinery, to provide universal telephone service for ninety million people.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY AND ASSOCIATED COMPANIES

One Policy One System Universal Service



NEW CLUB SHOT SHELLS

They need no introduction to the man who shoots.

These old, reliable "yellow" shells have been in use more than 50 years.

Their "sure-fire" record is equalled only by their record for infallible accuracy.

Clean, black powder loads.

Prompt and snappy ignition. The famous *Remington-UMC* No. 2 primer is the reason.

For Remington and all other shot-guns. *Remington-UMC*—the perfect shooting combination.

REMINGTON ARMS-UNION METALLIC CARTRIDGE CO. 299 Broadway, New York City

HARD BURNED FARM DRAIN TILE

Write for Free Booklet and Reduced Prices. HUMBOLDT BRICK MFG. CO., HUMBOLDT KANSAS

POULTRY



Reports still come in of chicks and fowls affected with leg weakness. We have already advised feeding less corn and more meat and bone meal.

Nine-tenths of the poultry diseases can be traced directly to one of the following causes: Filthy houses, impure water, lice, improper feeding, poorly ventilated houses, drafts and absence of grit. These causes are all preventable by the poultryman if he gives his stock proper attention.

The obvious remedy for overcrowded quarters is to make more room or reduce the size of the flock. If you have pure-bred stock, put a card in *Kansas Farmer* advertising the same for sale. If you have common chickens, send the surplus to market.

The grand secret of good poultry and fine eggs lies in the generous expenditure of both care and feed. The care consists of clean quarters, ample size for the numbers kept, quiet and comfort; food sufficient, varied and at regular intervals, together with runs that afford vegetable products.

No breed of fowls can fill all requirements, nor is it necessary to be so. There are certain breeds of fowls which will probably suit the convenience and circumstances of the average farmer better than others, but that does not meet the case fully, and it therefore becomes necessary for each person who engages in the business, for pleasure or profit, or both, to secure such fowls as will best meet his requirements and conveniences. There is more in the care and feeding of the fowls than in the breed.

Poultry on the farm is the right thing in the right place. It isn't necessary to rush the business to the exclusion of other branches, any more than it is reasonable to neglect this department of agricultural industry altogether. A happy medium should be struck. The stock on hand should be culled down to productiveness and then enhanced by the infusion of better blood. Houses should be made more substantial as to warmth and cleanliness, and provision should be made for fall and winter work. It's as sure as shooting that poultry on the farm is profitable.

Rats do a great amount of damage to poultry each year and are around most poultry houses. Inasmuch as they do their damage during the nighttime, their depredations are not noticed as much as if done during the day. All the poultryman knows is that his flock of chicks aware of the cause of the trouble till the rats are caught in the act. If certain baits in rat traps have failed, sunflower seeds might be tried, for they are said to draw the rats with an irresistible force to the traps. This discovery was found by Capt. Weedon, in charge of the animals at the Washington Zoo. The building is infested by rats, and how to get rid of them was a perplexing question. Traps were set, but nothing would tempt the rodents to enter. In a storeroom drawer was placed a quantity of sunflower seeds, used as food for some of the birds. Into this drawer the rats gnawed their way, a fact which led the Captain to experiment with the seed as bait in the trap. The result was that the rats couldn't be kept out. A trap which appears crowded with six or eight rats was found some mornings to contain 15. So, if pestered with rats, try sunflower seeds as bait.

If people engaging in the poultry business would apply strict poultry measures to the business, there would be better success. A business with a system about it generally stands on its own bottom. We know an instance where care and forethought succeeded above everything else, and a young, industrious man was at the bottom of it. He was careful of his stock, their home and their feed. He marketed always at the right time and made money while many others were losing. Just the other day we heard that the commission man pays him 10 per cent more money than anyone else, as he always sends his goods to market in a prime and attractive style. Ap-

pearances are everything and when a man shows taste he is generally paid for it. Nothing tells so badly as poorly put up goods. Eggs should be sent to market clean, uniform in color and size, and as fresh as possible. Flesh should have a tempting appearance, plump and clean. There should be a careful catering to the wants of the customers. Anything slipshod counts against the business. Accurate accounts should be kept, economy should be practiced and the art of marketing should be studied. In short, it should be business from the word "go."

Late-Hatched Chicks.

The late-hatched chicks are now feathering very rapidly, and the best of care must be given them, for this period is very hard on the system and unless they are kept scrupulously free from lice, the drain upon their systems from this cause, the growing of feathers and the effect of the hot weather, soon reduces them to a peeper or runt, from which they never recover. Although they may appear hardy and well grown later on, the effect of having passed through this trying time will make a difference of from one-half to one pound in the weight of the specimen, which it never regains. Whenever chicks grow their flight feathers so rapidly as to cause them to extend beyond the length of their bodies with an inclination to droop, then there is a tendency to stunting. Be particular to determine positively that the failure of the body to grow in proportion to flight feathers is not due to the chicks, the mothering hens or their quarters being lousy, which would cause this condition; if not, you can ascribe it to an inclination to indigestion, caused by improper feeding. A partial correction of this trouble is in feeding. No corn in any form for a week or 10 days, less whole grain, more bread and milk, meat scraps, rolled oats and bran slightly moistened with milk, and never feeding them as much as they want at any one time, but feed oftener and make them wait for more all the time. Then pull the drooping flight feathers out of the wings. Mind you, the flight feathers only, not secondaries, which will be a great assistance in allowing the nourishment necessary to continue the growth of these already overgrown flight feathers, to go to the upbuilding of the impoverished system. By the time these feathers begin to grow again, the vitality of the chick will be much improved and the possibility of its becoming a worthless runt very much lessened.

Experimental Work.

To have eggs of fine flavor the hens should be fed on clean food. Fowls fed on putrid meat, decayed or decaying animal substances, will lay eggs not fit to eat. Proof of how the food affects the egg may be had by feeding a number of hens on onions for a certain period. The eggs will become so strongly tainted with the onion flavor as to be unpalatable. Where the farmer allows his fowls unlimited range, it may be said that it is impossible to control their food, but under no circumstances should the fowls be allowed access to filthy substances. Even the practice of allowing the hens to scratch in the dunghill, as some of the old-school farmers think is necessary for the production of eggs, is not to be recommended. Where fowls are kept for the purpose of money making, they will be found systematically arranged in certain numbers in pens and their actions under control. Good care, clean food and clean quarters will be found hand in hand. System and intelligence are as necessary in the management of poultry as in other lines of business.

Should the production of dark or brown colored shells be desired for a particular market, either of the following breeds will be found to lay them, viz: Cochins, Brahmas, Wyandottes, Plymouth Rocks or Langshans. Where eggs with white shells are wished, they will be produced by Leghorns, Minorcas and Andalusians. Experience with 12 of the leading varieties so far has proved that the Plymouth Rocks are the most rapid flesh formers, making a food market chicken between 3 and 4 months of age. All who try will find the result, provided the young bird is properly cared for and pushed from the

Keep the Stain Off Your Clothes

It's folly to get all marked up by fruit and berry juice, or to have trousers torn by twigs and thorns. Ideal Overalls will save many times their cost in a season. They are strong, comfortable and good looking. None better made.

