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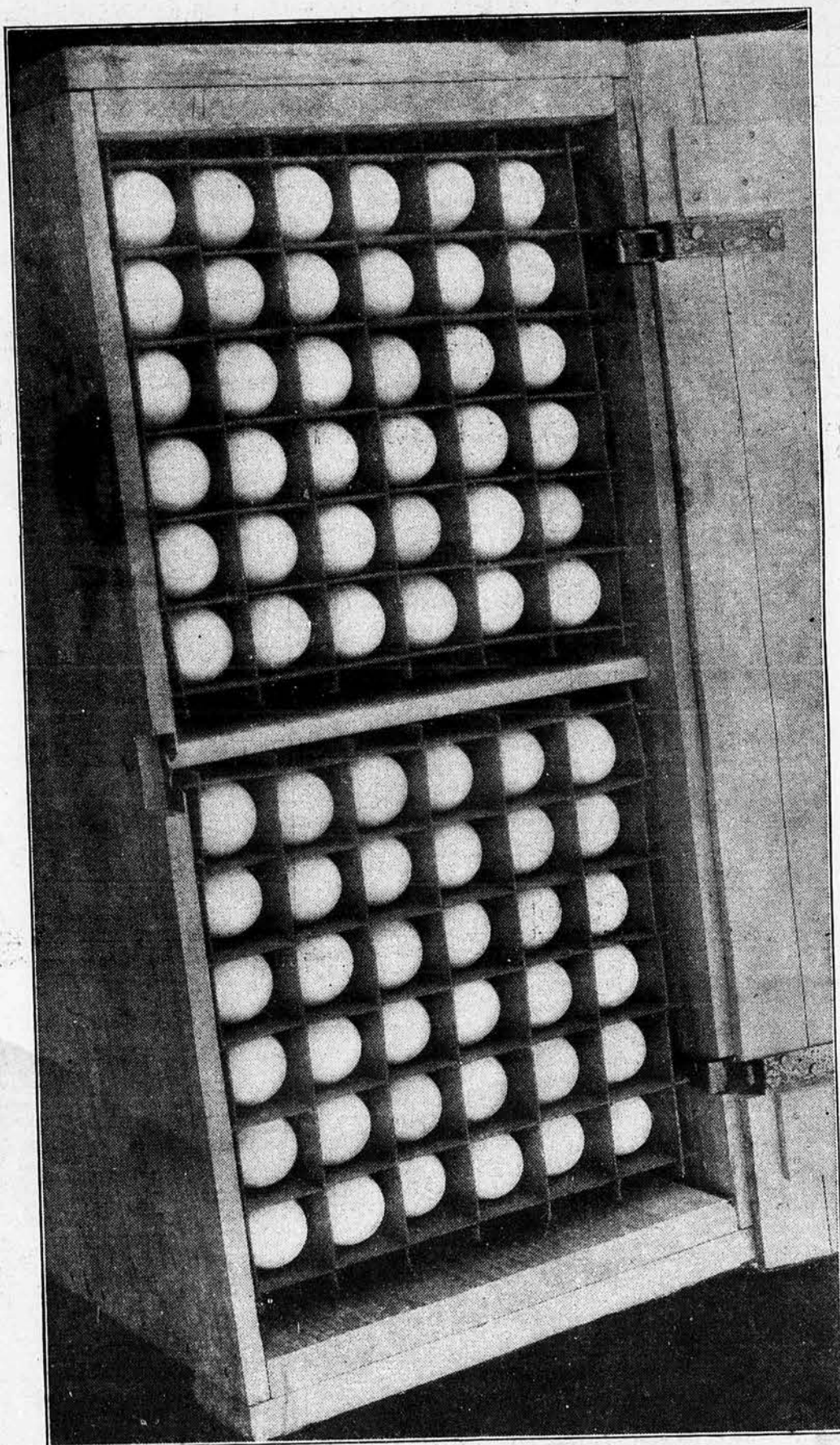
State Agricultural Experiment Station

wpz

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No. 14.



The State's Best Case

Supplemental Poultry Specials:

More Money From Eggs
By J. F. Case

Rearing the Young Brood
By the Readers

Broiler Growing For Profit
By L. H. Wible

Where Purebreds Excel
By Poultry Breeders

Other Good Things:

Farm Work Easiest Way
A Symposium

Careful of the Wool Clip
By Turner Wright

When the Doctor Isn't There
By A. P. Reed, M. D.

On Easter Egg Afternoon
By Lucile Berry

Married Men Work Better

Build a Comfortable House For the Hand on the Farm, and the Labor Will Be Done Efficiently

It has become customary for every farmer to worry about the farm labor problem without giving much thought to a solution of the difficulty. The proposition must be considered from the point of view of both the farm laborers and the employer. It is an undebatable fact that the farmer must have reliable assistance at certain seasons of the year. It is also a fact that the average strong healthy man does not have to depend on the farmer for employment.

A farmer knew a young man living in the nearby village who possessed all the requirements of a good steady worker on the farm. He interviewed the young fellow and said: "I will give you thirty dollars a month and your board, room and washing if you will come and work on my farm during the coming year." That was equivalent to fifty dollars a month in the town where the young man was only earning nine dollars a week as a clerk in the village grocery store.

Went Back to Town.

The young man thought over the proposition and decided that he really liked to work on a farm and accepted the offer. He worked on the farm for three months and did work that was eminently satisfactory. At the end of that time he went to town, according to the Farmers' Guide, and succeeded in getting back his job in the store. He explained that he was soon to be married and that the farming business was no place for a married man that did not own a farm. That seems contrary to the general impression of the public as the average man will say that the farm is the ideal place for a married man and the statement will be correct. We asked this man why he left the farm just at the beginning of the summer season and he replied: "I can rent a house in the village for eight dollars a month and it is a home, but if I stick to the farm, I am compelled to room in the attic, I cannot have any home."

The farmer who had hired the man was about discouraged at the prospect of losing the best all around hand that had ever worked on the place. He went to the fellow the next day and put up a proposition to his employe that was entirely new in that part of the country. He said: "I desire to keep you on the farm and if you will stay I will put up a tenant house down the road opposite the orchard and you can have your own garden, a cow, and as many chickens as are necessary for the needs of your household." The man agreed to the proposed arrangements, he put off his marriage a few months and in that time they completed a small four-room house and he was ready to go into his "own home." That young fellow has worked on the same farm for three years and is becoming a more valuable man for every year of his service. The farmer who spent a few hundred dollars to build the neat tenant house could not have made a better investment for the best interests of his farming business.

Home Makes the Difference.

The farmers in that community had always depended on transient labor for their farm work and the farm laborers had boarded in the homes of the employers. It was a new system of hiring men in that region and the farmer with the tenant house demonstrated that the home problem is one of the big reasons why it is difficult to hire young men to work on the farm.

A young man in a country town was asked what he thought of farming and he replied, "I like the work better than any job I have ever had and the only thing I have ever objected to in the agricultural business is the fact that the boss and I worked like equals all day long and then became strangers in the evening when the chores were done. He had his wife and children who never were very friendly to me and he had the freedom of his house, while I went up the back stairs and wrote home by a little smoky oil lamp that made me homesick for the family and the big fireplace 20 miles the other side of the county line. He was a fine fellow to work for and he owned broad fields that

were a pleasure to cultivate; his business methods were fine and I learned some things from him that I will never forget. But in spite of all those good things, I wanted to get away, I always wanted to get some place where I could enjoy the privileges of home life." The man expressed one of the reasons why it is difficult to get young men to stay on the farm. They like the job but they do not like to live in the home of another man. The cost of a tenant house is small compared with the advantages gained by both parties in the contract. The farmer who has a tenant house on the place can nearly always find a competent man to live in that house. The man who hires out on a farm where he can bring his wife and children will usually be satisfied with the job. At least he is given all the opportunity to be independent that he would ever receive if he lived in the city and worked long hours in the confinement of an unhealthy factory.

Back to the Land.

The farm labor problem should be easily solved in the near future as there are many men in the large cities who cannot stand the pace of city life and who cannot earn enough in the city to raise their children in any degree of comfort. There are strong, healthy men who have a good understanding of general mechanical operations and would be glad to try their hand at farming if there were any way of dropping the old life and getting back to the land. Many of them have come from the farm in their youth and have had a fine opportunity to learn the rudiments of livestock and soil management.

It is these men who could even now be saved to the farming business if there were more farmers who would invest the money to provide suitable tenant houses for their farm labor. There are many men in the city who would welcome the chance to leave the factory if they could be assured a home and a job on some good farm. The farmers of this country do not realize how many broken hearts are daily punching the clock in the factories of our big cities. They do not realize how many men there are who would come back to the farm, if they could only see the opportunity. America should never lack for strong men to till the soil when many cities are overflowing with energy that should be directed to the land. It is the farmer that must contrive to utilize this energy, and it is the home life more than any other factor that is keeping men from going back to the farm. The city factory will not be as strong a competitor for young men when they can hire out on a farm with all the opportunities of home life that are possible for the city wage earner.

Don't Pasture Wet Soil

When land is plowed too wet it is "puddled," that is, it packs together and its physical condition is injured. Puddled soil bakes when it dries and becomes hard and lumpy. For several years afterward it is hard to work.

Land should be moist if it is to be properly plowed. Most farmers are good judges of the degree of moisture it should contain, but some do not realize the harm done by disturbing soil that is too wet. If the furrow turned over by the plow is slick and shiny, an injury is being done.

The reason for puddling is very simple. The particles of soil are held together in larger units by a sort of cement. When the land is very wet this cement is weakened, and if this wet land is stirred these larger units, or floccules, as they are called, are broken up and the land runs together and puddles. When the soil contains only a moderate amount of moisture the cohesive power of the water aids the cement in holding the floccules together.

"Land in which the physical condition has been injured should be plowed in the fall," said L. E. Call, head of the department of agronomy at the Kansas Agricultural college.

A liberal supply of soil moisture is indispensable to a good corn yield.



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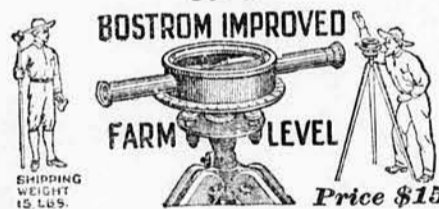
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THE FARMERS MAIL AND BREEZE

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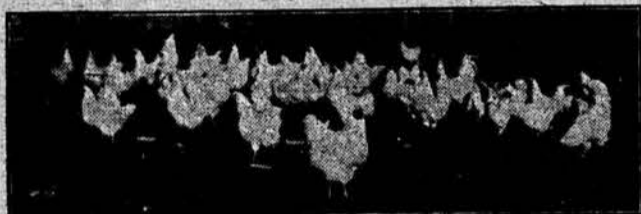
TOPEKA, KANSAS, APRIL 4, 1914.

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More Money From Eggs

How to Avoid a Three-Million-Dollar Loss Every Summer

By John F. Case



EVERY year seventeen per cent of the egg crop in this country is a total loss. For this statement we have no less an authority than the United States Department of Agriculture. Kansas, being one of the great egg-producing states, must annually lose some 3 millions of dollars through improper methods of marketing and caring for this product of the helpful hen.

A newly laid egg is a fresh, sweet and nutritious morsel but in summer time the average egg reaches the consumer in such a condition that he has need for a "bracer" or a "chaser" before finding courage enough to eat it. The consumption of eggs is much smaller because of the neglect that permits such deterioration. If eggs could be marketed in a fresh and wholesome condition there would be increased demand and better prices. Under present conditions both producer and consumer are losers and the hen takes her vacation in the winter time when no one is suspicious of the quality of her product.

In most rural communities eggs are sold at the country store. During the busy season but one weekly trip is made to town, and that trip usually on Saturday afternoon. The eggs have been accumulating for seven days and in too many cases no effort is made to keep them in a cool place. It will be about Tuesday before the merchant gets his shipment off to the larger town commission man. This dealer holds the eggs a day or two while he is completing a car lot and then they go forward to the city commission man. The city commission man hurries them to the retailer and they are ready for the "innocent bystander" as soon as a "strictly fresh" sign can be added. The farmer who visits the city restaurant in summer orders eggs but once. There's a reason.

When one appreciates the length of time it takes to place eggs before the consumer, under present conditions, he will realize the necessity of giving them the best possible care immediately after they are laid. Eggs do not melt or sour but they decay rapidly. Recognition of this fact would cause greater care in their handling. Don't think you can sell bad eggs to your dealer and escape punishment. You may evade the pure food law and miss paying a fine but the price of eggs is determined by their quality when sent to the consumer. The high per cent of loss is largely responsible for the low price paid during the summer months. If the consumer gets your product in a fairly good condition there will be a better average price and you will be indirectly rewarded for the extra care and labor.

True, under present methods there is not much encouragement for the production of better eggs. The country merchant will pay Mrs. Jones just as much a dozen for the ten cases she proudly delivers on Saturday night as Mrs. Smith is given for the ten dozen she carefully gathered and sent in every day of the same week. Chicks may be peeping in the Jones lot, for Johnnie had to raid a nest to make the count complete, but Jones is a good customer and it would not do to offend the family by refusing to pay for the bad eggs. I have seen a case of eggs that resembled an incubator when opened, and smelled like politics in Kansas City, but never a kick did the merchant make. He played even by short-weighting the customer. Both were guilty, but the system, as much as the individual, was to blame.

As long as the present system of buying is used there can be little hope of eliminating the present enormous losses. The woman who sells fresh, infertile eggs should be paid double the amount given the one who keeps her product until it is well on the road to rotteness. Some scheme should be devised that will enable the producer of good eggs to realize a profit commensurate with the additional labor. The "egg circle" seems to offer a solution of this problem. These associations are numerous in Canada,

where they are fostered by the government. Producers are now organizing along similar lines in the United States.

The egg circle is simply an association of farmers and poultrymen, who, through co-operation hope to get paid for superior quality of their product. The Canadians employ a collector, who is also manager, to make daily trips and he is paid a commission of one cent a dozen in spring and summer and two cents a dozen in fall and winter, for gathering and shipping the eggs. Every egg must be stamped with the number of the producer and he is held responsible for its quality. The Canadian circles have been get-

not encouraging. "Dealing in scrambled eggs, I see," remarked the rural carrier as he fished out a box marked "Eggs for Hatching" from his miscellaneous assortment of hardware, groceries and other mail, one day last spring. A yellowish ooze dripped from the cardboard edges and an investigation showed the contents were indeed "scrambled." Until we get stronger containers, and postal clerks and carriers quit nursing a grievance because of the additional labor caused by parcel post, I shall prefer the much maligned express or the slower freight for such fragile things as eggs.

If we are to continue to sell eggs to the country merchant or the commission man let us, at least, abolish the flat rate system and refuse to sell to the man who will pay no more for clean, fresh and uniform eggs than he does for dirty, undersized and near-spoiled lots. If the farm poultry raisers will do this, and improve the quality and uniformity of the eggs by keeping purebred fowls, gathering frequently and marketing at least three times a week in hot weather, they will soon see an advance in price.

The greatest egg loss is caused by marketing fertile eggs. Infertile eggs, as a rule, will not decay and will remain wholesome for a much longer time than when fertile. Hens will lay just as many eggs without a male bird in the flock and all roosters, old and young should be disposed of or penned at the close of the breeding season. When one raises the meat breeds a double profit can be had by castrating the cockerels. The breeding season should be over by the middle of June at the latest. "Swat the rooster" before that time.

Store eggs in cool places that are well ventilated and dry. The cave or cellar is the best place on a farm, if it has proper ventilation and drainage.

Collect eggs twice a day in summer and see that the hens have clean nests, and clean quarters. Dirty eggs must be washed and a washed egg soon becomes stale. Eggs absorb odors. If kept in the cellar see that nothing is present that will affect them. I have had eggs served tasting strongly of kerosene. The food the hens receive also influences flavor. Let China furnish the scavenger eggs; ours should be wholesome. If proper attention is given to the care and marketing of eggs poultry profits can be very largely increased. This must be done if we are to successfully compete with the importation of eggs from foreign countries. If "eggs is eggs" is to be the motto of the consumer there would be some grounds for the pessimistic view of a few poultrymen who are quitting the chicken business, but happily with most of us it is "quality first." Improved quality means increased price. It's up to the farm poultryman to produce and deliver good goods.



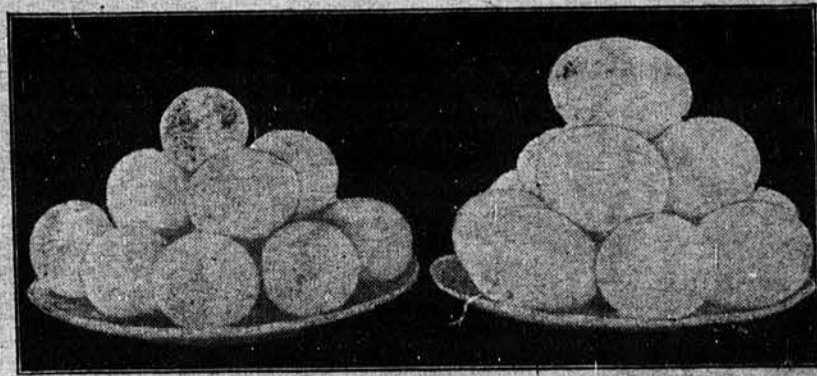
Dated eggs, guaranteed to be fresh. They are put up and sold in cartons of a dozen eggs each, by a farmers' co-operative association in Minnesota.

ting top prices for their eggs and are buying feed and poultry supplies in large quantities for distribution through their associations.

In the few circles organized in this country a different plan is followed. A manager is employed to receive, sort and ship the eggs, but they must be delivered by the producer, who, when it is not convenient to go to town takes advantage of the low, local zone parcel post rate and sends them in by the mail carrier. The eggs are paid for at market prices when received at the station, but a careful record is kept of the amount received in excess when marketed. Every 30 days a meeting of the board of directors is held, the expense of operation deducted from this surplusage and the balance divided among the members of the circle, pro rated according to the number of eggs furnished.

As the eggs are always strictly fresh, uniform in size and color and bear the stamp of the producer and the circle, which guarantees quality, they invariably bring several cents more than the common run. The value of such an organization is unquestioned and will lead to more extensive operations than by the present plan of every individual selling his own eggs.

Selling direct to the consumer by parcel post may become a general practice in time but my experience with this method of marketing is



A dozen eggs on each plate, but notice the difference in size. Eggs should be sold by the pound.

DEPARTMENT EDITORS
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PASSING COMMENT—By T. A. McNeal

The Free Tolls Repeal

The hardest battle President Wilson has had for supremacy in his party has been his fight to repeal the free tolls law. It will be remembered that congress at a previous session passed a law relieving coastwise vessels belonging to citizens of the United States from paying tolls for passage through the Panama canal. The bill was passed by a large majority in both houses.

At the time of its passage the opponents of the bill took the ground that it conflicted with the treaty made by the former Secretary of State John Hay, and the British representative, Lord Pauncefote, which provided that there should be no discrimination in the matter of tolls between nations. The advocates of the bill argued that this did not preclude the United States from making any regulation it saw fit concerning our own ships and that all it did mean was that no one foreign nation should have any advantage over any other foreign nation. Free tolls was expressly endorsed in the National Democratic platform and in the Progressive platform. There was no specific declaration on the subject in the National Republican platform.

Great Britain strenuously objected to this law and President Wilson took the position that it was contrary to the provision of the Hay-Pauncefote treaty. He expressed this view in a very short, but vigorous message which he read in person to congress. He therefore asked for the repeal of the law.

For the first time since his administration commenced there was a serious opposition in his own party. In the senate Chamberlain of Oregon and O'Gorman of New York led the opposition to repeal. In the house Champ Clark, speaker of the house, Oscar Underwood, majority leader in the house and Fitzgerald, a leading Democratic member, all united in opposition. The Republican minority and the Progressives under the leadership of Murdock of Kansas, lined up almost solidly against repeal.

This is written at a time when the final vote has not been taken in the lower house but it is evident that the supporters of the president will win there. It is reasonably certain also that the repeal bill will win in the senate, for while there is strong opposition among the Democratic senators there are a number of Republican senators like Root of New York and Lodge of Massachusetts who will favor repeal. There will probably be enough of these to offset the Democratic defection. While a very strong argument can be made in favor of repeal it can hardly be said to be popular among the people for the reason that the impression has gone out that we are doing it at the demand of Great Britain.

As one somewhat flamboyant member declared, it was a shame that the American eagle which had in former years lined its nest with hairs from the mane of the British lion should now show indications of being afraid. When you begin to talk about the American eagle sinking her talons into the quivering flesh of the British lion or lining her nest with the hair of that proud beast, the average citizen of this bully republic begins to swell up and strut round like a proud bantam rooster. He doesn't act with a great deal of sense but he gets a great deal of satisfaction out of the swelling and strutting.

So far as the argument is concerned it occurs to me that the president has rather the best of it, although I have always thought that such a provision ought not to have been put in the treaty. The canal was dug with the money and under the direction of the United States and I have always felt that we should have the right to fix the tolls to suit ourselves. But there is the provision and after reading the masterful argument made in the senate more than a year ago in opposition to the free tolls bill I have believed that the law is in violation of the treaty.

So far as the interior of the United States is concerned we are only interested in this controversy in a theoretical way. Free tolls will not help the farmers of Kansas. For that matter I do not believe that the people of Kansas will get any benefit from the canal anyway. The interior of the country has always been discriminated against in the matter of railway freight rates to the advantage of sea-coast points.

The argument put up by the railroads in favor of this discrimination has always been that it was necessary to lower the rates from coast to coast in order to meet water transportation rates and to make up for these low rates a little more burden was laid on the interior. If this is true what will be the effect of the opening of the canal? Why, evidently to

make water transportation from the Atlantic to the Pacific still cheaper than now.

In order then, to meet that cheaper rate the railroads will be compelled to lower their rates from ocean to ocean. In order to make up for that reduction is it not reasonable to suppose that the interior rates will be raised?

So I am not rendering any of my undergarments on account of this effort to repeal the free tolls bill.

The Trouble With Ulster

A subscriber asks for some information concerning the Irish trouble; how it originated and what it is about.

Like a good many other troublesome questions the Irish trouble is primarily based on differences of religious beliefs. Ireland has been for many centuries rather strongly Catholic, but there is a section of the island generally known as Ulster, which is strongly Protestant.

When Cromwell overturned the throne of Charles I it spelled trouble for the Irish Catholics. Cromwell was an iron-hearted Puritan who had little use for the established church of England and still less for the Catholic church. It therefore goes without saying that his rule was pretty rough on the Irish followers of the Pope.

It occurred to Cromwell that it would be a good idea to get a few hundred thousand Scotch Presbyterians to move over into Ireland and settle there, which they did. About four counties in the north and east part of the island in this way became strongly Presbyterian or Covenanter.

Naturally there was not the best of feeling between these immigrants and the Catholics already located in the island. There was the religious antagonism always bitter in those days and added to this was the feeling on the part of the Catholics that these Scotchmen were invaders and without rights in Ireland.

Cromwell died. His son, a weakling, was unable to hold the power his father had acquired. Charles II lived his reign and was followed by James II who succeeded in a few years in so thoroughly alienating the majority of his subjects in England that he was forced to flee from London and his son-in-law, William of Orange, reigned jointly with his wife, Mary, the daughter of James.

The deposed king went over to Ireland where he set up an independent kingdom. James was a devoted Catholic and was warmly received by the Irish Catholics. William of Orange sent an army to Ireland to put his father-in-law out of business.

The armies of James and William met and fought a fierce battle on the banks of a little stream called the Boyne. The army of James was defeated and he fled to France where he took refuge in the court of Louis XIV. Naturally the battle of the Boyne intensified the feeling between the Protestant and Catholic residents and to make the matter worse the order of Orangemen was organized made up entirely of Protestant Irishmen. The principal business of this order seems to have been to keep alive the ancient animosities and annually to celebrate the battle of the Boyne.

So it happened that centuries after that battle was fought men wearing orange colored ribbons or badges would get out on parade and probably meet with an equal number of members of the "Ancient and Honorable Order of Hibernians," whereupon there would result a large assortment of cracked heads and mashed noses and otherwise disarranged features.

In late years, however, it has been supposed that the ancient grudge had about died out and been forgotten. It seems, however, that this is more or less of a mistake. For more than a hundred years Ireland, that is a large part of the Irish population, has been clamoring for home rule. A hundred years ago this desire used to manifest itself in frequent rebellions which were suppressed with considerable rigor. The leaders of the uprising would be promptly hanged and then there would succeed a period of quiet—not content, but quiet.

Of late years, however, the demand for an entirely independent government has given way to a demand for the sort of home rule enjoyed by the British colonies such as Canada, Australia and New Zealand. While the greater part of the Irish advocates of home rule have been Catholics there have been some prominent Protestants who urged it as strongly as any of the Catholics.

Parnell, the leader of the Home Rule party twenty years ago was a Protestant from Belfast. Gladstone,

who was the strong friend of home rule during his term as Premier was a strict adherent of the English church. It is true, however, that a majority of the Ulster Protestants have always been opposed to home rule for religious reasons. They believe that in case Ireland is granted home rule, which means local independence, the Catholics will completely dominate the Irish parliament and that Protestants will be discriminated against. They are probably mistaken about this, but that they believe it there is no doubt.

Under the old system the House of Lords could always be depended on to defeat a home rule bill, but a few years ago the Liberal party, aided by the Irish members, succeeded in dehorning the House of Lords to the extent that if a bill passes the House of Commons at three successive sessions it then becomes a law whether the House of Lords agrees or not. The home rule bill has twice passed the House of Commons and twice been defeated in the House of Lords. It is now about to pass the House of Commons for the third time and will therefore become a law regardless of the upper house.

Knowing this, the opponents of home rule in Ulster got busy under the leadership of Sir Edward Carson and organized themselves into a military body for the purpose of resisting the authority of the home rule government if it should be forced upon them. It is claimed that this armed and drilled organization amounts to in the neighborhood of one hundred thousand men.

The government, it is claimed, largely at the suggestion of King George, offered a compromise that would allow the Ulsterites six years of independence before coming under the authority of the home government. The Ulsterites rejected this offer on the ground that it was only putting off the evil day. To add to the seriousness of the situation a tremendous defection developed in the British army, especially among the officers, one hundred of whom resigned rather than be called on to fight with the men of Ulster.

And so the matter rests. That some sort of a compromise will be arrived at without actual bloodshed is probable, but that the situation is most serious there is no doubt.

The basic principles of the Christian religion are supposed to be charity and brotherly love, but notwithstanding that the fiercest wars have been fought between professing Christians and the most undying hatreds are cherished toward each other by men who profess to be followers of the Nazarene.

State Publication

I regret to see indications on the part of some educators of hostility toward the law providing for the state publication of school books.

Every educator has the right to think what he pleases about the advisability of state publication of school books but if he is loyal to his state and its educational system he ought not now to try to destroy the efficiency of this law.

The state has determined to undertake the experiment of state publication. Instead of knocking on the proposition every educator in Kansas ought to do what he can to make it a success.

There is no good reason why state publication of school books shall not be a success. The state of Kansas can print its school books at a saving to the taxpayers. It can put out a better grade of books than we have had in the schools and deliver them to the school children for less money than they have had to pay. The object to be desired is not, however, so much cheaper books but better books.

If state publication fails it will be the fault of the board that has the matter in charge. It will be checked up to them. Now I do not believe that there is a dishonest member of that board, but there is a growing feeling that some of the members of the board are not giving this immensely important matter the attention and care it should receive. There is also a growing feeling that some members of the commission are not friendly to state publication and down in their hearts would care little if it should fail.

I have not indulged in any criticism of the commission. I do not want to criticize it now but judging from published reports of the meetings of the commission all the members are not getting right down to business with an earnest determination to make state publication a success. The agreement, which I understand has not been fully ratified, to pay \$3,500 for the right to use the Kansas history adopted for only five years in the state of Kansas is to say the least a poor bargain. Under this agreement the

state does not get title to the copyright. All it gets is a limited right to print and use the history in the state of Kansas. At the end of five years it may be called on for another royalty of \$3,500.

The adoption of this history by the state of Kansas was worth enough as an advertisement for the authoress and her work so that she could well afford to let the state have the right to use the manuscript at a nominal price. In any event not more than \$500 should be paid for a perpetual right to use this manuscript in Kansas. If the contract has not been fully made the commission should back up.

The people of the state of Kansas are for state publication. The school book publishing houses are of course against it for selfish reasons. They want to see it fail. As I have before said, there is no good reason why it should fail. The people of the state of Kansas will hold those in charge of the work of putting state publication into operation responsible if it does fail.

Why Should Government Borrow?

I am surprised at the action of the National Grange in advocating the borrowing of money by the government to lend again to the farmers.

Why in the name of common sense should the government borrow money to re-lend? If there ever was any possible excuse for such a course there is none since the passage of the banking and currency law. That law provides for issuance of government currency to be lent to the banks upon the deposit of approved security.

Did anyone propose that the government should borrow money to lend to the banks? Certainly not. Then why should anyone advocate that it is necessary to borrow money to lend to the farmers?

That it is a proper function of the government to emit currency has long been established. It was established by a decision of the Supreme court that has stood for forty years. It is even more firmly established, if possible, by the action of congress in the passage of the recent banking and currency bill.

The government, acting for the whole people, issues the new currency and then requires the banks to secure the whole people against loss by depositing ample security for the repayment of the currency. Now let the government apply the same principle to farmers' loans. Yes, let it go further and treat not only the farmers, but all its citizens in the same way it proposes to treat the bankers.

Do you believe in the doctrine, "Equal rights to all and special privileges to none?" If so, stand for it in the distribution of money or credit, one of the necessary and perhaps the most vital things in the life of our republic.

Start with this simple proposition; treat everybody alike. Let the farmers and others deposit their securities with the government as ample as the banker is required to deposit, no more, no less and then issue currency or credit at cost. There should be an amortization feature in each loan. The borrower should begin at once to pay back in small installments the principal of his loan. I do not think that the government should make a profit on this currency, but the individuals who get the benefits should pay the cost of issue, distribution and collection.

Now suppose that this cost is covered by a tax of 1 per cent, which I believe would be ample. What would a loan running thirty years cost? By way of illustration, suppose a loan of \$1,000 is made running for thirty years with provision that the borrower should repay it in equal annual or semi-annual installments.

One per cent on the principal would be \$10 per annum or \$300 for the entire thirty-year period. The amount necessary to be paid by the borrower would be \$1,300. Divided into thirty annual payments this would be \$43.33 per annum or if the borrower preferred to make the payments semi-annually the payments would be \$21.67 every six months. In other words, by paying at the rate of 4 1-3 per cent of the principal in thirty years the loan would be extinguished.

The loans should be made in the case of farmers on the assessed value of the lands. I would be opposed to the creation of a lot of new salaried officers whose business it would be to act as appraisers. That would simply mean a lot of soft snaps for cheap politicians and there would be the constant temptation to over-value the lands for loan purposes. If the loan was made, however, on the assessed value for taxation purposes it would automatically regulate itself, for while the borrower might be willing to boost the value for loan purposes he would not be willing to get stuck for extra taxes.

Cut Off Revenue and Protection

Writing from LaHarpe, Kan., J. W. Case gives his views on the proper way to deal with the liquor traffic as follows:

A few years ago out in Dallas, Ore., I enjoyed hearing a temperance lecture; the speaker was a thoroughbred, and hailed from Pasadena, Calif., the prettiest, cleanest town in the state because there was not a saloon there. He knew the coast from Los Angeles to the mouth of the Columbia river, every boulder and bend. He knew that prohibition did prohibit. He knew that prohibition was of God because the Ten Commandments were of God and he knew a lot of other things, too. I had to agree with him that prohibition did pro-

hibit to some extent for there were padlocks on the front doors of the saloons in Dallas. They were closed.

Don't go West, reader, thinking it a good place to wet your neck. You will be disappointed. It is about alike all over nowadays.

Now I knew that the Ten Commandments did not prohibit the things he was trying to prohibit, but under his mighty influence I was ready to admit that maybe the eleventh might, had there been another added.

This spokesman did not reflect any light on why the liquor traffic formed alliance with corrupt political powers—he dealt mostly with assertions. He said confidentially if we ever get prohibition we will have it for all time, for it will take two-thirds majority to break it—a thing impossible.

With him as with most people, the running fluid, liquor and the liquor traffic are one and the same thing. They make no discrimination. The liquor business is walled in, protected by law. The running fluid on its merits should stand or fall.

Woodrow Wilson is quoted as saying while governor of New Jersey that prohibition in his opinion was a moral and social question and had no part in politics. I judge from that he would not hesitate to throw the liquor business out of politics, then it would cease to be a political issue. Anyway I know Woodrow isn't asleep.

This wall around the liquor traffic has engraved on one side in big letters, Revenue, government booty; on the other side, License, city profits. Of course some will say, "Keep still, don't say anything, profits are above everything."

If someone will batter down this contemptible protective wall that stands parallel with corrupt politics, it will be all off with the saloon. The saloon will go. The inebriate will cease and the Keeley institutes will disband.

Prohibitionists would destroy the running fluid with the traffic. God is the creator of the monster alcohol and it is calculated for good despite the evil. He has woven it in the very constituent parts of all fruits and grains and it can never be annihilated. You can curb it in by law, but God has not enjoined total abstinence on his creatures, church or state.

You can batter the drinker in the back, while the saloonist batters him in the face. You may think you are serving humanity and believe you will soon have all the Adam and appetite out of fallen creatures, but finally the saloon will fall and prohibition will fall also. Restore unto men personal rights, to plow, to grow, to manufacture, to use—to buy and sell as we please.

If prohibition is righteousness in municipal, state and national affairs, I am too wicked to see it; I don't believe it, I deny it. I cannot harmonize myself with their motives without destroying the best there is within me, the fundamentals of a freeborn moral agent.

The majority of the people of the state of Kansas will disagree with Mr. Case, who I think is an honest, conscientious man, in his views on prohibition, but in one thing very many will agree with him, and that is that the government of the United States should not for revenue purposes enter into partnership with a traffic that is outlawed in more than half the territory of the various states.

The sale of intoxicating liquor as a beverage is either a legitimate or an illegitimate business. If legitimate it should be subject to no greater restrictions than are imposed on any other legitimate business. If it is not legitimate it should be prohibited by law.

The fault in Mr. Case's logic as it seems to me is this: Alcohol, he says was created by God. Nature puts it into the fruits. Mr. Case might have gone even further and said that it is found in every vegetable that grows. Therefore he says it can never be annihilated. Very true, and no man with a thimbleful of brains thinks that it can or desires that it should be. However alcohol, as found in the natural state, is as different from the poison produced by distillation as the pure water of the mountain stream is different from the fluid found in the well infected with typhoid germs. Both look like water, both are water, but in the one case the water brings life and health and gladness; in the other it brings disease and death.

No one would advocate the stopping of the flow of the pure mountain stream, but Mr. Case would be among the first to demand that people be prevented from drinking from the typhoid infected well. Mr. Case would not say: "Water is good. Water is necessary to human life and health, therefore put no restraint upon it. Let people drink from fever infected, poisonous wells if they will."

Opposing Views

Just by way of showing how honest men will differ I herewith publish three letters just received.

E. C., writing from Ellis, Kan., asks:

Editor The Farmers Mail and Breeze—What has Wilson done for the farmer? He has put us where we will not be able to hire any help on the farm. He put farm products on the free list and left the big industries with a good protection, except the sugar industry and that comes on the farm list: it takes land and farm labor to produce the raw material.

The protected industries can pay higher wages for labor than the farmer can pay, therefore the laborer will go where he can get the highest wages. That is what makes it hard for the farmer to get any help. Result, no money in farming and everybody quitting and going to town.

A great many of our farm papers are controlled by the big industries. In order to keep down agitation against the railroads and other big interests they continually keep telling the farmer to haul out manure; how to plant his seed; how to plow his land. Isn't it nice to subscribe for papers just to read that kind of stuff? What we want is some laws favorable to the farmer. The farmer, as things stand today, is an outlaw. He has no rights, while the railroads can go into court with a lot of lying books that are mostly frauds and get what they want.

Mr. Editor, don't you think that the farmers are not fighting mad? If you could hear the talk that goes on you would think that there is time to

begin to do something. In this community I am considered one of the most prosperous and I can hardly make both ends meet. If we could do like the railroads when we want money, hike the price, it might be different, but instead of that everybody jumps on the price of what we have to sell.

Railroad rates have gone up and a fight is being made to put them still higher. At the same time the price of harness and farm implements has gone up and the goods furnished are not of as good quality as they used to be. Is it any wonder we are all trying to quit the farm?

Here is a letter of different tone from G. A. Phillips, of Parsons, Kan., who defends the Democratic tariff law, which he thinks all the Capper publications have unfairly criticized:

Editor The Farmers Mail and Breeze—They would have the farmer and laboring man believe that it is going to bring about the ruination of all their business and lower the price of farm products and labor beyond existence.

Take for instance, hogs. The price here at present under a Democratic tariff is \$8 a hundredweight. What was the price under a high protective tariff? Answer: \$3.90 a hundredweight. Corn is now 73 cents a bushel and at that time was 50 cents a bushel. Please state which gave most profit to the farmers. I have no record of what the price of cattle was at that time, but your own publications which knock so hard on the present tariff state that cattle have sold in Kansas City this March for the highest price ever known for that month.

Also there has been much complaint recently about butter and eggs falling off in price and of course it is all blamed on the tariff. They don't stop to think that the price of butter dropped from 40 cents a pound to 27 1-2 cents a pound in February, 1912. That was under a high tariff.

There are now and have been all winter a great many idle men the country over, but look back to the year 1903 just following the panic of 1907. The country was just as full of idle men then as now, but it was mostly in summer time and they could bask in the sun and sleep in hay stacks and didn't have to depend on charity, therefore it didn't get the publicity it does now.

I might go on with an endless number of just such instances. Now Tom, I am not a Democrat, but I like to see honor given where honor is due, and I think that supply and demand have more to do with regulating prices than any tariff.

J. H. Birtell of Wakarusa writes as follows on the general subject of the cost of living:

Editor The Farmers Mail and Breeze—I notice in your issue of March 14 that Mr. Kirkham takes exception to my views regarding the high cost of living and the free importation of meat and grain. Also he says that I am not a farmer. Yes, Brother Kirkham, I am a real farmer. I advocate free food stuffs from a sense of fairness to our city poor. It is well known that the masses in our cities are poor and unable to pay high prices for food. Should food be very high priced many must suffer hunger. I am a producer of meat and grain. It would be to my advantage to have high prices for these products. I am willing to take less profit if all may be fed. Think the Golden Rule will apply here. We Americans are so greedy for gain that we forget the Golden Rule.

Mr. Kirkham says that if the government would lend cheap money the people would flock to the farms from the cities. The fact is that the people who would go to the country are people who could not secure a loan from the government because they could give no security. He also thinks farmers must become better educated and vote for Arthur Capper. I will sanction the voting for Capper but as to the education, should we become educated we would all want to run for governor and then we would not elect Capper.

Better Schools Coming

A great advance is coming for the country schools of Kansas. Not the least of it will be their early removal from the spoilsman kind of politics. We are lucky in having a state superintendent who was reared on a farm and who understands the country school situation thoroughly.