Ideal Overalls

Genuine Indigo blue denim and drill. Cut over body, perfect-fitting patterns that prevent binding and pinching. All seams classic—double-stitched and warranted not to rip. No raw edges. Buttons can't tear out. Patent riveted buttons can't pull off. Plenty of pockets. Legs fashioned from two pieces, with inseam and outseam. Famous all through the West. If not sold in your town, tell us your dealer's name, and we'll send our illustrated booklet on all Ideal Work Clothes.

M. E. SMITH & CO., Sole Manufacturers
909 Farnam St., Omaha

10 DAY FREE TRIAL

Get the highest grade balling sewing machines at half the price asked by agents and retailers. Famous ELM GROVE BALLING MACHINES have been on the market for years and are the best that our country has made. We guarantee machines for 20 years, give you 30 days trial, most liberal offer ever made. FROM \$12.15 to \$25.45. Write for our free CATALOG showing all models and describing our free selling plan in detail. Don't pay a high price for a sewing machine, but write for our free Catalog today and save money.

JONES, POST & CO.

Successors to JONES BROS. MERCANTILE CO.
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WANT A GOOD MAN OR WOMAN—TO ACT AS GENERAL AGENT.

Bring our new and winning meritorious household necessity. It is easy to sell an article that people actually need in daily life. Appeals to the housewife on account of being economical; repeats quickly and the year around. Yields large profits for the agent. We want to hear from applicants having a good standing in their community and those willing to hustle. The opportunity affords you a permanent and pleasant business. If you have the ability to sell goods, send full particulars. If you desire a sample send five 2-cent stamps for circular 25c package.

MOL PRODUCTS CO., 1237 Farnol Bldg., Wash. D C

SALE 18 TONS A DAY HAY

Our "Cyclone" 3 stroke self feed hay press is the latest, most powerful and most efficient press on the market. Each circle of the team presses in three charges. The self feed automatically puts the hay to the bottom of the bale chamber. These improvements wonderfully increase capacity of our presses. Write today for circular K-167 which gives prices and details of five days' free trial.

ERTEL Co., QUINCY, ILL.

GREEN CORN CUTTER

Cuts and gathers corn, cane, kafir corn, or anything planted in rows. Runs easy. Long lasting. Thousands in use. Fully protected by patents. Send for free circulars.

J. A. COLE, MFR., TOPEKA, KAN.

FOR SALE.

At feed mill, doing a good cash business \$150 to \$200 net each month; only one west part of the county; splendid trade; all bins on railroad right of way; owner willing on account of losing his wife and ill health; this will bear investigation; good, live town. For further particulars on or address

THOS. DARCEY, Real Estate Agent, Offerle, Kan.

L. M. PENWELL

Funeral Director and Licensed Embalmer
611 QUINCY ST., TOPEKA, KAN.

Elm Grove Poultry Farm

Red Rocks, R. C. & S. C. R. L. Reda, S. White Leghorns and Pit Games. Write for prices.
ELM GROVE POULTRY FARM, Wichita, Kansas.

PINE PRINTING FOR REASONABLE PRICES. Catalogs, circulars, letter heads. Everything in the printing line. Write for samples and prices. Western Printing Co., 123 Jackson St., Topeka, Kan.

time of hatching. The Wyandottes mature rapidly, making a round, plump market chicken at from 4 to 5 months of age. Brahmas do not take on flesh quickly while growing, but after 7 or 8 months make a fine, large bird. Either of the two first named will be found to make early chickens for market.—Report Canada Experiment Farm.

The Wonders of an Egg.

A French scientist who removed the shell on either side of an egg, without injuring the membrane, in patches about the size of the diameter of a pea, and snugly fitted the openings with bits of glass, gives the following report of the wonderful experiment:

I placed the egg with the glass bull's-eyes in an incubator, run by clockwork and revolving once each hour, so that I had the pleasure of looking through and watching the change upon the inside at the end of each 60 minutes. No changes were noticeable until after the end of the twelfth hour, when some of the lineaments of the head and body of the chick made their appearance. The heart appeared to beat at the end of the twenty-fourth hour, and in 48 hours two vessels of blood were distinguishable, the pulsations being quite visible. At the fiftieth hour an auricle of the heart appeared, much resembling a lace or noose folded down upon itself. At the end of 70 hours we distinguished wings and two pupae for the brain, one for the bill, and two others for the fore part and hind part of the head. The liver appeared at the end of the fifth day. At the end of 131 hours the first voluntary motion was observed.

At the end of 138 hours the lungs and stomach had become visible, and four hours later the intestines, the loins and the upper mandible could be distinguished. The slimy matter of the brain began to take form and become more compact at the beginning of the seventh day. At the 190th hour the bill first opened and flesh began to appear on the breast. At the 196th hour the sternum appeared. At the 210th hour the ribs had begun to put out from the back; the bill was quite visible, as was also the gall bladder. At the beginning of the 236th hour the bill ad become green, and it is evident that the chick could have moved had it been taken from the shell. Four hours more and feathers had commenced to shoot out and the skull to become gristly. At the 260th hour the eyes appeared and a few hours later the ribs were perfect. At the 331st hour the spleen drew up to the stomach and the lungs to the chest.

When the incubator had turned the egg 335 times the bill was frequently opening and closing, as if the chick was gasping for breath. When 451 hours had elapsed we heard the first cry of the little imprisoned bipe. From that time forward he grew rapidly, and came out a full-fledged chick at the proper time.

Kansas Crop Report

(Continued from page 4.)

the state's average annual acreage. Special pains were taken to verify the corn acreage in view of the fact that the United States Department of Agriculture has reported Kansas as planting more than 9,000,000 acres of corn.

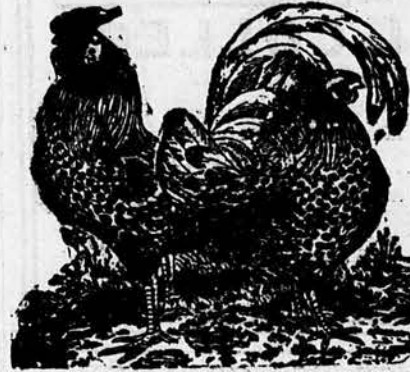
Generally the corn prospect is not flattering, the average of its condition being but 43.3 for the state. Smith reports the highest average (87) of any county. Doniphan is next with 83, although some of its neighbors north of the Kansas river are among those with the least promising prospects. The vitality of much corn was so impaired by unusual weather conditions and belated rains that recent rainfall has not, in some localities, brought the revival that was hoped for, and considerable will produce little or no grain.

Reports from farmers in the same counties often vary widely, suggesting lack of uniform conditions even in adjacent neighborhoods. One field may promise fairly, while others near by may be of little worth.