I ask for a rural school of practical service, a school that will widen the opportunities of every boy and girl on the farm and teach the child more of the things that will mean bread and butter to him. Reading, writing and arithmetic should be the basic subjects. Absolute thoroughness in the common branches—in English, penmanship, spelling, arithmetic and a few essentials, and complete mastery of the simple elements are the conditions most necessary.

I am inclined to think we are trying to teach the children in the primary schools too much with the result that we do not teach them well. Certainly our schools, with few exceptions, no longer teach a pupil thoroughly how to write, nor to spell, nor how to read.

In the elementary schools a few subjects are fundamental and these studies, if reasonably well mastered, form an infinitely better background for a child's future development and progress than any amount of half learned miscellaneous stuff picked up at random from the various departments of science, art, civics, history or literature.

In my judgment one of the best laws we have recently enacted is that which provides for state publication of school books. I would go still farther. I am in favor of free text books because the lack of them keeps us from having free schools. This system of free text books is now in use in almost half the states of the Union and not only reduces the cost of books but has materially increased the attendance and efficiency of their schools.

Arthur Capper

Weeds, the Farmers' Burden

Hundreds of Millions in Losses An Authority Says

BY CARL HENRY
(Copyrighted)

AN AUTHORITY has estimated the annual loss caused by weeds to the crops of the North-west alone at 500 million dollars. The average dockage for every bushel of wheat raised in Minnesota, in a test lasting two years, was 19 ounces. This dockage was very largely due to weeds, and amounted to an annual loss of 2½ million dollars in one state alone. Nor does this include more than a fraction of the total loss, occasioned by the other damage already cited, and plant diseases such as rust, smuts and blights, caused by weeds.

A former state geologist of Indiana has asserted that the annual loss from weeds in that state is \$15,509,330. "That great loss," he says, "falls almost wholly on the farmer, who, while he spends most of his years in fighting weeds, knows too little about them."

The great east and west railroads are responsible for the wide distribution of many weeds, the Russian thistle, prickly lettuce, Canada thistle and Texas nettle, for instance.

There are certain common methods of fighting weeds, better known than they are practiced—sowing clean seed; rotating crops; keeping weeds from ripening seeds; burning over stubble or fallow fields; plowing ground in the autumn; elimination of many fences; keeping farm machinery clean; use of sheep; increasing fertilization by drainage and protecting seed-eating birds.

State legislatures have begun to pass stringent laws for the eradication of weeds. Public sentiment, however, must rise to demand their enforcement before much good is done. Certain states have committed laughable blunders in dealing with the problem of weeds. A few years ago Wisconsin and Minnesota passed laws against weeds that did not grow in the state, due to a failure properly to identify the weeds, while Minnesota by a misuse of technical names, passed a law for the destruction of cultivated wheat and oats. Iowa passed a law against the common bull thistle, meaning the Canada thistle.

At least 25 states have passed laws for the eradication of the Canada thistle, whereas it is a serious pest in a very few. The legislation is probably due to the bad reputation of the Canada thistle where it does thrive.

The earliest weed laws required the landowner to cut the weeds growing along the public highway, from the fence to the center of the road. Other laws required the landowner to cut certain especially obnoxious weeds on his premises. Briers must be cut in New York and Ohio; burdock in Kansas, Minnesota and Ohio; wild mustard in Minnesota and North Dakota; cocklebur in Arizona, Illinois, Kansas, North Dakota, Ohio, South Dakota and Wisconsin; dock in Indiana; milkweed in Michigan; ox-eye daisy in Minnesota, New York, Ohio and Wisconsin; penny cress in Minnesota and North Dakota; Russian thistle in Kansas, Iowa, Minnesota, Nebraska, North Dakota, South Dakota and Wisconsin; sow thistle in Minnesota and Wisconsin; sunflower in Kansas and along canal banks in Arizona; wild carrot in Connecticut and Ohio; wild oats in Michigan and North Dakota; wild parsnip in Ohio and Wisconsin and yellow daisy in New York and Ohio.

This legislation is rapidly tending to more stringent laws which will require landowners to cut all weeds on their premises of whatever kind. Many states require railroad corporations to cut weeds on their right-of-way. Michigan requires them to be cut between June 15 and July 1 and between August 15 and September 1 of each year.

An Iowa law requires landowners to cut, burn or destroy certain noxious weeds. Highway officers are required to cut weeds on the highway. The town-



Good Weed Eradicators.

ship trustees may cut weeds that the landowner neglects to cut and have the expense assessed against the land as taxes. Once each year the township trustees and road supervisors meet together to discuss weed destruction and road building.

Failure to cut Canada thistle in Missouri, subjects the landowner to a penalty of \$10. Canada thistle must be cut by the road overseer on unoccupied lands. All straw or grass used in packing nursery stock must be destroyed. Persons knowingly vending seed containing Canada thistle seed are guilty of a misdemeanor. There is a penalty for neglect of duty by road supervisors. Michigan has the same requirements regarding landowners and highway officials as Iowa. Persons are liable for the costs of cutting weeds if they fail to heed the notice of the commissioner of highways that weeds must be cut. Oregon has practically the same law as Michigan. There is a penalty for allowing weeds to go to seed. Landowners are allowed \$1.25 a day for time spent in mowing weeds on the highway, which is deducted from road taxes. They must be cut between July 1 and August 20. It is the road supervisor's duty to cut weeds which the owner fails to cut and charge it to him on the tax duplicate. Indiana has elaborate legal machinery for the destruction of the Canada thistle. Railroads are compelled to cut noxious weeds growing on their right-of-way.

Not very long ago a bill was introduced in the North Dakota legislature requiring "any owner or operator of threshing machines, and any owner or teamster employed in hauling grain, either threshed or unthreshed," upon "completing any threshing engagement, and before leaving the premises" to take "all reasonable care to prevent the conveying and carrying away and scattering of any noxious weeds, which have accumulated in or on said machine or conveyance used in the said operation of threshing." It is their duty to "clean said machine from all foul seed by operating it until all grain and seed is out of it, and in addition thereto, the surface thereof shall be thoroughly swept." All conveyances used for hauling grain, either threshed or unthreshed, shall be cleaned by sweeping. The bill provides a penalty of from \$10 to \$50.

Wisconsin has in force an elaborate enabling act to permit cities and towns to destroy weeds. With the exception of Milwaukee, every city and town has a commissioner of noxious weeds. The ward superintendents are ex-officio commissioners of weeds in Milwaukee. Wisconsin has the usual laws requiring the destruction of certain extra-noxious weeds like Canada thistle, snap dragon and wild barley.

A bill introduced in the South Dakota legislature a few years ago would have enabled the township boards of supervisors to appoint inspectors of weeds with almost absolute power to compel cutting and destruction. North Dakota considered a bill to permit the director of the agricultural experiment station to appoint a state inspector of weeds. The bill failed.

Governor Tener of Pennsylvania vetoed a bill passed by the last legislature requiring landowners to cut the weeds on their farms and supervisors to cut weeds on the highways and fixing a penalty. Governor Tener vetoed the bill on the theory that the title was defective.

Kansas undertook to make the owner of lands where Johnson grass is allowed to spread and seed, liable in a civil action for damages but the bill failed.

Grain smut may be prevented by dipping the seed in a poisonous solution. Mix one pound of full-strength formalin with thirty gallons of water. Have the seed in burlap sacks, tie the sacks well, but have them only half or two-thirds

full. Hang these bags in the formalin solution one hour and stir or move them about somewhat, then spread the seed out and dry it thoroughly. After it is completely dry, test it for germination, as the treatment may kill the seed if not carefully done.

says that it may be almost completely eradicated from an orchard in from four to six years. He has prepared a bulletin, "The Control of Apple Blotch," which will be sent by the Kansas Agricultural college on request.

Reduce Apple Blotch Injury

The annual loss to the apple industry, due to the apple blotch, is greater than that caused by any other disease that attacks this fruit. Originating in the southeastern section of the United States, it has spread north and west, until at present it is found throughout the entire eastern half of the apple belt. It is only during the last ten years that this disease has invaded Kansas orchards. During the last three or four years many orchards have yielded less than half a crop, because of this blotch. In some cases a total loss has been reported.

A careful study of this disease has been made by D. E. Lewis, assistant horticulturist at the Kansas Agricultural college. He has treated many orchards in different parts of the state, during a series of tests begun in 1910. He has succeeded in controlling the disease on the fruit the first season sprayed. Probably there is no one in Kansas who knows more about apple blotch than does Mr. Lewis, and he

Did Rape Stop the Bugs?

I have noticed with interest the report of several of the correspondents in regard to rape keeping the chinch bugs off small grains. I had a similar experience last spring. I sowed three patches of about 1½ acres each with oats, each patch being about 400 or 500 feet apart. Between these patches I sowed rape for hog pasture and there was scarcely a chinch bug to be seen in this patch, while both the other patches were entirely taken by the bugs. Noting this at the time I tried to find a reason for it. I was led to believe that possibly it was due to late sowing as the rape patch was sown probably 10 days after the other two patches. The rape patch was also on top of a knoll and I thought possibly the wind had not allowed the bugs to settle there, as both the other patches were on much lower ground. However, I am going to try it again this spring.

Iola, Kan. Dr. J. S. Sutcliffe.

The petted heifer calf becomes the gentle cow.

If Coffee Don't Agree

Much of today's nervousness, indigestion, languor, kidney and liver trouble, come from indiscretions in eating and drinking, so commonplace that they are seldom considered till Nature pulls one up with a sharp jerk.

More often than is suspected, coffee is the cause of these troubles.

A simple, easy way to discover the real cause and relieve one's self of a lot of discomfort is to quit coffee for ten days and try

POSTUM

This beverage contains none of the coffee drugs (caffeine, tannin, etc.) which are responsible for many human ailments, big and little. Postum is a food-drink made from prime wheat and a bit of molasses. It is pure and contains only the wholesome goodness of the grain.

Postum comes in two forms:

Regular Postum—must be boiled. 15c and 25c packages.

Instant Postum—a soluble form. A teaspoonful stirred in a cup of hot water dissolves quickly and makes a most delightful beverage, with cream and sugar added to taste. 30c and 50c tins.

The cost per cup of both kinds is about the same.

Thousands who have changed from coffee to Postum know

"There's a Reason"

Grocers everywhere sell Postum.

Some Capon Hows and Whys

The Operation Is Easy but the Profits Are Large

A READERS' DISCUSSION.

I HAD some experience with caponizing last summer. I got a good set of tools and worked on 158 birds, killing five out of that number and making about 50 slips. I have about 90 left and they are nice, smooth capons, some of the largest weighing about 9 pounds. I am feeding them all the shelled corn and kafir they will eat. I will keep a few of them to raise little chicks, and market the others.

Frank Z. McFarland.

R. 4, Stillwater, Okla.

Meat Like That of Fries.

We read a good deal about capons and how to raise them for profit, so last spring we ordered a set of caponizing tools, together with an instruction book telling how to use them. We hesitated a little when we put the first bird on the operating table, as our book stated that the beginner must figure on a 5 per cent loss. But we started in and operated on 52 birds, losing only three. However, these three birds were really no loss at all. If a bird does not survive the operation, it is because one of the blood vessels is punctured, which causes it to bleed to death, and it is as good for eating as any fry you can buy.

The birds should be operated on as soon as you can tell a rooster from a pullet. Before operating, the birds must be penned up without feed for 24 hours. Feed lightly after the operation for about 24 hours, then they are ready to be turned out.

The head of the capon looks just like the head of a pullet. The comb does not

the same as she buys steer meat in preference to bull meat. When we have educated the people to see the quality of capon meat, we will have the demand and with the demand comes supply and prices.

Don't try to make capons from smaller breeds. You may as well try to make beef steers from Jersey calves. Raise the middle or heavy weight chickens, such as Rocks, Orpingtons, Brahmas and others.

It will pay every farmer to caponize every cockerel that is not ready for market by the first of July, because after July your good prices for fries and broilers are lost. So instead of selling at a low price or keeping them until spring or fall, caponize them and you will have the best of meat for your own use as well as a fowl that will bring from 75 cents to \$1.50 when a year old instead of 25 to 50 cents. Instructions are sent for caponizing with each set of tools.

O. C. Hassler.

Moline, Kan.

A Beginner Says It's Easy.

We generally raise from 200 to 300 chickens every year and as everyone knows who raises many chickens, there is always a good per cent of the cockerels that have to be sold at a loss. I had often read in the papers about caponizing the surplus cockerels and that they could be made to bring a good profit, so we decided to give it a trial. After studying the catalogs of the different firms that had caponizing tools,



The larger breeds are best for capons, Eastern poultrymen find the Light Brahma very satisfactory for this purpose.

grow and they look as though they were clipped off. A genuine capon never crows. The capon will not mix with the pullets and for that reason will put on more fat and grow faster on the same amount of feed than a rooster. The capons will not hatch chicks but will make very good mothers for chicks that are hatched.

The meat of a 10-pound capon is as tender as that of a 2-pound fry and for that reason they command a big price. They are quoted at twice as much a pound as other chickens.

McPherson, Kan. John J. Wedel.

Local Market Is Needed.

The art of caponizing has been known for hundreds of years, but has never been practiced in this country until late years, because poultry was so cheap and eggs so plentiful that it did not pay to caponize the cockerels. But today the high price of hens and the scarcity of eggs compels us to begin to look for a way to save the hens. Thus we began to use our extra cockerels by making capons of them. A capon becomes very much like a hen in actions. They are easily fattened and grow quickly, often weighing from 5 to 7 pounds at 6 months old, if well taken care of.

One of the disadvantages in capon raising is the lack of a local market. I believe the only way by which we can be successful in this work is to create a local demand. The only way to do this is to advertise in our local papers that capons can be bought of the local merchants at the same price as hens or perhaps a cent or two higher by the pound. When the cook finds by experience the great difference in quality of capon and hen or rooster meat, she will buy capons in preference to the other,

we sent for a set of the automatic instruments.

We had five cockerels that were the right size to caponize at the time, so we penned them up without feed for 24 hours, as the directions said to do. As I am a cripple, I had plenty of time to study the instructions and they seemed so plain that I decided to begin on a live bird instead of a dead one, as the directions said to do. I found after I had worked on a couple that all one had to do was just get a good set of tools and go at it according to directions.

The birds recover from the operation very quickly, in fact they begin to look for something to eat as soon as turned loose. I caponized 50 during the summer and had worked on 10 before I had the misfortune to kill. I only killed three all season, and as these were as good for eating purposes as if they were killed in the ordinary way, they were not lost.

The caponized cockerels looked very much like the other cockerels until 5 or 6 months old, only their combs and wattles did not grow. After this they looked and acted more like a hen than a rooster and were easily distinguished by their small heads and heavy bodies. Capons grow larger than the cockerels and will put on much more fat on the same amount of feed. I thought for several weeks that I had not made any "slips," but I finally noticed that the combs were growing on a few. They soon began to crow and it was easy to see the difference between them and the capons.

We raise purebred Barred Rocks and White Wyandottes and have capons of both breeds. We like the Barred Rocks best for capons, as they are the largest and the males are more easily picked

(Continued on Page 33.)

This Saved 2,000,000 Incubator Chicks Last Year

You Can Easily Protect Your Incubator Chicks From White Diarrhoea And All Bowel Troubles

Thousands of dollars—yes, hundreds of thousands are lost every year by poultry raisers because of White Diarrhoea and other Bowel Troubles killing off little chicks. The ravages of these poultry diseases among incubator chicks is particularly costly—and wholly unnecessary. For there is a remedy. An easy—cheap—almost invariably sure remedy!

It is not an experiment! It is not a new, untried preparation. It is purchased and praised by thousands of poultry raisers—little and big—all over the United States. Walko not only prevents and cures White Diarrhoea and all forms of Bowel Troubles—but it is also a remarkable tonic, giving the chicks splendid strength and great vitality, so that they develop with most unusual rapidity, feathering much sooner, growing to "broiler" size more quickly, and reaching the laying stage long before poultry deprived of this tonic-medicine does.

Walko Remedy Saves 500 Chicks for 50 Cents

This is not theory! This is not our mere claim! Here's what only a few of thousands who use Walko Remedy say about it:—"Makes me think I have found a gold mine."—Mrs. Chris Wolf, Exira, Iowa. "Raised more chicks to maturity than ever before."—Mr. Frank Haasis, Ontario, Calif. "It is certainly wonderful for incubator chicks."—Mrs. Robert Patrick, Ionia, Mich. "Nothing like Walko for young chicks. Simply magical."—Wyandotte Ranch, Kiesling, Wash. "Do wish I had known of it sooner. I never saw chicks grow as fast as these have since I began using it."—Miss Lucy E. Jones, Winchester, Ky.

Mr. J. C. Clipp, Saffilo, Ind., says: "I have been breeding fancy poultry 22 years. I never have White Diarrhoea among chicks any more. I consider that Walko Remedy made me several hundred dollars last year. I used it constantly from the time chicks were hatched and have never grown a finer flock of fowls. It will positively prevent Diarrhoea if used as directed and keeps birds in the pink of condition."

Mrs. A. D. Wells, Bolivar, Mo., writes: "I run several incubators and have good success with my hatches, but have lost thousands of the little downy fellows from bowel trouble or White Diarrhoea. So I sent for a 50 cent box of Walko Remedy. I tried it on 350 chicks and they grew very strong, being nearly full feathered in four weeks. I never lost one from bowel trouble. It is certainly fine for incubator chicks; gives them strength and vigor as well as preventing bowel trouble."

Mrs. C. M. Bradshaw, Beaconsfield, Iowa, writes: "I used to lose a great many of my chicks from Bowel Trouble. Tried a good many remedies and was about discouraged with the chicken business. Two years ago they began to die and I thought I would try Walko Remedy. I raised 300 White Wyandottes and never lost one or had one sick after getting the medicine."



You CAN'T Doubt This Evidence. You KNOW That This Ad Could Not Appear in This Paper if EVERY Statement in It Was Not a Positive Fact!

What every one who has incubator chicks—or who is thinking of raising chickens should do at once is to send 50 cents for Big Trial Package—Enough to Save 500 Chicks, and get our Free Book giving full details—complete directions—that will tell you how to tell the approach and presence of dreaded poultry diseases. Use the Coupon! Don't delay. Get the big trial package immediately! One chick saved will pay for a box. One box will save hundreds of chicks.

NOW! Try this Guaranteed Remedy! You Can't Lose! We Guarantee Satisfaction or Your Money Back!

Walker Remedy Co.

L7 Main St.
LAMONI, IOWA

Use the Coupon!

Send 50 cts.

For A Package! We Guarantee Satisfaction.

Walker Remedy Co., L7 Main St., Lamoni, Iowa

Send me, postpaid, at once _____ packages of Walko Remedy. I enclose herewith Express or P. O. Money Order or currency to pay for same.

Send me your Free Book on Diseases of Chicks and Poultry at once—at no cost to me.

Name _____

R. F. D. or Street No. _____

City _____

State _____

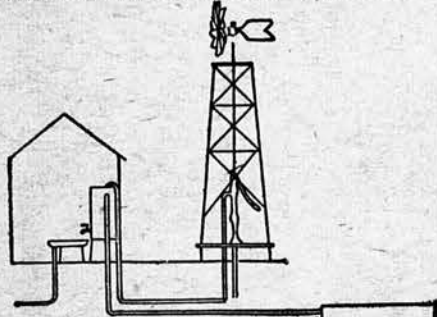
With the beginners in poultry keeping, it is always best to commence on a small scale and then increase as success and experience warrant.

Farm Work the Easiest Way



Farm Home of Al. Lundblade, Jamestown, Kansas.

I PUT in an inexpensive water system in 1901 and from that time until now there has been scarcely a bucket of water carried to horses, cattle or hogs and none at all to the house. Our system consists of an 8-foot windmill on a 30-foot tower, three-way pump with brass-lined cylinder (same leathers in cylinder that came with it 13 years ago and works perfectly yet), and 50 feet of 1-inch galvanized pipe to house, discharging water into a 22-gallon galvanized house or storage tank. The



All Stock Water Goes Through House.

bottom of this tank rests on a framework of 2 by 4 about 30 inches above kitchen floor.—Directly under this is the sink.

A "goose neck" at the end of pipe in the house discharges water into the tank from the top, as the pipe is really only a lengthened pump spout. A pipe 3 inches from the top of tank prevents it from overflowing and carries water through 150 feet of pipe to a 14-barrel stock tank. This tank is so located that it furnishes water to pasture on one side and on the other to two feed lots and hog lots. By placing a "Daisy" hog waterer directly under the fence dividing the feed lots the hogs have plenty of fresh water without any attention. This alone saves many steps in a year. As the stock tank usually requires about one filling a day in winter and two in summer, and as all of the water is pumped through the house, a supply of fresh water is always on hand.

Five years ago a growth of trees interfered with wind exposure so I sold the windmill (on which there had been not 1 cent for repairs), and put in a pumping engine. It not only pumps but runs the corn sheller and grindstone. We hope soon to connect it up with an electric light plant and furnish light for house and barn. I have installed several different water systems but think this one of the best, as it is the only one that furnishes fresh water to house and stock; it does not get out of order, and anyone who can handle a pipe wrench can do the work.

Allen, Kan. Charles Day.

Well Equipped Farm Home.

[Prize Letter.]

On this farm, which we have named Sunny Heights, is a house of nine rooms including bath, equipped with modern means of sanitation. The house is heated by a furnace, lighted by electricity, and has a complete water system. The furnace is of the hot water type, and the radiators are of steel. There is a radiator in each room large enough to heat it comfortably in the coldest weather.

The electricity for the lights is supplied by a 32-volt dynamo with the aid of a 16-cell storage battery. The power to run the dynamo is furnished by a two-horse power gasoline-kerosene engine. This engine also runs the suction pump to the water system. The pump is used for pumping both water and air. It is changed to an air pump simply by opening a small pet cock on the end of the cylinder.

The water is pumped from the cistern into a pneumatic tank which is located

Time and Strength are as Important to Country Folks as to City Dwellers

in the cellar. The air pressure on the water in this tank forces it to the kitchen, laundry and bath. In the kitchen attached to the range is a range boiler, also connected to the water supply from the pneumatic tank, which furnishes the hot water to the kitchen, laundry and bath.

The sewer system, as a secondary part of the water system, is made of 4-inch flanged tile laid in cement, and runs into a ravine. This method can only be used where there is plenty of fall. The lavatory, bath tub and toilet, the sink in the kitchen and the trap in the cellar all empty into this sewer.

Mrs. J. T. Mowrer.

R. 1, Lost Springs, Kan.

Information for the Asking.

Without pure water the health of the family is often endangered. Water in the house not only makes the work easier for the wife but more comfortable for the whole family. The United States Department of Agriculture has just issued a bulletin which gives a detailed description of a simple, sanitary system suitable for the average farm home. The bulletin includes a discussion of wells, with plans for keeping the water pure; the pumping, storage and distribution of water, including a discussion of several different systems, pumps, hydraulic rams, etc.; plumbing systems for country homes; and a safe disposal of farm sewage. The bulletin is well prepared and well illustrated, and will be sent free to any farmer on application. Address the Division of Publications, United States Department of Agriculture, Washington, D. C.

Makes Washing Day Easy.

[Prize Letter.]

I have water in the house, and drainage. I wash with power. In my wash house is the big boiler, which holds 20 gallons of water, and the stove. I wash while the engine pumps water. My machine is a power machine, with the wringer attached to it. My husband put a cement floor in the wash house on the side where the wash machine stands. When I am done washing all I have to do is pull out the stopper and let the water run. All the water carrying I have to do is from the boiler to the machine. I have no machine nor wringer to turn. My husband likes all the latest improvements, and wants me to have it as easy as I can. It doesn't take long to do the washing, although there are seven in the family.

Mrs. H. M.

R. 1, Lorraine, Kan.

A Well Equipped House.

[Prize Letter.]

Besides the rain water which is pumped from a 120-barrel concrete cistern into a pressure tank which forces it throughout the house we have a 20-barrel concrete supply tank filled by the windmill and connected with the house and concrete stock tank. The

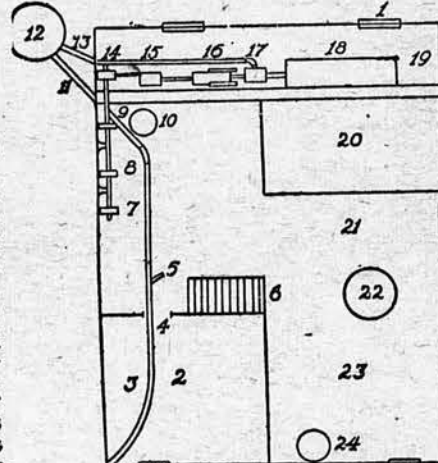
tank is built in the ground, thereby keeping the water cool in summer and preventing freezing in winter. It is located on higher ground than the house. This gives plenty of pressure.

Other improvements in my home are heat and light. Heat is furnished by a hot air furnace with registers in every room. Light is furnished by an acetylene plant which furnishes light throughout the house and barn. All lights are lighted by automatic lighters.

I have a 1½-horse power gas engine installed in the cellar to pump the pressure tank and run a line shaft connected with the washing machine, vacuum cleaner and emery wheel. Engine and supply tank are installed upon a solid concrete base 3 feet high and 3 feet wide, running the entire length of cellar.

Our cistern is always kept clean by means of an overflow which draws the water from the bottom instead of the top, thereby cleaning out the dirt and settlings which always accumulate in a cistern. The overflow is connected with the sewer, which is thereby cleaned thoroughly at every overflow. This sewer line was laid through the cellar before the concrete floor was put in and connected with the overflow of the cistern. As our cistern fills in a very short time, owing to the large spread of our roof, the sewer never has a chance to become clogged.

The diagram shows the cellar arrangement. At each end (1) are wind-draws; 2 is the fruit cellar; 3, the sewer line; 4, doors; 5, pipe for waste water; 6, stairway; 7, emery pulley; 8, vacu-



Handy Arrangement of Basement.

um pulley; 9, washing machine; 10, drain; 11, overflow; 12, cistern; 13, main pipe; 14, line shaft pulley; 15, pump jack; 16, engine; 17, pump; 18, pressure tank; 19, concrete base; 20, coal bin; 21, passage way; 22, furnace; 23, cellar room; 24, acetylene plant. The sewer line (3) is under concrete floor; the overflow pipe (11) and the main pipe (13) are under ground.

H. W. Zimmerman.

R. 6, Hiawatha, Kan.



Farm Home of J. T. Mowrer, Lost Springs, Kan., equipped with Furnace Heat, Electric Lights, and a Water System.



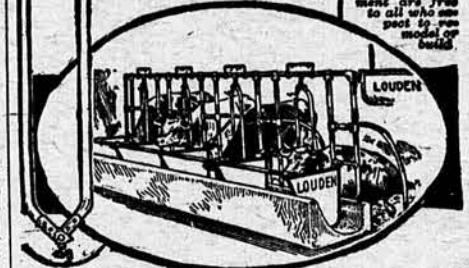
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and sometimes I think they wastes a little—but you'd stop it if you'd get me. Just think of my large nearly continuous doors— with a convenience—and they are actually air-tight—just think of my diamond staves—tongued and grooved—actually sealed joints—just think of my low price. I'm even erected on your foundation in only two or three days—and responsibly guaranteed—absolutely require no attention—neither shrink, swell, nor decay—neither leak, twist, nor fall over—have no upkeep expense, but am always ready for use. Of course, I'm the Diamond Concrete Stave Silo—your name, please? I'd like to give you my price list and new booklet.

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Rearing the Brood

Experiences of Successful Poultry Raisers



I HAVE found that the feeding of cracked kafir has a tendency to prevent bowel trouble in chicks. At least it has lessened this trouble for me, in my chicken raising experiences. For chicks that appear to have the disease, I have found slightly scorched kafir to be as good a remedy as any. They will not like it at first but will soon learn to eat it.
L. S. Poisal.
Kirwin, Kan.

Much Depends on Hatching.

Our experience with white diarrhea in chicks began several years ago. Having tired of old Mother Nature's slow method of hatching, we bought a standard make of incubator. The first year we were very successful and raised practically every chick hatched. The second year about 10 days after the chicks hatched, our trouble began.

No treatment given the chicks cured them, or prevented the disease. We bought another machine, but our efforts met with no better success.

After using incubators three seasons we discarded them and went back to hens for incubating. Within two years we entirely eliminated white diarrhea. I am not condemning incubators. Where judiciously used they are very necessary to the average poultry raiser's equipment. But I believe chicks hatched in incubators, from eggs laid by hen-hatched breeding stock can be raised successfully while those hatched by incubators from incubator-hatched stock, are, in many instances, subject to white diarrhea.

I think poultry raisers should keep a yard of hen-hatched birds every year for breeding purposes.

Karl Spellman.

New Albany, Mo.

Feeding Creep For Chicks.

This drawing will show you a very satisfactory and easily constructed feeding creep for either young or old chickens. The hoops are the tires from an old buggy which had seen many years of hard service. The cross bars may be of either wood or iron. They are fastened to the hoops by rivets. The ends of the cross bars project down several inches so that they may be set in the ground in order to allow chicks of any size to go under. The framework is covered with mesh wire. This creep has been a great benefit to me in my poultry raising.



C. G. Hale, Jr.

Manhattan, Kan.

Machine-Hatched, Hen Raised.

I will tell you how I managed 60 hens with an incubator of 150-egg capacity and eliminated the danger of white diarrhea. I set the incubator and two hens on March 15. These hatched on April 8 and 9 and I got 130 chicks. I put 25 with each of the two hens and took care of 70 by hand. My early chicks never have white diarrhea so I had no trouble with that.

I set the incubator again on April 10 and by the time it had been set eight days I had enough hens wanting to set to cover the eggs in the incubator, so I tested the eggs and put them under these hens. I then set the incubator again. When these hens hatched I put the little chicks with half of the hens, tested the eggs in the incubator and put them under the remaining hens, and some others that wanted to set at that time. When those eggs hatched I gave 30



Herbert Conard, six years old, feeding his flock. Herbert is the son of F. D. Conard, living near Rush Center, Kan.

A Readers' Discussion

chicks to each of six hens and set my incubator again with duck and hen eggs mixed.

In a little more than a week I had 190 little chicks hatched and altogether I had 500 chickens hatched in eight weeks. The old hens raised them and by allowing the eggs to finish hatching under the hens and letting the hens raise them they had no white diarrhea. Out of the 500 chicks the hens raised 320 fine chickens. Hawks, varmints and autos got the rest. After this I hatched 200 ducklings and 200 chicks.

Alice H. Secoy.

Emporia, Kan.

Begin With the Unhatched Egg.

I have long ago concluded that the greater per cent of bowel trouble is caused by bad air in the incubator or in the nest. If allowed in the incubator for any length of time it will always weaken the chick in the shell and bowel trouble follows. I was troubled with



Nature's way—slow but sure.

this scourge especially with the incubator chicks, not being willing to believe the cause to be in artificial hatching I gave it a good deal of thought and experimented a great deal along this line.

I noticed we were always cautioned by incubator people to keep the incubator clean and not to neglect to fumigate before setting the eggs each time and to keep bad eggs out. I could follow directions as to everything except to detect a dead germ at an early enough date to prevent foul air in the incubator. I knew these eggs must be culled out in some way or I never could make a satisfactory test. I tried all kinds of testers in a dark room by lamp light, but finally found what I was hunting in a daylight egg tester containing a strong magnifying lens and I have been bothered but very little with sick chicks since.

I test the eggs before putting them in the machine to be sure there is none with faulty shells, blood spots or eggs in which incubation has already started, which is very common with summer eggs. Overheating will not only kill the chick but weaken all it does not kill and a chicken is no stronger than its stomach, and many times overheating is due to laying the thermometer on a dead egg which is always cold, running the temperature down. The blaze is turned higher to raise the mercury and the live eggs are overheated. I had often been

deceived until I learned to test out the infertile or cold eggs at a very early date. I do this any time from 36 to 48 hours in white or light eggs. The infertile eggs are not injured by having been in the incubator so short a time provided the incubator is clean and sweet to begin with.

By observing these things I do not need to dread losing my incubator chickens from bowel trouble.

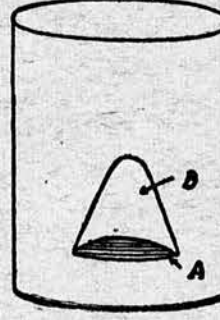
Mrs. Don Wills.

Miami, Okla.

Fresh Water For the Chicks.

To make a handy and sanitary water fountain for chicks

take an ordinary pint can that has been closed at both ends. Cut an incision about 3 inches long at A, 1 1/2 inches from the bottom of the can. Press the tin back above the incision as shown at B, until the opening is large enough to let the chicks



drink freely but not large enough to permit them to get their feet in. Fill with fresh water and set before the chicks. The water will not run out if the can is airtight at the top. Scald the can every day.
John P. Ruppenthal.
Russell, Kan.

And They Grow Like Squabs.

I feed my incubator chicks when they are about 24 or 36 hours old or, as soon as they seem a little hungry. I first scatter a little dried pulverized egg shell around where the chicks can pick at it, then I moisten dry bread with sweet milk and scatter a very little of that around two or three times the first day. After that, about every two hours for a week. I also give a little hard-boiled egg, shell and all, crumbled fine and sometimes mixed with the bread, for a couple of feeds a day. A few days later I feed some well-baked corn bread, and as soon as the chicks will eat it I give a little oat flake once a day until they are two or three weeks old.

When they are a week old I discontinue the light bread and milk but still give some corn bread now and then. After the first day I scatter a little chick food in the litter, increasing the amount each day until they are about two weeks old, at which time I begin giving kafir, cracked corn or wheat or all if I have them, until at three weeks they are getting no chick food. From the first I also put a small box of dry, coarse bran and a dish of fine grit or sand or both before the chicks. They have plenty of clean, fresh water and sweet milk at all times. It is surprising how much they will drink of it. It helps to regulate the bowels and keeps them from having bowel trouble.

I scatter the grain feed in the litter and in the earth end of the coop so as to have the chicks dig in the ground part of the time. I give green stuff as soon as I can get the chicks to eat it. I begin on alfalfa, as that is the first green stuff I can get. I clip it fine. Later I give any kind of greens the chicks will eat including radishes, onion tops and weeds from the garden. The children dig earth worms for the chickens, giving them a very few at first, and gradually increasing the amount as the chickens get older. I also give them any little bits of lean meat I happen to have, and they grow fast.

My chicks do

(Continued on Page 33.)

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The Ann Arbor man does good work and earns good pay. Generally hay is baled at a stated price per ton. Baling profits are the result of having a press that can bale the most hay in the least time and at least expense. That's the advantage of Ann Arbor construction. And that's why the Ann Arbor man makes good profits.

Why not be the Ann Arbor man for your locality? Bale your own hay and your neighbors', too. You will find lots of orders for your work. Ann Arbor work wins preference everywhere because of the smooth, square-cornered bales, with no tails on them. Shippers get full weight in every carload. Ann Arbor work means freedom from expensive, time-eating breakdowns. It means speed and economy of power and crew. This makes Ann Arbor baling profitable for the man who hires your baling outfit as well as yourself.

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Ann Arbor presses also hold the best known record for low upkeep cost. The construction is simple—built extra strong

where extra strength is needed. Feeder arm has spring cushion—Chas. E. Hannah writes: "In the two years I ran an Ann Arbor, we never paid a cent for repairs."

Use any engine. If you have none, or cannot get one, ask for our offer on an Ann Arbor horse-power baler. This baler is creating a great sensation in baling circles. Next to Ann Arbor power presses, the Ann Arbor horse press is the best profit maker you can get. Write for literature on Ann Arbor presses. Get our booklet "Making Money from Hay." It carries a mighty valuable and profitable story for you to read. Be the Ann Arbor man for your locality. Address

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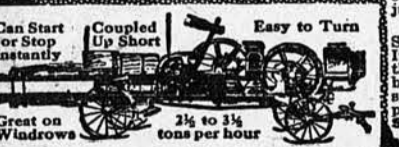


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Now For a Dog Inspector

Double Taxes Increase—Sensible Road Work—School Consolidation

BY HARLEY C. HATCH

THE assessor has found us in possession of one dog on which he levied a "personal" tax of \$1 besides putting him on the list at a valuation of \$5. We now have double taxation of mortgaged farm land, motor cars and dogs. We wonder how soon some legislature will find it necessary to levy double taxes on our hogs, horses and cats! We have the last legislature to thank for fixing firmly the precedent of double taxation.

The only good thing about the dog tax is that it comes back directly into the school fund of the district where it was raised. We hardly see how the legislature failed to provide for a dog inspector so that the tax could go to some political loafer about town. Perhaps the dog-inspector office will be created later and a county bureau provided for the registration and inspection of all the farm dogs and cats.

The assessor of this township did not increase the valuation of land this year. Usually every two-year period for the last sixteen years has brought an advance in the taxable valuation of farm land, but for this time, at least, the advance has been halted. Whether the valuation will again be advanced with the coming of normal crops the future will show. In the meantime, the assessor did the right thing in making no raise. If a change had been made either way, the valuation should have been lowered for land is selling for less than it did a year ago.

When we first came to Kansas the official opening of the corn-planting season was April 1. There were many of the kind who either got in a hurry or wished to see their names in the papers, who "always planted corn in March." Of late years the farmers have got bravely over their hurry and if they can start the planter by the middle of April they think they are in plenty of time. And they are. One of our former neighbors would never start his planter until April 25 no matter what the season was. He said there were always cold spells in April which stunted early corn. He was more nearly right than those who planted corn the last of March.

Here the opinion is almost unanimous that white corn will out-yield yellow and that it is far better adapted to the upland than any yellow variety. Most of the yellow corn matures late and is of a deep-grained variety which takes the whole season to make. Such corn is adapted only to bottom ground and will not make a satisfactory crop on upland one year out of five. But the smaller varieties of yellow corn, like Golden Beauty, do well on upland and if there is any falling off in yield in favor of white corn cattle feeders think this is fully made up in the better feeding qualities of the yellow variety. There is no better corn for feeding to cattle than this small cob, long and slender eared yellow corn.

We asked one of the township officials last week if they were intending to do any grading on the roads this year and he said "very little." He said most of the road money would be used for making concrete culverts and in keeping the roads dragged. We think this a wise policy. Dragging will at least keep the roads up to the present grade. It is far better to pay for dragging than it is to let the roads go and then every four years or so give them another grading. Dragging after each muddy spell will keep the grade up and we will have the advantage of traveling over smooth roads. There are very few miles of road in this part of the country which are not dragged after each rain.

As for the policy of building concrete culverts, we think any township board that would now build box culverts out of Arkansas oak ought to be impeached. This township will soon have most of the old wooden culverts replaced with concrete and then the culvert expense will cease. This road money may then be expended in grading and dragging the roads. We are now raising enough money by town and county road taxa-

tion to have a system of good roads in a very few years provided the money is not wasted.

Well, they held that meeting at Hope-well school house to discuss the consolidated school problem and they are to have another in two weeks. Arguments were presented on both sides but the sentiment of the meeting was clearly against the consolidation plan. All acknowledged there was something to be said both for and against the plan but the main thing against consolidation was that nearly every district in this part of the county has, in the last two years, built new school houses at an average expense of \$1,800 each. It is asking altogether too much in these days of short crops to expect us to throw these expensive buildings away. Another strong argument against the plan was the transportation of the school children. This is a strong objection, especially where the pupils live several miles away. One instance was given in a consolidated district where a family of small children had to be ready to start to school by 6:30 o'clock every morning. After that they had a ride of about two hours roundabout the district picking up the other pupils.

The chief argument in favor of consolidation was, that as we now have the high school plan saddled onto us if we do not wish to send pupils who have "graduated" from the grades to the town schools, we shall have to build high schools in the country. The sentiment of the meeting was strongly against the plan of compelling boys and girls to leave home, go to a boarding place in town and there spend a large part of the best four years of their lives. There is a growing sentiment against sending country children to town; it weans them from home and from farm life. Few farm boys and girls who graduate from the town schools ever come back to the farm to live. High schools could be placed in the country within driving distance of every home, farm folks say, and the town school avoided.

Now just for an argument, why not suppose that we go back to the old fashioned district school which all the pupils in the district attended until they were 21? Most school authorities tell us that our schools are not as good as they used to be, that the weak point in country life lies in the country schools. Why? They told us a few years ago that the main thing needed was new up-to-date school buildings and that we pay the teachers higher wages. We have built the school houses and virtually have doubled teachers' wages and with what result? They now tell us we must discard the present system entirely. Can we be sure they are any nearer right than they were before? Did we not have better teachers years ago and were not the pupils as well equipped to enter life as they are today? Can you answer, "no"?

In company with a neighbor, we began in the middle week of March to put in 40 acres of oats. We got in three days of good work and then came the cold snap. We have the oats about half in and are hoping for good weather so we can take up the work again before this reaches your eye.

The ground to be sown to oats was nearly all in corn last year but there are 10 acres which was sown to cane rather late and on which only a light stand was obtained. The man who put in the cane plowed the ground late and we find that it works up better than the land which was in corn. This is the opposite of what is usually found in working corn and cane ground in the spring.

We are double-disking the ground, lapping half, each round. This keeps the ground level and the harrow following puts the land in fine condition. The oats are then sown with a drill at the rate of 2 bushels of the Texas Red variety to the acre. We have done our part by these oats and if we do not get a crop it will be the fault of the season, not the way the oats were put in.

Alfalfa Brings Good Times

Leading Farming Communities Give Much Attention to This Plant and to Specialized Livestock Production

HAVE you ever noticed that the leading communities of Kansas have the larger acreages of alfalfa? Jewell county has about 60,000 acres planted to this crop, and that county is noted for the prosperity of its farmers. When you get into profitable, specialized livestock farming you will find an increase in the interest in alfalfa. If you do not believe that, take a trip to Mulvane, the most famous dairy community in the state, and note the interest which the farmers have in alfalfa. There has been a marked increase in the acreage of alfalfa there in the last few years, and there will be a big increase in the future, in the opinion of the dairymen can be taken.

Alfalfa is not winning its way in Kansas so much because it will improve the soil; it is attracting attention because it is earning money for the growers. It is the most profitable leguminous crop in Kansas on soils where it will do well; and there are several of the legumes that will give a larger return in an average year under ordinary field conditions than the common grain crops like wheat and corn. This is not counting the humus and nitrogen added to the land, either.

Feed and Fertility.

One of the fortunate things in farming in this state is that alfalfa is so profitable as a feed, for this fact will aid materially in the effort to improve Kansas soils. The greatest limitation in farming on much of the land in Kansas is the lack of humus and nitrogen, which are added by alfalfa. Of course it is true that the soils are deficient in some other essentials—the hardpan lands are lacking in phosphorus for example—but the decreasing supply of nitrogen and decaying vegetable matter is an important problem that must be solved.

Alfalfa can be grown over a great deal of Kansas where the crop has failed in the past. It is possible to grow this crop under markedly unfavorable conditions if one understands just the requirements of the crop and the deficiencies of the land. Take the case of O. A. Rhodes at Columbus, for example, who is growing alfalfa on hardpan. He is the only man in the United States who is growing it on this type, according to L. E. Call, professor of agronomy in the Kansas Agricultural college.

Lime and tiles are the two great aids in alfalfa growing, for the crop will not grow where the soil is acid or where it is wet and waterlogged. More and more Kansas farmers are coming to appreciate the value of ground limestone in growing alfalfa. It will correct the soil acidity, and it will make the conditions in the soil favorable for the growth of the alfalfa bacteria, which are essential if the plant is to use the nitrogen of the air.

Plenty of Limestone.

Kansas has great ledges of limestone all through the eastern part of the state mixed with the sandstone and shale formations, which will be crushed up in time for soil improvement. A great deal of the lime used on the Kansas alfalfa fields now comes from Carthage, Mo. This is a great state of affairs, indeed, when Kansas farmers have to send to another state to get the lime they need, when there are

thousands of ledges in this state that are readily available for crushing. Men who are kindly disposed toward the growing of alfalfa in Kansas—and also toward earning money on their investment—will put in crushing plants in Kansas before long. Of course, we have some plants, as the ones at Fredonia and Atchison, but they are not getting the business they ought to get.

Kansas alfalfa seed is much lower than it has been for many years, so the high price of seed should not keep one from sowing the crop. It is probable that the price of seed will be much higher next fall. Of course, the price of seed might decline, if a dry year gave a big seed crop of alfalfa again, but it is not probable. Alfalfa seed will keep for a year or two without trouble, if it is properly stored.

The low price of alfalfa seed and the increasing interest which is being shown in the crop by Kansas farmers indicates that there will be a great increase in the acreage of the crop next fall. Much of this seed will be planted on land that was in a spring grain crop. It generally is possible to get such land worked down in good condition if it is handled right. It should be plowed or disked just as soon as possible after the grain shocks are removed, so it will have time to get the capillary attraction well restored before seeding time comes.

Loose Seedbeds and Failure.

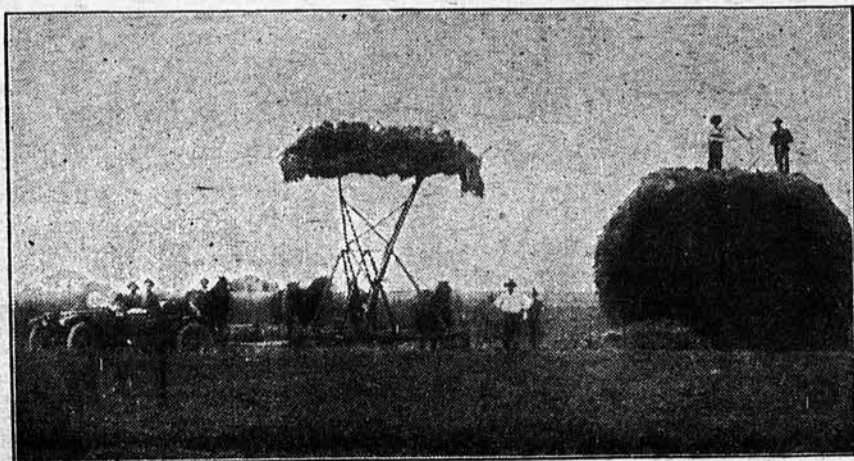
It is absolutely essential under Kansas conditions that the soil should be well worked down; for loose seedbeds are the main cause for failure in growing this crop in Kansas. Alfalfa will not grow unless the soil is firm. Plenty of moisture and plant food must be readily available for the plant's needs, or it will die. The seeds of this crop are very small; if they were large, like the pieces of potatoes that usually are planted, it would not be necessary to be so careful with the preparation of the seedbed. As it is, they have a very small quantity of plant food, and it is necessary to make the conditions so the little roots will have plenty of moisture and food ready for them just as soon as they start.

He Found Silo Gas

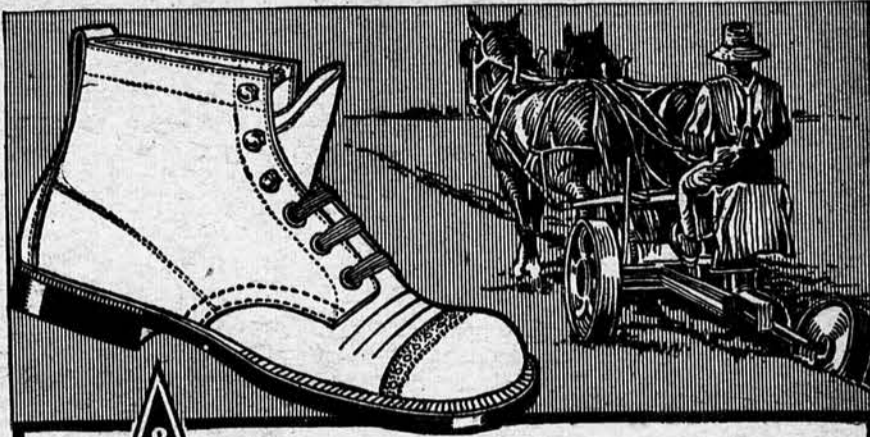
I attended a fine silo meeting in Oberlin recently. There were about 60 in attendance, and the interest was great. One man who has a pit silo entirely inside his barn reported having on several occasions encountered the dangerous gas in his silo. No one had been hurt, but he had felt real uncomfortable one time when he got out.

Twice the gas had put out a lantern the man was carrying, and he had immediately climbed out, and before trying again had thrown a few buckets of water into the silo. This seemed to start a current of air so the silo could be entered in safety. It seems to me that this trouble must be due to the fact that the silo is entirely inside the barn where the air circulation is not so good as out in the open. There were a dozen or more men there who had pit silos but none others had trouble with the gas.

H. T. Nielsen,
District Agricultural Agent.
Norton, Kan.



Wherever you find alfalfa properly handled there you find prosperity.



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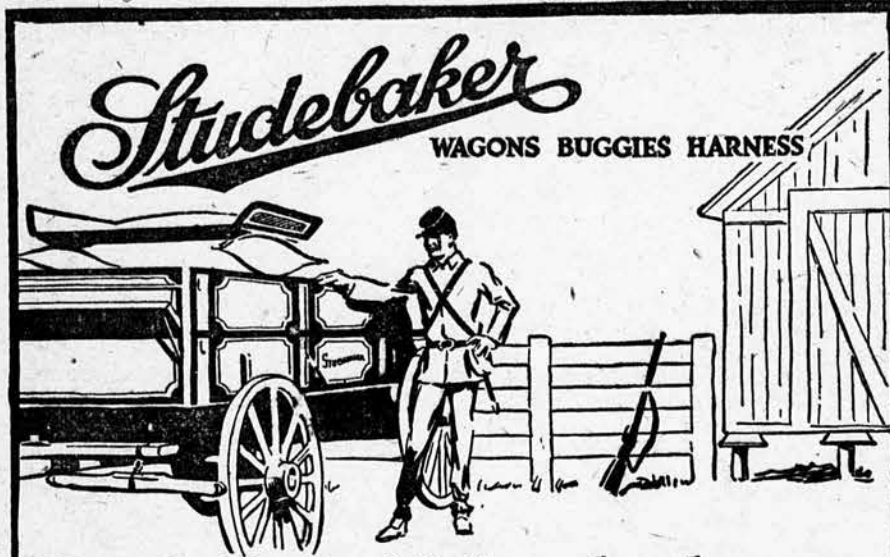
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Bought his Studebaker when he came home from the civil war—using it yet

WHEN David Hire, of Syracuse, Ind., got home from the Civil War he bought a Studebaker Farm Wagon. That was 48 years ago, and the same wagon is still hauling fifty bushels of wheat at a load to market.

Here is what Mr. Hire has to say about his Studebaker wagon.

"It may interest you to know that I have in my possession a Studebaker Farm Wagon bought just after I returned from the war, about 1866, I think. It carried a guarantee to haul 50 bushels of wheat and though it has been in constant use since it was bought, it is still good to haul that amount to market. I hope to use it for many years yet, as it is in good condition."

A REAL VETERAN

That is the way with Studebaker wagons. Built of air dried timber, with inspections at every step of manufacture, they outlast the ordinary wagon from twenty to thirty years.

You may be offered a wagon at less cost than a Studebaker, but consider that the cheaper wagon may last five or ten years, while a

Studebaker will last a lifetime. That makes the Studebaker the better investment, doesn't it? "Build not the cheapest, but the best" has been the policy of Studebaker for over half a century.

You can't make a mistake if you buy a Studebaker Farm Wagon, Buggy or Harness.

STUDEBAKER South Bend, Ind.
NEW YORK CHICAGO DALLAS KANSAS CITY DENVER
MINNEAPOLIS SALT LAKE CITY SAN FRANCISCO PORTLAND, ORE.

Studebakers last a lifetime

Where the Purebreds Excel

Their Advantages Over Mongrel Flocks Are Many

A READERS' DISCUSSION

I HAVE 16 Wyandotte pullets that laid 154 eggs the first half of January and 199 eggs the second half, making a total of 353 eggs laid in January, 1914. This would be an average of a little more than 22 eggs to the hen. These eggs were sold on the Hutchinson market at an average of 39 cents a dozen, thus netting \$11.55. This shows what may be done if a good laying breed is kept. J. N. Burton. Hutchinson, Kan.



One of the Requa Reds.

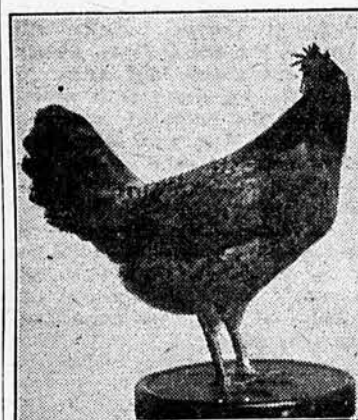
particular kind you have chosen. Buy just as good stock as your pocketbook will allow, considering quality rather than quantity and from this start raise your breeders for the coming season. You may not think it economical to pay \$100 or more for a choice pen of four or five birds when the comparative price of eggs is much less, but you will find in the end that it is the cheapest way. If you have eggs shipped to you and succeed in

Breeding a Race of 200-Egg Hens.

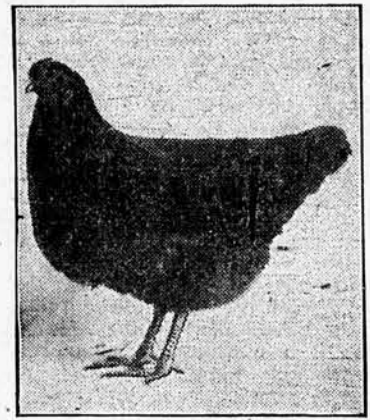
During 1913 ten of my pullets have laid an average of 227 eggs. This record is not what I expected, although it is large. Owing to the hot weather during the summer and the heavy rains in the early fall, the record was materially cut down. Seven years ago I sold some very choice Rhode Island Reds to a man and since that time he has been breeding show birds and has practiced what he calls line breeding. He has not bought a bird of any kind since for breeding purposes. I bought ten of his choice pullets to test their egg-laying qualities and handled and fed them exactly as I did my ten on which I was keeping a record. These ten laid an av-

hatching half of them, you will do well. If you raise to maturity one half of the number hatched, you will be more fortunate still, and when the next breeding season approaches you will find you have few really good ones left. If you have bought a pen of chickens you will have no misgivings as to what your hatch will be.

Buying baby chicks is cheaper than buying eggs, even though you pay double the price for the chicks. You do not have the bother of waiting and looking after the hatch if you buy the chicks. Most breeders understand hatching healthy chicks while you, if inexperienced, do not. If you are going into the business for utility purposes it will not be necessary to buy fancy or exhibition bred stock. Select some reputable breed-



At the left, one of the Blair Buttercups. Right, one of Mr. Requa's laying Reds.



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22-Cal. HUNTING RIFLE GIVEN

1914 Take-down Patent, with all latest improvements, without stock and grip. Shoots accurately 22 long or short, handsome, durable. SEND NO MONEY. Just send your name and address for my easy plan by which you can secure this fine rifle ABSOLUTELY FREE EXPRESS PREPAID. Write today. H. A. SLOAN, Dept. M.B. 115 W. Main St., Madison, Wis.

erage of only 141 eggs. This fact convinces me that the breeding has a great deal to do with egg production.

I feed my chickens rice screenings, wheat, and corn chops in a litter; green, ground bone once a day, sprouted oats once a day; either onions, potatoes or cabbage once a day, and milk every day. They have bran, charcoal, clam shell and clean pure water before them all the time.

The pullet shown in the cut is a Rhode Island Red 11 months old and weighs 6 1/2 pounds. She shows the type of laying strain developed after eight years of breeding for egg production. This bird's mother laid 238 eggs in 365 consecutive days. Her sire's mother laid 241 eggs in 365 days. The cockerel in the cut is 10 months old. His ancestors for four years back were bred in the 200-egg class. I would like to say to the readers that I have nothing to sell. A. G. Requa. Caney, Kan.

A Victim of the Chicken Fever.

I started in the purebred poultry business by paying a dollar for a setting of eggs and thought that was "going some." Then I paid \$2 for a setting and it made me shiver. However the fever did not leave me and I "plunged" fearfully again, paying \$2.50 and \$5 and I even bought one setting for \$10. I set to work to raise what I had hatched and had reasonably good luck. I succeeded in raising some very nice birds but when the mating season was near at hand I had not yet recovered from the fever so bought a pen of six S. C. White Orpingtons that cost me \$112 delivered at my yards. Since then I have also started in with the Buttercups.

If you are ambitious to be known as a breeder, the best, safest and cheapest way to begin is to get a breeding pen or two from a reliable breeder of the

er and buy some of his utility stock or eggs but do not make the mistake of selecting from the price standpoint alone. It has been my experience that you get about what you pay for. Purebred stock or eggs of high grade cannot be sold at cheap prices.

Whichever way you choose to start in the poultry business you will need a plentiful supply of grit and sticktoiveness in order to succeed. Russell, Kan. John R. Blair.

How to Save Incubator Chicks.

"Dear Reader: For years I lost over half my little chicks from bowel trouble. Tried everything I could hear or read of, but nothing did any good till I tried Walker's Walko Remedy. I sent to the Walker Remedy Co., 17, Lamoni, Iowa, for a 50c box of Walko. I had used it but a short time till the chicks quit dying and began to grow as if by magic. That was two years ago and I have never had any trouble since. As a preventative and cure for White Diarrhoea it can't be beat."—Mrs. E. W. Hughes, Bismarck, Mo.—Advertisement.

The sorghums are adapted to withstand heat and shortages of moisture. They are capable of lying dormant during long dry spells and then producing a splendid growth upon receiving rain late in the season. Sorghums readily adapt themselves to the conditions peculiar to Kansas and are among the most reliable and profitable summer crops to grow. They are quite as well adapted to almost every part of the state as corn, and, if grown, will be found to be very close competitors of corn even in the best corn sections, while in the western part of the state they produce larger yields than corn. In feeding value, their grain, hay, and silage compare favorably with other crops.

The Prolific Runner Ducks Unseen Forces Behind Your Telephone

Easy to Raise, Profitable, and Proof Against Poultry Ills

BY W. W. STOVER
R. F. D. 3, Fredonia, Kan.

EVERY season brings an increased interest in and a greater demand for these little upright "Leghorns of the duck family."

Less than 10 years ago they were first advertised west of the Mississippi. Now there are scores and hundreds of breeders all through the West, and everywhere they are making good.

If fed and cared for as they should be, they are splendid all-year layers. But, mind you, they must be fed egg-producing food. The dairyman knows he must feed a balanced milk-producing ration if he would have a heavy and steady supply of milk from his cows. If you turn a flock of Runner ducks loose upon a ration of fresh air, blue sky and a gallon of corn a day and you will complain that Runners are not heavy egg producers.

These ducks should be given free range, if possible, and they will pick up, without being destructive, a large part of their living. Twice daily they should be fed a mash—about 1 quart to 6 ducks—of equal parts bran, shorts, corn chop and 1/2 part commercial beef scrap. With oyster shell before them, how they will lay!

In the four years I have kept them I have many, many times and for days in succession got an egg for every duck



in my yards. July and August is their natural moulting time and egg production falls off. But with proper feed and care I am sure they will lay more eggs than any breed of chickens.

Another great factor in their favor is their freedom from disease and vermin. No roup, nor cholera, nor liver trouble, nor white diarrhea, no scaly legs, nor frosted combs, nor broody hens to break up. And, best of all, no lice nor mites. Rare cases of rheumatism only have affected our flocks.

Then they do not require the careful housing nor high fencing that chickens do. A shed open to the south and bedded with straw makes good night quarters in winter. In summer they prefer the open.

We find if they are forced for heavy egg production in winter that the hatching vitality of the eggs runs low in the spring.

The three varieties—the English Pencilled, the light-fawn and white and the pure white—we find very similar, yet popular demand favors the two last named.

The pure white, however, has strong points in its favor that the others have not. One is that they always lay a pure white egg. I do not believe that the strain of Fawn-White exists that does not lay a small per cent of tinted eggs. The white, too, being of one solid color, breeds truer than the two-color birds can.

Learning a Dog's Age

Unless a person makes a constant study of the canine mouth under different circumstances and variety of feeding he is not likely to be able to derive much knowledge as to a dog's age from an inspection of the teeth. The eruption and appearance of the canine incisors are quite different from those of equines and ruminants, in which dentition is spread over a number of years, and in which permanent succeed temporary, or "milk", teeth with something approaching regularity. The dog has a complete mouth at about six months, and this means that he is furnished with about 42 teeth. The number, how-

When the teeth are submitted to wear, the middle lobe is the first to disappear, so that the resemblance to the trefoil is lost. If this wear were regular it would help us to determine the age; but all the teeth, including the fangs or canines, are worn more or less quickly, according to the food the animal obtains. Bones and hard biscuits accelerate wear, and the calculations of the examiner are often upset by the tricks dogs have of carrying stones and sticks.

Soon after maturity, in most dogs at least, a little tartar begins to form on the upper and outer surface of the top tushes, and later upon the other teeth. By this indication a good observer can make a pretty fair guess as to a dog's



"Why shouldn't our teeth have a little attention?"

ever, varies in different breeds, but consists generally of 12 incisors, six upper and six lower; four tushes, two upper and two lower; and six molars, above and below, in each jaw.

The teeth do not, however, complete their full development until the dog is nearly a year old. They are then remarkable for their brilliant whiteness, but soon signs of discoloration and accumulations of tartar begin to make their appearance, varying, however, with habits, feeding, and the state of the digestive organs. The virgin incisors present three tubercles—a middle, which is the strongest, and two lateral. These together form a figure not unlike a trefoil or upper part of the fleur-de-lis.

age until he is three or four, after which there is an increasing space between the incisors, the tables become worn, the points of the tushes round instead of sharp, and the chin and muzzle become grey. Accumulations of tartar upon the teeth of pet dogs that are fed on mince meat, gravy, and vegetables from off china plates, and that suffer from indigestion in consequence of high living and sedentary habits, cause the gums to recede, loosening and decay of the teeth, and premature loss. Play and fighting cause breaking. The man who is going to set up as a judge of a dog's age by his teeth needs to be a careful observer, and fully acquainted with the disposition, habits, and diseases of the animal.

THE telephone instrument is a common sight, but it affords no idea of the magnitude of the mechanical equipment by which it is made effective.

To give you some conception of the great number of persons and the enormous quantity of materials required to maintain an always-efficient service, various comparisons are here presented.

The cost of these materials unassembled is only 45% of the cost of constructing the telephone plant.



Poles

enough to build a stockade around California—12,480,000 of them, worth in the lumber yard about \$40,000,000.



Telephones

enough to string around Lake Erie—8,000,000 of them, 5,000,000 Bell-owned, which, with equipment, cost at the factory \$45,000,000.



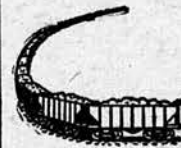
Wire

to coil around the earth 621 times—15,460,000 miles of it, worth about \$100,000,000, including 260,000 tons of copper, worth \$88,000,000.



Switchboards

in a line would extend thirty-six miles—55,000 of them, which cost, unassembled, \$90,000,000.



Lead and Tin

to load 6,600 coal cars—being 659,960,000 pounds, worth more than \$37,000,000.



Buildings

sufficient to house a city of 150,000—more than a thousand buildings, which, unfurnished, and without land, cost \$44,000,000.



Conduits

to go five times through the earth from pole to pole—225,778,000 feet, worth in the warehouse \$9,000,000.



People

equal in numbers to the entire population of Wyoming—150,000 Bell System employees, not including those of connecting companies.

The poles are set all over this country, and strung with wires and cables; the conduits are buried under the great cities; the telephones are installed in separate homes and offices; the switchboards housed, connected and supplemented with other machinery, and the whole Bell System kept in running order so that each subscriber may talk at any time, anywhere.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY AND ASSOCIATED COMPANIES.

One Policy

One System

Universal Service

5,918,098 gallons sold in 1913
1,536,232 gallons more than 1912

Polarine

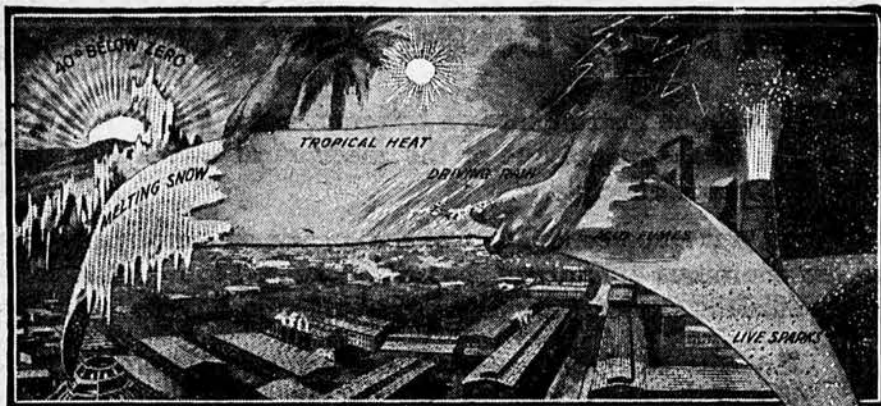
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The constantly increasing use of Polarine by thousands of motorists is indisputable proof of its being the correct oil for all makes and types of motor cars, motor trucks and motor boats.

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in All Climates—Under All Conditions**

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It is composed of Asbestos and Trinidad Lake Asphalt. Asbestos is a rock, and therefore everlasting. And Trinidad Lake Asphalt has withstood the terrific duties of street paving for over forty years.

J-M Asbestos Roofing is lower in first cost than shingles, tin or slate—and cheaper than all other roofings when cost-per-year is considered. Tin, iron and most prepared roofings have to be coated or graveled every few years. As J-M Asbestos Roofing contains nothing to rot, rust or otherwise deteriorate, it never needs a single cent's worth of coating or other protection. Its first cost is the only cost.

Comes in rolls and flat sheets, easy to lay. Also furnished in built-up form. J-M Roofing Cleats, packed in each roll, make absolutely water-tight laps, and give the entire roof an unbroken, handsome white surface. Sold direct if your dealer can't supply you. Write today for sample of the curious Asbestos Rock and Book No. 3076

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Adding to the Farm's Value

**Some Rural Homes Have These Beautiful Features But There Are
Many Where No Flowers Grow**

NEAT, conveniently arranged buildings and a well kept lawn attractively bordered with trees and shrubs add greatly to the appearance and value of the farm and to the happiness of the people who live on it. But to accomplish this there must be a well thought out plan.

The house should stand out as the central and most conspicuous feature of the picture. To place the barn and other buildings in front of the house, or nearer the road than the house, is a great mistake.

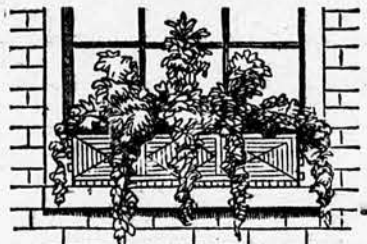
Next after the house the trees are important. But do not overplant the lawn, especially right in the middle. Keep the trees back far enough to permit a free circulation of air. In general, plant along the sides to border or frame

The three shrubs that everyone thinks of first are the snowball, the bridal wreath and the lilac. The Persian lilac is the good old favorite. A lilac hedge 40 or 50 feet long attracts the bees and the boys and girls from miles around. For a low growing ornamental hedge there is the barberry. And among the rest, never forget the syringa.

Of course, one must always have roses. One of the most beautiful is the Crimson Rambler, but it must grow on a trellis, out in the lawn or on the porch. Other good vines are the clematis paniculata and the trumpet honeysuckle. Boston ivy will climb over a stone house without any support and leave it a mass of beauty.

Flowers That Start Themselves.

Besides all this greenery every woman wants some flowers, of course; but a busy woman will find it more satisfactory to grow only a few annuals. Annuals take much time. A bed of tulips, or a row of them planted along the shrubbery in the fall, will come up in the early spring and make a beautiful display, almost without any attention. Peonies grow easily and live for years. So does phlox. As the ground for these flowers is to remain undisturbed for several years it should be thoroughly prepared when they are planted. It should be spaded at least a foot deep—a foot and a half or 2 feet is better—given a liberal supply of old, well rotted manure, and the surface carefully pulverized.



Flowers Like a Window Box.

in the picture, although if the lawn is large nothing is more desirable than a few trees placed a little to one side of the center. Immediately in front of the house nothing is so attractive as a well-kept lawn, unbroken even by flowers.

In planting trees avoid any stiff, mechanical, checkerboard arrangement. If an evergreen is located so many feet from the walk on one side, do not place another at a corresponding distance on the other. Trees should be planted more in clumps; get the effect of a curve rather than a straight line. This is nature's way of planting.

Shrubs Make a Good Screen.

One of the common mistakes in planting shrubbery is to scatter it over the lawn in a salt and pepper fashion. The best effect is obtained by grouping. Shrubs may be planted in a mass along the border, or to screen off the backyard from the front, and the shorter sorts may be put in the corners by the porch or along the foundation of the house. Plant them about 30 inches apart, if you wish a hedge, placing the taller kinds in the back. Shrubs should

If the chickens insist on eating everything in sight 15 or 20 feet of woven fencing will pay for itself. A 5-cent package of cypress seed will cover the fencing with a mass of green vines the chickens can't destroy, and inside it the flower lover can grow the things she enjoys. Nasturtiums bloom all summer, if they are kept picked off. Asters and cosmos will furnish blossoms through the late summer and until after frost.

Some women who have a longing for something pretty to look at while they are doing their kitchen work have made a window box to fit outside the window. Such a box is simply made of boards, 8 to 10 inches deep and as long as the window is wide, painted if convenient, and with a few holes bored in the bottom. The box is filled with rich earth, with a little coarse gravel or coal clinkers at the bottom. In these boxes they plant nasturtiums, or geraniums with a vine to drop over the sides of the box. All flowers need rich earth, with plenty of sand for good drainage.

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Send for our RED BOOK. It gives WHOLESAL PRICES. Most complete line of supplies in the United States, Boltz, Hose, Packing, Oil Cups, Injectors, Lubricators, Boiler Tubes, Oils, Etc. Write today. Address H. S. BACHELOR MFG. CO., 1511 Genesee St., Kansas City, Mo.

Will pay cash for geological specimens such as petrified wood, or impressions in stone of animal life or shells in rocks or parts of prehistoric animals such as bones, etc. Address E. Care Farmers Mail & Breeze.

The Proof of any Silo is in its Silage

If your silage is perfectly cured, succulent and palatable, free from mold, uniform from center to circumference, untainted by foreign matter; if it is not damaged by freezing in winter and never loses its flavor or juices through leakage or absorption, then you have a good silo. If you do not have these things you are not getting the results you are entitled to. The

INDIANA SILO

as it is built today is the result of years of progress and manufacturing experience. It is made with the primary purpose of preserving the contents perfectly; it is constructed throughout of selected material.

Wood is a non-conductor and retains the natural heat which is necessary to secure perfect silage.

Our staves are cut from the choicest timber, carefully selected by our own experts at the mills.

There is no metal in the Indiana Silo to corrode, no plaster to crumble, no masonry to crack when the foundation settles.

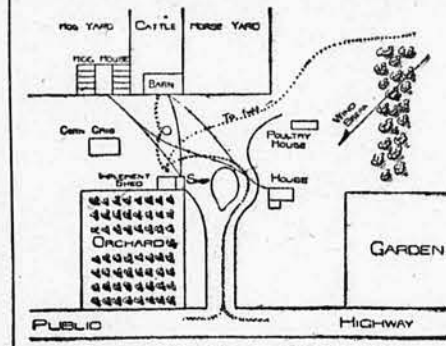
For these reasons the contents of an Indiana Silo are always the best. More Indiana Silos are in use on American farms today than any other make. The first ones built are still standing and giving complete satisfaction to their owners.

Read the book "Silo Profits" which is written by hundreds of owners of Indiana Silos. It tells what the Indiana Silo has done for them and what it can do for you.

Write today for a free copy of our new book **The Watch-Tower Story** and our 1914 catalog. Address nearest office

THE INDIANA SILO COMPANY

Anderson, Ind. Kansas City, Mo. Des Moines, Ia. Fort Worth, Tex.
579 Union Bldg. 579 Exchange Bldg. 579 Indiana Bldg. 579 Live Stock Exch. Bldg.



Conveniently Planned Farmstead.

be cultivated or mulched for the first year or two after planting; after that they will take care of themselves.

If grown for cut flowers the easiest way to grow flowers is to line them out in a straight row in the garden where they can be cultivated conveniently. Other flowers may be put in a border 2 1/2 or 3 feet wide along the front of the shrubbery. The shrubbery serves as a background against which the colors stand out much better than they would in the open. This also avoids cutting up the lawn with beds which make unsightly holes during the winter.

The Kind of Trees That Stay.

The first tree planted in a new country is often a cottonwood or boxelder. They are sure to grow, and waste no time doing it, but they die almost as soon as they grow, and it is a good plan to plant elm trees with the others. After a few years cut the first trees down. Or for variety plant hard maple, red oak or Carolina poplar. A good windbreak on the north adds comfort and beauty.

Oats From Canada

BY FRANK ANDREWS.

The increased importation of corn from Argentina has been accompanied by an unusual importation of oats from Canada into the United States. Relatively small consignments were received in July, August, and September, 1913, and with October a larger movement began. In that month the total imports of oats into the United States amounted to about 2,525,000 bushels, in November to 5,132,000, in December to 5,578,000, and in January, 1914, 2,959,000. All but a very small proportion of these imports was received from Canada, the amounts from other countries being but a few hundred bushels at the most in a month. The total imports during the four months ending January, 1914, amounted to over 16 million bushels, or more than the total imports during the seven years beginning July 1, 1906, and ending June 30, 1913. The increased importation followed a short harvest. The oat crop of the United States in 1913 was 297 million bushels under the crop of 1912, which, however, was the largest on record, and from which nearly 34 million bushels were exported from the United States. In 1911 the short crop of 922 million bushels was followed by an importation, chiefly from Canada, of 2,622,000 bushels.

Good cultivation at the proper time admits air, lessens the ascent of water from the subsoil, causes the soil to become warmer, and stimulates a better growth.

Be Careful of the Wool Clip

World Competition Makes Better Preparation Necessary

BY TURNER WRIGHT
Livestock Editor

KANSAS wool growers cannot afford to have their wool discriminated against in competition with foreign products because of shiftless methods used in preparing it for market. The owners of small flocks of sheep, in past years, have simply stuffed their wool into bags at shearing time, and sent it to market without any attempt to sort, grade or tie it. The reason they did this was because there was no encouragement to do otherwise. The local buyers based their prices on the quality of the most poorly prepared offerings and refused to make any advance in price for a clip that was presented in merchantable condition.



and saves some wool that otherwise would become loaded with manure when the flock is turned on grass, but it also prevents the loss of many young lambs. It sometimes happens that a new born lamb will get hold of a lock of wool when the ewes are not tagged, and starve before it finds a teat. The shearing should not be done until the weather is warm enough for the sheep not to take cold when the wool is removed. Sheep that have recently been sheared should be housed during cold, chilly rains. The wool always should be dry when the shearing is done.

The Market Is Open.

The American wool market now is open to the world and the American grower will have to market his product in as good condition as that which comes from Australia, New Zealand and other countries or be content with a lower price. The poor condition in which American wools have been sent to market in the past has been largely the cause of the preference for foreign wool for the manufacture of high grade cloth. It may not be possible for the man who handles only a few sheep to grade his wool as the Australian does, this year, but he soon must learn to do this in order to meet foreign competition. It is true that the buyers in some localities will not pay more for wool that is in a marketable condition than for wool that must be graded as unmerchantable, but where this is the case a number of growers can co-operate and their offering will attract other buyers.

The first thing to consider in the preparation of wool for market is the care of the sheep while it is growing the fleece. A sheep that receives poor care cannot grow good wool. The food supply should be regular and sufficient to keep the animal in good condition. If the sheep gets sick at any time or if there is a sudden change in the plan of nutrition there will be a weak spot in the fiber at the place that is next the skin at that time. This lowers the value.

Burs or an excessive amount of dirt or chaff in the wool also detract from its selling price. If the shepherd has been so careless as to let the flock become loaded with burs or chaff from hay or fodder he should pick out the burs and as much of the chaff as possible before the sheep are sheared. This will increase the selling price of the wool. All burry fleeces should be packed separate from clean ones. It probably is too late to prevent burs and chaff getting in the wool that will be sold this spring, but it is a good time to begin to prepare next year's clip. Here is one place where an ounce of prevention is worth many pounds of cure, for burs in the fleece means the loss of many pounds in value.

"Tag Out" the Flock.

Tags or dung locks also detract from the value of a fleece. It is a good plan to "tag out" the flock before the ewes lamb, or the flock is turned on grass in the spring. This is done by clipping all the wool from between the hind legs and from around the udder. The wool that is thus removed can be saved and packed with other clean tags or loose locks and sold. This tagging serves a double purpose. It not only keeps the sheep clean

Most shearing nowadays is done with power machines. When the fleece is removed it should be opened along the underline and otherwise kept intact. The shearer should be careful not to make second cuts, as these materially reduce the selling price. All manure tags should be removed and discarded. If the wool from around the face and lower part of the legs contains black fibers it should never be packed with the other parts of the fleece. The Australian removes all the shorter heavier parts of the fleece; that is, the wool from the belly, legs and face, and packs it separate from the wool from over the body, which is called the heart of the fleece. This practice is what is termed skirting. If the fleeces are skirted, the skirts, loose locks and wool that is removed early in the season can be packed together and so labeled when sent to market.

It is important that every fleece should be tied with the flesh side out. If it is kept intact the work of the sorter can be done with greater dispatch and ease. The buyer determines the quality and value from the flesh side and when the fleece is tied with this side out it adds to the convenience of inspecting and to the attractiveness of the offering. The fleece may be rolled, or tied in the form of a cube by means of a wool tying board. The cube form is preferred by most buyers. A good wool board can be made at home with little labor or cost.

The Twine to Use.

A good, suitable twine should be used for tying. Strings of hemp, jute or sisal leave particles of fibers in the wool when they are withdrawn. These fibers often are so small that they escape detection until the goods are ready for the dye. Animal fibers and vegetable fibers require different dyes, consequently these fibers must be picked out by hand, which is an expensive process. Even then some are not detected until the goods are dyed. Glazed twines have been used with fairly good success, but the best results come from the use of paper twine. All particles of paper twine that are left in the wool when the strings are withdrawn dissolve in the water when the wool is scoured and thus no harm can result from its use. A paper twine to give satisfaction must be strong, durable and withstand the action of the moisture contained in the fleece until the wool can be used.