Rains of from 1 to 10 inches that within the past 10 days have visited nearly every section of the state, with the showery conditions still prevailing, are working marvelous changes and improvement in the general situation. In some localities the rains came too late to assure the corn crop, but will be of inestimable value for all forage, in supplying abundant water and by insuring fine fall pasturage for live stock. Likewise the ground generally is in excellent condition for fall plowing and seeding, and this work will now be energetically pushed in all quarters.

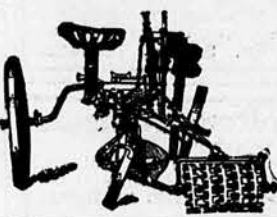
A PURE BRED COCKEREL FREE

A WONDERFUL OPPORTUNITY TO BREED UP YOUR POULTRY



Early this spring KANSAS FARMER offered to send a setting of eggs from pure-bred poultry, any kind desired, for a little work in securing subscriptions. This plan proved so popular that we have decided to give any reader of KANSAS FARMER who desires to secure a pure-bred cockerel an opportunity to do so without a cent of cost to them. We will make a proposition that will enable you to get a pen of pure-bred birds if you wish it.

Now, this is a straight-out, fair, square offer and we positively guarantee to give anyone answering this advertisement the opportunity of a lifetime to get a start in pure-bred poultry. A boy or girl can do the work necessary. Be the first one in your neighborhood to get in on a good thing. Address FREE POULTRY DEPT., KANSAS FARMER, Topeka, Kan.

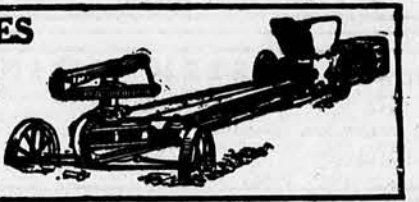


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The Wilberg Plow Attachment will make a proper seed bed while you plow with only fifty pounds extra draft. It packs the furrow the moment it is turned, thereby added to a gang plow, preventing moisture to escape and making the seed bed drouth resistant. This attachment is sold on 10 days free trial. It will increase your yield from two to five bushels per acre and will save labor to pay for itself on 50 acres of plowing. Write for a full description to Wilberg Plow Attachment Co., Nome, N. D.

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Tested for over 25 years. Made in many styles, Horse Power, Belt Power and Self-feed Attachments. Simple and Durable with Greatest Capacity. They make a Profitable Investment. We can suit you. Write for Catalog and prices. KANSAS CITY HAY PRESS CO. 129 Mill Street KANSAS CITY, MO.



WHITE PLYMOUTH ROCKS BEST ALL PURPOSE FOWLS IN EXISTENCE

GOOD TO LAY, GOOD TO EAT, AND GOOD TO LOOK AT. White P. Rocks hold the record for egg laying over all other breeds. 289 eggs each in a year for eight pullets is the record, which has never been approached by any other variety. I have bred W. P. Rocks exclusively for 20 years and have some fine specimens of the breed. I sell eggs at "live and let live" prices, \$2 per 15, \$5 per 45 and I prepay expressage to any express office in the United States. THOMAS OWEN Sta. B. TOPEKA, KAN.

Farm Power.

(Continued from page 6)

complish in pulling power, compared with horses. A manufacturer explains in his literature that the pulley power of this size engine, running with a belt, equals work of 45 horses. Its pulling power, when moving itself, is equal to the average pull of 22 to 25 good young horses, working at a temperature from 50 to 70 degrees. When the higher temperatures of harvest time arrive the horse cannot pull as continuously as in spring or fall. Flies, dust and heat tease both horses and mules. So, then, working power drops fast under a hot sun. In contrast, the engine cares nothing for flies, heat or dust. It never relaxes its speed, but works 24 hours at a stretch, if required.

The claim is sometimes made that the automobilists are the only fellows agitating country road improvement. President Hooper of the National Automobile Association meets the assertion by this pertinent comment: "As the most insistent users of the road, it is our duty to aid in highway improvement to the fullest extent of our ability, and we look upon the work as a simple duty which is expected of us. It is plainly apparent that we consider the motor-driven vehicle as essential to the man in the country as it is to the urban resident; in fact, we look forward to an early period when every farm will have an automobile, just as it must have farm machinery and other equipment to carry on its work. To journey quickly from farm to town and home is desirable to the man in the country, for time is something in which he, too, can economize. It certainly is also essential that the road shall be properly constructed and efficiently maintained. We ask little or none of the credit for securing improved highways, but our 39 state bodies and 300 clubs and thousands of members do not desire to be considered backward in meeting the duty which, by common consent, has devolved upon them."

W. O. Hotchkiss of Wisconsin tells how one farmer of that state became a believer in good roads. This man had a thousand bushels of potatoes in the cellar, which he was holding for a good price. An offer of 92 cents came in

100 YEARS' WORK

And Only One Dollar and Fifteen Cents For Oil and Repairs

A regular Sharples Dairy Tubular Cream Separator recently finished work equal to 100 years' service in a five to eight cow dairy. Here is the record. It proves that

SHARPLES Tubular Cream Separators

are The World's Best. Size of machine, No. 4 Tubular Capacity per hour, 500 pounds Total pounds separated, 2,600,000 Total turns of crank, 14,352,000 Total cost of oil, 75 cents Total cost of repairs, 49 cents Time used in oiling, 15 minutes Time repairing and adjusting, 20 minutes

This wonderful record was made by a regular Tubular—just like Tubulars that are rapidly replacing all others. Write for illustrated account telling all about it.

You will finally have a Dairy Tubular because it contains no disks, has twice the skimming force of others, skims faster and twice as clean. Repeatedly pays for itself by saving what others lose. Wears a lifetime. Guaranteed forever by America's oldest and world's biggest separator concern. Write for free trial. Other separators taken in exchange. Ask for catalog No. 165



THE SHARPLES SEPARATOR CO., WEST CHESTER, PA. Chicago, Ill., San Francisco, Cal., Portland, Ore., Toronto, Can., Winnipeg, Can.

March, but, as he expressed it, the roads were so bad that the only way he could get to town was by telephone. Of course the roads finally dried out, and then he secured 30 cents a bushel for his potatoes. Hence, rightly, he assumed that bad roads had cost him something over \$600, and he likewise figured that if all the main roads in the county had been improved, his share would have been as much as the loss on his crop of potatoes. Mr. Hotchkiss sums up the situation very concisely in this sentence: "Good roads benefit us at every turn, and bad roads are an extravagance that no people can afford."

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Courses of Study

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HOME CIRCLE



A SONNET.
Dashed Off Whilst Thinking About How Pa Acts When Dressing Up to Go to Church.
Whilst pa and ma is dressin' up to go To church somewhere, so I've heard ma tell
The neighbor women, pa tears 'round pell-mell
And turns things upside down, and wants to know
Who hid his clothes, and makes ma stop and show
Him where to find them. Ma she know'st full well
They're where he's kept them since he Cam'st to dwell
In our house; that's been twenty years or so.

And when ma's donest her level best to try
To help pa so he wilt not fuss and fret,
And found his clothes, shoes, collar, cuffs and tie,
And there ain't nothin' more for her to get,
He looks at her and with an awful sigh
Says: "Thunderation, ain't you ready yet?"
—Nixon Waterman in The Fra.