It is not necessary to use an excessive amount of twine in tying a fleece. Some men have practiced using more twine than was needed because they were selling it at a profit, but such practice is

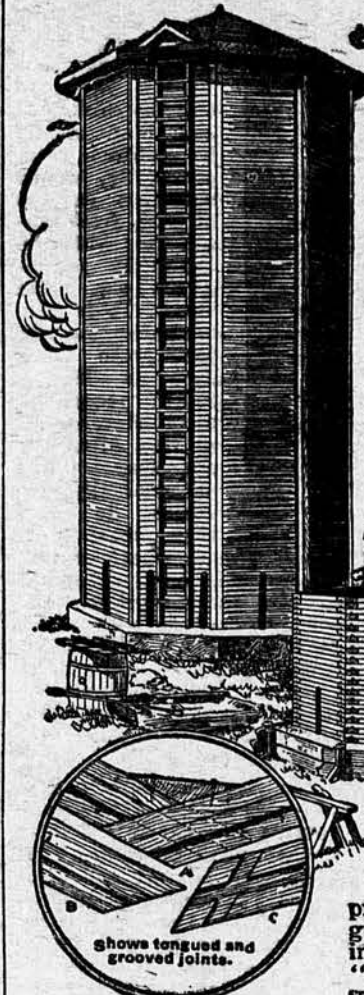
(Continued on Page 21.)



Here's The Wonderful NEW "TUNG-LOK" SILO

(Made of Yellow Pine or Fir)

The One Best Silo Ever Built!



This silo has long since proved its worth—its money-saving, money-making value, as a very important part of a modern farm equipment. No argument is needed in its behalf. You are not wondering whether you should buy a silo this spring—that question has been decided, and you are now pondering the problem of which silo is best.

There are silos of many kinds from which to select—all heralded, no doubt, as "the world's best." We have scientifically studied all silos—their advantages and disadvantages—and we say without hesitation that the "TUNG-LOK" is the one best silo ever built—that it is

**Simplest in Construction—
Lowest in Cost—
Wind, Sun and Frost Proof—
Absolutely Dependable—
Absolutely PERFECT!**

Ask For the Proof NOW!

We can prove all this to your entire satisfaction if you will but give us the opportunity. The "TUNG-LOK" embodies positively the newest and most scientific principle in silo construction as you will see by studying the illustration here-with. It is built on our own tongue-and-grooved

principle that does away with all hoops, bands and guy wires—the complete structure is locked and interlocked in such a way that it is practically as "solid as a rock," and absolutely unaffected by sun or wind, keeping every particle of the contents in perfect condition through the hottest summer or the coldest winter. And here's another big exclusive feature of the "TUNG-LOK"—you can, at very small cost, add to the height and increase the capacity of your silo at any time desired, building it on up to 50 feet, 60 feet or more if required, to give the needed capacity.

Put It Up Yourself in 3 Days---or During Spare Hours from Day to Day---

Save \$50 on Construction Alone

One man and a boy can put up a "TUNG-LOK" silo of any size—saving you the \$50 to \$100 usually paid to a factory expert for the services required in putting up any other silo. Every piece of every "TUNG-LOK" silo is cut and shaped by special machinery—every piece tongued, grooved, and perfectly fitted, tied into bundles and numbered before it leaves our factory.

With our blue prints and building instructions it is impossible to put up

a "TUNG-LOK" in any way but the right way. It's really an interesting pastime instead of tiresome work to put up a "TUNG-LOK" with these plans to follow. Build it complete in three days—or work an hour or so each day as you find the time to spare.

The cost is a trifle compared with the money-making, money-saving service you will get from the "TUNG-LOK" silo—and every dollar so invested will add at least \$2.00 to the value of your farm.

Get Our Interesting Illustrated BOOK and FREE Money-Saving "Neighborhood 1st Sale Offer"

Whether or not you are in the market for a "TUNG-LOK" silo at this time, we want to send you a copy of our interesting, illustrated book, and tell you about the very special "Neighborhood First Sale" proposition we are offering for a short time.

If you have a silo now, you will want another one very soon because you know what it will be worth to you. If you are still without a silo, you are losing a lot of money you ought to be saving.

There are so many interesting and convincing things to be said about the "TUNG-LOK" that we haven't space to even mention them here. The complete story is told in the the book which will be sent to you free and postpaid as soon as we receive your request on the coupon or a postal card.

Write today for free book and our "Special First Sale" offer today.

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GENTLEMEN:—

Without obligation on my part, you may send me, free and postpaid, copy of big illustrated booklet, describing "TUNG-LOK" Silo and special "Neighborhood First Sale" proposition.

My livestock consists of the following: Cattle.....
Horses..... Hogs..... Sheep.....
I have..... acres in corn.

NAME.....

ADDRESS.....

Broiler Growing For Profit

Best Feeding Methods to Make Weight

BY L. H. WIBLE
Chanute, Kan.

THE breed from which we have been able to derive the greatest amount of profit in the fancy broiler trade are the White and Barred Plymouth Rocks. We have never been able to supply the demand, at a price ranging from 28 cents to 46 cents a pound.

During the first two weeks great care should be taken, both in the feeding and brooding system. A single night's chill means quite a loss to the brood and a setback in their growth. After the little fellows have been hatched about 48 hours they will commence to look around for something to eat. Give them a little rolled oats, the same kind that you cook for breakfast. This may seem like expensive chicken feed, but it is not when you consider that you can send to any mail order house and buy a 90-pound sack for less than \$3, laid down at your door. Be careful not to overfeed, but feed little, and often. Every hour is not too often, during the first week. After they are one week old, feed every two hours, up until they are four weeks old, when the feed should be changed.

It is a good plan to give them a little bran, increasing the amount each day as they grow older, and see that they are never out of it, after they are a few weeks old. After they are about ten days old, also give them a little chick feed, made of cracked grains—equal parts good wheat, corn and steel cut oatmeal. The foregoing formula makes the best chick feed I have ever been able to buy. While it costs just a little more than the commercial chick feed, there is nothing in it to go to waste. The way to feed it is to place it in long, narrow hoppers against the wall, so that the chicks cannot get into it and scratch. The idea of compelling a little chick to scratch, is all bosh, as the little fellow can hardly get enough feed into his system to give him the



For the broiler business, White Rocks are not to be excelled.

proper growth. Continue these feeds until they are about one month old. From the time they are 16 to 18 days old, the chick feed and bran should be before them constantly, with a sufficient amount of pure, fresh water. This will keep the little fellows growing like weeds. It is also advisable to give them green stuff, such as lettuce, radish tops or sprouted oats, cut up fine. After they are four weeks old, gradually commence to feed them mash composed of 1 part ground wheat or mill

run, 2 parts corn meal and 2 parts fine rolled oats. Mix these together and moisten with buttermilk or water, milk preferred, until it makes a stiff batter. Never feed more than they will readily eat. After getting them accustomed to this feed, we feed all they will eat four times a day regularly—7:30 A. M., 11 A. M., 3 P. M., and 6 P. M.

We have been very successful in raising broilers by this method. While there is no set rule as to what is the most successful method, yet I think that with proper brooding and housing and feeding, such as I have attempted to explain, almost anyone should be able to produce a broiler weighing from 1½ to 2 pounds in eight to nine weeks. This can be done with any of the American, English or Asiatic varieties.

These prices I have mentioned are paid for nothing but first class broilers, and not mixed shipments. They must be uniform, or of one kind or variety in each coop, as they are sold by the coop, each containing 50 broilers. In order to bring the top price, they must be a clean, yellow-legged variety. The market is generally the best about April 15 to May 10. Any reliable poultry dealer in Kansas City, Denver, Chicago or St. Louis will quote you prices upon request, during this season. The price is hardly ever below 30 cents before May 15.

First Aid to Ducklings

BY L. B. ANDERSON,
Nevada, Mo.

I have spent years in breeding and showing Pekin ducks. In raising ducks for any purpose everything must be kept clean about their quarters. Young ducklings should never be fed when first hatched for at least 12 hours. After that period I feed for a day or two from a small pan and thereafter the ducklings eat from little troughs made especially for that purpose. Water is kept before them at all times. This, I find, is very essential to successful duck growing.

Another very important point to observe is not to allow food to accumulate and sour. Keep the feed and feed troughs absolutely sweet. After three days, as a rule, I allow the ducklings to run out on open range for I find they grow and develop much faster. With plenty of water to drink and shade to lounge in they are contented to stay close. Open range is best but thousands are raised every year in small enclosures.

I am under the impression that the principal reason why many amateur duck raisers do not succeed as they should is because they allow the quarters to become dirty and damp. Ducklings cannot thrive in damp, dirty quarters.

This ration matures ducks quickly: Equal parts corn meal and wheat bran, with five parts fine sand or grit (don't leave the sand or grit out) and 5 per cent beef scraps. This ration is ex-

ceptionally good for laying ducks but when preparing them for market feed two-thirds cornmeal to one-third, wheat bran. Never feed unless you have a good supply of water near the feeding troughs. Ducks will take a drink with almost every mouthful of food.

Ducks are easily raised and if you follow these rules you will mature 90 out of every 100:

Young ducks need plenty of water to drink. The water should be deep enough so the duck can get his whole bill under and rinse the nostrils. If this is not done the nostrils become clogged, the eyes affected, and the ducks sicken.

Eight weeks' old is the time for the ducks to bathe or swim. They should not swim until they are full-feathered, otherwise they take cramps and die.

Keep ducks out of the hot sun and feed them five times a day when small. If fed often they will not go five feet from their feeding troughs but will lay and stretch, and grow.

Nevada, Mo. L. B. Anderson.

There Is Money in Geese

I consider the raising of geese one of the most profitable branches of poultry raising on the farm. We began to raise geese two years ago starting in with six. We raised ten the first year and nine this year. We find they are very easy to raise as most of their feed is green stuff which they get on the pastures. They don't need any kind of grain as long as they can get green feed.

We sowed about 2½ acres in oats and the geese lived in that until the oats were ripe. Then we let them run in the

pasture. In the fall when the pasture was dead we let them run on the alfalfa. Geese do well on alfalfa. At picking time we pen them up, pick them and then turn them out again until time to pick them again. We give them no attention except to water them every day. Next to geese I think turkeys are the most profitable birds in the poultry line.
M. L. Fletcher.
R. 3, Longton, Kan.

Getting On With Turkeys

BY MRS. E. A. ROBINSON,
Adrian, Mo.

Turkeys should be hatched and raised when their food is most plentiful. From May on there are insects and plenty of sprouting weed seeds. I have a small lot fenced with high wire netting and four or five barrels in it for nests. I pen the hens early in the morning and let them out after 3 o'clock. In this way I get all of the eggs. After they begin to sit, I give each hen about 15 eggs. If there are more eggs than the turkeys can cover I set them under chicken hens, so they will all hatch at the same time.

A few days before the eggs begin to pip, I take those out from under the turkey hens carefully, and put them under good motherly chicken hens, just leaving one or two under the turkeys so they will own the little ones. When they are hatched I put them in boxes lined with flannel cloths, being careful not to have too many in a box. I do not feed them until they are at least 36 hours old, and then they get hard boiled eggs. Not much but often, with plenty of sand, is my feeding rule.

When they are three days old I put them out with the turkey hens in a wire pen, with high boards around the bottom, so the little ones will not run away until they get used to the hens. Here they are fed cornbread and oatmeal. After two days they are turned out in the meadow to roam, because it is their nature to run and hunt their own food. When three or four weeks old I feed them once a day when they come home at night. This is a light feed of cornbread and oatmeal and plenty of grit and water. The old ones get grain for their feed.

They should be greased with melted lard every two weeks, old as well as the young ones. When they are from six to eight weeks old I make perches about six feet above the ground to roost on. The secrets of turkey raising are these: Keep them dry; free from lice; do not overfeed; give plenty of grit; and let them have free range. I have been very successful with these methods.

The Rooster's Appreciation

"I am glad," the rooster said, As he flew down from the shed, "That our owner knows the value of his flock."

Had you noticed with what care He protects us from bad air? How our feeds are timed according to the clock?

"Do you note the quality Of the cereals we see When we labor in the litter where they're thrown? Mouldy grains are never found, But the wholesome ones abound— He's as careful of our food as of his own."

"When the weather's cold and raw, In a shelter we have straw Where the 'adlers' work forgetful of the storm."

We have green foods, grits and meat— Everything we need to eat— When the days are cold the water's always warm."

"Winter quarters are not cold As they were in days of old; And the mites and lice long since were put to flight."

And we always have fresh air— Whether weather's foul or fair— Dusty litter's often 'changed for some that's bright."

"It is seemingly with ease That he keeps us from disease That might ruin all the profits we accrue; But with disinfectants free He keeps all in purity— And we always pay the mortgage ere it's due."

"Every year he keeps the best To lay 'money' in the nest, While the culls are sold to feed the city's throng."

He keeps only purebred stock— Wyandotte or Plymouth Rock, Orpington or other standard fowl that's strong."

"We appreciate the way We are cared for day by day, And the nests are filled with eggs ere set to lay."

O, it makes our hearts rejoice When we hear the master's voice As he gathers eggs and says, 'My flock, well done.'"
—John P. Ruppenthal.
Russell, Kan.

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Apples—Spray As You Enter

Pruning and Cultivating, Mike Bauer Says, Are Indispensable

BY F. B. NICHOLS
Field Editor

"APPLE growers in northeastern Kansas who prune, spray and cultivate their trees properly can make good money from the business. Well managed orchards will pay well, but the time has gone when shiftless methods will give a profit. If a man is not willing to handle his orchard properly, he should get out of the business, for it is certain he will not make much money."

So said Mike Bauer, who handled 25 acres of orchard land in 1913 near Wathena. Mr. Bauer's apple trees did so well—in a season, too, when the unsprayed orchards produced almost nothing—that he has leased about 40 acres more of orchard from his neighbors. This leased land was taken on a five year contract.

As to Leasing.

"It is possible to earn money in most communities of the apple growing sections near here by leasing orchards and using proper methods to bring them into profitable bearing," said Mr. Bauer. "Almost every neighborhood has some discouraged persons who are not willing to adopt better methods in orchard care, and in almost every case they have orchards that are not paying expenses. Such farmers usually will give contracts that are favorable to a man who wishes to lease the place. The man who takes over an orchard of this kind should insist on a lease at least five years long, and it would be better if it could be made longer."

Many of the orchards Mr. Bauer has taken over in that and other years have had an amazing growth of brush, which prevents the tree from doing a good job of apple bearing. The aim has been to prune for the open center always; for plenty of light is essential if the apples are to be properly colored. The pruning proposition is quite a serious one around Wathena, anyway, as the soil is very rich, and the trees tend to make a good wood growth. It is only by keeping at it every year, and by removing at least some wood from the trees every winter that they can be kept in the proper condition.

Shaping Takes Time.

Mr. Bauer has not found that it is always possible to get good tops in a neglected orchard by one or two years' work. Some tops never can be shaped up well; indeed some are so bad when the work is started that it takes two years or more before all the unnecessary limbs can be removed. In one orchard which Mr. Bauer leased he almost covered the ground with brush, but he did not remove a very high proportion of the growth he intends to eliminate. He did, however, saw out all the growth that it was wise to take out in one winter.

The limbs are always carefully sawed close to the trees, and the wounds are painted with the Sherwin-Williams tree protecting preparation which Mr. Bauer believes is a better protector than ordinary white lead. He does not paint the wounds at once, but waits a week or so, as better results have been obtained on the trees where the painting was delayed. There is a great deal of painting to do on an orchard that is being cleared up, but the trees that have been handled properly require little painting. The undesirable limbs are removed when they are small.

The trees are always summer pruned, and this has been found to be profitable, as the undesired growth can be removed much more quickly at this time than later, for it is very soft. Much of this pruning is done by the workers running their hands, encased in gloves, over the limbs, and thus rubbing off the water sprouts. It is much less work to rub off these sprouts at this time than to cut them out, one by one, later.

The orchards owned by Mr. Bauer were sprayed five times in 1913, and they will be sprayed six times the coming season, for an extra dormant spraying will be given. One dormant spray already has been applied, so the spraying season for 1914 got an early start at Wathena. The main reason for the great attention given the dormant spray is the San Jose scale, which is quite

abundant in the Wathena orchards. Incidentally, this orchard pest has done a great deal to encourage better spraying methods among Wathena farmers; for after this insect has obtained a start in the orchard the trees will be ruined unless they are protected with sprays. And, also, the law usually takes a hand, and the Kansas Entomological commission will spray the trees whether the owner wishes it or not, and charge up the cost to the owner just the same as taxes.

The dormant spray Mr. Bauer put on his trees in December was mixed at the rate of 11 gallons of commercial strength Sherwin-Williams lime-sulphur to 250 gallons of water. This is stronger than the usual application, which generally consists of 9 or 10 gallons of commercial lime-sulphur to 250 gallons of water. The second dormant spray will be given in the spring just before the foliage starts. A spray solution of the strength used would burn the foliage if it were on the trees.

The second spray will be applied this spring before the buds open, and it will consist of 7 gallons of lime-sulphur and 7 pounds of arsenate of lead to 250 gallons of water. The third spray is the calyx spray, and it is the one that is especially aimed at the codling moth. It is mixed at the rate of 7 pounds of arsenate of lead to 250 gallons of water, and it is applied at a good pressure, never less than 225 pounds. Every effort is made to do especially good work with this spray, and to get a little poison in every calyx cup. This is essential, as about 80 per cent of the codling moth damage in the unsprayed orchards is through the calyx end. If there is a deposit of poison there, the first meal of the worm is his last, and the apple is saved.

The fourth spray is applied three weeks after the calyx spray, and the mixture is the same. The same application also is used on the last spray, which was started July 10 last year. Mr. Bauer owns a Cushman sprayer with a 4½ horsepower engine. Two leads of hose are used, with two nozzles to the lead. The machine has a tower and one man is placed in it. The object with the spraying is to go slow, and to do a good job on every tree before moving on.

"Cultivation is one of the very important and much neglected features of apple growing in this section of the state," said Mr. Bauer. "No orchard that contains a growth of high weeds ever will make much of a record as a fruit producer. I am a believer in cover crops, and among these I think very highly of clover, especially for the hills. There also is a place for alfalfa on some of the orchards in the Missouri bottoms, below the Wathena hills, and I intend to use this crop on one of the orchards down there."

Clover, a Cover Crop.

There is a marked interest just now in clover as a cover crop for orchards all along the Missouri river, on the loess formed hills. This interest is especially keen around Omaha, where the soil is much the same as it is around Wathena. The main objection to clover is that there always is the temptation to cut the crop for hay. This should never be done; if the best results are desired the crop must never be removed from the land. It should be cut and allowed to stay on the orchard, where it will form a mulch.

Mr. Bauer produced, on the 25 acres of orchard he controlled in 1913, 1,400 barrels of No. 1 apples and 600 barrels of No. 2 apples. Part of these apples were placed in storage, and a part was sold at picking time. While Mr. Bauer stores some apples almost every fall, he is not especially enthusiastic over the proposition, for he has found that it does not always pay. Some years he has made remarkably good profits from keeping his apples for a few months. Mr. Bauer ships his fruit and he has worked up a good trade in southeastern Kansas and other points farther south. This is somewhat unusual, for a very high proportion of the Wathena apples are shipped north.

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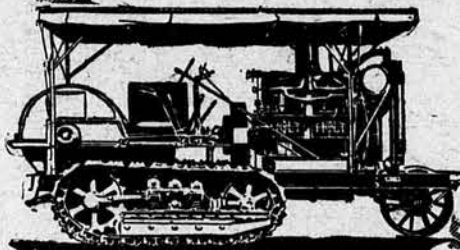
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Moline, Illinois



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When the Doctor's Not There

Children's Diseases Merit Careful Attention to Avoid Future Trouble

BY A. P. REED, M. D.



WE STILL have children's diseases with us, but thanks to preventive medicine they are neither so plentiful nor so virulent as a few years ago. In such diseases as measles, scarlet fever and diphtheria we get a run of fever and calls for cooling things, most often water, which as a rule should be given freely. In all cases of fever a cool head and warm feet is the most salutary condition, while a moist skin is also a preventive of the temperature going higher.

One should not sweat a patient severely except for a short interval and then as per the doctor's direction; but a dry, parched skin is to be avoided. In all these fever diseases much of the patient's danger lies in getting well too fast. In the case of children they brighten so quickly and so much when convalescent that we are too prone to make a tendency to engage in play as a signal for indulging it at once, and a tendency to activity as a signal for a summarily letting a child be up and about, whereas this may be his undoing.

Measles and Afterward.

Both tuberculosis and some obstinate nerve affections may follow measles, scarlet fever and diphtheria from the patient's getting around too soon; while in the case of scarlet fever, Bright's disease may develop several weeks after the patient is apparently well. Hence, though it may seem foolish and a hard thing to do, it is wise to keep these patients in at least a couple of weeks even after they are apparently all over the disease.

In the case of whooping cough there seldom is a fever condition without a complication. These patients need an outdoor life, with the only precaution that they must avoid undue exposure to cold and damp. In weakly children tuberculosis may also follow whooping cough, and the general health and strength need to be well economized and fortified. The severe paroxysms of coughing in this disease may be modified somewhat by pressing the lower jaw forward and downward. This is easier done with older children. With the younger ones a method that is often quite effective in moderating the severity of these paroxysms is that of raising both hands high above the head and holding them in that position while the spell is on.

Of course, in letting the patient out of doors we must be careful not to expose others to the disease, and hence the patient must be well away from all other children. Don't look lightly upon this precaution, since whooping cough is always a more serious affection than people commonly suppose. It has quite a mortality when contracted under six years of age and often leaves either exhaustion or tubercular trouble in the case of the older ones, who may die as a result of it.

The tendency to vomiting in this disease makes it necessary in some cases to feed little and often rather than to have very much on the stomach at any one time, if we are to keep the patient well nourished, which we must certainly try to do.

Wrong Feeding.

Outside of contagious disease a large per cent of children's diseases are due to wrong feeding or over feeding. From these causes we have a large infant mortality. It has been estimated that one baby dies out of the world every twenty seconds. The dietary errors include a number of things that are within the control of all of us, such as poor sanitation, impure milk, fly and mosquito contamination, and dirt generally.

To be absolutely clean is the secret of it all.

Water is fully as important a factor in childhood as in mature life, and it is probably true in the way of disease prevention that children would often require less medicine if they received more water. Especially is this true with children too young to ask for water. These far too often, I suspect, needlessly suffer for want of it, since mothers from habit think more often of food than water, while food may only add fire to the fuel that is making the baby cry.

Children with diarrhea need more water than usual to make up for the greater drain on the fluids of the body. A child crying when it urinates is frequently helped by the giving of more water to dilute and make more bland an irritating urine. Even the vomiting of children will sometimes yield quickly to a few teaspoonsful of pure water at intervals. When children are sick they need the trained and educated hand to manage their troubles even more than adults, since they are often harder to understand. So while you should keep your courage with the old saying, "Never despair of a sick child," yet it's a pretty good precaution to send out early for the doctor when you don't thoroughly understand the trouble.

Women As Political Housecleaners

Women are born hustlers. As soon as the weather warms up in the spring the housekeeper wants to start on a crusade through the family dwelling. She fairly longs to be at it. If she has old fashioned carpets she pulls them up and drags them out to the clothes line. If she has polished floors she wants some refinishing done. In either case she changes the furniture around, and shifts all the bedsprings. The typical woman believes she can improve things, and she is eager to do it.

Not long ago I heard a man say, "Oh, politics is just the same old story over and over. Those in power abuse it, and a reform movement finally throws them out, but in the course of time the new folks in power are no better than the old ones." Now, every woman knows that she has to clean her house today, regardless of the future; in fact, she has to give it her continued attention. Will women show the same devotion to political duties? They, too, have to be done over and over.

Once upon a time I heard a woman say a funny thing. She told me she was worried because her husband was getting mixed up in politics, because it would be the ruination of him. Her idea seemed to be that he would neglect his business, form bad associations, and come home drunk at night. And possibly he would, for such things have happened.

But we are living in a new era now, or at least we ought to be. Politics is a matter for our thoughtful attention; yes, more than that, for our reverent attention. Men see in politics the supervision of business. Women see in it the outside regulation of all that affects the home. Maria Sams.

Time to Think About Roses

[Prize Letter.]

The month of May is the time to start a bed of ever blooming roses. It is not so difficult a matter as many seem to think to get these roses to grow and bloom. And when they once are started they will live for years without further care, except for a mulching of leaves in winter. Get the year-old plants; order

what will be best suited to your locality.

Prepare the bed by digging down a foot or more, throwing out the dirt and filling the space with well rotted cow manure or compost. Roses like plenty of sunshine, so do not put them under trees or in the shade of buildings. If when your roses come they seem wilted and the leaves yellow put them in warm water and let them remain several hours. Put them all under, root and branch. After taking from the water pick off all dried or yellow leaves and put them in the ground immediately.

Put the roots well down, fill in with dirt, and press firmly with the foot. Keep the soil around the plant well stirred so it will not become hard and cracked, thus letting the air in to the roots and killing the plant. When they have started to growing well mulch the bed with grass cuttings, and water occasionally. You will be well repaid for your work, both in fragrance and beauty. Mrs. J. C. Tague. Douglass, Kan.

Almost Ready For Housecleaning

We can do many little things now which will save time and patience in the busy season. Where new paint and paper are needed these may be bought early, to be ready when needed. Some rooms if painted before cleaning time will be dry and ready for papering. The men folks can do the painting on rainy days, and if any of the furniture needs repairing get that done now. Make a list of everything that needs fixing, and as fast as it is repaired check off the list. It will be so nice when the rooms are clean to have everything fresh and whole to put back into them.

White table oilcloth makes nice covers for dressers and washstands, especially in bedrooms which are in constant use, as it can be easily kept clean.

Bedrooms should be simply furnished so they can be kept sweet and fresh with little work.

All bedding should be hung out on the clothesline in the sun at least once a month—every week would be better. It is generally known that feather beds are not healthful, but as the older people still cling to them they should be kept as clean and wholesome as possible. Let them be aired well every day and put out in the open air as often as possible.

If they need washing remove the feathers from the tick, wash them well in warm, soapy water, and rinse in several waters. Place newspapers on the floor of an empty room, where the sun shines, spread the feathers to dry, and put screens in the windows to let in the air. Stir the feathers often, whipping them well once or twice a day, and in a few days or a week they should be dry and light and as good as new. This work should not be done until warm weather.

Feathers may be washed in the tick, if great care is used in drying them. They should be stirred and shaken often, to keep them from souring. March is a good time to wash ticks, for they can then be hung on the line in windy but not freezing weather. It is hard work, however, as they are so heavy to lift and shake, and I prefer taking them out of the tick. Pillows may be washed in the same way.

Lace curtains should be washed carefully if old, and any torn places mended before washing. Starch and stretch them out, pinning at each scallop to quilting frames. Or have frames made especially for this purpose of board strips three inches wide and a foot or so longer than the curtains, with shorter strips across the ends, a little longer than the curtain is made. Wind these with strips of white cloth and fasten the frames at the corners with thumbscrews. The frames may rest on chairs or anything the right height. If you wash the curtains on a bright, warm day you can put the frames out of doors so the curtains can dry in the sunshine, but if thoroughly washed they will look well dried in the house in a room where there is no dust or smoke. You can pin two or more on the frames at the same time, as they will dry quickly. When dry they will be as smooth and nice as new, without ironing.

The growing of clover and deep-rooted plants is profitably practiced with most soils, and subsoiling is profitably practiced with some soils to increase their water-absorbing capacity and to enable the corn roots to use the soil to greater depths.

-Latest Spring News-

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NS149—One of the latest skirt designs. Of stylish Honeycomb Cloth, a pretty, serviceable material in black- and-white or solid color black, navy, blue, gray or tan. In front two broad flaps suggest the very fashionable Balkan girdle and slight draping is prettily caught beneath a button-and-loop trimmed fold. (Size: 22 to 30-inch waists and 37 to 43-inch lengths.) Here's \$2.75 value. Special, postpaid in the U. S., \$1.49

Standard Mail Order Co.
Dept. 222, New York City

HOME DRESSMAKING

These patterns may be had at 10 cents each from the Farmers Mail and Breeze.

The work apron 6605, is made without long sleeves for summer wear. The pattern is cut in three sizes, 34, 38 and 42 inches bust measure. Size 38 requires 4 1/2 yards of 27-inch material.

The ladies' waist, 6555, is easy to cut and to make, the pattern being in one piece. The pattern comes in six sizes from 34 to 44 inches bust measure. Size 36 requires 1 1/8 yards of 44-inch material and 3/4 yard of ruffling.

The ladies' skirt 6603 is made in four gores. The pockets at either side of the front are features which lend novelty. The pattern comes in six sizes



from 22 to 32 inches waist measure. Size 22 requires 2 1/2 yards of 36-inch material.

The little kimono apron, 6600 may be worn without a dress in warm weather. The pattern may be secured in sizes from 2 to 14 years. The eight year size requires 2 1/2 yards of 27-inch material and 1/2 yard of 27-inch contrasting goods.

Soft woolen material may be used for the ladies' dress, 6552. The pattern is cut in six sizes from 34 to 44 inches bust measure. Size 36 requires 4 1/2 yards of 44-inch material with 5/8 yards of 18-inch lace, and 3/4 yard of 24-inch satin for a girle.

USE THIS COUPON FOR PATTERN ORDERS.

The Farmers Mail and Breeze, Pattern Department, Topeka, Kan.

Dear Sir—Enclosed find cents, for which send me the following patterns:

Pattern No. Size.....
 Pattern No. Size.....
 Pattern No. Size.....

Name

Postoffice

State

R. F. D. or St. No.

BE SURE TO GIVE NUMBER AND SIZE.

Salt placed in a hollow tooth will stop the aching.

Telling Pure Food By the Label

As a general axiom, let me state that the purer the food, the less there will be on the label! It is only the adulterated, weakened, cheapened, altered, mixed product, which needs to explain and fill its label with details. If a catsup contains no chemical preservatives, and no dyes, there is nothing for it to say. It is just "catsup," whose definition we always have held to be tomatoes, spice, vinegar, etc. True, a manufacturer sometimes likes to state specifically that it is "made of fresh, ripe tomatoes, and contains no preservatives or artificial color," but that is because there are so many adulterated brands that he wants you to be impressed by the fact of his product's not containing anything injurious. Generally speaking, the soups and fruits and meats and vegetables, and jams and mincemeat that have only their name and place of manufacture, are the ones above suspicion, says Winnifred Harper Cooley, national president of the Associated Clubs of Domestic Science, in The Mother's Magazine for April. No laws worry their makers; they comply with all laws, and in some cases, were better than the law, until the law caught up with them!

It is the fine print that you must read carefully. Wily and unscrupulous men comply with the law, but know human nature well enough to believe most of us busy and indifferent. They make the print fine, therefore, and count upon the vast buying public's paying no attention to what it says. The words often are printed in nearly the same color of ink as the paper, so that one is apt not to notice them at all.

Until the time when labels are unnecessary, beyond merely stating the name of the food, we can only educate ourselves up to an intelligent understanding of them. It would be stupid to give up all canned and bottled goods. Many are sanitary and excellent, and save time and labor, and fortify us against the invasion of sudden, unexpected company, and serve us in dozens of creditable ways. Just let the label tell; and then heed what it tells you!

The Charm of the Unexpected

[Prize Letter.]

I've just dropped in to ask an unexpected question. It is especially addressed to the very systematic housekeepers. Do you often allow yourself the pleasure of jumping clear over the daily routine and doing something you had not planned? Do try it. There's a charm in taking pleasures unexpected, and freeing one's self from routine for a day, a half day, an hour, or even twenty minutes.

Perhaps your husband may drive up and ask you to take a drive. Do so by all means. It will rest you, please him, and cultivate his gallantry all at one time. He may ask you to take a short walk to look at a new building or something of interest to him. Don't say, "O, John, this is ironing day," but quickly get your hat and go with him, and come home looking a little younger.

Surprise the boys occasionally by proposing to go fishing, and take their chums too. Don't forget to snatch a little lunch to take along. Set the boys an example of enjoying the little things along the way. Move sprightly, as if you were eager for every minute of fun. Forget routine, live in the present. Laugh at the toads, mock the birds, race with the boys, or tell them a funny story. If you do not fish for fish, then fish for fun with those boys. There's gain for both sides.

The trouble with many of us is this: Our pleasures are too well regulated, just like the housework; all planned ahead. The very work of planning them is part of the routine. It gives the mother no chance to jump out of the harness and take a run for the unexpected.

Yes, yes, I know that carefully ordered living must have routine about it to make good, happy homes. We must have it to run the household machinery; but can't you see the need of the unexpected for oil? It lessens the friction. Here is a tired mother who is worried over a garment she is making. She just cannot get it together right. A friend drives up and asks her to take a ride and see the new bridge. She yields. Later she takes up her sewing problem again. It is a problem no longer; she

solves it at a glance. She has gained time and pleasure too.

It is a good plan to have routine in the ranks part of the time, not for a commanding officer always.

Some people want the large pleasures carefully planned. Others cultivate the habit of finding little pleasures every day. Many just long for undefined pleasures and make no effort to secure any. Would it not be a good plan to give and take unexpected ones often and by united effort break the monotony of life, thereby giving a chance to cheerfulness to take a rise? The unexpected calls me.

The Widow Wrongtitle.

So Things Won't Go Wrong

[Prize Letter.]

When running a curtain rod through sheer curtains use a thimble over the end of the rod to prevent tearing the curtains.

A little kerosene on a soft cloth will brighten up hard used furniture. Do not use it on the fine finished pieces, as it will impair the gloss.

When you have window shades, the lower part of which is soiled and faded by exposure to the light or cracked by the wind, remove the shade carefully from the roller and hem what has been the upper end. Then cut off the old hem and tack the raw edge to the roller. Run the stick in the new hem, and you have practically a new curtain.

Many persons who use gasoline for cleaning complain of a dark circle formed around the spot. A pinch of salt dissolved in the gasoline will obviate that trouble.

Obstinate dresser drawers will run easily if removed from the dresser and the lower edges rubbed with soap.

Mrs. C. B. Law.

R. 3, Hill City, Kan.

A Successful Farm Laundry

The organization and successful operation of a farmers' co-operative laundry at Chatfield, Minn., is a matter of interest to farmers generally. No one thing, perhaps, would do more to lighten the burden of the overworked farm woman than the elimination of "blue Monday." The laundry at Chatfield is operated in connection with a co-operative creamery and manned by the same officers and directors. The two companies are run separately, the laundry paying a reasonable rental to the creamery for the use of a part of the building. Modern laundry machinery was installed at an expense of \$2,600 and an experienced laundry worker employed as superintendent. Seventy per cent of the stock is owned by farmers. During the first year of operation, which has just closed, the receipts were \$5,403. Seventy per cent of this was paid out for wages. A 10 per cent dividend to patrons was declared and 6 per cent additional to stockholders.

Chatfield is only a small village and the laundry is almost purely an open country proposition. Coarse clothing of all sorts—overalls, rugs, bed-clothing, as well as the finer fabrics—are handled at a charge of five cents a pound for washing and ironing. An extra charge is made for ironing fancy pieces by hand.

This is the first farmers' co-operative laundry in the United States and its success is encouraging to rural workers everywhere.

Mothers' Thanks For Mr. Capper

Personally, I want to thank Mr. Capper for the part he is taking in the suppression of the white slave traffic. He may never know the amount of good he is doing, and can never know of the thousands of mothers who are praying for God's blessing to rest upon him this moment. Go on with the good work, and may God in His power and mercy aid and bless him.

Joe Switzer.
 Strawberry Ridge, Pa.

Soap Made From Cracklings

This is a good recipe for soap made from cracklings: Fifteen pounds of cracklings, 4 boxes lye, 1 pound borax, 2 pounds rosin, 8 gallons rain water. Boil one hour. Mrs. R. I. Nicholson.

R. 7, Paola, Kan.

To produce a maximum yield, corn roots require warmth, a certain amount of air, and considerable moisture.



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of your methods of drainage and tillage and of your growing crops—with and without fertilizers. Such a record will enable you to study and improve the conditions governing their growth and will help you to better profits next year.

Let the Kodak at \$6.00 and up, or the Brownie from \$1.00 to \$12.00 keep the record.

Your dealer has them. Ask for a catalogue, or we will send it free by mail.

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OFFER OPEN TO 1 MAN IN A TOWN

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Free Course in Salesmanship and push you towards success. You don't need capital nor a stock of goods to get a start. Some men I started earn as high as \$5000 a year after a few years. One man writes us

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On Easter Egg Afternoon

Cotton, Pencils, Dyes and Ink Are Needed

BY LUCILE BERRY



Very probably you will want to make some sort of an Easter egg that is different from any Easter egg you have ever seen this year. You may want an especially pretty egg for your teacher, or wish to surprise some friend with a comical looking egg. It's great fun to fix them up. Can you remember how important you felt when you were old enough to help do it the very first time?

On Easter egg afternoon, slip on a big apron, one that will cover you all over, in front and in the back, at the top and bottom of your dress. Just as sure as you leave the tiniest hole uncovered, something will spill or splash and hit that very spot. Roll up your sleeves, too, and forget that your hands were intended to be white, until the eggs are colored. You'll have a merry time scrubbing up when it's over, and probably your hands will be a little pink or green or blue for a few days, in spite of all the soap on the farm. Your mother can tell you how to boil the eggs for coloring and how to dye them, but she may not know of some

find the brownie face grinning up at you from the egg. Go over it next with ink.

His suit can be made of almost any material. An old black or brown stocking is just right. The pattern for his clothes is cut in the shape of the pieces shown in the diagram. Cut paper patterns first and fit them to the egg to be sure they are the right size. Of course, the pattern shown is not large enough. At the top is the pattern for his cap. The dotted lines show where the seams are to go. The back of the jacket is the piece next lower and the front of the jacket is below that. You will need to cut two fronts after the same pattern. The trousers pattern is below. Cut two of these pieces, too.



The arms and legs are stuffed with cotton or rolls of muslin. You can put on a little necktie if you wish. When his clothes are finished, slip them on him, trousers first and then the jacket. Glue them in place here and there, then stick on his cap.

Who has ever heard of radishes for breakfast on Easter? You can make them from eggs quite easily. You will need a hard boiled egg that has been dyed red for this. Cut little oval shaped pieces out of green tissue paper. Make them about 2 inches long. Fold each piece lengthwise through the center, then slip a hatpin tight up in the fold, and holding the leaf in place with the hand, crush the points of the oval toward each other. Slip the hatpin out, and you have a crimped leaf. Glue several of these leaves on the large end of the egg. Take a little piece of cotton, color it in the red dye, then twist it into a point and glue it on the other end of the radish.



You can make little Foxy Grandpas from eggs by marking the brownie face on them farther down than you did on the brownie eggs.

To make a bald-headed old man, paste or glue cotton on each side over his ears, and put a little fringe of it around the back of his head. You've heard people say that So-and-So is as bald as an egg, haven't you? You can make different kinds of men by pasting whiskers of cotton on in different ways, and parting their hair differently. Paste a little pad of cotton on the bottom of the egg so it will stand alone, then cut a little white collar of paper, and put it around to cover the pad. Finish the bottom with a bright necktie if you like.