Gather ye rosebuds while ye may,
Old time is still a-flyin';
And this same flower that smiles today
Tomorrow will be dying. —Herrick.

If fruits or vegetables become scorched in cooking, set the kettle into a dish of cold water and the flavor will be unimpaired.

A good way to deodorize kitchen utensils in which fish, onions and the like have been cooked is as follows: Wash the kettle clean, dry it and then invert it over a handful of burning paper. When the paper is consumed scald the vessel, dry it, and it will be sweet.

It is sometimes difficult to cut away the material under lace insertion without snipping a wrong thread occasionally. One way of overcoming this difficulty is to cut a strip of pasteboard five or six inches long and the width to slip between the lace and material. Round off the corners of one end so that they won't catch in the lace. This will make the work easier and safer.

The girl who wishes to be pretty must remember that first of all she must be well groomed. That is, she must pay attention to the details of dress, as they go far to make a girl attractive. No matter how beautiful your hair is, don't think that it is unnecessary to have it neatly and becomingly combed. Keep the teeth well brushed and wage war on the blackheads which are so disfiguring to a complexion. Also give the finger nails careful attention. They should be oval shaped and with the "half-moon" at the base of the nails fully developed, and keep them trimmed to conform with the shape of the finger, neither too pointed nor too square. Just a slight edge of white should show beyond the pink portion. Unless one is willing to spend the time doing these first essentials, she shouldn't sigh for good looks.

The Age of the Fork.
Knives and spoons are of very great antiquity, but the use of forks is really, comparatively speaking, modern; and, indispensable as these adjuncts of the table may now appear, they had not become at all general at the beginning of the eighteenth century.

Other Timely Uses for Fresh Rose Leaves.
Other timely uses for fresh rose leaves are for the flavoring of cakes and puddings, for the finger bowl, for scattering carelessly over the tablecloth at rose luncheons or teas, for throwing in front of brides or crowning the sweet girl graduates. Simply dried, with salt enough to preserve them, they make a delightfully fragrant pillow for the baby's crib or carriage.

Margueritas.
Boil 1 cup of sugar and 1/2 cup of water until it threads. Remove to back of range and drop in 5 marshmallows cut into small pieces. Let stand to dissolve and then pour gradually onto the

well beaten whites of 2 eggs. Add 2 tablespoonfuls of grated cocoanut and 1/4 teaspoonful of vanilla. When partially cooled add 1 cup of chopped nuts. Spread on salted crackers and brown slightly in the oven.

All Through a Hyphen.
A certain member of congress was to make a speech near Chicago, but was unable to do so because the heavy rains had destroyed a portion of the branch railway. Accordingly, he sent this telegram: "Cannot come. Wash-out on line." In a few hours the reply came: "Never mind. Come anyway. Borrow a Shirt."—Every Woman's Magazine.

Rose Jelly.
Charming decorative pieces are made of the transparent gelatine, jelly and wild rose, or rose petals. Make a plain lemon jelly, flavoring with rose. Pour a very thin layer of the liquid jelly into individual round oval molds and let it harden. Then lay upon it a single briar rose or a grouping of rose petals, and fill the mold with the liquid jelly. Set away for several hours in the ice chest to harden. When turned out the pink rose gleaming through the thin cover of transparent jelly gives a beautiful effect.

Orris Root.
Orris root, which is so important an ingredient in violet powder, is grown in Italy, near Vallambrosa. There, on the sunny side of the mountains, you will see under arbors covered with grape vines and between the olive trees, the iris dalmatica, from the roots of which the orris powder is made. For three years the plants are left undisturbed. Then they are taken out of the ground and the root is stripped of the tuberous part, the small piece that is left being planted and left for another three years. The tubers are soaked in water and peeled. Then they are dried in the sun, on trays, losing two-thirds of their weight. It is a common sight to see whole families of Italians sitting under the arbor peeling the roots.—Every Woman's Magazine.

To Prepare a Rose Jar.
At this season of the year the following rose recipes may be of interest to some:

Strip off the rose leaves and dry on papers spread on the floor in an unused room. When you have a half peck fine dry leaves, take a large china or glass bowl and strew a handful of table salt on the bottom. Add three or four handfuls of the leaves, follow with more salt and more leaves until all the leaves are used. Have the last layer of salt. Let this remain five days, stirring and turning twice a day.

When they seem moist add three ounces bruised allspice and two ounces bruised stick cinnamon. This forms the body of the stock. Let this remain a week or more, turning daily from top to bottom. Then it should be ready for the permanent jar, which should have a double lid. Mix together one ounce each bruised cinnamon and cloves, two ounces ginger root sliced thin, one-half ounce bruised anise seed, one-half pound dried lavender flowers, two ounces dried orange and lemon peel, ten grains of musk and whatever you have in the way of dried violets, clove pinks, tuberoses, orange blossoms, lemon verbena and bergamont.

A little dried rosemary is also an addition. Now pack the rose leaves in the jars in layers, putting the fragrant mixture of spices between each layer. When filled, pour in a liquid mixture, made from a pint of Florida water, the same amount magnolia water and a little of the essential oils of such perfumes as rose geranium, violet, jessamine or anything else you desire. This is not necessary, but is a great addition. Shake and stir once a week, open daily for a few months, taking care not to leave it uncovered any length of time.

Rose leaves and other fragrant flowers may be added through the season, but salt must be used also, as in the beginning. This pot-pourri is expensive in the making, but it will retain its delicate fragrance for a quarter of a century. Your druggist will quote you prices on the oils, and you get the amount you desire.

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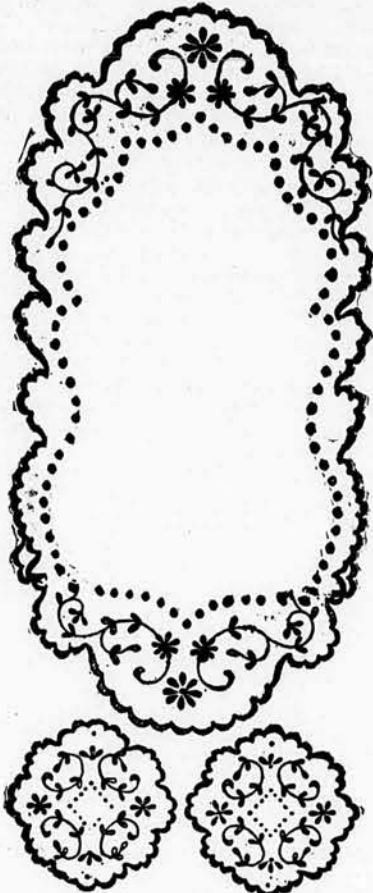
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Bellevue Grange Picnics at Lawrence.
 The annual picnic of Bellevue Grange, Eudora, Kan., was held August 1 in Woodlawn Park, Lawrence. The park was furnished free by the park association and Lawrence merchants did everything to help the grangers pass the day pleasantly. The picnic was largely attended.

C. M. Freeman, secretary of the National Grange, was the principal speaker. His talk was along the line of the Grange work and higher education. A. P. Reardon, lecturer Kansas State Grange, made a good talk. Also O. F. Whitney of Topeka, and Mrs. George Black, wife of the master of the State Grange, were with us.

A number of prizes were offered by the merchants of Lawrence for the best displays of stock and farm products. The best team of draft horses and best team of draft mules each got a set of leather collars valued at \$7. The best driving team and best single driver each got \$5 cash. There were a number of similar prizes on colts, grain, potatoes and fruit.

The Lawrence Military Band furnished the music. The grangers liberally patronized the roller coaster, merry-go-round and roller skating rink. In the evening dancing in the pavilion was the chief amusement until 10:30 p. m., when it began raining again, and thus closed the Grange picnic for 1911.—H. J. Landon, Bellevue Grange No. 1453, Eudora, Kan.

Suggestions for Grangers.
 That the interest depends largely upon the attendance of the members is a recognized fact, and it is equally true that a large attendance can generally be secured only by providing interesting programs. The responsibility of providing an interesting program rests not wholly with the lecturer, but upon the presence and mental attitude of the members. They must be made to feel that the meeting is for them as well as of them, and must be impressed with the idea that he who contributes most from his own mental storehouse is the one who receives most in return. In this, as in every other respect, one must not expect to receive something for nothing.

Let us begin with the officers. If each officer would make a special effort to be in his or her place at the appointed hour, that one fact would render the office of worthy master a more agreeable one. How discouraging to him to find, when the hour comes for opening the meeting, that only a few of the officers are present. He must either delay the meeting or fill the offices pro tem, either of which causes more or less confusion. If he chooses the former, the lecturer's program must necessarily be cut short, and there is then lacking among the members the ease of mind and power to concentrate attention necessary to grasp the new and beautiful thoughts sure to be presented and to enter into a hearty discussion of the same, a result always so much to be desired.

On the other hand, filling the offices pro tem brings its own difficulties, particularly if there be initiation, as important duties are then thrust upon members quite unfamiliar with them. Instead, if when calling the meeting to order, he finds the officers all in their places, with a fair proportion of the members, and all on the qui vive for something of value to take home with them, what an inspiration to the master, the lecturer and to those who are to participate in the program.

Another desirable feature is added when each officer has committed to memory his part in the initiation. By so doing, he not only adds much to the beauty and impressiveness of the ceremony, but also commands greater respect for his own mental ability.

A word to the program committee. It seems advisable to consult with those whose names are to be placed on the program and ascertain if the topics assigned are satisfactory, or if the brother or sister feels that greater justice could be done to some other topic. They should be allowed a little choice, as it would be, of course, unreasonable to expect one to speak at length upon a topic with which he is not familiar.

A little more enthusiasm and responsiveness on the part of members is much to be desired, but the method of arousing it depends largely upon the individual. From personal observation I have come to the conclusion that the hard-working, practical farmer is often deterred from presenting his views or giving others the benefit of his valuable experiences by the one fact that he fears his inability to clothe his thoughts in the elegant language of his more talented brethren. Strive to lessen the feeling, discourage any tendency to criticize the speaker's language and encourage all to feel it is the thought presented to which attention should be directed.

Establish the habit of calling on all, the newer and younger members as well as the older ones, and when they see this is customary, more and more will they be prepared to express their views. The mere statement that he agrees with the previous speaker should not be accepted, but by questioning, lead him to emphasize the points in which he agrees, which will also bring out the points of disagreement. Adverse criticism is just as beneficial as the favorable sort.

Giving the newer members a place on one of the less important committees now and then gives them a feeling of responsibility and gradually prepares them for the time so surely coming when the heavier duties must devolve upon them, as the older and more experienced ones cannot always remain with us. Besides, youth naturally brings vitality and animation to any organization.

Besides adhering strictly to the program, would it not be advisable to introduce some unexpected feature, as a "surprise"? Of course, we must not lose sight of the fact that information and instruction are our primary objects, but a few moments devoted solely to entertainment will not be misspent.

Finally, a little more sociability and good fellowship displayed by the older members toward the newer ones will go far toward drawing them to the next meeting, and will aid in removing the feeling of strangeness, I may say, awkwardness, so common to the newly initiated, and often so hard to overcome. There is a tendency in all gatherings of individuals to resolve themselves into cliques, to the exclusion of the latest comers. This should be avoided and the members should form, instead, a committee of the whole to welcome the newcomer and try to secure his regular attendance.

It is scarcely to be expected that one can be depended upon to express his views freely until he feels that his listeners are his friends, ready to encourage him in his efforts and to overlook whatever grammatical errors there may be in his remarks. Mutual cordiality inspires greater self-possession, which in turn is conducive to enthusiasm, while a proper amount of enthusiasm insures a pleasant and profitable session.—Loretta Shepard.

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 Underneath or Overhead Wagon Dumps in steel or wood. Elevator Outfits, Crib or Box Conveyors in all steel or wood. Our Tubular Elevator is strongest and fastest made for all small grain and flax. Complete with spouts, belt attachments, jacks and motor powers. We can furnish an outfit for any granary or crib whether large or small.
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Make Your Loading Easy
 Cut out the backaches, strains and ruptures using low Empire Steel Wheels for your hauling. You can put on a bigger load, half the work. Half the time. Save your team. Set out your fields.
EMPIRE LOW STEEL WHEELS
 cost only one-half as much as wooden wheels. They save you time cutting and repair expense. You can change your wooden wheels for your Empire Steel Wheels any time in 5 minutes. Send for free catalog showing wheels and low-priced Empire Handy Wagons.
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THE WESTERN LAND ROLLER will do it all and at one time. Our Free Booklet contains descriptions and prices of our Rollers and testimonials from many satisfied users. It also tells how to prepare your soil to raise good crops and to get a good stand of alfalfa with but 6 to 8 tons seed to the acre. Write for a copy today.
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 1 1/2 H. P. GASOLINE ENGINE
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 H. P. at proportionately low prices. Sold on 30 days free trial. Guaranteed Five Years. Full information from
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 ONE OR TWO-HORSE, AND GASOLINE BELT POWER.
 Self-Feeder, Self-Thresher and Knotters. All Steel, full circle. Guaranteed 1 ton hour with ONE OPERATOR. 1 1/2 tons hour with two men. FREE trial.
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 Flashes instantly, igniting any gas or alcohol. Good for 5,000 lights. A household necessity. Simple, durable. Price prepaid 10c. Think of it! Hurry order. Advertisements wanted.
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BINDER Attachment with the Harvester cuts and thrashes in piles on harvester winnows. Men and boys can handle it. Proven all you claim for it. With assistance of one man, cut and bound 100 acres of Corn, Kaffir Corn and last year. Testimonials and catalogue showing pictures of Harvester.
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THE GREGORY FARM

Of White Hall, Green Co. Ill.

Will show their string of Percheron horses and their Berkshire hogs at Topeka and St. Joe fairs.