Ask Father and Mother to Help

You probably have heard your mothers and fathers tell of some very interesting things that happened to them when they were boys and girls. Doesn't it make you wish you had lived in "an early day" when you hear their



The Pattern for the Brownie's Face.

stories about Indians and buffalo? If you are not more than 15 years old, we want you to write us a letter—we don't care how many letters come from the children of the same family—telling about something that happened to either your mother or your father when

they were young. The girls are to write about the things their mother tells them of, and the boys are to write about the most interesting experience father had. Maybe nothing very exciting occurred in your mother's life. Then write us a letter telling about the kind of clothes she used to wear, how they used to cook, the place where she went to school or something of that sort. A good, jolly letter about one of mother's queer old hats would be just as interesting to us as a story of something thrilling. It's the same way with fathers. If your father didn't come to Kansas from the East with his parents when Kansas was new, tell us something interesting that he did do, the games the boys used to play, the kind of knives they carried, a whipping he got in school or anything else that interests you. Remember that anything that interests you will interest someone else. If you need to, draw pictures to illustrate your letters.

For the best letter from a girl, a signet ring will be given; for the next best, a bone brooch, and the third best, a coral necklace. The boy who writes the best letter will receive a fountain pen, the one sending the next best, a set of ten tools in one handle, and the third prize for boys will be a handy atlas. All letters should reach this office not later than April 20. Address The Junior Contest Editor, the Farmers Mail and Breeze, Topeka, Kan.

My Kitty.

Yesterday my kitty died.
Yet this morning by the side
Of our house a song bird came,
And it warbled just the same
As it did before my loss;
And the bushes just across
From the barn sang when the breeze
Struck their twigs; and all the trees
Acted just as glad and gay
As they used to every day
'Fore my kitty died! The sun
Shined with brightness. Never one
Seemed to know how much I cried
'Cause my kitty died.
How can all the world smile on
When my precious one has gone?
How can joy and happiness
Still exist while my distress
Seems to flood this great big earth?
Can't they understand the worth
Of the dreadful, awful blow
That has fallen on my heart?
Why I thought myself a part
Of the world; thought when I sighed
I would find that all had cried:
Yet the sun shines just the same
As before my sorrow came!
—A. W. Utting in N. Y. Times.

Rabbits and Dogs Are Unfriendly.

I am a girl 5 years old. I live in the country three miles from town. For pets I have one large brown dog with a ring around his neck and one small dog that is all white. They are both nice to play with. I have one big kitty, I had two nice white rabbits, but the dogs killed them.

Eulalia Beatrice Jenkins.

Louisburg, Kan.

Don't Harm a Bob White

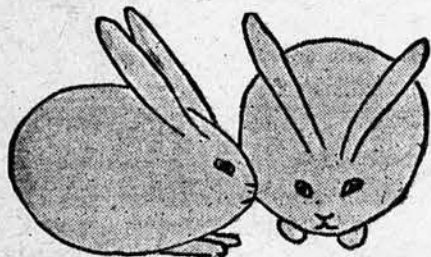
The quail is one of the most valuable of all small birds to the farmer. He is a bird of dark brown color, except for the throat which is white and the breast which is mixed with brown and white. Bob White is a plump little fellow, a little smaller than our tame pigeon.

He is the neatest little architect you ever saw. In the early spring, Bob White and his happy little wife start out to seek a good location for their home. They put it among the tall grasses in some out of the way place, where they are not likely to be in the farmer's way. When the little nest is woven, it is oval in shape with just one little round door for Mrs. Bob White to enter. Inside of the little house as many as 18 or 20 snow white eggs are deposited. From these eggs hatch some of the prettiest and shyest little brown balls of down that anyone ever laid eyes on.

When these little ones are disturbed, they scatter and run in every direction very swiftly. In the early morning the mother takes her brood out to find their breakfast, and this is the time when they are so helpful to farmers. They destroy many insects of all kinds, especially in the hay and wheat fields, insects that would destroy millions of dollars' worth of grain annually. Then in the fall, when weeds are going to seed, they eat millions of weed seeds. They remain in a flock together all winter until spring, when they pair off and new nests are built.

If any young sportsmen get chased off of some farm for shooting quails, they can know why. We are friends of the quail because they are our friends.

Effingham, Kan. George W. Bell.



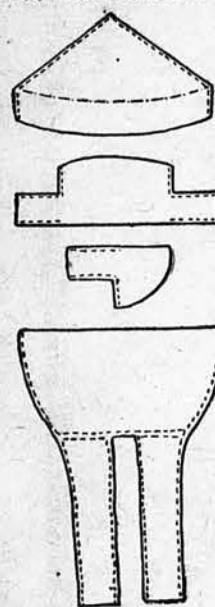
"Have You a Nibble of Cabbage for Us?"

of the little tricks you can use to make unusual looking eggs.

Leave some of the eggs plain white and unboiled for making little rabbits. They are very easy to fix, and the little bunnies will make lots of fun on Easter morning. Shake the eggs, then prick a hole in each end and blow the contents out of the shell. Of course, you could make rabbits out of hard boiled eggs if you do not wish to keep them. Goose eggs are good to use if you have them. Take two little tufts of cotton and pinch and roll them into two long rabbit ears. For the feet which you see peeping out, use two more tufts of cotton and shape them to resemble rabbits' paws.

The small end of the egg is to be the head of the rabbit. Stick the ears and feet on with glue or gum arabic. Draw the eyes and nose and queer little mouth with a pencil first and then go over them with pen and ink. If you make more than one bunny, it might be a good idea to fashion a little nest for them. They look very happy and contented on a green leaf of lettuce or cabbage.

What do you think of the brownie? Wouldn't his jolly old face make any one laugh? It isn't very hard to fit him out with his neat little suit. The egg



that is used for this plump little fellow should be blown, for his slender legs cannot support much weight. On this page you see a face. Trace it off on some paper, then rub a soft lead pencil over the back of the paper until it is covered with black. You'd best go at it a bit carefully or the paper will be torn. Place the face on the little end of the egg, putting the black side next to the shell, then holding the paper so that it cannot slip, go over the face with your pencil. When you take the paper off, you will

A Puzzle For Mail and Breeze Boys and Girls

This girl has come to the place where she is to decide on her career. On the billboard before her she sees a jumble of words, but on looking more closely she realizes that each line of letters when rightly arranged spells the name of an occupation which she might take up. She discovers it first by reading the top line as it should be, Milliner. What are the others? For each of the ten best answers to this puzzle, the Mail and Breeze will give a set of post cards. The answers are judged not only on accuracy, but on neatness as well. All answers must reach this office not later than April 15. Address them to The Contest Editor, The Farmers Mail and Breeze, Topeka, Kan.



The names of four articles of hardware illustrated in the March 14 issue of the Farmers Mail and Breeze are bolt, pincers, wrench and nail. The parts of a tree, bark, branches, leaves and trunk. The prize winners are James E. Sickles, Gentry, Ark.; Max Hilliard, Madison, Kan.; Frank Myers, Glen Elder, Kan.; Elsie Ott, Route 2, Gypsum, Kan.; Nellie C. Gustason, Route 1, Dorrance, Kan.; Katherine Dolan, Route 2, Admire, Kan.; Alvin Woodruff, Route 2, Aurora, Kan.; C. R. Blaylock, Route 2, Bushton, Kan.; Thomas Hershberger, Box 86, Enterprise, Kan., and Ruth Joerg, Randall, Kan.

Lightning Rods Protect

Harrison Parkman, state fire marshal, has come to the defense of the lightning rod. He has viewed the lightning rod, through the medium of fire loss statistics, and finds it good.

"The lightning rod is a good thing," he said recently. "Lightning was the cause of 44 fires in Kansas in the last nine months, causing a total loss of \$230,576. The loss on property equipped with lightning rods was only \$14,861 from nineteen fires. In 111 fires from lightning there were no lightning rods; the loss was \$206,119. Fourteen lightning fires were reported where it was not specified whether the property was rodged or not. The loss from these was \$2,596. So I say the lightning rod is a good thing."

Parkman is preparing a bulletin, in which will be included minute directions for putting up lightning rods, and all the information in the world—almost—on fire prevention.

There were 1,076 preventable fires in the last nine months of 1913, according to Mr. Parkman, causing a loss of \$1,012,228. He lists only 371 as unpreventable, with a loss of \$621,000. Fires listed as incendiary, adjoining, or of unknown origin were not considered in classifying as preventable or unpreventable. There were 898 fires from these three causes, causing a total loss of \$1,659,835.

"The preventable fires outnumber the unpreventable ones, three to one," said Marshal Parkman, "showing that carelessness, after all, is the predominant fire cause. Carelessness yields to preventive methods, and the great lesson of the fire loss last year is the necessity of fire prevention."

The bulletin, when issued, will contain the following "dos" and "don'ts" of fires:

Clean the chimneys.
Have fire proof roofs. If shingles are used, paint them.

Don't hunt gas leaks with a match—you may find the leak.

Ventilating the hayloft thoroughly and refraining from putting up hay while it is moist will prevent spontaneous combustion.

Fires from defective wiring can only be lessened by competent inspection.

Have trash cans. Trash and rubbish fires can be classed as wholly preventable and due to carelessness.

Defective flues are the greatest fire menace of this state. During the later months of 1913 there were 28 fires every thirty days from this cause alone.

The greatest fire danger in the winter months is the defective chimney and the overheated stove. Moral: Inspect chimneys and don't leave the room with the stove draft turned on.

The use of gasoline indoors for cleansing purposes always is dangerous. Gasoline should never be employed to help start fires.

Don't leave matches where children can play with them.

Too many smokers are careless in their disposition of used matches.

Grain on Farms March 1

The crop reporting board of the Bureau of Statistics (Agricultural Forecasts) estimates from reports of correspondents and agents, that the amount of wheat on farms March 1, 1914, was about 151,809,000 bushels, or 19.9 per cent of the 1913 crop, against 156,483,000 bushels, or 21.4 per cent of the 1912 crop on farms March 1, 1913, and 122,025,000 bushels, or 19.6 per cent of the 1911 crop on farms March 1, 1912. About 53.9 per cent of the crop will be shipped out of the counties where grown, against 61.6 per cent of the 1912 crop, and 56.1 per cent of the 1911 crop so shipped.

The amount of corn on farms March 1, 1914, was about 866,392,000 bushels, or 35.4 per cent of the 1913 crop, against 1,289,655,000 bushels or 41.3 per cent of the 1912 crop on farms March 1 1913, and 884,069,000 bushels, or 34.9 per cent of the 1911 crop on farms March 1, 1912. About 17.2 per cent of the crop will be shipped out of the counties where grown, against 21.8 per cent of the 1912 crop, and 20.5 per cent of the 1911 crop so shipped. The proportion of the 1913 crop which is merchantable is about 80.1 per cent, against 85 per cent of the 1912 crop, and 80.1 per cent of the 1911 crop.

The amount of oats on farms March 1, 1914, was about 419,476,000 bushels or 37.4 per cent of the 1913 crop, against

604,216,000 bushels, or 42.6 per cent of the 1912 crop on farms March 1, 1913, and 289,988,000 bushels, or 31.4 per cent of the 1911 crop on farms March 1, 1912. About 26.5 per cent of the crop will be shipped out of the counties where grown, against 30.9 per cent of the 1912 crop, and 28.8 per cent of the 1911 crop so shipped.

The amount of barley on farms March 1, 1914, was about 44,126,000 bushels, or 24.8 per cent of the 1913 crop, against 62,283,000 bushels, or 27.8 per cent of the 1912 crop on farms March 1 1913, and 24,760,000 bushels, or 15.5 per cent of the 1911 crop on farms March 1, 1912. About 48.4 per cent will be shipped out of the counties where grown, against 53.7 per cent of the 1912 crop, and 57.2 per cent of the 1911 crop so shipped.

Corn and Sorghum Seed Beds

At this time the preparation of the seedbed for corn and sorghums should have been in progress for months past, both in the eastern and western parts of the state. In fact, the time to begin such preparation is in the fall, whether it be by listing, disking, or plowing. Some of the preparation is still to be done, however, and it is well to review at this time what has been done, why it has been done, what still remains to be done, and why certain practices are desirable.

The following program for the April monthly meetings of all institutes in the state is, therefore proposed by the Kansas Agricultural college. It is hoped that there will be a large attendance to discuss these fundamental questions.

What has been done in this community in seedbed preparation for corn and sorghums since last fall and why?

What should have been done that has not been done, and why?

What should be done from now until planting time to conserve moisture, eradicate the weeds and liberate plant food?

Be Careful of the Wool Clip

(Continued from Page 15.)

soon detected and the clips packed by such men ever after are received with suspicion. Two strands of a good strong twine each way are sufficient. The ends of every strand should be tied in a hard knot and the fleece should not be tied too compactly. Buyers like an elastic woolly feel.

The wool should be protected from dust and chaff or dirt from the time it is removed from the sheep until packed. Black fleeces or wool containing black fibers, should never be packed with pure white fleeces. It is impossible to separate the black fibers from the white ones and wool that is packed in this way cannot be used for the manufacture of white goods. Ewe fleeces, lamb fleeces, wether fleeces and ram fleeces should be labeled and packed in separate bags and the bag so marked, or if packed in the same bag the contents should be marked on the outside.

Some sheep growers sometimes find it necessary to mark their sheep for purposes of identification, with some kind of branding fluid. Ordinary house or bridge paint is not suitable for this purpose and should not be used. It does not dissolve or scour out and thus ruins all the fibers with which it comes in contact. All of these fibers cannot be removed, thus it often happens that a bolt of cloth is ruined by use of paint. Someone must pay this loss and the grower who uses paint pays it many times, for the buyer always discriminates against such wool. If the sheep must be branded the shepherd should use a fluid that will scour out perfectly, even though the branding must be done twice during the season. The use of a good marking fluid and proper preparation for market will do much to prevent discrimination against home grown wool.

If pastured, sorghum plants that are checked, stunted, or killed during growth may be poisonous to livestock. Heat, drouth, or frost all seem to produce a similar effect. The hay is not known to be injurious; cutting and curing seem to make the poison harmless. It is not known whether putting poisonous sorghums in the silo will give a safe silage or not.

When the soil is loose to a sufficient depth, corn roots penetrate in abundance to a depth of 3 or 4 feet.

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We want you, the farmer who is reading this ad, to stop and consider what this "sold on approval" plan means to you. It means just this: We will ship you a Hart-Parr Oil Tractor, put it to work on your farm, without our getting a dollar down on it and let you decide for yourself whether you can afford to do without it.

There are no strings to this trial offer, either. If the tractor doesn't do what we say it will, and do it right, and at less expense than any other kind of power we'll take it back, pocket our loss and consider the matter closed.

Your business judgment will tell you we could not afford to make this extremely liberal free trial offer unless we were absolutely certain that Hart-Parr Oil Tractors make good in the hands of their owners. We are the oldest builders of oil tractors. Our broader field experience and the way our tractors stand up in actual service, have given us absolute faith in them. For these reasons, we can afford to make you a free trial offer more liberal than tractor builders of limited experience even dare attempt.

And when we tell you that a Hart-Parr Oil Tractor—(1) depending on size, will take the place of 10 to 30 sturdy horses—(2) will do your plowing, discing, seeding, harrowing, harvesting, threshing, hauling, etc., better, quicker and cheaper than horses—(3) will do it all on *cheap kerosene*, costing much less than gasoline or horse feed—(4) is the best, most reliable tractor on the market—(5) is built by a reputable concern, which sells

GREATEST TRACTOR OFFER EVER MADE

tractors, plus service—we can back up every one of these claims with a 12 years' record of fair, square, successful achievement and gilt edged proof. We have letters from hundreds of satisfied farmers who tell us they have put their Hart-Parr Tractors up against the stiffest kind of field and belt work and have found them thoroly reliable, economical and big money makers, year after year.

If your experience, or that of your neighbors, has made you skeptical as to the benefits of tractor farming, you have never given a Hart-Parr Oil Tractor a chance to make good for you on your farm under your particular working conditions. And don't confuse our free trial offer with the "catch" schemes advertised by some tractor concerns. Our free offer is absolutely bona fide in every respect. You don't pay a dollar for the tractor unless you decide to keep it. And you, alone, are the judge and jury in arriving at a decision.

We are meeting the responsible, "willing-to-be-shown" farmer more than half way. Surely, you will not hesitate to invest a penny or two in postage to

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Asking for full information places you under no obligation to accept our offer. We simply want the chance to explain all about it and then leave the rest to your own good judgment. So write us today.



HART-PARR CO.

234 Lawler St.
Charles City, Iowa



As Sturdy as Old Hickory

THIS is the story of an automobile slogan that's nine years old and still true.

Away back in 1905—which really is "away back" in automobile development—the Jackson was as sturdy as the Jackson, or any other high-grade car, is today. It had a two-cylinder motor that was a wonder for power. Wherever the car was put in service it conquered the hills and laughed at the roads. It went everywhere it was asked to go.

So the Jackson Company said: "No hill too steep, no sand too deep." That was the truth then and it's the truth now. The Jackson has **power to spare.**

The beautiful lines of the Jackson Car, its vibrationless motor, its big roomy bodies and deep cushions—plus its known sturdiness proved by years of service—make it the choice of many critical purchasers.

Jackson

"No hill too steep
No sand too deep"

Three Splendid Models Offer Wide Choice

"OLYMPIC FORTY"—115 inch wheelbase, 40 h. p. electric cranking and lighting, complete equipment—\$1385.

"MAJESTIC"—124 inch wheelbase, 45 h. p., electric cranking and lighting, complete equipment—\$1885.

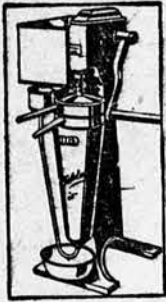
"SULTANIC SIX"—132 inch wheelbase, 55 h. p., electric cranking and lighting, complete equipment—\$2150. Seven passenger model, 138 inch wheelbase—\$2300.

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JACKSON MOTOR CO., 1714 Grand Ave., Kansas City, Mo.

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Patterned after the great world spinning on its axis, the revolving bowl of the TUBULAR has no fixed shaft and no fixed bearing. It is suspended by a flexible steel spindle, its weight being borne by a resilient ball bearing, permitting the bowl to run practically without rocking, with ease, smoothness and precision. Increases the centrifugal force without increasing the speed. The TUBULAR skims close, is easily and quickly cleaned, is built sturdily in all of its few parts. All gears are enclosed. It is constructed to afford a lifetime of durability and consumes little oil. Its suspension is natural and is not eccentric to its center of gravity.

SHARPLES MILKER



The MILKER is in daily use under all widely varying conditions in dairies of different classes, in all dairying sections of the United States and Canada. The teat cup with the upward squeeze is almost human in its ability to adapt itself to the proper way of milking cows of different temperaments. The fresh and heavy milker, the hard milker, the hold-up milker—all are milked as they should be milked.

The SEPARATOR CATALOG and the MILKER BOOK give full details regarding the construction and utility of these dependable SHARPLES products.

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BROWN FENCE
 13 Cents Per Rod Up
 Strongest, heaviest wire, Double galvanized. Outlasts others nearly 2 to 1. Low prices direct from factory. Over 100 styles for every purpose—hog, sheep, poultry, rabbit, horse, cattle. Also lawn fences and gates of all styles. Mail postal for catalog and sample to test and compare with others. Address THE BROWN FENCE & WIRE CO., Cleveland, Ohio, Department 13.

FARM FENCE
 11 1/2 cts. a rod
 17 1/2-4c. a rod for 4 1/2 inch high stock fence; 2 1/2-2c. a rod for a 50-inch heavy poultry fence. Sold direct to the farmer on 30 Days Free Trial. Special barb wire, 39 rod spool, \$1.40. Catalog free. INTERLOCKING FENCE CO., BOX 25, MORTON, ILLINOIS.

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 Be your own dealer. Buy direct from the mill. Get our 40 page money-saving fence and gate catalog free. 164 styles to select from. Factories and warehouses at Glasgow, Kansas, Brazil, Ind., Lincoln, Neb., Denver, Colo., Ft. Worth, Texas and San Francisco. Write today. OTTAWA MANUFACTURING COMPANY, 329 King St., Ottawa, Kans., or 329 Church St., Brazil, Ind.

FARM FENCE
 Before buying, get our factory prices on best quality heavily galvanized, open hearth Bessemer steel wire fence; 26-inch hog fence, 14c a rod; 49-inch farm fence, 23 1/2-4c; 48-inch poultry fence, 27 3/4-4c. Write for catalog. Tiger Fence Co., Box 35, Waukesha, Wis.

OPPER DEATH
 Kills Prairie Dogs and Gophers of all kinds. Endorsed by State Experimental Stations. 1000 tablets prepared for \$1.25. Warranted. Raticide Tablets, 25 cents. Ask druggist or send direct. Booklet Free. F. D. Chemical Co., Ft. Dodge, Ia.

Better Cows, Better Profits

A Story of Development In Two Nebraska Herds, Introducing a Useful Farm Demonstrator

WE HAVE been engaged in the dairy business near Beatrice about 35 years. Until a few years ago our herd consisted of 16 to 40 grade Shorthorn cows, which were bred to grade Shorthorn bulls. The calves were handfed and kept on the farm until they were 18 to 20 months old. After this the steers and surplus heifers were sold as feeders or put in the feedlot and finished with cows that had proved to be unprofitable as milkers.



Purebred Holstein bull calf belonging to the Andreas herd.

It was always our aim to get animals that were good, both as milk and beef producers. Although we obtained cows that were fair in both respects, we had to dispose of many that would put the feed given them on their back, in place of putting it in the milk bucket. Some of them would dry up too long before freshening or were unprofitable for some other reason, nor were the heifers used to replace these cows to be depended on to make good, so it was hard to keep up a herd of all good cows. For this reason we bought several high grade Holstein heifers a few years ago, which were to be had at a reasonable price. All of these did so well that we concluded to purchase a good, purebred bull to use on our grade Holstein and Shorthorn cows, and in this way breed up to a good milk strain mainly.

Last fall when our farm demonstrator O. H. Liebers made his first trip to Wisconsin after some high grade Holstein stock for this county, we also placed an order for a good, purebred Holstein cow, to use as a foundation for a purebred herd. The cow, "Lady Paul Johanna," which we received through Mr. Liebers, is certainly a fine one. She is of very high breeding and shows excellent dairy type and quality. Her A. R. O. 7-day test at 3 years old is 432.3 pounds of milk and 17.6 pounds of butter. She also dropped a fine heifer calf for us last winter.

Some of the main factors in profitable dairying, we think, are the milk scales and the Babcock test. By these means we have found it possible to know just what each cow in the herd is doing and to weed out many cows that were close to the border line. To simplify the

records of each individual cow, we have been weighing the night's and morning's milk of each cow just once each week, using this as an average of the week. We then have the milk of each cow tested once every month. In this way we can obtain a fair estimate of the amount of milk and butter produced by each cow each year without very much extra work. The average production of our herd last year was a little more than 8,000 pounds of milk and 339

pounds of butter for each cow. The best cow produced 438 pounds of butter while the lowest produced only 235 pounds.

Another important factor in dairying is the feeding of the cows. We have found that there is no other feed better and cheaper than silage and alfalfa hay for milk production. Our cows receive all of this roughness they can clean up and added to this they get a small grain ration according to the amount of milk each cow gives.

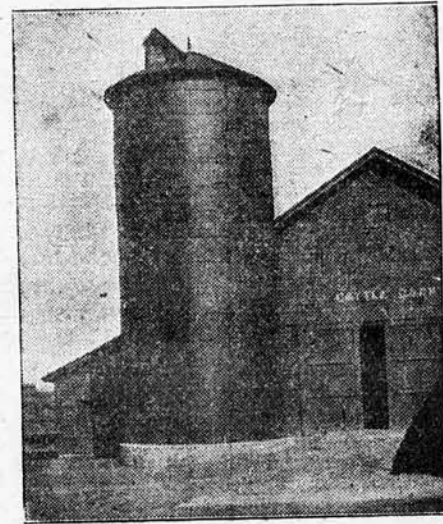
Our experience in dairying shows that by proper feeding, breeding and weeding we can easily raise the dairy standard of our herd which we are now trying to do. Beatrice, Neb. J. P. Andreas.

From Scrubs to Purebreds

I started in the dairy business three years ago, with a herd of 18 grade cows. I immediately began weeding out the poorer ones and have since bought and sold at least 50 head. I had always used a common, grade Shorthorn bull and sold the calves right after birth. I made no attempt to save the heifer calves because I was under the impression that it was cheaper to buy cows than to raise them. Since then I have found out that this is a very expensive and unsatisfactory way of doing business. It is usually the star boarders that are for sale, the good cows being too high-priced to buy.

Fortunately Gage county took up the farm demonstration movement and hired O. H. Liebers as demonstrator. I soon got acquainted with Mr. Liebers and, believing that we can all learn from the experience of others, I had him come out to my farm and advise me. He advised me to get rid of the scrub bull, get a good dairy sire and save the heifer calves from the best cows. I now have 17 cows headed by "Prince," the 2,300-pound Holstein bull that headed the Nebraska Experiment station herd several years ago. I am also keeping a record of my cows and expect to work into the Holstein breed. I am certainly well satisfied with the results obtained by changing bulls.

Since Mr. Liebers has started work here 21 extra fine Holstein bulls and 72 cows have been



Next to good cows, as dairy profit makers, comes the silo.

shipped into Gage county. About half of them are purebreds. We have made a good start towards making Gage county the center of the best Holstein cattle in Nebraska. I think dairying is a good, paying occupation, but it must be treated as a business. During the last year I sold over \$5,000 worth of milk. My cows have paid the rent on the place, all the feed and expenses and cleared up a neat little sum besides. Frank Putman, Beatrice, Neb.

The Way to Good Summer Butter

[Prize Letter.]

Mr. Editor—Poor butter is invariably the result of improperly caring for milk and cream. Milk should be separated just as soon after milking as possible, and the cream cooled just as soon as separated. This cannot be done by setting in a cool place or even in an ice box as air is a slow conductor of heat and cold. The cream vessel should be set in cold water and the cream stirred for a few minutes or until it becomes the same temperature as the water.

We have a cellar under our milk house and in the bottom a cement vat about 3 by 4 feet square extending 24 inches below the cellar floor and 4 inches above. This vat is kept partially filled with water which is always cool and we have no trouble keeping cream in it sweet and pure even in very warm weather. If the cellar is used for storing vegetables, as it should not be, the cream should be tightly covered as soon as cooled. R. E. Bartlett, Oak Grove Stock Farm, Olathe, Kan.

"The prop of the dairy"—a well-filled silo.



My Ten-Year-Old Boy Turns with Ease the BEATRICE Cream Separator

Says Farmer Onswon
 I've been up one side and down the other of this cream separator question for 20 years, and I'm for the Beatrice Cream Separator every time.

The Beatrice is the one high-grade separator that is sold at a reasonable price.

We all have some respect for our pocket-books. None of us farmers want to pay out \$100 to \$125 when we can get the same thing for \$65 to \$85.

Well, that's the cream separator situation. The Beatrice sells at \$85 for the largest size machine, 1000 lbs. capacity. Other high grade separators sell for \$110 and upwards for less capacity.

The Beatrice gives you—
 Clean skimming, easy cleaning, easy running, convenience, long life, big capacity. It skims cold milk as well as warm milk.

Compare other machines with the Beatrice; you'll agree with me that you pay more for them than the Beatrice price, but you do not get as good a machine for your money.

Take my advice and investigate the Beatrice. Write to nearest office below for free catalog and name of local dealer near you.

BEATRICE CREAMERY CO. CHICAGO
 Des Moines, Ia., Dubuque, Ia., Lincoln, Neb., Topeka, Kan., Denver, Col., Oklahoma City, Okla., St. Louis, Mo.

15.95 AND UPWARD ON TRIAL.
AMERICAN CREAM SEPARATOR
 A SOLID PROPOSITION to send fully guaranteed, a new, well made, easy running, perfect skimming separator for \$15.95. Skims warm or cold milk; making heavy or light cream. Two bowls is a sanitary marvel, easily cleaned.
 Absolutely on Approval. Gears thoroughly protected. Different from this picture, which illustrates our large capacity machines. Western orders filled from Western points. Whether your dairy is large or small write for our handsome free catalog. Address: AMERICAN SEPARATOR CO., Box 1092, BAINBRIDGE, N. Y.

SAVE ON YOUR \$ILO
 Be an early buyer and save money on a Kalamazoo Wood or The Silo. Galvanized All-Steel Door-Frame provides continuous opening and safe, convenient ladder. Your choice of The Block Silo or seven kinds of wood—all Kalamazoo quality. Catalog and special offer, free on request. Write today. KALAMAZOO TANK & SLO CO., Kalamazoo, Mich. Minneapolis, Minn., Kansas City, Mo., Ft. Worth, Tex.

Art in Making Good Butter

To convert good cream into good butter under right conditions is easy. But to make good butter at all seasons and under all conditions is quite a different thing. The best of butter makers fall occasionally. To work without proper equipment is poor policy. A separator, a barrel churn and a cold place to keep cream in summer are necessities.

As soon as cream leaves the separator it should be stirred and cooled as quickly as possible and kept in a stone or granite pail until the next skimming. Then it should be stirred in with the new sweet cream which has been thoroughly cooled. Cream should not be left standing in the same pail longer than 24 hours before churning if the best flavor is desired. Twenty-four hours before churning the cream should be warmed to a temperature the same as milk when separated, and kept warm until it begins to thicken. It should then be set aside to cool for the churning. A little warm, sweet buttermilk may be added 24 hours before churning. It is a mistake to keep cream at too low a temperature preceding or at the time of churning. A thermometer should be used.

The cream should be colored if necessary and the churning should be stopped when the butter is about the size of wheat kernels, the buttermilk drained off and a little cold water poured in and drained off. Then a pail of water should be added and the churn revolved about 8 times. The butter should then be left to drain about 20 minutes. A cup of salt to 8 pounds of butter is the usual rule. The butter should be worked by revolving the churn slowly. When it has formed balls a pound or so in size, it is ready for finishing. It is neatest packed in brick molds, wrapped in parchment paper and placed in cartons. If for any reason the butter is not in "ship shape," it should be set aside for the second working.

If the home market is not right, a good way to market butter in pound packages is to secure a refrigerator box and ship it to a city friend who will find good customers. In handling cream and butter it should be remembered that cleanliness is an absolute necessity.

Mrs. R. A. Hammond.
R. 2, Humansville, Mo.

Calf Feeding By Wholesale

[Prize Letter.]

We have a building on the farm in which a space of about 16 by 40 feet is arranged for feeding calves. We feed 56 calves in this space at one time. Our feeder is arranged with an alleyway, 4 feet wide and about 40 feet long. Along either side, and in the alley, is a bench about 18 inches high. The top of the bench is a 1-inch board 12 inches wide with holes of a size sufficient to receive an ordinary milk crock. A crock is placed in every hole and enough milk for a calf is poured in every crock. Outside the 4-foot alley and on either side of it is a space about 6 feet wide. The calves are put in these spaces. Opposite every crock is an opening in which a calf's head can be fastened by means of the same kind of stanchion as is used generally in cow barns, except that the stanchion is a small one. The entire space required for one calf is only 16 or 18 inches. The calf finds his head fast and his nose over a crock of warm milk, so there is nothing to do but drink. As the calves finish drinking the attendant walks down the alley, releases them, washes the crocks and carries the wash water and remaining milk to the pigs. N. L. Bowman.
Garnett, Kan.

These Cows Pay the Bills

[Prize Letter.]

It takes just such dry years as we have had of late to make the average farmer appreciate side lines such as dairying. On our farm dairying has come to be the main occupation and the rest of it is the side line. We began in time to get a start in good dairy cows before the prices went so high so that now we can sell instead of buy and keep only the best cows. We keep Jerseys because we want cream and we always find a ready market for it in the nearby town. We deliver most of it to customers by the pint or quart all through the cool weather and it always brings a

good price. It is also an excuse for going to town and mixing with folks in a business way which gives us a broader outlook on life.

We find the purebred cows pay much better than grades, not that grades are not good milkers for many of them are about as good at furnishing cream as the registered animals, but it is when you come to selling the calves that your registered cow counts. Her calf will bring \$50 to \$75 at an age when the grade would not bring more than \$15 or \$20 at best and the calf money helps considerably.

By milking seven cows and raising alfalfa and other feedstuffs we have been able to pull along without asking the merchant for credit in spite of the wheat and corn crop failures, and on the whole we think it pays better even in the good years than grain farming because it is an all the year round income instead of getting a lump sum about August, with interest to pay on what you have already eaten.

Medford, Okla. Mrs. W. A. H.

A Farmers' Creamery Reports

Farm folks with cream to sell out around Syracuse, Kan., are not worrying much about the creamery trust. The Farmers' Co-operative Creamery association is seeing to it that the short grass dairymen of that community get their just dues, which includes a fair price for cream. Although the organization is doing business in very unpretentious quarters it is said that it brings more real money into Hamilton county homes than any other one enterprise with the possible exception of the Santa Fe railroad, which has division headquarters at Syracuse.

Records kept from November 19, 1912, to December 20, 1913, show that the association bought 40,453.2 pounds of butterfat from 162 patrons. John Webster was the banner patron with 1,453 pounds to his credit. Other patrons who delivered more than 1,000 pounds during this period were: O. E. Blake, 1,354.7 pounds; Z. A. Gould, 1,198.1 pounds; P. S. Martin, 1,258.4 pounds; Wm. Tiefel, 1,347.3 pounds; G. A. Walker, 1,298.2 pounds; H. H. Williams, 1,023.4 pounds.

Air Cure for Milk Fever

[Prize Letter.]

Mr. Editor—The quickest and surest way to cure milk fever is to take a bicycle pump and pump the udder full of air, then tie the teat with soft ribbon so the air can't get out. Never use thread or string. Don't push the pump valve inside the teat, hold it so it will just fit the hole in the teat. Two persons will be needed, one to hold the pump and one to work it. Don't pump too full, for one of the milk tubes inside the udder might burst. If the cow doesn't get well, pump again. As soon as the udder is full of air the cow will go to sleep. To loosen the stomach give 1 ounce of valerian powder cooked in a little water. Give this dose about twice. Onel N. Haugan.
Monticello, Minn.

Care and Feed for Summer Calves

[Prize Letter.]

Mr. Editor—It takes good care and regular feeding to get summer calves in the right kind of condition for winter. I feed my calves until a week old on whole milk, giving them 4 quarts night and morning. After that I begin mixing in some separated milk and at 3 weeks old they are getting half skimmilk. I gradually diminish the quantity of whole milk until they are on skimmilk entirely. As soon as they will eat it, I feed them a mixture of corn chop and bran until 4 months old. They are also turned out on grass as soon as they will graze. Oberlin, Kan. Frank Hoffman.

[Mr. Hoffman would find his calves would do better, by giving them three feeds of milk a day for the first week or two. That is the way nature intended it.—Ed.]

Mr. Capper Doing a Great Work

From reading the Farmers Mail and Breeze I have become thoroughly convinced that Mr. Capper is undoubtedly a good, true type of man. He is doing a great work, greater perhaps than he realizes he is doing. I want him to keep going. His readers appreciate his work and will help him, I'm sure.

Hubert C. Williamson.
Poplar Bluff, Mo.

What a DE LAVAL CREAM SEPARATOR SAVES over any other separator or creaming system

Quantity of cream that no other separator will recover completely, particularly under the harder conditions of every day use.

Quality of cream as evidenced by De Laval butter always scoring highest in every important contest.

Labor in every way over any gravity system, and also over any other separator, by turning easier, being simpler, easier to clean and requiring no adjustment.

Time by hours over any gravity system, and as well over any other separator by reason of greater capacity and the same reasons that save labor.

Cost since while a De Laval Cream Separator may cost a little more than a poor one to begin with it will last from ten to twenty years, while other separators wear out and require to be replaced in from one to five years.

Profit in more and better cream, with less labor and effort, every time milk is put through the machine, twice a day, or 730 times a year for every year the separator lasts.

Satisfaction which is no small consideration, and can only

come from knowing you have the best separator, with which you are sure you are at all times accomplishing the best possible results.

Easily proven—these are all facts capable of easy demonstration and proof to any user or intending buyer of a cream separator. Every De Laval agent is glad of a chance to prove them by a De Laval machine itself—without the slightest obligation on your part unless entirely satisfied.

If you don't know the nearest De Laval agent simply address the nearest main office as below.

The De Laval Separator Co.

165 BROADWAY, NEW YORK 29 E. MADISON ST., CHICAGO
50,000 Branches and Local Agencies the World Over.

Stannard's Processed Crude Oil Kills Lice and Cures Mange.

One application of my Processed Crude Oil will do more to rid your stock of lice and cure them of mange than three applications of any other preparation on the market, for the reason that it kills the nits as well as the lice, and remains on your stock for so long that it thoroughly cures them of mange. Put up only in 32 gallon barrels, and sold for \$5.00 per barrel. Why pay \$1.00 per gallon for a dip when you can get the best for less than 10c per gallon? My PURE CRUDE OIL is an excellent lubricant for all kinds of farm machinery and for painting farm tools to keep rust off. \$4.00 per barrel of fifty-two gallons. See my advertisement of refined oils at wholesale prices in next week's issue. Send cash with order. Address C. A. Stannard, Box M, Emporia, Kan



What One Basket Supper Did

How a Nebraska School Improved Its Playground

BY A. G. KITTELL, Associate Editor

LANE school in northern Lancaster county, Nebraska, is an example of what a little hustling and school pride can do. The picture tells a portion of the story without further comment. Not long ago this was a typical country school set down in a large, bare yard, just like hundreds of other Nebraska schools.

Now this school boasts a well made ball ground, a croquet court, a trapeze, double swings, punching bag, football, and the best flag and pole of any rural school in that part of the state. The flag measures 8 by 15 feet and is "all wool." A neatly built and painted coal house also adds to the slightly appearance of the school yard instead of marring it.

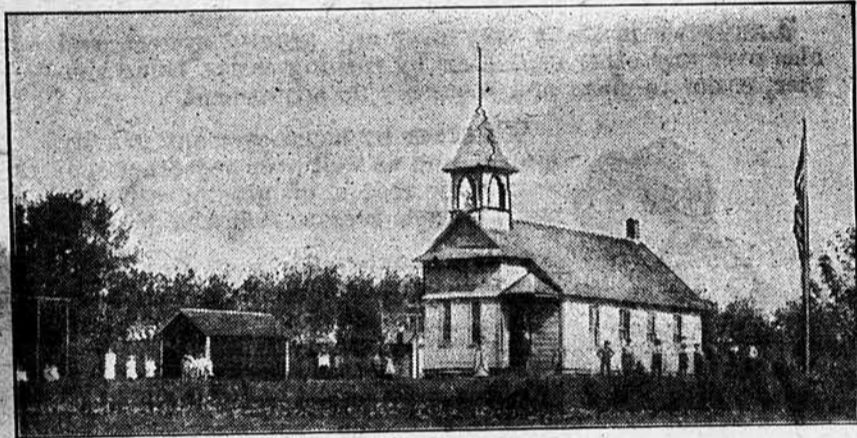
Just one basket supper with the help of an efficient teacher and live school board was responsible for this transformation. When this entertainment was decided upon the children thoroughly advertised the event by making posters after school hours and putting them up all over the district. The paper in the little town nearby helped to spread the news and on the evening of the supper the school house was packed. The proceeds bought the equipment already mentioned.