Don't fail to see their grand string of Percherons. A large number will be mares and colts by the great stallions Radziwill and the grand champion Car-

not. A number of these mares, bred to these great stallions, will be sold on November 8, at the annual Percheron sale, held at the Gregory farm.

The Berkshires will be mostly the get of Masterpiece.

W. S. CORSA, PROP.

FIELD NOTES

FIELD MEN.

Wayne Devine.....Topeka, Kan.
Jesse R. Johnson.....Clay Center, Kan.
W. J. Cody.....Topeka, Kan.

PURE BRED STOCK SALES.

Percherons.
Oct. 14-15.—H. G. McMillan & Sons, Rock Rapids, Ia.
Oct. 6-7.—H. G. McMillan & Sons, Rock Rapids, Ia.

Holstein-Friesians.
Oct. 7-8.—H. C. Glissman, Station B., Omaha, Neb.

Herefords.
Nov. 10.—Thos. Crawford, Butler, Mo.
Nov. 17-18.—G. W. Newman, Emporia, Kan.

Poland Chinas.

Oct. 13.—W. B. Wallace, Bunceon, Mo.
Oct. 14.—Bert Harriman, Pilot Grove, Mo.
Oct. 15.—J. A. Winebrenner, Tipton, Mo.
Oct. 26.—Ben. M. Bell, Beattie, Kansas.
Oct. 28.—J. D. Willfong, Zeandale, Kan.
Sept. 26, B. M. Bell, Beattie, Kansas.
Oct. 4.—S. A. Bugg, Hamilton, Mo.
Oct. 5.—J. C. Salter, Jasper, Mo.
Oct. 7.—J. B. Dillingham, Platte City, Mo.
Oct. 8.—L. R. McClarnon, Bradyville, Iowa.
Oct. 9.—W. H. Emens, Eldon, Kan.
Oct. 10.—Frank Michael, Erie, Kan.
Oct. 11.—S. A. Hobson & Son, King City, Mo.
Oct. 14.—T. J. Dawe, Troy, Kan.
Oct. 16.—A. R. Enos, Roma, Kan.
Oct. 16.—Oak Hill Stock Farm, Esbon, Kan.
Oct. 17.—J. D. Spangler, Sharon, Kan.
Oct. 17.—J. D. Gates, Garnett, Kan.
Oct. 18.—Geo. M. Hull, Meriden, Kan.
Oct. 18.—W. E. Long, Elmo, Kan.
Oct. 19.—J. Hartman, Elmo, Kan.
Oct. 19.—Dietrich & Spalding, Ottawa, Kan.
Oct. 20.—Goy Johnston, South Mound, Kan.
Oct. 20.—Geo. W. Smith, Burchard, Neb.
Oct. 21.—Stedem Stock Farm, Marshall, Mo.
Oct. 21.—A. R. Rystead, Mankato, Kan.
Oct. 23.—Herman Gronniger & Sons, Bendon, Kan.

Oct. 24.—W. F. Fulton, Waterville, Kan.
Oct. 24.—A. P. Young, Lexington, Mo.
Oct. 25.—R. M. Finch, Sheridan, Mo.
Oct. 25.—T. J. Melsner, Sabetha, Kan.
Oct. 25.—W. E. Van Horn, Overbrook, Kan.
Oct. 25.—W. R. Webb, Bendona, Kan.
Oct. 27.—Baker Bros., Butler, Mo.
Oct. 27.—J. C. Halderman, Burchard, Neb.
Oct. 27.—J. O. James, Bradyville, Iowa.
Oct. 28.—W. V. Hoppe, Stella, Neb.; sale at Fall City, Neb.
Oct. 30.—J. H. Harter, Westmoreland, Kan.
Oct. 31.—M. T. Williams, Valley Falls, Kan.
Nov. 1.—H. B. Walter, Effingham, Kan.
Nov. 2.—H. C. Graner, Lancaster, Kan.
Nov. 3.—T. B. Durbin, King City, Mo.
Nov. 4.—T. M. Willson, Lebanon, Kan.
Nov. 4.—E. Howard, Morrill, Kan.; sale at Sabetha, Kan.

Nov. 5.—J. P. Bowser, Abilene, Kan.
Nov. 7.—H. J. Griffiths, Clay Center, Kan.
Nov. 7.—Verny Daniels, Gower, Mo.
Nov. 8.—L. E. Klein, Zeandale, Kan.
Nov. 8.—W. A. Prewett, Asherville, Kan.
Nov. 9.—Young & Kimberling, Glasco, Kan.
Nov. 9.—Joe Schneider, Nortonville, Kan.
Nov. 11.—P. L. Ware & Son, Paola, Kan.
Nov. 12.—Walter Hildwein, Fairview, Kan.
Nov. 14.—F. W. Barber & Son, Franklin, Neb.
Nov. 15.—A. P. Wright, Valley Center, Kan.
Nov. 15.—C. W. Jones, Solomon, Kan.
Nov. 16.—Miller & Manderschied, St. John, Kan.

Nov. 17.—J. F. Ware, Garfield, Kan.
Nov. 18.—George W. Roberts, Larned, Kan.
Nov. 20.—O. M. Furnas, Oxford, Kan.
Nov. 22.—T. J. Melsner, Sabetha, Kan.
Nov. 24.—A. L. Albright, Waterville, Kan.
Nov. 25.—J. H. Hamilton & Son, Guide Rock, Neb.
Nov. 27.—A. C. Lobaugh, Washington, Kan.
Nov. 28.—T. J. Charles, Republic, Kan.
Nov. 28.—H. C. Graner, Lancaster, Kan.
Nov. 8, 1912.—George M. Hull and Col. C. E. Bean, Garnett, Kan.
Nov. 9.—W. E. Willey, Steele City, Neb.
Nov. 12.—Oak Hill Stock Farm, Esbon, Kan.
Nov. 16.—J. H. Harter, Westmoreland, Kan.
Nov. 17.—Ernest W. Beery, Shambaugh, Ia.
Nov. 17.—A. R. Rystead, Mankato, Kan.
Nov. 20.—M. M. Bunnell, Atchison, Kan.
Nov. 20.—E. E. Logan, Beloit, Kan.
Nov. 21.—W. A. Prewett, Asherville, Kan.
Nov. 22.—C. W. Jones, Solomon, Kan.
Nov. 23.—J. Hartman, Elmo, Kan.
Nov. 27, 1912.—L. R. McClarnon, Bradyville, Iowa.
March 6.—T. M. Willson, Lebanon, Kan.

Duroc Jerseys.

Oct. 9.—E. W. Davis & Co., Glenwood, Mo.
Oct. 17.—Pearl H. Pagett, Beloit, Kan.
Oct. 20.—J. B. Davis, Fairview, Kansas.
Nov. 3.—Grant Chapin, Green, Kan.
Nov. 7.—Frank Elder, Green, Kan.
Nov. 7.—W. E. Monasmith, Formoso, Kan.
Nov. 31.—W. E. Monasmith, Formosa, Kan.
Feb. 1.—Geo. Phillippi, Lebanon, Kan. Sale at Esbon, Kan.
Feb. 7, 1912.—Frank Elder, Green, Kan.
Feb. 2.—Rinehart & Son, Smith Center, Kan.
Feb. 8.—W. C. Whitney, Agra, Kan.
Feb. 8.—J. B. Davis, Fairview, Kansas.
Feb. 13.—J. O. Hunt, Marysville, Kan.
Feb. 14.—Thompson Bros., Garrison, Kan.
Feb. 15.—Grant Chapin, Green, Kan.
Feb. 27.—W. T. Fitch, Minneapolis, Kan.
Feb. 28.—E. F. Flanagan, Chapman, Kan.

O. I. C. Swine.
Oct. 18.—J. N. George, Hopkins, Mo.
Oct. 25.—R. W. Gage, Garnett, Kan.
Oct. 28.—Arthur Mosse, Route 5, Leavenworth, Kan.
Oct. 30.—C. R. Champion & Son, Raymore, Mo.
Nov. 1.—George O. Clark, Wilcox, Neb., and O. W. & E. Holtquist, Sacramento, Neb. Sale at Holdrege, Neb.

Standard Poland China Record, membership and 13 volumes for sale cheap. C. H. Hay, Oswego, Kans.

POLAND CHINA records for sale: 1 share of stock and 21 vols. in Standard P. C. Record Ass. Reason, change of occupation. I. L. STRATTON, Ottawa, Kan.

THE BEST TOWN TO LIVE IN.
If you would like to live in the most beautiful city in the West, with unsurpassed education, business and religious advantages, in a city clean, progressive, where real estate values are low, but steadily advancing, where living expenses are reasonable, a city with natural gas at lowest price, address the **SECRETARY of the COMMERCIAL CLUB, Topeka, Kansas.**

Stith Durocs Popular.
Charles Stith of Eureka, Kan., has sold 23 head of Durocs to parties in California. The Stith Durocs are very fashionably bred and are the kind that make good. Write Charles Stith, at Eureka, Kan., for prices and description. Kindly mention the Kansas Farmer.

Col. Lafe Burger Busy.
Wilmington, Kan., the colonel states that in a letter from Col. Lafe Burger of he has held several farm sales this month. Colonel Burger is an auctioneer with several years' experience in the auction business, both as live stock, land and farm salesman. Colonel Burger is well posted on values and a tireless worker. Write or wire him for date for your next sale.

Strike Ties Up Percherons.
People of the West have been reading about the railroad strike in England, but have doubtless failed to appreciate how far-reaching or how serious the trouble is. Mr. Watson, buyer for Watson, Woods Bros. and Kelley, Lincoln, Neb., cables Kansas Farmer that on account of the strike he is tied up in London and will not be able to reach the United States with the greatest bunch of Percherons, Shires and Belgians ever imported, and the cream of which he expected to show at the leading fairs, including Kansas State Fair at Topeka. The many friends of this leading firm of importers will regret the failure of their importation to arrive and will miss their string at the fairs.

Ernest W. Beery's Big Polands.
Attention is called to the card of Mr. Ernest W. Beery of Shambaugh, Ia., in this issue of the Farmer. Mr. Beery breeds the big-type Polands, the great big, mellow kind, with the bone to carry their immense weight, yet with all the class that could be desired. His two herd boars, Jumbo Prospect and Wonderful, are two of the best big-type boars in southern Iowa. Jumbo Prospect and Wonderful were recently inspected by a number of leading breeders and all agreed that they were among the best of the big-type boars, and Mr. Beery had a number of splendid offers for Jumbo Prospect, but refused to sell him at this time. He is offering a few choice spring pigs, sired by this boar, and out of good sows; also pigs sired by Colossal and Wonderful. He also will sell his herd boar, Wonderful, as he expects to keep all gilts sired by this great boar. Wonderful 58092 is a March yearling, sired by Grand's Wonder, he by Grand Look; dam, Best Girl, she by Big King. This is one of the best yearling boars in the country and will have to be seen to be fully appreciated. Mr. Beery will not hold a fall sale this year and is selecting only outstanding good ones in filling orders. Write him for pictures of boars, and please mention Kansas Farmer when writing.

Important Sale of Percherons.
Lee Bros., the well-known Percheron breeders of Harveyville, Kan., report an important sale of Percheron mares to Mr. W. S. Corsa of White Hall, Ill. The sale included 12 head of mares that Lee Bros. expected to show this year, and the sale was made with the understanding that Mr. Corsa will show them at all fairs where Lee Bros. had arranged to show. The noted mare imported Huchepe, champion at the Hutchinson (Kan.) state fair, and American Royal in 1910, was included in this sale; also Camille and Della, other prize winners of the Lee Bros. herd. That Mr. Corsa made his selections from this herd to fill out his show herd is evidence that the Lee Bros. Herd of Percherons is in the class that produces the prize winners. They own a large herd and, although this sale includes a number of show mares, they are preparing to exhibit 16 head of young mares and stallions at Topeka and the Kansas City Royal this year.

KANSAS STATE FAIR AND EXPOSITION

SEPT. 11 TO 15

ALWAYS A RECORD BREAKER BIGGER & BETTER THAN EVER IN 1911

STATE FAIR GROUNDS TOPEKA KANSAS

DON'T FAIL TO MAKE THE PILGRIMAGE

YOU CAN LEARN AS MUCH IN A WEEK AT THE FAIR AS IN SIX MONTHS AT SCHOOL AND IN ADDITION YOU WILL BE ROYALLY ENTERTAINED

SOME of the MANY SPECIAL ATTRACTIONS

Enormous Agricultural, Live Stock and Industrial Exhibits

Five full days of harness and running races.
Pain's fireworks panorama, "The Fall of Pompeii."
Uncle Sam's naval display and battleship models.
Kansas Agricultural College display and trophies.
Grand Opera, fully costumed and staged [evenings]
Liberati's famous band—60 stars.
Patterson's colossal carnival combination.
Scores of clean, free shows each day.
Clark's Trained Dog and Pony Circus.
Kansas fish warden's demonstration car.
Henry Hammond Ahl's Marvelous Picture, "The Shadow of the Cross."

Kansas Semi-Centennial Festival

Will be Held During Fair Week with Historical Pageants Tuesday Evening

SEPT. 11 TO 15 1911

STATE FAIR GROUNDS

TOPEKA

J. L. Griffiths Writes.
J. L. Griffiths, owner of the Madison Creek herd of Big type Poland Chinas, writes that the pigs are simply great. Mr. Griffiths has one of the good herds of Kansas and prices his stock low considering quality.

Lobaugh Buys Iowa Herd Boar.
A. C. Lobaugh, of Washington, Kansas, writes us that he has recently purchased from one of Iowa's best breeders, a herd boar to use on this year's crop of gilts which will go into his winter sale. The boar purchased is an excellent individual, writes Mr. Lobaugh and was sired by Long King and out of a Giantess sow. Mr. Lobaugh has an outstanding lot of spring boars that he is pricing low considering quality.