After putting in and paying for all the improvements on the exterior, the

teacher and students decided the interior of the house needed some fixing up, too. Accordingly a program of recitations and a playlet were prepared out of school hours and \$29.95 was realized from this entertainment. This has been applied in brightening up the inside of the building. Each child was required to finish all regular school work before being allowed to take part in preparing for the program. To prove that the children could do these things without detriment to their school work, the teacher gave an examination the week after the entertainment and the average grade in all classes was 83 per cent.

"The teacher who is afraid to work should not go into ventures of this kind," says Mrs. Lillian Hersh the teacher, "for they mean hours and hours of labor outside of school, to make them successful. It takes determination to succeed with them and a good stock of pluck to get over the difficulties and discouragements one must always meet in enterprises of this kind."

Lane school is fortunate in having a live board and an able teacher. Mrs. Hersh has a life certificate to teach and the board appreciates her ability enough to pay her \$60, a month—\$10 more than the average for the county. Thomas Grigsby, C. S. Hedlund and F. Johnson make up the board.



"Lane" School in Lancaster county, Nebraska showing the flag pole and part of playground equipment bought from the proceeds of a basket supper.

Mix Spray Material Carefully

Spray material that is carelessly mixed may do great injury to the orchard. The manner of making bordeaux mixture, one of the most common spray solutions, has almost as much to do with its effectiveness as has the formula used. D. E. Lewis, assistant in horticulture at the Kansas Agricultural college, has done a great deal of experimenting with orchard sprays, and in the following article he describes the method he has found to be best in mixing bordeaux:

"Bordeaux is a chemical combination of bluestone or copper sulphate and milk of lime. It is the most effective fungicide known, but must not be used during moist weather, since at such a time it causes serious russetting of the fruit. Much difference exists in the manner of making this material and the formula used; but contrary to the common idea the manner of mixing has almost as much to do with the effectiveness, and danger of burning, as the formula.

"Bordeaux containing three pounds of copper sulphate and four pounds of stone lime to fifty gallons of water, is as strong as should be used in this state on apples. It should be made as follows: Dissolve the copper sulphate and add it to twenty-five gallons of water. Slake the lime slowly, stirring constantly and adding water only as is necessary to prevent burning. Place the milk of lime thus obtained in enough water to make twenty-five gallons. Allow these two dilute solutions to mix in equal quantities. This part of the operation is of great importance. If overhead tanks are used, the openings through which the dilute solutions run into the spray tank must be of the same size, for best results. There is nothing new about this method of mixing bordeaux, but since

it is here that so many fail, it is always worth repeating.

"Under no conditions should the lime and copper sulphate, either in solid form or dissolved in water, be placed in the tank before diluting, and the required amount of water added. Such a bordeaux, while not always showing free copper sulphate by the ordinary tests, will cause serious burning should the spray application be followed by unfavorable weather.

"After this material is made, the poison used should be mixed thoroughly with a small quantity of water and added to the tank of bordeaux.

"Poison must always be added to bordeaux in order to prevent insect injury. Lead arsenate used at the rate of two pounds to each fifty gallons of bordeaux is effective, safe, and will not wash off the fruit and foliage easily."

Spray the Trees Well

Hit or miss methods should have no place in the work of spraying fruit trees. Spray solutions that are carelessly mixed or applied may do great injury to the trees, or they may fail to harm the pest which is being combated.

"No matter what material is being used, it must be coated evenly over the surface of the leaves and fruit to afford protection," says D. E. Lewis, assistant in horticulture at the Kansas Agricultural college. "If a great amount of sediment is deposited on one part of the tree and a small quantity on another, the results are not uniform, and in some cases may cause a loss instead of protection.

"To prevent this undesirable condition, all of the spray solution used must be of a definite known strength, and it must be so well agitated that every portion of water sprayed on the plant contains the same amount of protective ma-

terial as every other portion. If sediment is found in the sprayer after all the solution has been sprayed out, it is evident that the agitator is not keeping the solution well stirred and that the results of the work will not be satisfactory."

A machine that works perfectly is not all that is required for success. When it is remembered that only the fruit or other portion of the tree touched by the spray is protected, it will be evident that absolute thoroughness is necessary. Telling how to apply spray, Mr. Lewis said:

"To leave a maximum amount of spray material on the part sprayed, the nozzle used must give a fine mist and be carefully handled by the operator at its best spraying distance from the fruit. An examination of the leaves and fruit after the water has had time to evaporate, following the spray application, is the best way of telling if the work is being done right.

"Well-sprayed parts show an even, continuous coating, and should not show the collection of spray material on the lower edge of the leaf. The petal-fall application is intended to fill the calyx cups full of poison, and must be directed down from above and in from the sides to accomplish this purpose. A strong pressure and coarser mist of spray is desirable, as by its use the work can proceed more rapidly and the spray is forced well into the calyx cup. Pressure of 200 pounds is sufficient."

Frost Can Be Prevented

Injury to the orchard from late frost usually may be avoided. Only one year in the last ten have conditions been such that protection was doubtful, according to Albert Dickens, professor of horticulture at the Kansas Agricultural college. That year a temperature of 24 degrees was accompanied by sleet and rain just at the time the apples were in full bloom.

"Recent work in attempts at frost prevention tends to show that the best measure of protection is furnished by a large number of small fires placed at intervals throughout the plantation," says Professor Dickens. "In some experiments, with a run of wind about five miles an hour, eighty oil pots to the acre have raised the temperature 10 degrees above that in the unprotected areas."

Kansas Sunflower Yielded Best

Kansas Sunflower, a variety of yellow corn, carried off first honors in a seven-year corn test at the Kansas Agricultural college. It gave an average yield of 58 bushels an acre every year. In the seven years' work, 226 varieties and strains of corn were tried out. The results of this work, published this week in a college bulletin, "Corn," written by A. M. TenEyck, formerly of the Agricultural college, show Kansas farmers what varieties may be depended upon to give the best yields in this state.

Though the variety, Kansas Sunflower, is placed first in the list of the best ten varieties, it is only slightly superior to other good-producing types, inasmuch as the best varieties vary in productive-ness. No one variety of corn is best under all conditions, the test shows.

Be Particular About Sires

I read the article by Dr. McCampbell in the issue of March 7 on "Better Horses for Kansas." There is nothing more important in Kansas today than for the farmers to take a stand against scrub sires. In England, France and Belgium they have built up a world-wide market for their different breeds of purebred horses. The farmers of Kansas, perhaps, cannot build up a world-wide market but they can so improve their general horse stock that they will not have to go out of the state and pay big prices to get purebred horses.

Let the farmers discriminate during this breeding season against the scrub sire. As Dr. McCampbell says, look for the white advertising card of the stallion owners and not for the yellow or blue. White stands for purity of breeding. A. C. A. Manhattan, Kan.

Weeds should be killed as soon as they begin to grow, but the primary reason for cultivating is to maintain the proper proportion of air and moisture in the soil.

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Cherries, Why Not More of Them?

BY D. C. MOORING,
Oklahoma Agricultural College.

There are a number of reasons why cherries deserve to be planted more extensively. They are sure croppers, stand drouths well, are comparatively free from the attacks of insects and fungous diseases, ripen at a time of year when fresh fruit is scarce, and are profitable and attractive trees to have around the home.

During the last three or four years the cherry trees, which the writer has had occasion to observe, have borne regular crops. This cannot be said of the other fruit trees growing under the same conditions. There is a greater inducement to care for the trees when they are yielding something each year.

A rotten or wormy cherry is much less common than a bad peach, apple, pear, or in fact, almost any of the more common fruits. Possibly this may be accounted for in part on account of the scarcity of the fruit. But a glance at the economic treatises on insects and fungous diseases will show that there are not as many parasites which attack the cherry as most of the other tree fruits.

The cherry ripens its fruit at a season of the year when fresh fruit is scarce, thus making it appreciated more. Moisture being present, as a rule, at that season, the fruit is more likely to reach its normal size than fruit ripening later.

Many cherry trees, 8 to 12 years old, have been observed which bore from 10 to 20 gallons of fruit a tree that had received practically no care since they were set out. This fruit met with a ready market locally at 40 cents a gallon. This means a single tree producing a revenue of \$4 to \$8 in one season.

Two years ago the Horticultural department sent out more than a thousand letters of inquiry to fruit growers in this state, in order to learn what varieties were most successful. The following list represents the five most popular varieties, named in order of their popularity, together with a few descriptive remarks:

Early Richmond: One of our sour cherries. Tree vigorous; productive; fruit medium size; good for market and home; season early.

English Morello: Another of the sour cherries. Tree not very large, but vigorous and productive; fruit large; skin dark red; quality medium; good for market and home; season late.

Large Montmorency: A sour cherry. Tree not very vigorous but healthy; productive; fruit large; skin dark red; quality good; used for home and local market; season a week or 10 days later than Early Richmond.

Dye House: A mixture of Morello and Duke. Tree moderately vigorous; productive; fruit large; skin red; quality good; good for home use; season very early.

May Duke: Semi-sweet. Tree characters variable in different sections. Productive when healthy; fruit large; skin red, becoming very dark when fully ripe; quality very good; season moderately early.

Sweet Potatoes Are Profitable

Sweet potatoes are a profitable crop, and are not hard to grow, says the Kansas Industrialist. The hotbed is made much as the ordinary hotbed used for growing the garden plants, except that the soil used is either very fine sand or very fine sandy loam. About 2 inches of sand is put on the manure in the hotbed, and when the right temperature is reached the bed is planted. Small-sized seed potatoes are arranged in one layer, closely packed together, and then covered with 4 to 6 inches of sandy soil. The hotbed should be prepared along in March, so the plants will be large enough to set out about the middle of May.

Care should be taken in removing the slips. After watering the bed well, hold the mother potato in place, run the thumb and forefinger down to the surface of the potato, and pull off the plant. If this is carefully done, the mother potato will continue to produce slips.

Sandy soil is best for growing sweet potatoes. It should be plowed in the fall or early spring, then ridged up with a lister just before planting. The plants

are planted on top of the ridge about 18 inches apart. The cultivation of sweet potatoes is the most tedious work connected with the growing of the crop. They should be hoed four or five times a season and cultivated several times with a five-toothed cultivator. This tears down all the ridge except a small space about 1 foot wide, on which the plants are growing. The ridge is again thrown up around the plants with the lister.

Sweet potatoes should be dug just before frost. A sled with a knife on one runner is run over the row of potatoes to cut the vines on one side of the row. A plow with the moldboard taken off is run under the row of sweet potatoes, loosening them from the ground. They are then pulled out in a bunch by the vines of each plant, pulled from the vine, and then left lying in the row. The sweet potatoes are sorted into firsts and seconds. The firsts usually are barreled and shipped to market and the seconds saved for seed.

It is very important that sweet potatoes be given careful handling. They should be dug with implements that will not cut or bruise the roots. They should be dug at a time when the ground is dry enough so that it will not adhere to the roots. It is good for the potatoes to lie exposed to the sun and wind for an hour or two before being gathered up.

In grading, it is necessary to remove all cut, broken or badly bruised potatoes, as well as those that are of irregular shape, extremely large, or very small. There is a good market for sweet potatoes any time from September to April, but the best prices are paid from about Christmas time until March 1. To keep the potatoes well in storage, so as to command the high price, they must be well ripened, free from disease, carefully handled and stored in a dry, well-ventilated place where a uniform temperature will be maintained.

Catalpas As Farm Trees

BY Z. PEFFLEY,
R. 4, Eldorado, Kan.

Where timber is scarce or all used up it will certainly pay to plant catalpa trees. They are valuable not only for posts but for many other purposes. We planted a few small sprouts 18 years ago. At 12 years old we cut part of them and got from three to five posts a tree and from these stumps we could now cut five to eight posts. The trees left standing now measure 20 to 24 inches in diameter at the base, are 40 to 50 feet high and would make fine telephone poles or from eight to 10 posts to the tree for common fence.

The second cutting grows much faster than the first. Cut the trees close to the ground and after the first year leave only three or four sprouts to each stump. We plant them in short lands and waste places, any place where there is room. Catalpas grow almost anywhere. We have some on dry gravelly land that will make three posts to the tree in 12 years. Others were planted right down to the water's edge and these will make five to eight posts in the same length of time.

We have a natural catalpa forest that seeded itself in what was first a grove of large elms and another part a thicket of buck brush. We cut out all the elms and kept the stumps trimmed and you ought to see those catalpas grow. Besides the posts furnished by catalpas there is a lot of fire wood left and it is the easiest timber to handle and work with you ever saw. It makes fine ax handles and buggy beds. We have trees now that are large enough to take to the mill for timber. For planting it is best to get the yearling scions from a reliable nursery.

North Dakota now has 24 county agricultural advisers working under the direction of Secretary Cooper of the Better Farming association. The last Minnesota legislature made available the sum of \$25,000 for county extension work, at the rate of \$1,000 for the first 25 counties to apply. Twenty-four counties have qualified and will have county agricultural advisers in the field within a very short time. South Dakota likewise has started the same work in substantial fashion. From present indications, nearly every county in the Northwest will eventually be supplied with a well defined plan of county work.

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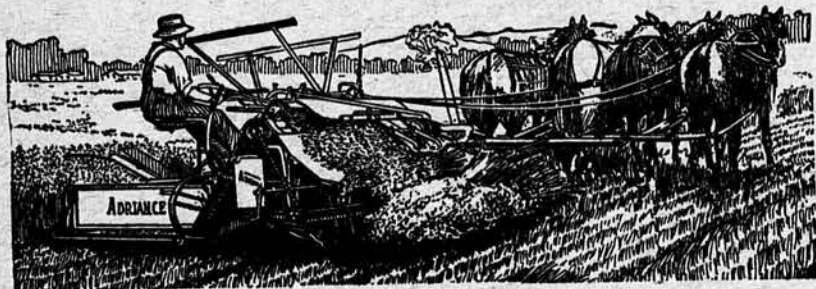
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 I can recommend it to any one wanting a Binder as "The" Machine to buy.
 (Signed) F. Hammond.

A Queer Sort of Land Owner

These Tenants, Also, Are Somewhat Unusual Human Beings

BY W. E. BLACKBURN

THE leasing of farm lands is undergoing the same changes which work for a betterment of farm conditions generally in the West. Where formerly many a land owner, especially if non-resident, wanted his lands under close disposal, yearly leases, and free from possible deterioration, by eliminating all improvements, there has come into his selfish mentality a suggestion that in grasping little he lost much.

Then, there was nothing to depreciate but the bare land. And the crop should be wheat or corn that the land owner might look after it in few visits. One in the fall or spring to see that it was put in; another at harvest time to check up and demand his third or half.

Now he is willing to put improvements on the land that a tenant may have shelter for his family and work stock. Farm tools are not yet classed as work stock. He is willing that oats, corn or kafir may be planted that the overworked wheat fields may have a change demanded by the steady decrease in yield and quality. He is even willing that a tenant may have a cow and a garden, and, now and then a few fruit trees are furnished, the tenant to set and care for them and to have one half the crop if he stays long enough to see them fruit.

Difficult to Change.

But he holds to the annual lease. Partly for his own protection, in case the tenant should prove unsatisfactory; partly in hopes that a better man, with better tools and stock, may happen along. The tenant agrees because he can't do otherwise. Because he hopes to get a better farm next year and if luck is with him, he may skin enough out of the place under favorable crop conditions to make a first payment on a farm of his own.

Under ordinary conditions a good tenant on a well stocked farm should clear enough in four or five years to make a substantial payment on a farm of his own. And the good tenant, with a lease of such term, feels a proprietary interest in betterments, in fertility and in proper rotation of crops. He will be there long enough to get the good of it. A few land owners are figuring that a long time lease to the right man is the best way to build up land if the farm is stocked. And where the right man has been found in several instances in southern Kansas such leases have been executed.

One land owner has several farms leased for five years. He is getting on in years and wishes to be relieved of the detail of close management and at the same time have his properties constantly growing better.

He takes advantage of the prime mover of mankind, self interest, and fixes a farm so that a good tenant can make a living any year and a lot of money in good years. And if he loses money for the owner, at the same time he loses an equal amount of his own funds.

Modern Ideas.

Good improvements, including a substantial barn, tool shed, wind mills, water tanks and a silo are put on the property. The quarter is fenced and cross fenced, hog tight, the owner furnishing the fencing and posts, and half the labor. A silage cutter and engine is bought jointly. If the tenant has brood sows and other stock, the owner buys half of them. If not, then the owner lends the tenant enough money to buy all the stock the farm will carry, other than work teams, at 6 per cent. An agreed acreage of alfalfa is put in, the owner furnishing the seed and the tenant doing the work. Seed is also furnished for other crops by the owner and half the cost of threshing is paid by him.

They split even. Each pays his own personal tax. Cattle and hogs are marketed and the money divided. Same way with other crops. If the owner can use the surplus of one farm on another, the tenant gets cash for his half. A garden plot, milk cow and a bunch of chickens are on every farm. If any crop is used for feed for the poultry or cow, the owner gets pay for his half. The garden plot is free. Fruit from the bearing orchards is divided equally.

Hogs and cattle are raised or bought, to use up all the crops possible. The owner does not go to town and ship them in. He takes the tenant with him, after talking over the kind and number best to buy. Then they discuss the matter with the expert buyer at the stock yards, telling him the kind and amount of feed they have. Sometimes he agrees with their choice, sometimes not. Usually they take his advice. The same plan is followed in shipping stock.

Hogs are grown on the farm and given the simultaneous inoculation for cholera when good sized shot. As far as possible the element of chance is eliminated. Sheds for the stock hogs with small cots for farrowing sows are provided. Farms are bought along streams where the sub-irrigated land is best for alfalfa on which the hogs are grazed, near shade and water. The brush along the streams affording a cheap and effective protection for the larger hogs in all but the severest weather.

Labor Savers There.

All farm work possible is done by machinery. Hay is handled with loaders direct from windrows and swung into mows or ricks by carriers. A manure spreader is required on every farm. Silage with alfalfa hay, is used for cattle and hogs. The lath plastered silo, holding from 130 to 150 tons is used, costing \$400 complete with cement chute and roof. Orange cane, kafir and corn are grown for silage in the order named. Sixty dollar land, with the aid of the silo and the sorghums, will carry as many cattle to full development as the two hundred dollar land of Illinois.

Because of the satisfactory nature of the lease, the tenants take pride in the farm as well as the stock and improve the buildings and grounds without suggestion. At the end of the leases, sometimes they are doing so well they prefer to renew, rather than use their earnings to make a first payment on a farm of their own.

Great care should be exercised in choosing tenants and land owners for a five or a ten-year lease. Once the choice is made, there must be confidence and absolute fair dealing on both sides. The tenant is not profitable to a landlord unless he is prospering, and the active co-operation of the owner in such manner as to train the tenant to the responsibilities of ownership and win and hold his confidence, works out a money maker for all concerned, during the life of the lease.

Feeding Green Alfalfa

Will pigs and shotes that are kept in a dry lot and fed green alfalfa make as good gains as they would if they had access to alfalfa pasture? Will this method of cutting the alfalfa or cutting it before the buds for the next crop start injure or kill it? How many times a day should fresh feed be given the pigs? I should like to hear from any one who has had experience along this line.
 C. M.

Jackson county, Missouri.
 My experience has been that hogs fed green alfalfa in the dry lot do not make such satisfactory gains as when they are fed on pasture. The reason for this seems to be that they do not eat enough of the green feed to make satisfactory growth, and on this account more protein should be supplied with the grain fed. Some feeders have obtained more favorable results from cutting the alfalfa and feeding it in the yards, but considering the labor involved in cutting and feeding, and in keeping the yards in a sanitary condition it is doubtful if the practice will prove profitable.

Cutting the alfalfa before the buds for the next crop start will injure and sometimes kill it. Where some is cut for feed every day at least two crops should be allowed to mature for hay during the season. Fresh feed should be given the hogs early in the morning and late in the evening. They will not eat much during the day in hot weather.
 T. W.

There are two kinds of smut which injure sorghums: grain smut, which attacks each separate grain and head smut which attacks the whole head. If head smut is present in a field, it is of great importance that no seed be saved. Buy new seed.

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The Drill as a Seed Saver

BY HENRY HATCH.

Although I have owned a grain drill only eight years, I believe that the seed it has saved during this time has paid the first cost of the machine. Mine is a disk drill, equipped with both chain or wheel coverers. The chains have been used only a few times, as the wheels are very much better under all ordinary conditions. If buying again I should get a wider machine, as mine is only eight disks wide, the disks spaced 8 inches apart. A machine of twelve disks, spaced seven inches apart, would be my choice now. The machine I have is a little too heavy for two horses, but not a load for four. It would be about right for three, but three cannot be used to good advantage with a center tongue; it is, at least, a nuisance to use three with the tongue in the center. A twelve disk machine, spaced as suggested, would make a nice load for four horses, and would cover a good lot of ground in a day.

The grain drill is a seed saver, no matter what kind of seed is sown by it. With the seedbed in ordinary, good condition, one can take 20 per cent less seed of wheat or oats and get as good a stand as by sowing a full amount broadcast. Two bushels of oats has always given me a full stand with the drill, but before the day of the drill 2 1/2 to three bushels were sown broadcast, and even then the stand was sometimes none too good. I have sown nearly all seed in the grain box of my drill, even clover and alfalfa. Where it is possible to shut the feed enough to do this I would rather sow clover or alfalfa through the regular drill tubes than to scatter it ahead of the disks, as the combination grass seeder does. By cleaning the seed-box and feed mechanism perfectly and shutting the feed entirely, I found it possible to sow 15 pounds of clover or alfalfa seed to the acre, or, rather, drill that much in the regular way that small grain is drilled. Particularly in the fall, or when the spring season is rather dry, it is an advantage to drill clover and alfalfa seed rather than to sow it broadcast. The seed is not covered very deep with the drill, the lever being set in the first or second notch, while the fourth and fifth notches are ordinarily used for wheat or oats. If clover is sown in the oat field in spring, I first drill the oats, then cross drill the clover seed. This means an extra drilling, but if the weather is rather dry the clover is much more sure of making a stand, as it roots deeper, and comes more evenly, and if wet it comes just as well as if broadcasted ahead of the oat drilling operation.

The grain drill, in comparison with any kind of broadcast seeding, shines in two ways—in covering the seed a uniform depth and a depth to suit the operator, and in making less seed produce as good a stand as more because of the uniform covering. Regardless of wind, the grain drill sows evenly. It is impossible to sow evenly by hand or with any broadcast seeder if the wind blows very hard. The low-down box type seeder is some better in wind than the endgate seeder or the hand method, but the box seeder often has to be stopped because of the high winds. As a high wind in the spring is usually followed immediately by rain, a man is usually all the more anxious to seed on those days in order to get his early seeding done before a storm causes a delay. With the drill one can keep right on, and as far as he goes he finishes, as he seeds and covers at the same time. Anyone who has had 10 or 15 acres sown and not covered when a storm strikes knows what an advantage it is to be able to finish at the one operation.

Covering broadcasted seed with any kind of a dirt mover, be it harrow, disk harrow, cultivator or plow, means covering to an uncertain depth. Some seed is buried deep, some scarcely covered at all; the deep seed comes up late and is behind the other in plant growth if weather and moisture is favorable, but if the soil is dry the shallow covering does not sprout at all and that covered deep is all that comes up until rain does fall. The depth of seeding is governed by a lever on the drill, by chance when done with a harrow, cultivator, disk harrow or plow; because of this accuracy of seeding and covering, the drill makes less seed produce the same stand.

The possibility of doubling the acre yield of corn has been demonstrated in

many and remote sections of the United States. A persistent loyal adherence of all corn-improvement workers to the motto "Fewer acres and more corn to the acre" is certain to gradually raise the average yield of county, state, and nation.

When Planting Shade Trees

BY W. W. ROBBINS,
Colorado Agricultural College.

It is better to use stock that has been grown under climatic conditions similar to those where the tree is to be planted.

Trees 2 inches in diameter are large enough.

The root system should be compact and trunk straight.

Watch for shipment. Do not allow trees to dry out on the depot platform.

Plant the trees as soon as possible after they come from the nursery. However, if not ready to plant, the trees must be properly cared for. Unpack the stock, dig a trench in a shady place and heel the trees in until ready to plant. In any event do not expose roots to air any longer than absolutely necessary.

Trim the lower branches to a height of 6 or 7 feet from the ground. Remove about one-half of the previous year's growth in order to maintain the balance between root and stem systems.

Trim off all torn or broken roots before planting.

Plant with as large a root system as possible in a hole larger than the root system.

Do not put fresh manure in the hole; it will burn the roots.

Set trees an inch or two deeper than they stood in the nursery.

Arrange the roots to spread naturally. See to it that the soil is firm about the roots.

Do not leave a depression about the stem in which water will stand; standing water at the base of young trees causes sun-scald.

Water young trees freely. Two good soakings a week are better than a small amount of water each day.

Cultivate about the trees. Do not allow sod or weeds to grow about young trees.

Place a guard about the tree. Support the young tree so that its growth will be erect, not leaning in the direction of the prevailing wind. Do not allow any part of the tree to rub against supporting stake or guard.

Try This For Pocket Gophers

BY W. L. BURNETT,
Colorado Agricultural College.

The loss caused by pocket gophers throughout the United States has been estimated by the Department of Agriculture to reach the enormous sum of 12 million dollars annually.

Pocket gophers take to traps or poison much more readily than either prairie dogs or ground squirrels, but on account of living in subterranean tunnels, it is difficult to set the trap or place the poison in the proper place. Traps must be set in the main runways or well down in the short lateral that is thrown out.

Poison must be placed in the main tunnel, otherwise it will be covered up by the dirt and pushed out by the gophers. Poison may be placed in the main runway by opening up the laterals until it is reached, or by using a steel-pointed prod from the surface. The latter is the best method, but impossible in some sections of the state.

In soil that is dry and hard the gophers are apt to burrow too deeply for the prod to reach, and in that case the only thing to do is to work through the laterals.

The following formula will be found very effective for poisoning these pests:

Whole corn, chopped parsnips, or sugar beets, 8 quarts.
Strychnine (sulphate powdered) 1/2 ounce.
Salt, 1/2 pint.
Starch, 1/4 pint.
Water, 1 1/2 pints.

Dissolve the strychnine in the water, add the starch and salt, beat thoroughly with a Dover egg-beater until all are thoroughly mixed. Put over a fire and heat until starch begins to thicken, stirring constantly; pour the poisoned solution over the grain or vegetables, then spread and dry.

One teaspoonful of the poison is sufficient for each runway or lateral.

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Pouch is 3 1/4 x 3 in. size.



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Strongly made of fine tan leather with a flap and patent snap clasp. Every man who loves a good chew will prize this handsome, handy leather pouch to carry his tobacco in.

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We Want You to Try PIPER Heidsieck

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We know that once you have started, you will become a permanent friend of this wonderfully wholesome, healthful and satisfying tobacco.

In writing us please tell us the name of the dealer of whom you buy your tobacco.

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This book gives full Harvester Hay Carrier details. Write us today—we'll send the book tomorrow.

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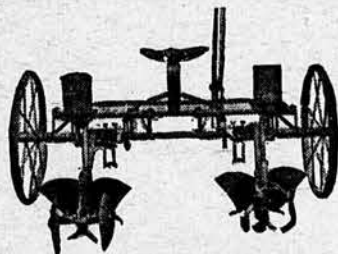
I want every reader of this paper to send for my new "direct-to-you" selling plan and sensational wholesale price list. I want you to know the saving you can effect by buying and using the famous Swanson-St. Joseph Plow Co.'s line of farm tools and farm implements—the line that is sold direct to you at factory prices, on thirty days' FREE trial on your own farm, all transportation charges prepaid. Don't buy any farm tool until you get my new selling plan and wholesale price list. Send your name and address today for free illustrated booklets.

H. S. SWANSON, Pres.



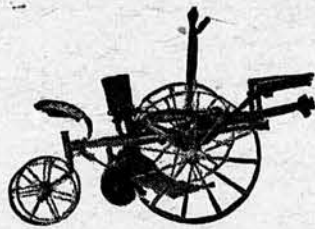
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MUST NOW HAVE ATTENTION

The Very Foundation of Your Future Herd and Profits—when conditioned on Economy Stock Powders—farrow strong, healthy litters. Start your herd right. Economy Stock Powders will put your brood sows in prime condition for the most trying period of their lives. It will expel worms—give renewed vigor to all their vital organs, cool the blood, keep down fever. It will insure a litter of sturdy, healthy pigs, that will be able to combat successfully the deadly disease germs which infest the hog lot.

I Am Fair With You and Want to Help You

I want you to let me send you at once a perfectly free sample of Economy Stock Powders for your trial. Remember I am not asking you to buy Economy Stock Powders, nor to pay one cent at any time for the sample I send you. I only want a chance to prove to you that Economy Stock Powder will do just what I claim for it and I really do not know how to make you a fairer offer. Better write for your free sample today, as I am making this free offer for only a short time, and don't forget to write me how many brood sows you have, also how many hogs, horses, sheep and cattle you have. I will also send you booklets and circulars on hog diseases. JAMES J. DOTY, Pres. Economy Hog and Cattle Powder Co., 323 Thomas Ave., Shenandoah, Iowa.

Patented Oct. 28, 1913.

Why Not Use The Fortin Forceps

Instead of an old rusty wire? They take hold under the jaw and over the nose. There is no danger of hurting the sow or pig when these Forceps are used. They are made of malleable iron and rust proof. These Forceps have been in use for two years by several veterinary surgeons. Ask your dealer. PRICE \$1.00.

FORTIN, L'ECUYER & CO., Clyde, Kansas.

To Whom It May Concern: This is to testify that I have thoroughly tested the Fortin Pig Forceps and find them far superior to any I have ever seen. Yours truly, H. C. Gale, D. V. S.

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WITH A SET OF THE "ALWAYS READY" COBBLER'S TOOLS

This handy shoe repair outfit was made especially for home use. With the aid of these tools you can easily do any kind of shoe repairing at a great saving of time and expense. The outfit comes securely packed in a box and consists of the following: Iron stand for lasts; one each 9 in., 7 1/2 inch, 5 3/4 inch lasts; shoe hammer; shoe knife; peg awl; sewing awl; stabling awl; one package of heel nails; one package of clinch nails; and full directions. A most complete and serviceable outfit which will always give satisfaction.

OUR OFFER: This cobbler's outfit may be had free all mailing charges prepaid by sending a one-year subscription to Mail and Breeze at \$1.00 and 25 cents to help pay packing and mailing charges—\$1.25 in all. Either new or renewal subscriptions will be accepted. Send in your subscription and remittance at once to

FARMERS MAIL AND BREEZE
Dept. C. O. 10. Topeka, Kansas.

A "Boss" in School Elections

Don't Let School Meeting Slip By This Year

BY MRS. J. D. CORBETT

IN THIS day of problems that of the rural school house stands out in bold relief. The papers now and then contain a cheering account of some district that has just completed a modern school building, but these new buildings are scattered through Kansas like a scant cup of raisins through a large loaf of bread. Furthermore, these optimistic bits of news speak no word of the neighborhood war that has been fought to secure at least 9 out of every 10 of these modern buildings.

Have you ever noticed how suddenly improvements of school property stop when the dominant taxpayer acquires enough land to control the votes of the renters in his district? The "machine" works just as perfectly in a school election as it does in a presidential election. The men in the district who have the most money and the least public spirit manage to keep interest in the annual meeting at a low ebb by never mentioning it except among themselves; then when the day for the annual election arrives they suddenly remember it is "school meeting" day and hastily rush off to it, leaving "mother and the girls" and anyone else on the farm who might vote for improvements to keep the work going at home. They meet, often only the three members of the board being present, re-elect the one member, vote the minimum wage for the teacher, give the coal hauling to the lowest bidder, and go home well pleased with what they have not done. And the mothers know that, as usual, their children will go to school in a building devoid of every comfort and necessity that is not imperatively demanded by law.

School Houses Built by Law?

County Superintendent Eby of Shawnee county, in an address before Oak Grange last July said the second wealthiest district in Shawnee county has the worst school building in the county. If the law can compel the use of sanitary fountains and individual drinking cups, why can we not have a law that will



Where the Machine Didn't Work.

dull, uninviting rooms to attractive and inspiring places of study merely by selecting light and restful colors for the walls and decorating them with copies of beautiful paintings, which can be bought for a trifle. Such pictures, preferably landscapes, have an influence little dreamed of on the minds of the pupils who look at them unconsciously while studying their daily lessons.

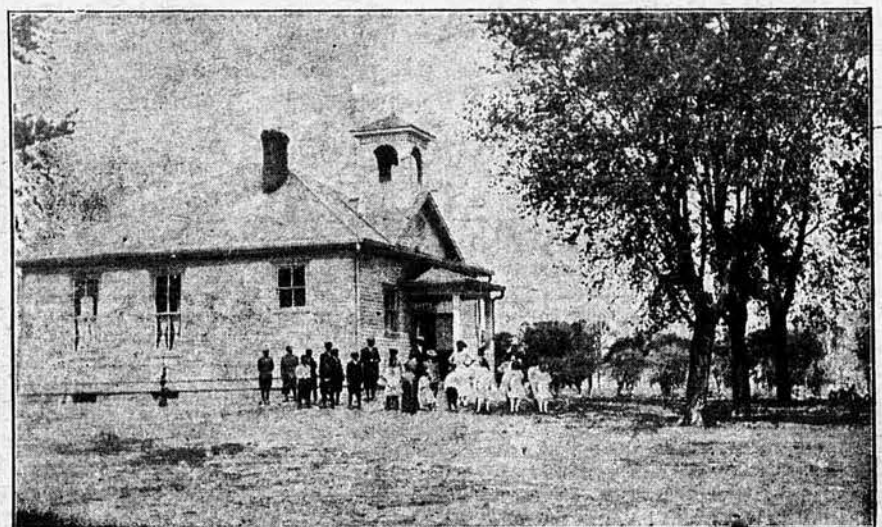
And for these decorations of our school room let us always choose cheerful subjects. There is one picture I would be glad to consign to oblivion. It is the picture of "A Stag at Bay." The artist I have succeeded in forgetting, but the brave despair of the noble animal and the eager murder personified in the attitude of the dogs have cost me hours of anguish from the time I first saw it on some parlor wall to the later days when it was copied by my artistic schoolmates and presented to me in frames and on calendars. Never would I allow that picture on the walls of a school room.

I am very much in favor of consolidated schools where consolidation is possible. It affords a safe and comfortable way for the smaller children to go to school, and also solves the high school problem for the rural pupils.

High Schools in the Country.

When the rural high school pupil is ready for college he is just as well equipped for it as the graduate from the city school, with fewer foolish fads and more muscle to his credit. If he shows his country breeding—well, new mown hay is a popular odor at present and fully as agreeable as that of an overgrown pipe operated by a narrow chested city lad.

In closing I wish to express something of the profound respect and admiration I have for the brave army of rural teachers who with dauntless courage and optimism go fearlessly forward with their work, regardless of inadequate buildings and all the petty annoyances that fall to the teacher's lot. Day after day they guide their pupils along the steep and



No reason for pitying the teacher here. In addition to a basement with a furnace, and other modern equipment, this school house has a bell.

compel a district to build a modern school house when it is needed and the district is able to build it? State Superintendent Ross brought a measure of this kind before the last legislature, but it was ignored in a way that would indicate the entire legislative body was composed of past grand masters of the order of school boards. In a very forcible address before the State Teachers' association last fall he explained the proposed law, and it is to be hoped the next legislature will give it the consideration it merits.

The hope of our state is in our rural schools, and it is our highest duty to see that they are well equipped for this work. Where new buildings are not needed old ones can be transformed from

uneven path that leads to knowledge. With what loving thought and labor did each one of them make a "Merry Christmas" for their pupils, telling them again the sweet and wonderful story of the Babe in the manger.

Let us each send our children's teacher a note of thanks that will brighten the day for her, at least once a month, and say nice things about her to other people between times. She will hear them by and by and will feel happier about them than if they had been said to her. She deserves all the brightness she will ever get and kind words cost nothing, so do be generous with them.

Well-decomposed manure is the surest fertilizer for producing a large corn crop.

Why Not a Patch of Rhubarb?

BY JOHN W. BOLTE.

How few rhubarb plant one sees growing and how nice that old-fashioned spring tonic is! Considering the fact that it costs practically nothing to plant it and the plants come up year after year, there is no reason why we should not, all of us, have all of the pieplant pie that we can eat every spring. Half a dozen hills will supply an average family.

Harvest time for rhubarb is the spring and early summer, but we frequently get a second crop in the fall.

Sandy loam is best for this plant, but it will grow well in any rich, warm, moist soil. You cannot get the soil too rich for rhubarb, and it does not stand drouth very well.

Do not try to grow the plants from seed if you can secure root cuttings from a good, strong old hill. Each cutting should have two buds or eyes. Plant them in rows 3 feet apart, with the eyes an inch below the surface. They will begin to grow at once and, if planted early, a few stalks can be pulled the first year.

As fast as seed stalks appear cut them off. If very fine, large stalks are wanted, and why not have the best, thin out all but the center buds, so that the entire strength of the plant will feed these.

After the leaves are cut back by frost in the fall cover the plants with 4 inches of straw or manure. This prevents freezing and makes the next year's crop earlier.

While the plants will start early, at the same time the leaves will not push through this covering until after danger of spring frosts is past, hence it should not be removed too soon. Many commercial growers keep the soil covered with straw the year round in order to keep weeds down and hold moisture without cultivation. Cover the plants in the winter, anyway. It will avoid disappointment and increase the plant food.

Every three or four years it is advisable to dig up the plants, divide them and replant in another spot. If this is not done, the plants run out and the stalks grow small and pithy. Division and a new location start them off again as good as new.

Any surplus can always be sold in the spring at a good price as we seem to have a natural craving for the fresh green acid qualities of this old-time "pie fruit." Eat lots of it. Eat it raw and cooked, in pies and out of pies, put up all you cannot eat and save it for winter, but grow it yourself if you have a 2 by 4 patch of ground where the sun shines. It costs nothing to raise and it tastes much better when it comes out of your own patch. And, furthermore, it is a much better spring tonic than sulphur and molasses, or sassafras.

The Care of Tires

The Goodyear Tire & Rubber Company insists that tire satisfaction, tire mileage, and consequent low cost by the mile depend as much on the attention given tires by car owners as upon any other one thing. "It is almost unbelievable, yet true," says F. A. Henderson, head of the Goodyear adjusting department, "that many men who watch their engines minutely; who listen for the slightest unusual click, or hum in their gears, never think of giving attention to their tires. Yet the tires, made of cotton fabric and rubber, have to sustain, and build a cushioned road for what is really a small locomotive turned loose on city streets and country roads. In such a condition it is surprising, not that there are tire troubles, but that tires perform anything like the service they do."

Recently the Goodyear company sent out a number of letters to car owners who had obtained unusual mileage from their tires. The letters stated specifically that the company was not asking for any special "glorification" of Goodyear tires, but wished to obtain the ideas of fortunate tire users on the care of tires, for the benefit of the whole motoring public. A number of the replies were excellent, and told the story of intelligent tire care better than the company itself could have advised.

"I always put new tires on my rear wheels for the first wear, and change worn rear tires to the front wheels," writes E. E. Robbins of Cleveland, Ohio.

"I always carry an extra tire, and as soon as a tire is cut I put on the spare and have the injured tire repaired. In that way I got 12,000 miles out of one set of tires."