100 O. I. C. Pigs For Sale.
Milton Pennock, owner of the famous Pipe Creek herds at Delphos, Kansas, starts advertisement in this issue of Kansas Farmer. Mr. Pennock has lived at his present location since 1886. He is a thorough stockman and owns one of the finest herds of Red Polled cattle to be found anywhere. His foundation stock came from good Kansas and Nebraska herds. He has bred O. I. C. swine for thirty years and has bought seed stock from the best herds of half a dozen states. Mr. Pennock owns a fine 240 acre farm in a high state of cultivation. At present he offers for sale 100 spring pigs, also some fall boars that are dandies. His prices are right and his stock always gives satisfaction. When writing him kindly mention Kansas Farmer.

LIFE INSURANCE IS NOT DIFFICULT TO UNDERSTAND

We can make it so clear to you that any doubt you may have will be dispelled almost instantly. **FIRST**, we secure your confidence by selling only the official Equitable Standard Policy, which has been drafted and approved by the Legislature of the great State of New York. **SECOND**, we place over Five Hundred Million Dollars behind the policies we issue so as to make certain that they will be paid promptly and in full. **THIRD**, all policies are written on the profit sharing or participating plan. Profits are paid each year in cash or they can be converted into paid-up additional insurance. A sample policy on the Ordinary Life, Limited Payment Life or Endowment plan and literature describing it clearly will be sent on request to any address. (See coupon below.)

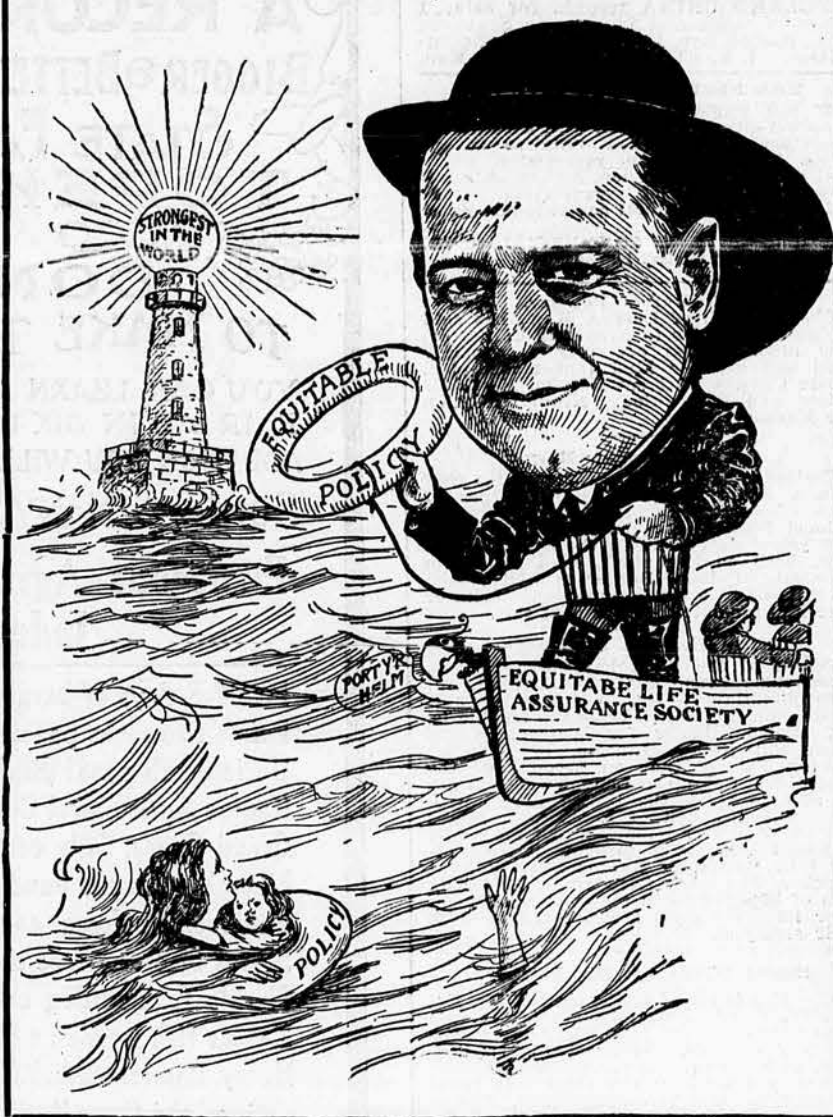
WHAT THEY SAY

Grover Cleveland says: "Life Insurance is one of the greatest economical factors in modern life. It is one of the boons of civilization."

Dr. Lyman Abbott says: "One could easily bear to be poor; one could even bear to take his wife and children with him into poverty, so long as he could be with them to help carry the load, and carry the heaviest part himself. But to go off to his eternal rest and to leave them to go down into poverty and fight the wolf from the door—what prospect more terrible than this to look forward to?"

Ex-Governor Hughes (now Justice U. S. Supreme Court) says: "As a young man, when I was first looking forward to the obligations of manhood and duties of fatherhood, I realized that there was only one way in which a poor man without capital could protect his family from the vicissitudes of fortune and make proper security against the day which must come to us all, and that was through life insurance. And I have been interested in life insurance from that time to this. If I were to die tonight, to a very large extent the entire protection of my family would consist of life insurance policies."

CHARLES A. MOORE, GENERAL AGENT.



FORTY TO ONE

In this country there are about forty deaths to one fire. What do you think of the man who, when his building burns, reports that he had no insurance thereon?

YOU'LL NOT NEED MUCH

yourself, after you're dead—but your family will keep right on wanting three meals a day—the landlord will want his rent just the same as now—and then there'll be all your debts to pay. Are you sure you have enough life insurance to provide for it all?

PROTECT YOUR FARM

If your farm is mortgaged, have you stopped to think what will become of your farm if you should die? Your wife and children may not be able to carry YOUR work. Have you thought of protecting them and paying off your mortgage by life insurance? Write for full information. There is danger in delay. We will tell you how to get INSURANCE THAT INSURES. Fill out coupon and mail it now.

The Equitable Life Assurance Society of the United States

has been in business since 1859 (over half a century) and during that time has insured over ONE MILLION PEOPLE. At the present time over 500,000 people carry Equitable Policies for amounts ranging from \$1,000 to \$200,000 and upwards. Several well known men of wealth and national prominence have each insured their lives in the Equitable for over \$500,000. These facts attest the confidence which the best people of America have in Equitable policies.

You Should Not Hesitate to Insure

with the Equitable if you wish to leave \$1,000, \$2,000, \$5,000 or more to your family at your death. Life insurance in the Equitable is absolutely safe. Even if you should die after making only one payment, the Equitable would pay the policy at once. During the year 1910 we paid 122 Death Claims under policies which had been in force for less than one year. One of them had been in force only a few days.

THE EQUITABLE LIFE ASSURANCE SOCIETY OF THE U. S.

120 Broadway, New York.

CHARLES A. MOORE, GENERAL AGENT

412-414 Central National Bank Bldg., TOPEKA, KANSAS

Charles A. Moore, General Agent, Topeka, Kansas.

Please send me full particulars regarding a life insurance policy for \$.....in your Society

at age

Name.....

Full address