Mr. Robbins's experience should be valuable to all tire users, no matter what their individual preferences as to tires.

Welcomed On the Canal Zone

FROM MAIL AND BREEZE FOLKS.

Having considerable interests in western Kansas I find that your paper is just what I need to keep me in touch with what is going on in the way of progress among the farmers there. I approve of the principles for which the Farmers Mail and Breeze takes its stand and I also like the clean cut way in which it presents them.

Arthur G. Ghrig.

Corozal, Canal Zone, Panama.

I am an enthusiastic reader of the Farmers Mail and Breeze and Capper's Weekly. I think they are the best papers I ever read regardless of price. They are written in such an interesting, clean, honest, straightforward manner that they appeal to every true Kansan regardless of politics.

James G. Jackson.

Nickerson, Kan.

I cannot do without the Farmers Mail and Breeze any longer. My husband felt he was not able to renew this year and I felt I was not able to do without its welcome visits. Find enclosed money for renewal.

Mrs. J. W. Huddleston.

Wenoka, Okla.

I like the Farmers Mail and Breeze and Capper's Weekly and I do not intend to be without either. We feel as if we can teach our children to be better men and women by reading your papers.

W. H. Sears.

I like the Farmers Mail and Breeze for its outspoken fearless editorials and other productions. It is a staunch friend of the farmer.

Carl Folger.

North Branch, Kan.

I find in every copy of the Farmers Mail and Breeze some very valuable information. Every farmer and stock raiser should take it.

Colonel A. C. McLaughlin.

Axtell, Kan.

Life's a Funny Proposition

BY GEORGE COHAN.

Did you ever sit and ponder, sit and wonder, sit and think why we're here and what this life is all about? It's a problem that has driven many brainy men to drink; it's the weirdest thing they've tried to figure out. About a thousand different theories, all the scientists can show, but never yet have proved a reason why, with all we've thought and all we've taught, why all we seem to know is, we're born and live a while, and then we die. When all things are coming easy, and when luck is with a man, why this life to him is sunshine everywhere. Then the fates blow rather breezy, and they quite upset a plan; then he'll cry that life's a burden hard to bear. Though today may be a day of smiles, tomorrow's still in doubt, and what brings me joy may bring you care and woe; we're born to die, but don't know why, or what it's all about.

And the more we try to learn the less we know.

Concerning the Butter Market

Please print a synopsis of the butter market from 1904 until 1914, and give the tariff now and before the present tariff law went into effect.

L. E. SWOPE.

Morehead, Kan.

The Elgin prices on butter have been:

Year	Low	High
1904	17	28
1905	19 1/2	34
1906	19	31 1/2
1907	23	33
1908	21	33
1909	24	36
1910	27	36
1911	21	36
1912	25	40
1913	26	37

This table shows the change in the tariff rates on dairy products:

	BEFORE OCTOBER 4, 1913.	AFTER OCTOBER 4, 1913.
Butter	8 cents a pound	6 cents a pound
Cheese	6 cents a pound	5 cents a pound
Cream	5 cents a gallon	5 cents a gallon
Butter	2 1/2 cents a pound	20 per cent ad valorem
Cheese	Free	Free
Cream	Free	Free

Cheap Power

Long run cheapness beats a first cost that looks cheap. Your entire crop often depends on your power. If you want an irrigation plant that costs little in fuel, less in attention, and still less in repairs, get a

Rumely-Olds Gasoline Engine

1 1/2-65 horse power

Olds engines are hopper or tank-cooled; freezing can't do serious damage. They start easily, winter or summer, because the mixer doesn't depend on heat—it operates automatically.

When the Olds is not busy pumping, it will save money, time and labor, doing many other jobs around the ranch.

Ask for catalog No. 344. Rumely service is back of every Rumely machine, 49 branches and 11,000 dealers. Supplies and repair parts at short notice.

RUMELY LINES

Kerosene Tractors	Threshing Machines	Cream Separators	Road Machines
Gasoline Tractors	Corn Machines	Feed Mills	Grain Elevators
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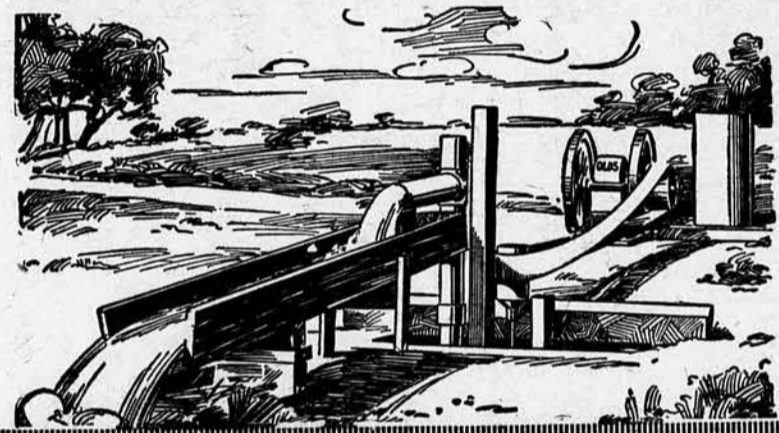
Wichita

Lincoln

Denver

Kansas City

Dallas



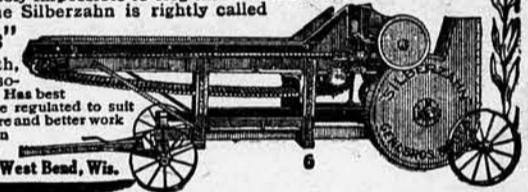
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The simple, scientific, carefully worked out construction of the "Light Running Silberzahn" makes it absolutely impossible to clog throat or blower, no matter how fast the corn is thrown in. The Silberzahn is rightly called

"The King of Ensilage Cutters"

because of its simplicity, strength, power, durability, safety—its absolute supremacy among ensilage cutters. Has best knife adjustment. Speed of blower can be regulated to suit height of silo. It is guaranteed to do more and better work with less power than any other cutter on the market. Write for catalog and proof.

GEHL BROS. MFG. CO. 126 S. Water St. West Bend, Wis.



APOLLO
BEST BLOOM
GALVANIZED SHEETS

Highest quality and best known Galvanized Sheets manufactured. You should use no other for Culverts, Tanks, Silos, Roofing and Siding. APOLLO Roofing Products are sold by weight by leading dealers. AMERICAN SHEET AND TIN PLATE COMPANY, Pittsburgh.

FREE Six Beautiful MONTHLY-BLOOMING ROSES

Here is the most attractive Free Premium offer ever made! It is an offer which should bring 50,000 new subscriptions to our popular farm magazine during the next few weeks. Everyone loves flowers and the one special favorite of all is the Rose.



In order to make this by far the most attractive and most winning offer ever advertised we have secured a superb collection of six of the most beautiful roses to be found in America. They are not cheap, common varieties—they are the rarest and most famous plants ever offered. They are well-rooted, strong and healthy—guaranteed to give satisfaction or money cheerfully refunded. We head this big-value collection with

The "Blumenschmidt"

Wonderful
The Latest and Most Beautiful Rose Discovery!
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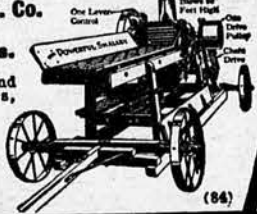
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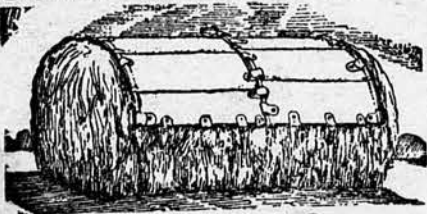
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Renters Need a Fair Deal

A Contract Between the Owner and the Tenant Should Provide For Keeping Livestock and Maintaining Soil Fertility

THE interests of the farm are too often forgotten by both landlord and tenant and consequently a short tenure of occupancy and two dissatisfied parties result. Let all interested assume that the farm must be kept productive. The landlord must take the initiative.

About three systems are open: The cash rental system, wherein the landlord will rent his land for a certain specified sum an acre per annum, said sum to be paid by the renter at the beginning of, or during, the year. In this case the landlord is expected to have little to say and consequently little interest in the tenant or his work. The second system is a strictly grain system, where the products of the farm are marketed at once and the funds divided equally or upon such terms as may be agreed upon by interested parties. The third system is where the products are grown, fed to livestock upon the farm, the stock marketed and proceeds divided.

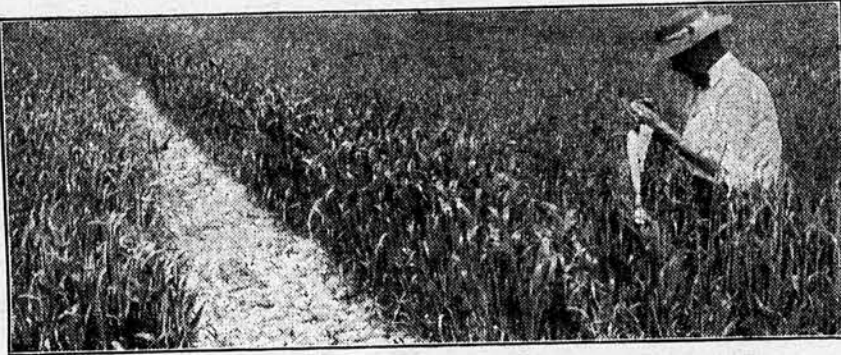
The Cash Rent System.

The cash rental system, as it is done in some of the older countries, is no doubt all right. But as understood and commonly done in this country it is unquestionably all wrong, a pernicious practice and unless changed materially will result in the landlord having neither farm nor tenant, says C. R. Wagner in the Ohio Farmer. In this system, as too often practiced, the owner of the farm has nothing to say and

expire and under what terms it may be terminated by either party.

Notice of a wish to terminate by either party should be not too long. This is important and should not be to exceed 90 days. If the contract takes effect the first of March, as it usually does, this notice will be after the fall crops are in the ground and before the spring work begins and will give ample time for the tenant to secure a new location. This latter consideration will also hold good in either of the other systems. Provision should also be made for maintaining the appearance of farm—cutting brush and weeds along highway and in fence rows, the clipping of stubble, trash and machinery in yards and fields.

Now to consider the method where crops are not only grown but marketed through the medium of livestock. This I believe is the safest and sanest method, whether we look at the proposition from the standpoint of land owner, tenant or farm. True it is, that this method requires more genuine skill, a wider and more extensive knowledge. In addition to producing the maximum crop yield and simply putting direct upon the market we must add a knowledge of livestock, buying, the proper care and the advantageous marketing of same when the opportune time arrives. The handling of livestock requires a clear brain and good reasoning ability. By this method the tenant and landlord secure additional profit (if rightly



A Tenant Should be Encouraged to Use the Best Methods

his presence upon the land is not desired; the interest of the silent partner—the farm—is not considered. If this system is to be considered then a carefully drawn contract must be entered into.

In fact, no matter what system is taken, a good contract ought to be signed before the premises are occupied by the tenant. Let two copies be prepared and signed by all interested parties, one to be held by landlord and the other by tenant. If the cash rental system is considered be sure and enumerate in the contract a definite system of rotation of crops. A rotation that the owner of the land has worked out and proved to be satisfactory to the landlord and "silent partner." Should the landlord be without practical experience then there is only one avenue open and that is to call in a successful farmer who is working under similar conditions, a person with a reputation for honesty and in whom you have confidence. His experience and advice, coupled with your business training ought to bring results.

Some provision must be made to keep up the fertility of the land. If the crops raised upon the land are to be sold directly then you must provide for plowing under periodical green crops; also for the addition of phosphorus in the form of phosphatic rock, steamed bone, etc.. You must not neglect to state, just how it is to be done by whom and who is to bear the expense. The tenant might elect to feed the crops to stock under this system. If so, provision must be made for payment of rental when and where, and for building and maintenance of fences, buildings, not turning stock onto land when soft, returning manure to land (how, when and where) for additional underdrains, the working of land when not in proper condition, etc. Also when the contract begins and when it shall

managed) in marketing a more finished product and the farm is reimbursed in the way of organic matter in the form of manures, which amount to far more than the average landlord and tenant usually realize. While it may be possible to maintain soil fertility without livestock, yet it is not probable that it will be maintained under those conditions, by not to exceed 1 per cent of our farming people. The quality of livestock has much to do with results. Stock must be kept that is suitable to a definite system of farming.

A Livestock Clause.

The contract must provide for the use of good sires, must insist on proper and prompt care in breeding and care in feeding. The landlord can and ought to exercise a degree of supervision over this part of the work. This need not be done by officious and domineering ways, but rather by friendly suggestion and reasoning. True, I know from practical experience along this line that some tenants, though they live to a ripe old age, would forever be failures along livestock lines. Livestock work needs constantly the eye of the master. A tenant that is always behind in his visiting and makes a strenuous effort to get caught up is worse than useless. Very many things are to be considered by both landlord and tenant; and these two must consider at all times the interest of the silent partner—the farm.

For no 10-year period has the corn yield of the United States exceeded 28 bushels an acre. No state has averaged for any year over 54 bushels an acre, yet in practically every section of the United States yields of more than 100 bushels have been produced. As states and as a nation twice as much land is being used and much more labor is being performed in producing the corn crop than is necessary.



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Fighting Mites and Lice

READERS' METHODS

Moth Balls.—Bore holes in the top sides of the roosting poles about 4 inches apart and drop a moth ball into each of them and you will not be bothered with mites and lice.—Fred Collins, Coyle, Okla.

Carbide Water.—Last year the mites were so bad that our hens would die on the nests while setting. We washed our hen house with carbide water and have never been bothered with mites since. This carbide water may be obtained at a garage or from anyone who uses carbide for lighting.—Earl Owen, Knowles, Okla.

Fire and Brimstone.—I have had no trouble keeping mites and lice out of my hen house by the use of sulphur and cob or wood ashes. Every time I clean the house I cover the floor with the ashes, then put plenty of live coals in an old iron kettle, pour a half pint of sulphur over them and shut up the house.—D. C. N., Penokee, Kan.

Oil Fixes 'Em.—Take an ordinary machine oil can, fill three-fourths full of machine oil, and the other fourth fill with kerosene and apply this to roosts at roosting time. I keep from 400 to 700 chickens and can keep the vermin off them at a cost not to exceed 40 cents a year.—N. A. Campbell, Monmouth, Kan.

Torch and Whitewash.—In the fall I thoroughly clean out the hen house, throw away the old roosting poles, and whitewash the inside of the building. If there are signs of mites on the roosting poles, I fix a torch using a gunny sack fastened around the end of a green stick with wire. I saturate the sack with coal oil, light it, and pass it around under the roosts, thoroughly scorching them. I shall do this next May, also.—Mrs. M. E. Peebles, Pomona, Kan.

Movable Fixtures.—I try to have all roosts and nests movable without having to hammer them apart. That scatters the mites so you can't get at them. I put paper in the nest boxes, then nesting material on that. When ready to clean, I take the boxes to the open, start a small fire, lift out the paper, and put nesting, mites and all, on the fire and the mites will soon be no more. Then I scorch or spray the inside of the box. I treat each nest about once a week.

The roosts are taken one at a time, scorched or oiled with coal oil or dip. Both sides are carefully treated as mites roost on the under side. After everything is moved from the house, I clean the floor, then spray the walls with whitewash and dip, replace the roosts and nests and am satisfied that I have done a good job.

Hot wash suds is good to keep the mites clean from chick coops. Slash it around in them, turn to the sun and dry until evening. Keep coal ashes for the hens to dust in and they will get rid of their own lice.—Mrs. Wm. Kowing, Winfield, Kan.

How to Make a Feed Hopper

To make a feed hopper for chickens, get or construct a box with ends and one side 10 inches high and with the other side 2 inches high. From the top corners of the partly open side fit a board slanting downward and toward the back, letting it come to within 1 inch of the floor board and 2 inches from the back. Put on a hinged cover and fill with wheat or other grain. The grain will run down through the space at the edge of the slanting board as fast as it is picked up. This will not only save feed but it will always be clean. Mrs. Edith Mellis, Westerheim, N. D.

WHITE DIARRHOEA.

Readers of this paper, who lose little chicks from white diarrhoea, may obtain a full 50c package of Inomal White Diarrhoea Remedy, for a two weeks' free trial, by addressing the Hammer Remedy Co., M-6, Lamoni, Iowa. This is a positive preventive of this dread disease but this company believes in letting their customers see for themselves before paying.—Adv.

A hen that is made to scratch for everything she eats is in very little danger of eating too much.

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Kansas Should Grow Cowpeas

The Feed Is Almost As Valuable As Alfalfa Hay

BY H. T. NIELSEN
Demonstration Agent for Northwestern Kansas

GOOD cowpea hay is fully as valuable a feed, pound for pound, as red clover hay, and very nearly equal in value to alfalfa or to wheat bran. The principal value of this hay lies in its high percentage of digestible protein, which is nearly four times that of timothy hay. One reason why cowpeas are not more extensively used as a hay crop is the difficulty often experienced in curing the large growth of succulent vines. Where proper care is taken in curing, especially where sorghum or a similar plant is grown with it in mixture, it is not a difficult matter to make good cowpea hay unless the weather is decidedly unfavorable.

When grown for hay production cowpeas are nearly always broadcast or put in with a grain drill any time from May 15 to July 15. The quantity of seed used to the acre ranges from one to two bushels, broadcasting requiring from one-fourth to one-third more than is necessary when using a grain drill. The quantity most commonly used and which gives the most general satisfaction when the seed is put in with a grain drill is five pecks to the acre. The use of a grain drill is decidedly superior to broadcasting. Larger hay yields have frequently been secured by planting in rows 24 to 36 inches apart and giving two or three cultivations, the seed required in this way being from two to three pecks an acre. The increased yield of hay due to cultivation is not sufficient to cover the increased cost, especially as rather thick broadcast seeding is equally as effective in destroying weeds as cultivation in rows. The practice of broadcasting on small grain stubble and plowing under the seed is still common; also that of putting in the seed on grain stubble with a disk drill without plowing. Both of these practices are rapidly being replaced by good preparation of the soil before seeding.

As nearly as average conditions will permit, cowpeas for hay should be planted so that they will be at the proper stage for hay making in the latter part of August or September, as the rainfall is likely to be small during that time. With four to six days of dry sunny weather, cowpeas can be cured into hay of excellent quality if they are at the proper stage of maturity when cut.

The proper time to cut cowpeas for hay is when most of the pods are full grown and a considerable number of them are ripe. At this stage none of the best hay varieties have dropped their leaves. Of the large list of cowpea varieties, those with an upright habit of growth which seed fairly well and mature quite uniformly should be chosen for hay. The varieties more commonly used are Whippoorwill, New Era, and Iron. These hold their leaves well and stand up much better than most of the other varieties. Such varieties as Black, Red Ripper, and Clay are not desirable for the production of hay, as they run to vine badly and are consequently very hard to cure and handle. The readiness with which the hay can be cured depends largely upon the maturity of the vine and the condition of the weather; hence the advisability of having the harvesting come when the season is most likely to be dry.

Use a Mower.

An ordinary mower is the most practical machine for cutting cowpeas for hay, and if an erect variety is grown the entire plant can readily be saved. The mowing should begin in the morning, as soon as the dew is off, and may be continued all day if desired, though some advocate cutting only till noon. The vines should be left in the swath until well wilted on top, but not until the leaves are dry and brittle. They should then be raked into windrows; this may be the same day or the day after the mowing. They should be left in the windrows one or two days and then put into small shocks. The hay should be left in these shocks until it is thoroughly dry.

The greater agricultural use of cowpeas has been seriously handicapped in late years by the high price of seed. Until the last few years cowpea seed has been almost entirely gathered by

foliage. The vines should then be allowed to cure and become thoroughly dry, after which the threshing may be done. The beneficial results of growing cowpeas are due largely to the ability of the plants, like those of alfalfa and red clover, to take nitrogen from the air by means of the bacteria which live in the nodules on the roots. Cowpeas also improve markedly the physical condition of the soil. This, taken in connection with their ability to produce a crop quickly on even the poorer soils, makes the cowpea particularly valuable both as a catch crop and in regular rotations when utilized either for hay or seed production.

hand, though that harvested by machinery makes up an increasing percentage of the commercial seed each year. Cheaper seed will undoubtedly bring about an enormous increase in the culture of the crop. Cowpeas when grown for seed or for combined seed and hay production are nearly always sown broadcast or with a grain drill. Occasionally fields are planted in rows and cultivated. Experiments generally prove that the largest yields are obtained by planting in rows and cultivating, but in many localities this increased yield is not sufficient to offset the additional cost of cultivation.

Planting the Seed.

The planting of cowpeas for seed production should always be thinner than for forage purposes. When grown in rows 24 to 36 inches apart one peck to a half bushel of good seed an acre is required. When the seed is broadcast the quantity ranges from 3 to 6 pecks to the acre, depending on the soil, the method of seeding, and the size of seed. Heavy clay or light sandy soils require more seed than loam soils. If sown with a grain drill only about two-thirds as much as for broadcasting is required. Of the smaller seeded varieties, such as the New Era and the Iron, 2 or 3 pecks will give the best results; while of the larger seeded varieties such as the Black, the Unknown, and the Whippoorwill, the quantities range from 3 pecks to 5 pecks to the acre, a bushel generally being the best amount to use.

Cowpeas for seed production are quite satisfactorily harvested with a mower. A bunching attachment has been used with excellent results. This gets the vines out of the way of the team, thus avoiding considerable loss of peas through trampling and crushing by the mower wheels. It also leaves the vines in a more desirable shape for curing, they being rolled into small windrows. The self-rake reaper is a very satisfactory machine for mowing cowpeas for seed, accomplishing even better results than the buncher on a mower, as the vines are left in bunches of very convenient size for curing and handling.

For seed production cowpeas should be allowed to mature a greater percentage of pods than when cut for hay. Half or more should be ripe before mowing, even at the expense of losing a part of the

foliage. The vines should then be allowed to cure and become thoroughly dry, after which the threshing may be done.

The beneficial results of growing cowpeas are due largely to the ability of the plants, like those of alfalfa and red clover, to take nitrogen from the air by means of the bacteria which live in the nodules on the roots. Cowpeas also improve markedly the physical condition of the soil. This, taken in connection with their ability to produce a crop quickly on even the poorer soils, makes the cowpea particularly valuable both as a catch crop and in regular rotations when utilized either for hay or seed production.

Insuring Wheat Against Smut

The loss of wheat from stinking smut is deplorable because it can be prevented so cheaply. Within the last year on the farms of which this experiment station has a record, the parts of the fields planted with seed treated according to directions, suffered practically no loss. Where the seed was not treated the loss varied from a very little up to 75 and 80 per cent in extreme cases.

The seed wheat should be run through a good fanning mill to remove all of the kernels which have the smut on the inside. These kernels are always light. The sound seed which has been run through the mill probably will have a large quantity of spores of the smut adhering to the outside. The formalin treatment kills these spores, thus protecting the crop from injury. The cost for treating the seed for an acre is only a few cents, and the saving sometimes means from 50 to 80 per cent of the crop.

Alvin Keyser.
Colorado Experiment Station, Ft. Collins.

We Pay the Freight

On seed corn, clover seed, alfalfa, and all kinds of seeds. Ask about it. Henry Field Seed Co., Shenandoah, Iowa

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Any harsh treatment that excites the cow, lessens the quantity, and injures the quality of her yield.

40% More Corn

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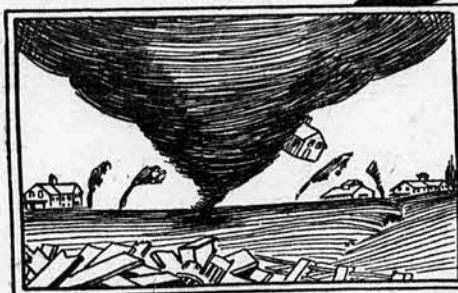
Saves two men and four horses, and does the work one-half quicker. Make it a 5-Row Corn Planter by putting in Middle Rows (one way) and increase your crop yield 40% to 50%. Guaranteed to plant and check perfectly. WRITE TODAY FOR CATALOG!

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APRIL The Month of Storms, IS HERE— ARE YOU PROTECTED?

At Concordia, Dodge City, Topeka, Wichita, and Kansas City, Kansas, expert weather men have been watching and studying Kansas winds for more than 25 years. Their records prove that our annual average number of wind-storms, of 40 or more miles per hour velocity, is greater in April than during any other month. With April, 1914, already here—What do these facts mean to you? How do they find you fortified against possible loss by wind this April? Never mind how lucky you've been in the past—how are you fixed now? Are your barns, and granaries, and machinery and stock, all covered—now—with good, safe insurance? Is the home of your wife and children—your house—protected—now? If the roof should be lifted from over your heads, what sort of resources (\$) for rebuilding—would you have—now? Or, in other words, do you carry farm insurance—now—that is both protective and protecting?

How to Get Reliable Farm Insurance

We ask you to consider this announcement as the most earnest and cordial invitation we can give you to join the Farmers Alliance Insurance Company. With April storms so close upon us, and considering our splendid record for furnishing absolutely sure protection at actual cost, it is our duty to put the facts as to "Who We Are, Where We Are, and What We Do"—our plan of insurance—before as many farmers as possible, and as quickly as possible. First, then, we are a Mutual Company, and because we are such, we are not in business for profit, have no stock-holders, want and get no dividends, and pay back to our policy-holders every cent over and above legitimate expenses. This means that if you join this company you can get your farm property insured against loss by Fire, Wind and Lightning, at actual cost. It means that you can save from \$5 to \$15 on the cost of every \$1,000 of combined insurance you buy. It means that we will insure you at rates that are 20 to 40 per cent lower than the old line stock companies charge. Also, we not only furnish insurance to our members at cost, but the protection you get, as a member of this company, is gilt-edge, rock-

solid and absolutely safe. We have been in business here in Kansas for over 25 years. During this time we have never failed to pay a just loss. (List of losses paid in your county furnished on request.) We have built up a membership of over 40,000 Kansas farmers, who are now carrying over \$71,000,000 of "At-Cost" Insurance in this company. Careful management has enabled us to lay by a surplus and contingent resources of over \$555,000.00. We do business only in the state of Kansas and under the laws of Kansas, according to which no member of this company is financially liable to the company or to any one for more than the amount of his premium. When you take out one of our policies, you become a member of this company—in fact, you are the company. You pay for what you get and no more. You pay the lowest possible "at-cost" rate for it. You know where your money goes. You know that none of it is for anybody's profit. You know that you will get some of it back when your policy expires.

Let us hear from you. Don't delay this matter. Get in with the other 40,000 farmers of Kansas who comprise this company and will be glad to welcome you as a member and help you buy your insurance this year, at actual cost. Use the coupon today. Doing so may mean saving the whole farm for you and yours. Remember, the month of storms is here!

The Farmers Alliance Ins. Co.
F. A. I. Building, Room 1, McPherson, Kan.

FARMERS ALLIANCE INSURANCE CO.,
Room 1, McPherson, Kansas.

Gentlemen: Please send me full particulars about your plan of insurance. My present farm property insurance policy expires..... (give date)

Name

Town

R. F. D. Date

Rearing the Brood

(Continued from Page 9.)

much better than those put with hens as the hens run the fat off the chicks. My chicks are more like squabs. They have exercise enough for their health but cannot run the fat off. Their flesh is more tender and juicy than that of chicks on free range.

Mrs. Eva Patterson.

R. 2, Osawatomie, Kan.

Cutting Down the Losses.

For many years I lost nearly as many young chickens as I raised and the loss came almost wholly from diarrhea and lice. From experience and a careful study of conditions with the help gained from reading I have learned to avoid just about all loss from those causes.

I have good coops made of good, new lumber and covered with rubber roofing on top. The roof has a slant of two or three inches. Most of them have no floors. I throw in dirt so that the floor is higher than the ground outside. It is a good plan to have frames covered with screen wire to fit the door, to let in sunlight and to keep out animals.

I clean them out often, once a week if possible. After raking out the filth where lice and disease breed, I take a bucket of ashes and scatter one or more shovels full in each coop, making the ashes fly so that they settle all over the inside. I do this in my chicken house the year round and never have lice or mites there.

Fowls must have plenty of water and grit the whole year through and should not be forced to depend on just what they can find. I keep oyster shell and sand in old crocks for the grown fowls and always put a little pile of sand in the coop before I put the little chickens in. I give one feed each day of bran or shorts to chickens of all ages. I do not feed much corn. I have best results with kafir and coarse ground corn chop—about one-fourth corn to three-fourths kafir fed dry. They get two feeds of this each day and one of moistened bran. Feed where older chickens cannot get in with the little ones. Occasionally wet a batch of the chop with milk or water and bake in the oven like corn bread. This is fine and brings splendid results. Milk is excellent for all poultry and clabbered milk cooked into cheese and pressed dry is as good a feed for little chickens as can be found.

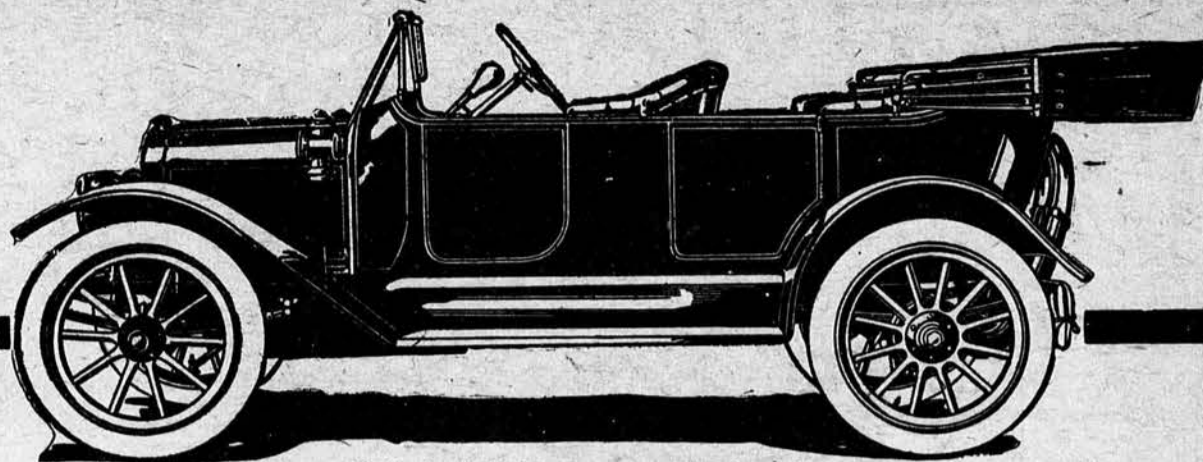
A good collie dog can be trained to be a great protection against hawks, crows and other animal pests that destroy young chickens. C. L. E. Scottsville, Kan.

Some Capon Hows and Whys

(Continued from Page 7.)

out when they are the right size for caponizing. I found it was very difficult to tell the males from the females of the white breeds when they are the right size for caponizing. Sometimes I started to caponize what I thought was a cockerel but soon found out it was a pullet I was working on. And I let several cockerels run that I thought were pullets. We have one dozen Barred Rock capons that average a little more than 10 pounds each, one dozen 10 pounds each, and one dozen White Wyandotte capons that average about 8 pounds each. I don't believe the Barred Rocks ate any more feed than the Wyandottes. We sold two Wyandotte capons to a private party for \$2 apiece and a dozen Wyandotte cockerels on the local market for 56 cents each, so we know that it pays to caponize the Wyandottes. But I believe it pays better to caponize the larger breeds. As this was my first attempt at caponizing I, of course, made a few "slips," but with the experience I have had I think I can do better next year. Considering the difficulties I worked under, I think we have had splendid results with caponizing and I think anyone that raises chickens will find in caponizing a way to greatly increase the profits from poultry. Girard, Kan. Guy E. McClaskey.

Sorghums produce seed best when not planted too thickly and when a comparatively plentiful supply of moisture is available at and for a few weeks after heading time. A point to be most closely observed in seed production is the necessity for a comparatively thin but regular stand of plants in every row.



Maxwell "25-4" 5 Passenger Touring Car

Stripped of All Adjectives and Advertising Verbiage This \$750 Maxwell Is

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A CAR THAT WILL PERFORM; but also a car that looks the part; a car for the man who considers his automobile an everyday necessity and who counts the cost. A car that is economical in cost of upkeep—gasoline, oil and tire consumption.

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AND IT'S MADE JUST AS WELL as it's designed. Every ounce of metal that goes into it has been specified by our chief metallurgist, after the most exhaustive analyses and tests to determine the kind of metal—and alloy and heat treatment that would best meet the requirements and perform the functions of that particular part.

BETTER MATERIAL does not enter into the construction of any car on earth at any price; for here is the best the science of metallurgy and automobile construction knows.

THE MAXWELL MOTOR COMPANY offers this car without a mental reservation—and every dollar we have, and our reputation, stand back of it, to guarantee every owner satisfaction.

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gets all the wool and takes it off quickly and smoothly in one unbroken blanket. To shear with the Stewart Machine seems like play to those who have labored with hand shears in the old, hard, sweaty way. You don't have the same swollen aching wrists. You don't scar and disfigure your sheep with uneven shearing and spoil the wool with second cuts like you used to do. Get one from your dealer, or send us \$2.00 and we will ship C. O. D. for balance. Money back if you are not well pleased.

Write for FREE catalogue showing most complete line of Sheep Shearing and Horse Clipping Machines in the world.

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For Horses, Mules and Cows

It pays to clip horses and mules in the spring—they look and feel better, do more work, rest better and get more good from their feed. Clipping the flanks and udders of cows prevents the dropping of filth into milk. The Stewart can be used for clipping horses, mules and cows without charge. It's the easiest to turn, does the fastest work, stays sharp longer and is the most durable. Get one from your dealer, or send \$2.00 and we will ship C. O. D. for balance. Money back if not well pleased.

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means that any piece that carries the Keen Kutter trade mark is guaranteed to deliver good work for a long time, whether it's a lawn mower, a garden trowel, a pair of hedge shears, a spade or a jack knife. You try 'em and you'll meet up with my experience. I've never yet had to take any tool back to the dealer an' ask for my money, though he's authorized to return it, any time we say so—you or I. That's the kind of a guarantee you want—isn't it? Sure it is. We can always get a square deal from the Simmons people. Send to the Simmons Hardware Company, St. Louis, Mo., for their Garden Tool Booklet "1646."

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Garden Trowel No. K04 with Bent Shank No. K05 with Straight Shank Price \$0.75 each

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Timely Showers For Crops

Vegetation Is Getting an Early Start—Other Farm News

BY OUR COUNTY CORRESPONDENTS

SPRING showers and warm sunshine have started off early vegetation with a jump. Grass in particular is showing up promisingly and the early pasture will be appreciated by stock and stock owners alike. Some stock has already been turned on grass, as an emergency move on account of dry feed being exhausted. But there is very little nutriment in green vegetation this early in the season and supplementary feeding is necessary in order to keep animals in condition. Early pasturing is also hard on grass and most pasture men who have run out of feed believe it wiser and cheaper in the end to buy an additional supply and thereby save the early grass.

planted and considerable plowing and listing has been done. A good interest is taken in farming. Grass is greening up and some stock being turned out on pastures.—E. F. Opperman, March 27.

Butler County—Weather warm and fine. A light shower last night. Grass and weeds getting green. Oat sowing about all done. Wheat looking the best ever. Feed practically all gone. Farmers buying grain and hay. Pig crop will be very light here. Many horses shipped out this winter at fair prices. Corn 75c; hay \$14 to \$18 ton; fat hogs \$8.—M. A. Harper, March 28.

Ottawa County—Heavy rains over the state on March 28. Wheat was pastured up until the rain came but all the stock will be kept off and fed till grass comes. From 10 to 50 per cent of prairie grass was killed by the drought last summer. A big acreage of oats has been sown and it is sprouted. Alfalfa selling at \$12 in the stack.—W. S. Wakefield, March 29.

Rice County—Had a nice rain over most of the county March 28 and 29. Wheat prospects were never better and the acreage is larger than ever before. Not much ground left for corn. Oats coming up. This county has had its share of wind this spring but no serious damage has been done. Horses, mules, cattle and hogs all down in price.—E. L. Parthington, March 30.

Sumner County—Two light rains this week and last have caused wheat, oats and alfalfa to loom up and they are looking fine. Corn planting will begin the last of next week. Farmers are well along with their work. Quite a good many farmers are pasturing their wheat. Wheat 80c; corn 74c; oats 47c; seed potatoes \$1.35; butter fat 23c; butter 20c; eggs 15c.—E. L. Stocking, March 28.

Osage County—A large amount of alfalfa and other grasses will be sown. Not as much feterita and kafir will be planted. More garden truck, especially potatoes and tomatoes, will be put out. Hay very scarce and high and much has been shipped in. Fat hogs all gone. The number of brood sows kept is fully up to the average. Potatoes already planted.—H. L. Ferris, March 28.

Morris County—Conditions favorable the last two weeks for field work and all farmers are busy. Oat sowing finished and some are preparing for alfalfa sowing. Ground works up in fine shape but is getting dry on top now. Wheat looks fine. Peaches just ready to bloom. Early pasture is needed to help out the feed situation. Horse market not very good. Eggs 16c; butter fat 23c; oats 46c; hay \$13 to \$17.—J. R. Henry, March 28.

Gray County—Prospect for wheat could not be better. It is still being pastured and stock are fat on it. Most farmers are through sowing oats and barley. Spring work is well advanced. A great deal of sod will be broken for feed crops this spring. Ground is moist and in fine condition for crops. Much stock was wintered here from counties east of us. Eggs 15c; cream 22c; oats 60c; corn \$1.40 the hundred.—A. E. Alexander, March 28.

Harper County—Several light showers in the county lately, but not enough to do much good. Oats up and look fine. Wheat greening up and is a perfect stand. Some fields too thick. Some corn being planted but there is not much land left for spring planting as it is all in wheat. Stock has wintered in first class condition. Some are still pasturing wheat. Peaches about all killed by the late freeze. Livestock prices fair.—H. E. Henderson, March 28.

OKLAHOMA.

Comanche County—Good rain March 26. Wheat and oats doing nicely. Corn about all planted. Grass getting green and prospects have never been better.—Fred E. Wierzig, March 27.

Grant County—Weather warm but very windy. Wheat and oats looking fine. Ground in good shape but no rain has fallen recently. Gardens beginning to show up. Fruit not hurt badly and there is a chance for a good crop of all kinds. Stock has never looked better. Eggs 14c.—A. C. Craighead, March 26.

Cleveland County—Fine growing weather. Frequent rains and warm days are bringing crops on with a rush. Some early sown oats injured by freezing and being put to corn. Corn planting in order. Wheat, oats and early gardens look well. Some farmers buying feeder cattle. All stock looking good. Some orchard planting being done. Plenty of spring pigs. Some cholera reported. Apricots and peaches in bloom.—H. J. Dietrich, March 27.

Value of Cane Silage

What is the difference in feeding value between corn, kafir and cane? I have some ground that I am thinking of planting to cane to use in filling my silo. I can get a heavier yield of cane than of corn to the acre. Will it pay me to do this when the feeding value is taken into consideration? E. V.

Custer county, Oklahoma. Experiments conducted at the Kansas Agricultural college indicate that silage made from corn is slightly superior to silage made from either kafir or cane as a milk producer. Cane silage ranked third in the list. An experiment in wintering stocker calves at the same station showed only a slight difference in the feeding value of the silage made from the three crops. When the yield that probably will be obtained in this section is considered either kafir or cane will give better results than corn. T. W.

Field Pays the Freight

On seeds of all kinds at wholesale prices. Ask for price list and prepay offer. Henry Field Seed Co., Shenandoah, Iowa

Mail and Breeze Auto Contest

Do you want that fine Stoddard-Dayton automobile which the Farmers Mail and Breeze will give away May 16th?

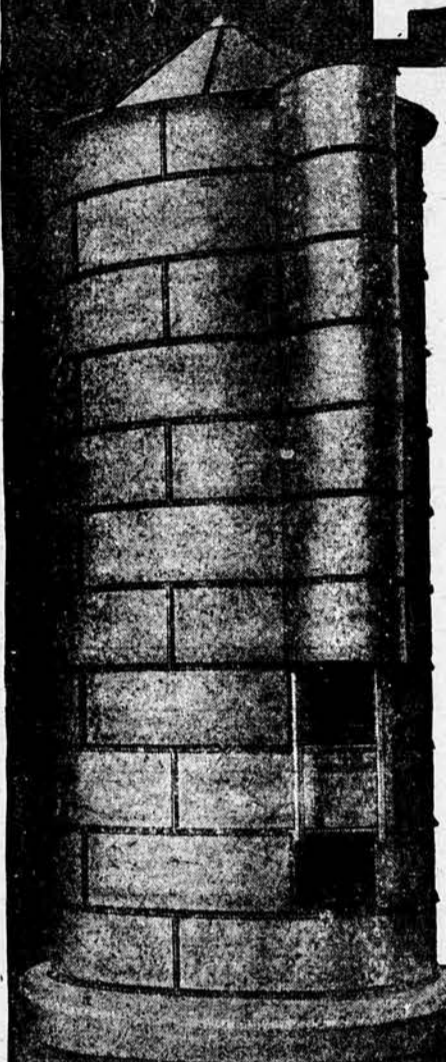
If so, now is the time to get after the points, when subscriptions will count more than at any other time during the contest.

For every subscription turned into the Mail and Breeze by close of business April 16th, double points will be given. All orders mailed and postmarked not later than April 16th will count double for you. You still have time for work on this offer. Plan for a big finish on April 16th. You can work up to the last minute. Just be sure the letters containing your subscriptions bear a postmark of April 16th, and you will be safe. This will give all an equal chance.

There is not a candidate in the list but could start in today and by good work from now on have the very best chance of winning. It will take only a few subscriptions to win the machine, but it is the candidate who does his best and sends in those few who will win the automobile on May 16th.

Henry Atten, Balleysville, Kan.....	10,000	Edith Moberly, Winfield.....	10,000
Charles C. Anderson, Day.....	10,000	W. H. Matthews, Holton.....	10,000
Laura Berger, Newton.....	10,000	Clarence H. Miller, Belle Plaine.....	10,000
John Baier, Robinson.....	10,000	Floyd H. Moore, Darlow.....	10,000
Cecil Brolyer, Beattie.....	10,000	Jerry Moses, Irving.....	10,000
Ray Brent, Alton.....	10,000	Frank E. Maddox.....	10,000
J. F. Bobbs, Kincaid.....	10,000	Will McCurdy, Manhattan.....	10,000
Miller Blakey, Great Bend.....	10,000	Miss Eliza Moore, Olathe.....	10,000
E. D. Byler, Newton.....	10,000	W. C. Meyers, Hamlin.....	10,000
Bertha Bright, Minneapolis, Kan.....	10,000	Ona Myers, Lyons.....	10,000
R. M. Buck, Ada.....	10,000	George R. Moore, Wilson.....	10,000
Bert A. Bourne, Delphos.....	10,000	G. S. McGarragh, Waldron.....	10,000
H. F. Brunner, Ramona.....	10,000	G. R. Nichols, Luray.....	10,000
R. Czarnowsky, Lincolnville.....	10,000	T. G. Norman, Olathe.....	10,000
O. M. Chaney, Wellington.....	10,000	Omer Noller, Mankato.....	10,000
C. T. Cressler, Grainfield.....	10,000	J. A. Osbourn, Larned.....	10,000
H. E. Cornelson, Moundridge.....	10,000	John F. Pflughost, Lincoln.....	10,000
Clyde Chapman, Osborne.....	10,000	R. M. Paddock, Lakin.....	10,000
Raymond Cleaver, Cleaverdale.....	10,000	Frank Picraus, Almena.....	10,000
Mrs. J. H. Campbell, Conway.....	10,000	Amos Potter, Broughton.....	10,000
Thomas Clifford, Mullinville, Kan.....	10,000	I. S. Puckett, Pratt.....	10,000
Ethel Dresia, Columbus.....	10,000	Verna Roseman, Irving.....	10,000
T. H. Doms, Waluka, Kan.....	10,000	M. E. Rorabaugh, Lebanon.....	10,000
Stephen Doubrava, Holyrood.....	10,000	P. J. Reedy, Morrowville.....	10,000
Miss Nellie Dernovsek, Stone City.....	10,000	Homer G. Reardon, McLouth.....	10,000
Harry Dickinson, Adams.....	10,000	Lola Reese, Burlingame.....	10,000
J. E. Eaton, Hawland.....	10,000	George Riedl, Rush Center.....	10,000
Clarence Erickson, Balleysville.....	10,000	Bert Ramsey, Larned.....	10,000
A. Erickson, Rose.....	10,000	Edmund Roberts, Council Grove.....	10,000
Mrs. J. W. Eaton, Fowler.....	10,000	Mrs. John E. Sellers, Wetmore.....	10,000
Elmer Ellis, Phillipsburg.....	10,000	A. C. Stevenson, Ingalls.....	10,000
Earl R. Flum.....	10,000	Clem Sunberg, Balleysville.....	10,000
J. M. Fisher, Fort Scott.....	10,000	Nellie G. Shagley, Esbon.....	10,000
Claude Funkhouser, Oneida.....	10,000	George W. Strickler, Girard.....	10,000
John A. Francis, Neosho Falls.....	10,000	Howard Smith, Ellsworth.....	10,000
Gabriel Grosfield, Baker.....	10,000	J. H. Stiltz, Rozel, Kan.....	10,000
Mrs. E. H. Gruver, Paradise.....	10,000	A. E. Small, Esbon.....	10,000
Gilbert Hammond, Smith Center.....	10,000	Emerson Shafer, Barnard.....	10,000
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Joe Hasenkamp, Pomona.....	10,000	C. E. Schroeder, St. John.....	10,000
W. L. Harper, Galena.....	10,000	Frank P. Skaffky, Wilson.....	10,000
Mrs. George Haufle, Lucas.....	10,000	Herbert Steward, Council Grove.....	10,000
G. A. Hughes, Ashland.....	10,000	John Schaffer, Spearville.....	10,000
M. Hendrick, Osborne.....	10,000	Raymond Tayne, Princeton.....	10,000
L. E. Hoffman, Marlon.....	10,000	M. E. Tinkham, Monument.....	10,000
Mrs. Edna Hurd, Benton.....	10,000	Wilbert Upson, Oberlin.....	10,000
B. Hofflands, Larned.....	10,000	W. J. Vestor, Edison.....	10,000
W. E. Hadicke, Nashville.....	10,000	Henry J. Wagner, LaCrosse.....	10,000
Harrison Hill, Beloit.....	10,000	Alice Gaden Wilson, Winfield.....	10,000
Harold Harness, Mankato.....	10,000	Harry Wray, Beloit.....	10,000
D. C. Hoefler, Inman.....	10,000	Ed Wetzel, Offerle.....	10,000
Peter K. Heidebrecht, Inman.....	10,000	Theo. Winkelmann, Hanston.....	10,000
E. B. Harris, Richland.....	10,000	Gilbert Whitsitt, Manhattan.....	10,000
Goldie Isley, Galena.....	10,000	Erlert Weerts, Humboldt.....	10,000
F. P. Jones, Holcomb.....	10,000	Earl Woolsey, Randall.....	10,000
George Johnson, Dodge City.....	10,000	Anthony Wisler, Harper.....	10,000
Willis A. Jones, Arlington.....	10,000	Earl V. Wheeler, Mankato.....	10,000
J. H. Kincheloe, Richmond.....	10,000	Mrs. Bessie Walker, Willmot.....	10,000
Florence Killinger, Portis.....	10,000	Mrs. Charles Williams, Anthony.....	10,000
Lemuel E. Kerbaugh, Webber.....	10,000	Oscar Wyman, Vesper.....	10,000
Miss Ethel Kelley, Portis.....	10,000	L. S. Wagler, Burlington.....	10,000
J. Lloyd Kelley, Council Grove.....	10,000	L. W. Wienand, Humboldt.....	10,000
William F. Kerby, Peck.....	10,000	John Warren, Overbrook.....	10,000
Eldred Leitch, Wichita.....	10,000	E. D. Wohlschlegel, Harper.....	10,000
George Lovendahl, Clyde.....	10,000	Clifford Moses, Maple Hill.....	10,000
Ceo Larsen, Navarre.....	10,000	Leslie Dodd, Iola.....	10,000
Gilbert Long, Tonganoxie.....	10,000	Ray Hobbler, Athol.....	10,000
Walter LeClere, Reserve.....	10,000	Rose Renolds, Parkville.....	10,000
L. A. Lilly, Bogue.....	10,000	Don R. Carroll, Santa Fe.....	10,000
Hugh F. Miller, Manhattan.....	10,000	Harry Pierce, Leon.....	10,000
Clyde Morgan, Queenemo.....	10,000	John Meyer, Galva.....	10,000
Nathan Miller, Eurdett.....	10,000	Mrs. Recia Fulton, Weir.....	10,000
Mrs. Mabel McEnterjer, LeRoy.....	10,000	H. H. Hollenbeck, Ness City.....	10,000
Willie Miller, Ellsworth, Kan.....	10,000		

LEARN WHAT THESE MEN HAVE TO SAY about the **PERFECTION METAL SILO**



Let them tell you in their own words about this Silo with the Strong, Tough, Heavily Reinforced Metal Wall—that **CANNOT Crack, Shrink, Dry Out or Crumble**—that is Absolutely Air Tight, Moisture and Silage Proof—Trouble Proof—Wind and Drouth Proof. **LEARN WHY IT IS THAT THIS IS**

THE SILO CHOSEN BY MEN OF EXPERIENCE

Recommended By Best Experiment Station Tests

Makes 10 to 15 per cent more feed than any other type of Silo, by laboratory and field tests. None spoiled around walls or doors. No loss. No danger. No waste. B. F. Howard, Cottonwood Falls, Kan., says: "Fed every pound right down to the floor."

Eight Years in Use—Never Once Failed

No trouble to maintain, no annoyance, no continual attention, **NO RISK**. Impervious to air, water or silage juices. No hoops to tighten. No staves to shrink. No guy rods or cables. Stands summer and winter strong, safe and secure.

FIVE YEARS' ABSOLUTE GUARANTEE. FIVE-YEAR PAID-UP INSURANCE POLICY against Cyclones, Windstorms and Tornadoes, GIVEN WITH THE SILO.

Easy to Erect—Shipped Complete Including Tools

Ready-built interchangeable sections. No cutting or fitting. Bolted together flange to flange with square head bolts. No rivets. No holes through silo wall. Heavy double flange all around each section forms horizontal and vertical reinforcement proof against all strains and big pressure of sweating silage. Absolutely rigid against wind.

Capacity Increased as Desired, at Any Time

Shipped all complete, including chute, ladder, swing-hinge air-tight metal doors, top bracing and tools. All material, bolts, cement for the joints, paint—everything but the foundation.

Send Us A Post Card For This Big New Book Today

Say, "Send me your Silo Book." We send it right away, **FREE**. Get all the Facts. Learn why men who have used all other types of Silos have abandoned them for the **PERFECTION**. Put Up a Silo This Year Sure, but first learn all about this time-tested Silo that has never failed. We deal direct. We appoint no agents. We have no dealers. We have just one factory price on each size—over 100 different sizes. **WRITE US TODAY**. Get the Book. Address,

PERFECTION METAL SILO COMPANY

2011 Jefferson Avenue **TOPEKA, KANSAS.**
Original and Sole Manufacturers. Largest Metal Silo Factory in the World. Forty Years' Experience in Metal Work.

THIS IS THEIR BOOK



"Turning Cornstalks Into Cash" The Biggest and Best Silo Book ever written

Mules Were Outplowed

A five-mule team and a Bull tractor gave a plowing demonstration a few days ago on the farm of George Hupp, four miles west of Newton. The smallest one of the mules weighed more than 1,200 pounds, and all five were fast walkers. In plowing side by side, the tractor and the mule team in the same field, with the same make of farm gang plow, the tractor plowed 1 inch deeper than the team, and traveled more than three miles to the mule team's two miles; and was using about 1 gallon of gasoline to plow an acre.

The Bull tractor is neat and strongly built, weighing about 2,500 pounds. The bull or traction wheel is run in the furrow, and the front support wheel is used as a steering guide. When once started at the end of the field in plowing, it is self-guiding and will cross the field, no matter what distance, without the attention or aid of the engineer. The picture is a fairly good idea of the engine's general construction.

The demonstration was interesting mainly because it showed to the satisfaction of the spectators some of the possibilities of a small, low-price tractor doing excellent work in a praiseworthy

way. The machine is made in Minneapolis for the Bull Tractor company, of which P. J. Lyons is president. D. M. Hartsough, inventor of the tractor, declared it could be operated by a 14-year-old boy. Mr. Lyons said the tractor would operate a silage cutter or any other farm machinery.

The four tractors shown by the company gave demonstrations every day for a week.

Ohio's Plan to Improve Schools

In an effort to obtain country schools which shall be as good as city schools, the General Assembly of Ohio in special session has just finished a complete revision of the state school code and made sweeping changes in the public school system. Hereafter there are to be city-school districts, village-school districts, rural-school districts and county-school districts. The village and rural schools are to be standardized as to courses of study and equipment, and are to receive an ever-present supervision. Instead of examining rural pupils for admission to high schools, the school whence they come, and the teacher, will have to stand the test as well as the pupil. A state board of examiners, consisting of five

persons living in the state is to be appointed by the superintendent of public instruction. Not more than three of these examiners shall be members of the same political party. Two high school inspectors and four district supervisors are to be appointed by the state superintendent.

The distribution of the state school fund is to be based on the number of teachers and the daily attendance. A fund is provided for the aid of weak districts. When a district has not sufficient money to pay its teacher for eight months school, the district may receive from the state treasurer enough to make up the deficiency. Forty dollars a month is the minimum pay for teachers.

Boards of education which maintain first-grade schools in village or rural districts may establish normal departments in these schools for training teachers for rural schools. One such school and no more than three shall be established in every county. The state superintendent designates the schools to establish normal departments.

Agriculture is to be taught in all the common schools in village and rural school districts of Ohio and may be taught in city districts at the option of the boards of education.

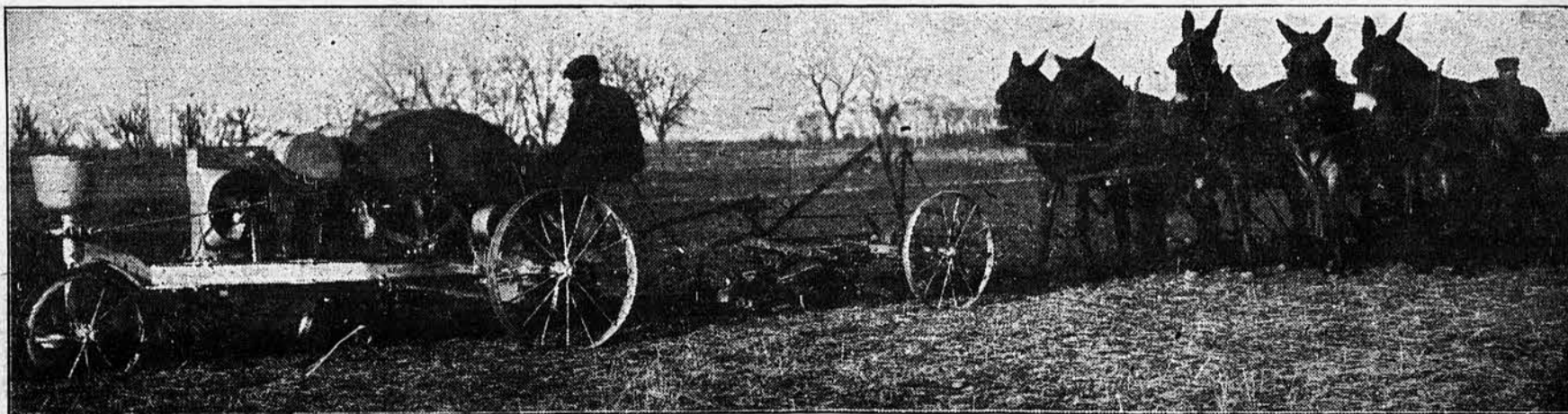
Kansas Banks Have Money

The aggregate capital of the 929 state banks in Kansas is now \$18,977,800. Twenty-seven new banks were chartered in 1913 by the state charter board and are now doing business. These 27 new banks are capitalized at \$916,000.

Five trust companies, each capitalized at \$100,000, are operating in the state. Two of these were organized in 1913, one at Lawrence and one at Wichita.

Loans have increased more than 5 million dollars since December of 1912, \$5,600,000 to be exact, showing that the banks are taking care of the business in their communities. The statement for December 4, 1913, shows loans and discounts totaling \$98,199,794.72. The surplus in the state banks also shows a good growth, the December figures reaching \$7,751,231, an increase of \$592,000.

Deposits also reached a high mark, \$1,635,277 more than the December record for 1912, with \$107,205,542 on the books to the credit of the Kansas depositor. This is not as much by 11 million as the September report showed, but at that the depositor has spent 11 millions, net, in three months and still has more to his credit than a year ago at this time.



A PLOWING CONTEST NEAR NEWTON BETWEEN A SMALL TRACTOR AND A 5-MULE TEAM.

April 4, 1914.

POLAND CHINAS.
Mt. Tabor Herd Polands
30 tried sows to farrow in March and April, 30 yearling gilts to farrow in May and June. Also open sows and gilts bred to order. Four great boars in my herd. Prices right. Immune. Address
J. D. WILLFOUNG, ZEANDALE, KANSAS

POLLED DURHAMS.
Sleepy Hollow Polled Durham Cattle
12 good bulls coming 1 year old, bred cows and heifers for sale. Also a number of good jacks. C. M. HOWARD, Hammond, Kansas.

RED POLLED CATTLE.
FOSTER'S RED POLLED CATTLE Write for prices on breeding cattle.
C. E. FOSTER, R. R. 4, Eldorado, Kansas.

RED POLLED CATTLE
Choice Young Bulls. Several good enough to head good herds—heavy boned, broad headed, breedy kind. Show prospects. Also a few cows and heifers. Visitors welcome. Call or write.
I. W. POULTON, Medora, Reno Co., Kan.

ABERDEEN-ANGUS.
Angus Bulls and Heifers SUTTON FARM
Have 30 splendid heifers and 30 extra good bulls priced to sell. Write us today.
SUTTON & PORTEOUS, R. 6, Lawrence, Kan.

Angus Cattle
A select lot of ready-for-service bulls for sale, best breeding and right individually.
W. G. Denton, Denton, Kan.

PUREBRED HORSES.
STALLIONS FOR SALE
One high class, gaited saddle, coming three-year-old, with size, style and speed. Saddle and harness broke. Also two black Percherons, 4 and 5 years old. All registered and sound.
E. E. CARVER & SON, GULFORD, MISSOURI.

Excelsior Shetland Pony Farm
Registered and High Grade Ponies for Sale
W. H. Fulcomer, Belleville, Kan.

Stallions Wanted!
There is need for two or three good Draft stallions at La Crosse, Kan. Stallion owners, write.
JOHN W. YEOMAN, LA CROSSE, KAN.

STALLIONS FOR SALE
Two home bred, home grown stallions, black, with star, weighing 1900 and 1700 pounds. They are without blemish, broke to work, gentle and easy to handle. For breeding, prices and particulars write
WM. WRIGHT, Owner, Dunlap, Kan.

JACKS AND JENNETS.
Leavenworth County Jack Farm
25 jacks and jennets for sale; good individuals and bred right. Farm located between Atchison and Leavenworth on Santa Fe.
CORSON BROTHERS, POTTER, KANSAS.

Forty Years a Breeder of High-Class Jacks
We have for sale twenty jacks of the big blocky type, also ten very large, well bred jennets. R. M. JOHNSON, BOLIVAR, MO.

35 Kentucky Mammoth Jacks
We will cut the prices from \$100 to \$250 on every jack in our barns. Special prices on Percheron and saddle horses, 1,000 bushels of Blue Grass seed, and 4,000 cedar fence posts.
Cook & Brown, Lexington, Ky.

Jacks and Jennets
25 head of Black Jacks from 14½ to 16 hands coming 2 to 6 years old; all stock guaranteed, as represented when sold. Also some good jennets.
PHIL WALKER, Moline, Elk County, Kansas.

JACKS
The kind all are looking for. Large boned black mammoth Tenn. and Ky. jacks, 2 to 6 years old, guaranteed and priced to sell. All broken and prompt servers. Reference, banks of Lawrence, 40 miles west of Kansas City on U. P. and Santa Fe.
AL. E. SMITH, Lawrence, Kan.

Boen's Big Bone Jacks
They are from 15 to 16-1-2 hands high. Forty jacks and jennets of the best and biggest on earth. Four three-year-old jacks larger and better than before. The two-year-old jacks are large and thousands of grown jacks. Four-year-olds 15-1-4 hands to 16-1-4 hands, stout and weigh from 100 to 1200 pounds. All have plenty of bone. Will sell jacks for \$800 that can't be bought elsewhere for \$1200.
ED BOEN, LAWSON, MISSOURI.

- good sow in lot S, a fall yearling by Defensive, at \$66, and A. P. Young of Lexington, Mo., got a good daughter of Expansion's Grandson at \$56. O. B. Clemetson of Holton, Kan., got one of the best spring gilts sold this winter in a daughter of Hildwein's Wonder Ex at \$49. Cois, Scott, Hamilton and Foster were the auctioneers. Below is a representative list of sales:
- 1—Henry V. Browne, Antwine, Okla. \$46.00
 - 2—Walter Adams, Everest, Kan. 42.50
 - 3—John Coleman, Denison, Kan. 67.00
 - 4—Frank Housh, Hiawatha, Kan. 49.00
 - 5—H. C. Graner & Son, Lancaster, Kan. 55.00
 - 6—O. J. Olson, Holton, Kan. 66.00
 - 7—A. P. Young, Lexington, Mo. 56.99
 - 8—William Norville, Purcell, Kan. 46.00
 - 9—Roy Carter, Troy, Kan. 46.00
 - 10—W. D. Hague, Denton, Kan. 55.00
 - 11—E. V. Blingson, Robinson, Kan. 51.00
 - 12—A. J. Weber, Troy, Kan. 50.00
 - 13—C. I. Giger, Everest, Kan. 46.00
 - 14—F. D. Fulkerson, Brimson, Mo. 43.00
 - 15—O. B. Clemetson, Holton, Kan. 49.00
 - 16—Boar, E. E. Merten, Clay Center, Kan. 99.00

S. E. Kansas and S. Missouri
BY ED. R. DORSEY.

Draft Horses That Work.
W. H. Bayless & Company of Blue Mound, Kan., importers of Belgian and Percheron stallions and mares, report business good. They only have a few more stallions left. Mr. Bayless will go to Europe in August to select his importation. This is one of the leading and most responsible importing firms. It's a sight to see those big fine draft mares. Every mare owned by this firm is imported. Every stallion used is imported. These horses can be bought by farmers at much less than horses kept in cities and on dry feed. These mares do better, they are better. Write W. H. Bayless & Co. for particulars and prices.

Dispersion Stock Sale.
Ross Brothers of Otterville, Mo., have sold their farm and are closing out everything and that includes a fine herd of Poland China hogs, as Col. Ross and his brother have been breeders of registered Poland China hogs for many years. They will sell Hydrogen 43325, the second prize winner at the Missouri State Fair, by Perfection Meddler 52881. He has proved a satisfactory breeder not only to this firm but also to two other good breeders. They have other splendid males and a fine lot of sows. On March 30 those desiring good horses, registered Poland Chinas and Short-horn cattle should be at this sale. It will be held on the farm about a mile from Otterville on the Missouri Pacific railroad between Sedalia and Jefferson City.

Bayer's Berkshire Offering.
A word concerning the herd boars now heading the New York Valley Berkshires, owned by J. T. Bayer & Sons of Yates Center, Kan., is appropriate at this time. Bayer's Beacon, a son of Second Masterpiece, has all the deep fleshing qualities of his sire with even a better head, which he is honestly entitled to through his dam, Nosegay, a sow full of Berkshire breed character and very prolific. This boar is truly a Beacon to the Berkshire herd, being large with great bone, on short, heavy legs. He transmits as much size, depth, feeding and fleshing qualities to his offspring as is possible to do. His litters are uniformly large. The Second Masterpiece gilts have been bred to Ideal Centerpiece, a son of B. D.'s Centerpiece, out of the grand champion Ideal Bernice 24. Ideal Centerpiece is full of show yard quality, is of good size, has well-dished head and is a breeder of fancy litters of the thick fleshed kind which are very smooth and even with scarcely a wrinkle to be found. With the foundation stock they have to build on the Bayer Berkshires rank with the best as is shown by their many satisfied customers. Their 1914 pig crop is very promising and orders are being booked for pigs now. Write them for prices.

Drybread's Duroc-Jersey Sale.
The offering of Duroc-Jersey sows from the Star Breeding Farm did not result in as large an average as the offering merited. Col. Engelhart, who has made sales in a dozen of the best states and has sold tens of thousands of Duroc-Jersey hogs, said in his opening address that he had never sold for a breeder who had used more high class herd boars than Mr. Drybread. He also said: "No one could get better breeding than was offered in this sale." On account of scarcity of feed Mr. Drybread did not make his offering as fat as he might have done, but he sells his hogs with a strict breeding guarantee and he finds that animals sold in good breeding condition give him less trouble than those that are made too fat. Below is a list of buyers with representative sales:

- 1—W. W. Otey, Winfield, Kan. \$55.00
- 2—C. L. Buskirk, Newton, Kan. 52.00
- 3—S. W. Heaney, Tabler, Okla. 45.00
- 4—G. C. Norman, Winfield, Kan. 31.00
- 5—Lewis Arthur, Neodesha, Kan. 46.00
- 6—R. O. Smith, Emporia, Kan. 31.00
- 7—H. W. Ashcraft, Elk City, Kan. 51.00
- 8—J. A. Reed, Lyons, Kan. 91.00
- 9—O. Alferman, Olathe, Kan. 59.00
- 10—A. H. Bush, Elk City, Kan. 53.00
- 11—J. E. Harlow, Chickasha, Okla. 45.00
- 12—D. M. Lessman, Olpe, Kan. 47.00
- 13—D. F. Foster, Elk City, Kan. 50.00
- 14—O. S. Vaughn, Elk City, Kan. 61.00
- 15—C. W. Allen, Havannah, Kan. 45.00
- 16—J. D. Mitchell, LaFontaine, Kan. 30.00
- 17—H. Risinger, LaFontaine, Kan. 48.00
- 18—Howell Brothers, Heskimer, Okla. 41.00
- 19—J. A. Ware, Chickasha, Okla. 39.00
- 20—C. W. Buskirk, Newton, Kan. 39.00
- 21—C. C. Cox, Elk City, Kan. 25.00
- 22—R. W. Vanburn, LaFontaine, Kan. 27.00
- 23—W. W. Newmaster, Sycamore, Kan. 38.00
- 24—J. D. Shepard, Abilene, Kan. 44.00
- 25—J. J. Mitchell, Euckston, Kan. 40.00

Publisher's News Notes
Evergreens.

The D. Hill Nursery company makes a specialty of evergreens of all kinds. Whatever you want in evergreens they have, and they are about the finest people in the world to do business with. They have been at it for 56 years. Their catalog is a beauty. It's free. See ad on page Address D. Hill Nursery company, 223 Cedar street, Dundee, Ill.

125 Stallions and Mares
PERCHERONS, BELGIANS and SHIRES
The West's Largest Importing and Breeding Establishment. More actual ton stallions at my Emporia Sale Barns than any other in the West.
Do you need a Stallion? I will save you from \$100 to \$200 on a horse. Am making special prices to make room for another consignment. Look at all the horses you can before coming and then you will know you are getting more for your money than any other offer—more bone, size and quality, for the money. I do an exclusive horse business and to stay in business must satisfy my customers. Therefore a gilt-edge guarantee goes with every horse. Come and stay with us a day or two and compare my horses and prices with those you have seen. Drop a line and tell me when to meet you. Barn close to Santa Fe depot.
L. R. WILEY, Route 9, Emporia, Kan.

Robison's Percherons
175 Head on the Farm. Stallions and Mares all ages for sale. Herd headed by the Champion Casino 27830 (45462). Send for farm catalog.
J. C. ROBISON, Towanda, Ks.



Special Prices for 30 Days
Do You Want a Draft Stallion?
If so, come to Lincoln and see the best lot of big Percherons, Belgians and Shires in America. We are making special prices for 30 days and sell under a guarantee that has stood the test for fair treatment with our customers for the past 28 years. If you can't come next week, write us for full particulars.
Watson, Woods Bros., & Kelly Co., Lincoln, Neb.

Bergner & Sons' German Coach Horses
German Coach Stallions at prices you will be able to pay for at one season's stand. Also mares and fillies; all good bone with plenty size, style and action and the best general purpose horse that has ever been imported. The St. Louis Fair Champion Million 3159 and the Kansas State Fair prize winner Mephistoles 4221 at head of herd. We are pricing these horses to sell and guarantee satisfaction. Write today or call soon.
J. C. BERGNER & SONS, Taldock Ranch, PRATT, KANSAS.

Lamer's Percheron Stallions and Mares
BUY NOW while there is the most of Variety to select from
C. W. LAMER, Salina, Kansas

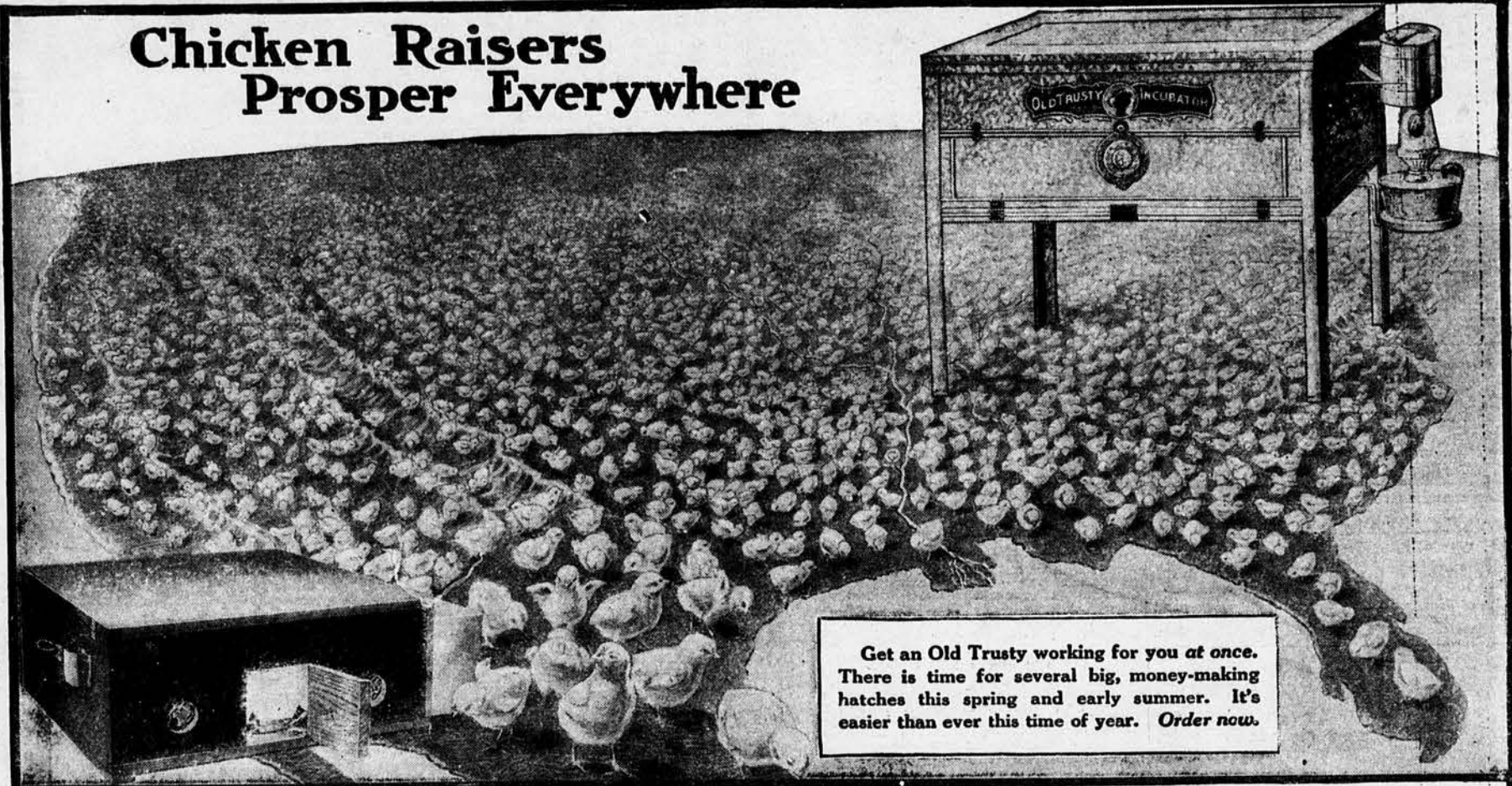
Johnson's Shetland Pony Farm
Write me regarding Shetland Ponies. I have for sale 40 to 50 head of fine ones, spring colts, yearlings, coming two and matured stock. Registered mares or stallions. My herd runs strong to spotted, black and white, and I have Nebraska State Fair winners. Let the children have a pony. My prices are reasonable and every pony is guaranteed as represented. Write me now while I have a fine offering of spring colts on hand.
H. H. JOHNSON, CLAY CENTER, NEBRASKA.

Jacks! Jacks! Jacks!
From Two of the Best Herds in Kansas
30 Head 2 to 6 yrs. old. Nicely broken and good workers. Prices and Terms will suit you.
30 Head 14 to 16 hds. high. Including 5 Prize-winners. Every animal guaranteed exactly as represented.
More prizes won at Hutchinson State Fair, 1913, by these two herds than all others combined. The general storm throughout the Southwest prevented all but a few buyers from attending our sale February 24. To those who wrote for catalog and all others who want good jacks, we are in position to sell you at prices and terms that will be of interest to any man who wants a good jack. Write your wants or visit our farms.
H. T. Hineman & Sons, Dighton, Ks. D. J. Hutchins, Sterling, Ks.



Oakland Stock Farm
As usual, each year, has, of its own breeding, 25 or 30 jacks. This year we have 23 still on hands, having sold several to customers of previous years, by mail order. Each jack has been raised on the farm. We do not engage in brokerage, being strictly breeders, and not brokers; no middle man. We have some 50 breeding jennets and two herd jacks, of the best blood obtainable. Sold at reasonable prices; cash or time.
We have a good 2-year-old Percheron stud ready for light service this spring; will make a ton horse. Also a span of extra good coming 2-year-old fillies and some weanling colts. Imported Kossuth is at the head of Percheron stud. As with the jacks, nothing sold but the stuff raised on the farm; no brokerage. Terms reasonable. Full information will be given in answer to any letter. We have ten good individual jacks now in the barn in town. Those buyers who attend the sales and fall to buy should drop off at Chillicothe and see some good jacks at reasonable prices; from a breeding farm.
Oakland Stock Farm, Box 207, Chillicothe, Mo.

Chicken Raisers Prosper Everywhere



Get an Old Trusty working for you at once. There is time for several big, money-making hatches this spring and early summer. It's easier than ever this time of year. Order now.

Old Trusty Customers Cover the Country from Coast to Coast



MEN and women, hundreds of thousands, make two incomes instead of one. Thousands let poultry make their living and bank the money they make in other ways. You can make money from poultry if you have little or much land, no matter where you live. And you can make the most money, and make it easier, on a smaller investment, if you follow Johnson's plan.

There are thousands who read this paper who are overlooking this poultry opportunity. And so I take this page to ask you to write for the Old Trusty book, so I can lay the facts before you in a plain, simple, straightforward way before you lose your opportunity this season and another year.

I want you to get from this book the same ideas that have already started half a million people, either making a living complete or making big extra money from chickens, ducks, geese and turkeys. I know that practically every reader of this paper is so fixed that they could take

care of a flock of poultry, and when you all know how simple and easy and safe a proposition it is you will do it.

Maybe you have been reading my advertisements from year to year. Perhaps you intended answering one of them before and looking into this proposition but let the matter slip for the time and never got back to it. Now don't put it off again. You can get this book of mine for nothing, simply by sending me your name and address, and there is too much at stake to let it slip your mind.

Now Is the Time for You to Start—Make Several Fine Profitable Hatches This Season with An

Old Trusty Incubator

Every size we make all crated, ready to ship by fast freight from warehouse at St. Joseph, Missouri. Most readers of Mail & Breeze will get their Old Trusty one or two days after order comes. We pay the freight.

If You Want to Save Time Order By Telegraph At Our Expense

Get Started Now. Old Trusty makes hatching easy at any time. The warm weather of Spring and early Summer makes it still easier to get fine, big, healthy chicks. And it is a simple matter to raise them. They need less care, less feed, cost less to produce.

If you don't know what *big value* the Old Trusty is at our low factory prices—write for the proof.

If you don't know how much more certain you are to get fine results and make money with it than any other hatcher—write for the proof.

If you don't know how much better it is built, how much easier to start and operate, how much longer lasting and economical all around the board—write for the proof.

But I believe many of you *do know* all these things. Many of you must have heard it from some of the half a million Old Trusty users. And so I think you may want to order an Old Trusty at once, on our free trial, freight prepaid, long guarantee offer. If you do want a quick start, telegraph the size you want, and it will be shipped at once, C. O. D. at the following prices:

110 Egg Size, with all Tools and Fixtures, \$ 9.80
160 Egg Size, with all Tools and Fixtures, \$12.50
220 Egg Size, with all Tools and Fixtures, \$16.50

These prices are for everyone living east of the Rocky Mountains. By that I mean East of Pueblo, Denver, Cheyenne, Billings and that line up and down.

But don't think I expect you to buy an Old Trusty because of the price, unless you know what the Old Trusty is. You must realize first of all that it is the highest grade, most positive hatcher made, that it is easiest to handle, comes to you completely built, ready to use, when you screw on the logs and lamp bracket.

Now—can't I get you started at once toward another good income? The season is right—your locality is right. The Old Trusty is right—the price is right—so suppose you wire for the size you want. The hundreds of thousands of satisfied, successful Old Trusty users are your best guide. Write for the Old Trusty Book anyway. It's the A B C of Poultry Profits—Free. Yours for a quick start and a successful one, H. H. Johnson, Manager.

THE M. L. JOHNSON COMPANY

Clay Center, Neb.

Shipment will be made from St. Joseph, Mo., but telegraph or write to Clay Center, Neb.